



10 CFR 50.80
10 CFR 50.90
10 CFR 72.50

August 18, 2016

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
Docket No. 50-333

**James A. FitzPatrick Nuclear Power Plant Independent Spent Fuel
Storage Installation**
General License SFGL-12
Docket No. 72-012

Reference: Entergy Nuclear Operations, Inc. Application for Order to Transfer Master Decommissioning Trust from PASNY to ENO, Consenting to Amendments to Trust Agreement, and Approving Proposed License Amendments to Modify and Delete Decommissioning Trust License Conditions Upon the Transfer of Trust Funds, dated August 16, 2016

Subject: Application for Order Approving Transfer of Renewed Facility Operating License and Proposed Conforming License Amendment

In accordance with Section 184 of the Atomic Energy Act of 1954, as amended (the "Act"), 10 CFR 50.80, 10 CFR 72.50, and 10 CFR 50.90, Entergy Nuclear FitzPatrick, LLC ("**Entergy Nuclear FitzPatrick**") and Entergy Nuclear Operations, Inc. ("**ENO**") (collectively referred to as "**Entergy**") and Exelon Generation Company, LLC ("**Exelon Generation**") hereby request written consent approving the transfer of the James A. FitzPatrick Nuclear Power Plant ("**FitzPatrick**") Renewed Facility Operating License No. DPR-59 (the "**License**") and the transfer of the generally licensed FitzPatrick Independent Spent Fuel Storage Installation (the "**ISFSI**") (collectively FitzPatrick and the ISFSI are referred to as the "**Facility**"), from Entergy to Exelon Generation (collectively Entergy and Exelon Generation are referred to as the "**Applicants**"). The Applicants also request that the NRC approve a conforming amendment to the License to reflect this transfer. The license amendment should be approved,

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U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 2

but not issued until consummation of the transaction as described below. The Applicants will notify the NRC when the transaction is scheduled to be consummated, so that the conforming license amendment can be issued concurrently with the closing. This is a regulatory commitment.

Enclosures 1 through 10 provide the basis for this request and required documentation.

The proposed transfer is requested as the result of a proposed transaction in which Exelon Generation will acquire FitzPatrick from Entergy Nuclear FitzPatrick as an asset purchase in an all cash transaction. While Entergy had previously informed the NRC of its intent to close FitzPatrick in January 2017 due to the then present economic conditions for operating a nuclear power plant in upstate New York, the New York Public Service Commission (“NYPSC”) has approved a new mechanism, which will be implemented beginning on April 1, 2017, subject to certain conditions, to adequately compensate eligible nuclear generating facilities for their zero-emission attributes, thereby allowing the State to avoid losing the carbon emission reduction gains secured to date and assisting it in achieving its goal of a forty percent reduction in carbon emissions by 2030. As the NYPSC explained in its August 1, 2016 Order adopting a state Clean Energy Standard program, which has three tiers, including a Tier 3 program pursuant to which eligible nuclear facilities will be compensated for Zero-Emissions Credits, the Tier 3 program is intended to “encourage the preservation of the environmental values or attributes of zero-emissions nuclear-powered electric generating facilities for the benefit of the electric system, its customers and the environment.” See Enclosure 2, NYPSC Order Adopting a Clean Energy Standard, at Appendix E, p. 1 (August 1, 2016). In determining that FitzPatrick met the public necessity requirement to be eligible to participate in the program, the NYPSC explicitly acknowledged the critical role of FitzPatrick, along with the state’s other upstate nuclear power plants, in meeting New York’s important emissions reductions goals. According to the NYPSC, “New York’s upstate nuclear plants avoid the emission of over 15 million tons of carbon dioxide per year.” *Id.* at 19.

If FitzPatrick participates in the Tier 3 program as expected, and subject to other closing conditions, including the receipt of NRC approval of the license transfer, in all cases as set forth in the transaction agreements, then Exelon Generation will acquire FitzPatrick and continue to operate the plant. Upon approval of the proposed license transfer and closing of the proposed transaction, Exelon Generation requests that the notice of intent to permanently cease power operations be deemed withdrawn.

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 3

Exelon Generation is technically and financially qualified to own and operate the Facility. As described in more detail in Enclosure 1, Exelon Generation is a wholly owned subsidiary of Exelon Corporation, a utility services holding company. Exelon Corporation's stock is publicly traded on the New York Stock Exchange and widely held. Exelon Generation owns and operates twenty-two nuclear reactors at thirteen sites in five states, including New York. Exelon Generation owns and operates the Nine Mile Point Nuclear Station, which is located immediately adjacent to FitzPatrick. Exelon Generation has an investment grade credit rating and is financially qualified standing alone based on the financial information provided herein and verified by Exelon Generation. The proposed transfer will not result in any adverse changes to the decommissioning funding assurance for the Facility and the decommissioning trust fund for FitzPatrick will be transferred to Exelon Generation upon closing of the transaction.

Because Exelon Generation and its parent are domestic entities, the proposed transfer will not result in the licensee becoming owned, controlled, or dominated by a foreign entity.

No physical changes will be made to, and there will be no adverse changes in day-to-day operations of, the Facility as a result of the proposed transfer. The proposed transaction will not require any significant change in the staffing and qualifications of personnel who currently operate FitzPatrick. Prior to closing the transaction, Exelon Generation will offer employment to substantially all of the Entergy employees at FitzPatrick such that at the time of the closing of the transaction and transfer of the License, the Entergy employees who accept offers of employment will become employees of Exelon Generation. Moreover, as a result of the transaction, the overall technical resources available to FitzPatrick will be enhanced. As the largest nuclear fleet operator in the United States, Exelon Generation will make significant nuclear operational and management experience, resources, and expertise available to FitzPatrick. FitzPatrick and Nine Mile Point Nuclear Power Station already share some facilities (such as the Emergency Operations Facility and the Joint Information Center) as well as certain employee resources. The integration of FitzPatrick into Exelon Generation's fleet will allow for even more sharing of resources and technical support than currently exists.

Accordingly, the proposed transfer will neither have any adverse impact on the public health and safety, nor be inimical to the common defense and security. In summary, the proposed transfer will be consistent with the requirements set forth in the Act, NRC regulations, and the relevant License. Entergy and Exelon Generation therefore respectfully request that the NRC consent to the transfer of the Facility in accordance with 10 CFR 50.80 and 10 CFR 72.50, and issue the conforming license amendment requested herein pursuant to 10 CFR 50.90. A condition of the

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 4

proposed transaction is that the Power Authority of the State of New York (“**PASNY**,” which does business as the New York Power Authority) will have transferred the nuclear decommissioning trust for FitzPatrick to ENO, which is the subject of a separate NRC approval and licensing action (“**Trust Transfer Approval**”) (Reference).¹ Therefore, the license amendment proposed to conform the license in connection with the license transfer to Exelon Generation assumes that the license amendment proposed in connection with the Trust Transfer Approval will have been issued prior to the license transfer to Exelon Generation. The license markups included in Enclosure 1, Attachment B of this submittal, reflect the deletion of license conditions and the addition of text, as requested in the Trust Transfer Approval.

The financial information required by 10 CFR 50.33(f)(2) is provided by Exelon Generation in a separately bound Addendum as Enclosures 7A and 9A. The financial information is confidential commercial information that Exelon Generation requests be withheld from public disclosure pursuant to 10 CFR 2.390(a)(4) and 10 CFR 9.17(a)(4). A redacted, non-proprietary version is provided in Enclosures 7 and 9. An affidavit supporting the request for withholding Attachments 7A and 9A from public disclosure is provided as Enclosure 8.

Subject to the satisfaction of all closing conditions, including receipt of all required regulatory approvals, the Applicants wish to close this transaction at the earliest practicable date and have targeted a closing on April 1, 2017. Accordingly, Entergy and Exelon Generation request that the NRC review this application on a schedule that will permit issuance of an order consenting to the transfer and approving a conforming license amendment as promptly as possible and in any event by March 1, 2017. Please note that if appropriate conditions are satisfied under the Asset Purchase Agreement, then Entergy Nuclear FitzPatrick will take such steps as necessary with the NRC to reflect the intent of the parties to operate FitzPatrick beyond January 2017. The Applicants request that the consent be immediately effective upon issuance and permit the transfer to occur up to one year after issuance or such later date as the NRC may permit.

This Application contains regulatory commitments as noted in Enclosure 10.

Service upon the Applicants of comments, hearing requests, intervention petitions or other pleadings should be made to Counsel for Exelon Generation J. Bradley Fewell, Senior Vice President Regulatory Affairs and General Counsel (email: Bradley.Fewell@exeloncorp.com; tel. 630-657-3752) and Tamra Domeyer, Associate General Counsel (email: Tamra.Domeyer@exeloncorp.com; tel. 630-657-3753), 4300 Winfield Road, Warrenville,

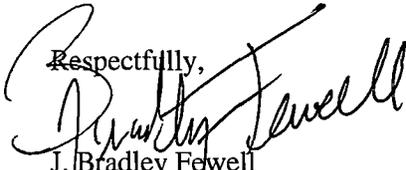
¹ The Trust Transfer Approval was filed separately because the transactions contemplated under that application are not dependent upon the closing of the transactions contemplated under this Application.

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 5

Illinois 60555, and Daniel F. Stenger, Hogan Lovells US LLP, 555 Thirteenth Street, NW, Washington, DC 20004 (email: Daniel.Stenger@hoganlovells.com; tel. 202-637-5691) and Counsel for Entergy, William B. Glew, Jr., Associate General Counsel, Entergy Services, Inc., 440 Hamilton Avenue, White Plains, New York 10601 (email: wglew@entergy.com; tel. 914-272-3360), Timothy A. Ngau, Associate General Counsel, Entergy Services, Inc., 1340 Echelon Parkway, Jackson, MS 39213 (email: tngau@entergy.com; tel. 601-368-5680), and John E. Matthews, Morgan, Lewis & Bockius LLP, 1111 Pennsylvania Avenue, NW, Washington, DC 20004 (email: jmatthews@morganlewis.com; tel. 202-739-5524).

Please contact David P. Helker (Exelon Generation) at 610-765-5525 (David.Helker@exeloncorp.com) or Bryan Ford (Entergy) at 601-368-5516 (bford@entergy.com) if you have any questions or require any additional information regarding this request.

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 6

Respectfully,

J. Bradley Fewell
Senior Vice President Regulatory Affairs and
General Counsel
Exelon Generation Company, LLC

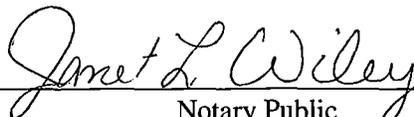
COMMONWEALTH OF PENNSYLVANIA :
: To wit:
COUNTY OF YORK :

I, J. Bradley Fewell, state that I am the Senior Vice President Regulatory Affairs and General Counsel of Exelon Generation Company, LLC and that I am duly authorized to execute and file this application on behalf of Exelon Generation and Exelon Corporation. To the best of my knowledge and belief, the statements contained in this document with respect to these companies are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by employees and/or consultants of the companies. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

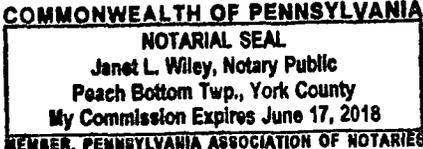


Subscribed and sworn before me, a Notary Public in and for the Commonwealth of Pennsylvania and County of York this 18th day of August, 2016.

WITNESS my Hand and Notarial Seal:



Notary Public



My Commission Expires: June 17, 2018
Date

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 7

Respectfully,


Brian Sullivan
Vice President - FitzPatrick
Entergy Nuclear Operations, Inc.

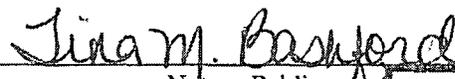
STATE OF NEW YORK :
: To wit:
COUNTY OF OSWEGO :

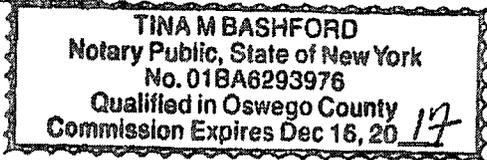
I, Brian Sullivan, state that I am Vice President - FitzPatrick of Entergy Nuclear Operations, Inc. and that I am duly authorized to execute and file this application on behalf of Entergy Nuclear Operations, Inc. To the best of my knowledge and belief, the statements contained in this document with respect to these companies are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by employees and/or consultants of the companies. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.



Subscribed and sworn before me, a Notary Public in and for the State of New York and County of Oswego this 18th day of August, 2016.

WITNESS my Hand and Notarial Seal:


Notary Public



My Commission Expires:

12/16/17
Date

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 8

Enclosures:

Enclosure 1, Application for Order Approving Transfer of Renewed Facility Operating License and Proposed Conforming License Amendment

Enclosure 1, Attachment A, License Amendment Request

Enclosure 1, Attachment B, Mark-up of Renewed Facility Operating License

Enclosure 2, State of New York Public Service Commission, “Order Adopting a Clean Energy Standard,” Issued and Effective August 1, 2016, including Appendix E, “Zero-Emissions Credit Requirement”

Enclosure 3, *Moody's* and *Standard and Poor's* Current Bond Ratings for Exelon Corporation and Exelon Generation Company

Enclosure 4, Asset Purchase Agreement between Entergy Nuclear FitzPatrick, LLC and Exelon Generation Company, LLC, with Defined Terms in Exhibit A

Enclosure 5, General Corporate Information Regarding Exelon Corporation and Exelon Generation Company, LLC

Enclosure 6, Organization Chart with FitzPatrick integrated as part of Exelon Generation’s nuclear fleet

Enclosure 7, Projected Income Statements for Exelon Generation Company, LLC (including FitzPatrick as part of the operating fleet) (Non-Proprietary Version)

Enclosure 7A, Projected Income Statements for Exelon Generation Company, LLC (including FitzPatrick as part of the operating fleet) (Proprietary Version)

Enclosure 8, 10 CFR 2.390 Affidavit of Bryan P. Wright

Enclosure 9, Financial Statement for FitzPatrick (Non-Proprietary Version)

Enclosure 9A, Financial Statement for FitzPatrick (Proprietary Version)

Enclosure 10, List of Regulatory Commitments

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 9

cc: (w/enclosures, except 7A and 9A)

Regional Administrator – NRC Region I
NRC Senior Resident Inspector – Fitzpatrick Nuclear Power Plant
NRC Project Manager, NRR – Fitzpatrick Nuclear Power Plant
A. L. Peterson, NYSERDA

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

U.S. Nuclear Regulatory Commission
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket Nos. 50-333 and 72-012
August 18, 2016
Page 10

bcc: (w/enclosures, except 7A and 9A)

Sr. Vice President Regulatory Affairs and General Counsel (Exelon)
Sr. Vice President, Northeast Operations (Exelon)
Vice President, Operations Support (Exelon)
Site Vice President, Fitzpatrick (Entergy)
Manager, Regulatory Assurance, Fitzpatrick (Entergy)
Commitment Coordinator, KSA (Exelon)
Records Management, KSA (Exelon)
T. Domeyer (Exelon)
D. Helker (Exelon)
B. Ford (Entergy)

ENCLOSURE 8

10 CFR 2.390 AFFIDAVIT OF BRYAN P. WRIGHT

2.390 AFFIDAVIT

I, Bryan P. Wright, Senior Vice President and Chief Financial Officer, Exelon Generation Company, LLC, do hereby affirm and state:

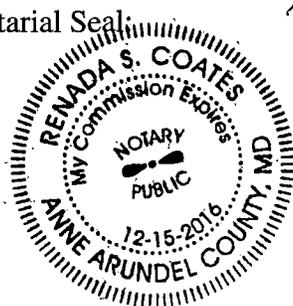
1. I am authorized to execute this affidavit on behalf of Exelon Generation Company, LLC (the Licensee).
2. The Licensee is providing information in support of the application for an Order approving a license transfer. The documents being provided in Enclosures 7A and 9A contain proprietary financial information and financial projections related to the ownership and operation of the Licensee's generation assets. These documents constitute proprietary commercial and financial information that should be held in confidence by the NRC pursuant to the policy reflected in 10 CFR §§ 2.390(a)(4) and 9.17(a)(4), because:
 - i. This information is and has been held in confidence by the Licensee.
 - ii. This information is of a type that is customarily held in confidence by the Licensee, and there is a rational basis for doing so because the information contains sensitive financial information concerning projected revenues and operating expenses of the Licensee.
 - iii. This information is being transmitted to the NRC voluntarily and in confidence.
 - iv. This information is not available in public sources and could not be gathered readily from other publicly available information.
 - v. Public disclosure of this information would create substantial harm to the competitive position of the Licensee by disclosing their internal financial projections.
3. Accordingly, the Licensee requests that the designated documents be withheld from public disclosure pursuant to the policy reflected in 10 CFR §§ 2.390(a)(4) and 9.17(a)(4).

Bryan P. Wright
Bryan P. Wright

Subscribed and sworn before me, a Notary Public, in and for the State of Maryland and City of Baltimore, this 12 day of August, 2016.

WITNESS my hand and Notarial Seal:

My Commission Expires:



Renada S. Coates
Notary Public
12-15-2016
Date

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 1

**APPLICATION FOR ORDER APPROVING TRANSFER
OF RENEWED FACILITY OPERATING LICENSE
AND PROPOSED CONFORMING LICENSE AMENDMENT**

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 1 of 15

**Application for Order Approving Transfer of Renewed Facility Operating License and
Proposed Conforming License Amendment**

Table of Contents

- I. Introduction
- II. Background
- III. Statement of Purpose of the Transfer and Nature of the Transaction Making the
Transfer Necessary or Desirable
 - A. Summary Description of the Transfer of Operating Authority
 - B. Nature of the Transaction Making License Transfer Desirable
- IV. General Corporate Information Regarding Exelon Generation
- V. Foreign Ownership, Control, or Domination
- VI. Technical Qualifications
- VII. Financial Qualifications
 - A. Projected Operating Revenues and Operating Costs
 - B. Decommissioning Funding
- VIII. Standard Contract for Disposal of Spent Nuclear Fuel
- IX. Restricted Data and Classified National Security Information
- X. Antitrust Information
- XI. Price-Anderson Indemnity and Nuclear Insurance
- XII. Environmental Review
- XIII. Effective Date and Other Required Regulatory Approvals
- XIV. Conclusion

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 2 of 15

I. INTRODUCTION

In accordance with Section 184 of the Atomic Energy Act of 1954, as amended (the “**Act**”), 10 CFR 50.80, 10 CFR 72.50, and 10 CFR 50.90, Entergy Nuclear FitzPatrick, LLC (“**Entergy Nuclear FitzPatrick**”) and Entergy Nuclear Operations, Inc. (“**ENO**”) (collectively referred to as “**Entergy**”) and Exelon Generation Company, LLC (“**Exelon Generation**”) hereby request written consent approving the transfer of the James A. FitzPatrick Nuclear Power Plant (“**FitzPatrick**”) Renewed Facility Operating License No. DPR-59 (the “**License**”) and the transfer of the generally licensed FitzPatrick Independent Spent Fuel Storage Installation (the “**ISFSI**”) (collectively FitzPatrick and the ISFSI are referred to as the “**Facility**”), from Entergy to Exelon Generation (collectively Entergy and Exelon Generation are referred to as the “**Applicants**”). The Applicants also request that the NRC approve a conforming amendment to the License. The license amendment should be approved, but not issued until consummation of the transaction. The Applicants will notify the NRC when the transaction is scheduled to be consummated, so that the conforming license amendment can be issued concurrently with the closing. This is a regulatory commitment.

Exelon Generation is a wholly owned subsidiary of Exelon Corporation, a utility services holding company. Exelon’s stock is publicly traded on the New York Stock Exchange and widely held. Exelon Generation, for itself or through its co-owned subsidiary, owns or co-owns and operates twenty-two nuclear reactors at thirteen sites in five states, including the Nine Mile Point Nuclear Power Station² located immediately adjacent to FitzPatrick.

FitzPatrick is a single unit boiling water nuclear reactor with a rated thermal power of 2,536 MWt. FitzPatrick is located on Lake Ontario, in Scriba, Oswego County, New York and consists of the boiling water nuclear reactor, other associated plant equipment, and related site facilities. FitzPatrick is also the site of the generally licensed FitzPatrick ISFSI. The Facility is owned by Entergy Nuclear FitzPatrick and operated by ENO.

A condition of the proposed transaction is that the Power Authority of the State of New York (“**PASNY**,” which does business as the New York Power Authority) will have transferred the nuclear decommissioning trust for FitzPatrick to ENO, which is the subject of a separate NRC

² Nine Mile Point Nuclear Station, LLC (“**NMPNS**”) is the owner of Nine Mile Point Nuclear Power Station (“**NMP**”), Units 1 and 2. NMPNS shares an undivided ownership interest in NMP Unit 2 and entitlements to generating output with Long Island Power Authority, which holds an 18% interest with NMPNS holding the remaining 82% interest. NMPNS is a second-tier subsidiary of Constellation Energy Nuclear Group, LLC, which is indirectly owned 50.01% by Exelon Generation and 49.99% by EDF Inc. Exelon Generation is the licensed operator of NMP.

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 3 of 15

approval and licensing action (“**Trust Transfer Approval**”) (Reference).³ Therefore, the conforming license amendment proposed herein assumes that the license amendment requested in the Trust Transfer Approval submittal will have been issued prior to the license transfer to Exelon Generation. Marked-up pages showing the requested changes to the License are provided as Attachment B to this enclosure. The marked-up pages reflect the deletion of license conditions and the addition of text as requested in the Trust Transfer Approval. The license amendment should be approved, but not issued until consummation of the transaction to take place contemporaneously with the transfer of operating authority.

II. BACKGROUND

FitzPatrick, like other nuclear power plants in upstate New York and plants in wholesale markets elsewhere in the United States, has faced economic difficulties due to low natural gas prices and forecasted wholesale market prices, as well as the failure of the markets to recognize the carbon-free nature of nuclear power. In a letter dated November 18, 2015, and updated on March 16, 2016, Entergy notified the NRC pursuant to the requirements in 10 CFR 50.82(a)(1)(i) of its plan to permanently cease power operations at FitzPatrick on January 27, 2017, at the end of its present fuel cycle, due to the deteriorating economics of the plant. That plan is now subject to the changes described below.

Since Entergy’s submissions to the NRC, however, the New York Public Service Commission (“**NYPSC**”) has issued an order that recognizes the valuable environmental clean energy and economic contributions of the plant by approving a Clean Energy Standard (“**CES**”) program to, among other things, adequately compensate facilities like FitzPatrick for their zero-emission attributes. The NYPSC developed the CES program, which has three tiers, including a Tier 3 program providing for Zero-Emissions Credits (“**ZEC**”), to recognize the value of the zero-emission attributes of nuclear power plants. Based on months of development and extensive public comment, on August 1, 2016, the NYPSC issued an order finding “that preservation of the zero-emissions attributes of New York State’s existing upstate nuclear facilities in the near future is crucial in the strategy to fight climate change and to achieve New York State’s commitment to reduce carbon emissions. Further, as Staff points out, the benefits of maintaining these attributes far outweighs the costs.” See Enclosure 2, NYPSC Order Adopting a Clean Energy Standard, at 150 (Aug. 1, 2016). As the NYPSC explained in its order, this program is intended in large part “to encourage the preservation of the environmental values or attributes of zero-emissions

³ The Trust Transfer Approval was filed separately because the transactions contemplated under that application are not dependent upon the closing of the transactions contemplated under this Application.

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 4 of 15

nuclear-powered electric generating facilities for the benefit of the electric system, its customers and the environment.” See Enclosure 2 at Appendix E, p. 1.

Specifically, the CES program adopted by the NYPSC provides compensation for the environmental attributes of certain nuclear facilities, including FitzPatrick, based on its finding that there is a “public necessity” to preserve the zero-emission environmental attributes of these facilities. The facilities that the NYPSC has determined meet the criteria for public necessity (“**Eligible Facilities**”) are eligible to enter into a contract with the New York State Energy Research and Development Authority (“**NYSERDA**”) to receive payments for providing ZECs,⁴ which are expected to begin on April 1, 2017 and, subject to the conditions in the NYPSC Order, continue through March 31, 2029. The starting ZEC price will be set at \$17.48 per megawatt hour which will be updated every two years thereafter (through March 31, 2029) based on a formula approved by the NYPSC. See Enclosure 2 at 19-20, 130-31, 154, 156-57 and Appendix E at Enclosure 2. The ZEC formula begins with the published estimates by the U.S. Interagency Working Group (“**USIWG**”) ⁵ on the Social Cost of Carbon. Enclosure 2 at 131, 135, 150-51. As the U.S. Environmental Protection Agency explains, the Social Cost of Carbon “is meant to be a comprehensive estimate of climate change damages and includes changes in net agricultural productivity, human health, property damages from increased flood risk, and changes in energy system costs, such as reduced costs for heating and increased costs for air conditioning.”⁶ In including the Social Cost of Carbon in the ZEC formula, the NYPSC recognized that “the value of avoided carbon emissions is most accurate if tied to the value of the avoided external damage, or the value of avoiding the carbon emissions that would be emitted if zero-carbon generators are replaced by other generators. Further, this model closely ties the pricing mechanism for ZECs to

⁴ A “ZEC” is defined as “credit for the zero-emission attributes of one megawatt-hour of electricity production” by an eligible facility which is purchased “to reduce carbon consumption by retail electric customers in New York State.” Enclosure 2 at Appendix E, p. 1.

⁵ The USIWG is an interagency working group convened by the Council of Economic Advisers and the Office of Management and Budget in 2009-2010 to design a social cost of carbon modeling exercise and develop estimates for use in rulemakings. The USIWG was comprised of scientific and economic experts from the White House and federal agencies, including: the Council on Environmental Quality, National Economic Council, Office of Energy and Climate Change, and Office of Science and Technology Policy, Environmental Protection Agency, and the Departments of Agriculture, Commerce, Energy, Transportation, and Treasury. See Environmental Protection Agency Fact Sheet on the Social Cost of Carbon (Dec. 2015), available at <https://www3.epa.gov/climatechange/Downloads/EPAactivities/social-cost-carbon.pdf>.

⁶ *Id.*

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 5 of 15

the environmental attribute, leaving no doubt that it falls squarely within the State's exclusive jurisdiction." *See* Enclosure 2 at 150-51.

In summary, under the CES program for ZECs:

- The NYPSC identifies those facilities for which preservation is a "public necessity." "Public necessity" requires a demonstration on a plant-specific basis of, among other things, the facility's historic contribution to providing clean energy consumed by retail customers in the State of New York (the Eligible Facilities). The NYPSC has initially identified three facilities in upstate New York that satisfy the "public necessity" criteria: Entergy's FitzPatrick plant and two nuclear power facilities operated and co-owned by Exelon Generation (the two-unit Nine Mile Point facility and the Ginna facility).
- NYSERDA enters into multi-year contracts with the Eligible Facilities. Subject to the terms of the order, NYSERDA will purchase the ZECs produced by the Eligible Facilities (up to a total of 27,618,000 MWh per year assuming all three Eligible Facilities participate) for the 12-year duration of the program (commencing on April 1, 2017 and running through March 31, 2029), and the Eligible Facilities, in exchange, will agree to produce and sell the ZECs to NYSERDA for the contract term.

See Enclosure 2 at 124-29, 143, 150-53, 154, 156-57 and Appendix E at Enclosure 2.

Exelon Generation believes the CES Tier 3 program significantly changes the economics of FitzPatrick, thus leading to Exelon Generation's interest in this proposed transaction. Entergy and Exelon Generation executed an Asset Purchase Agreement and various related agreements on August 8, 2016. A copy of the signed Asset Purchase Agreement, with Defined Terms in Exhibit A, is provided in Enclosure 4 (the remaining Exhibits B through G will be made available at the request of the NRC). As set forth in the Asset Purchase Agreement:

- Upon closing (and subject to the NRC's consent and conforming license amendment), Exelon Generation will make an all cash payment to Entergy Nuclear FitzPatrick and assume title to the Facility (including all equipment, spare parts, fixtures, inventory, and other property necessary for the operation and maintenance of FitzPatrick and the ISFSI), will take title to all used and spent nuclear fuel and other licensed materials at the Facility, and will assume all responsibility for the operation and maintenance of the plant.
- The transaction will close upon the satisfaction of all conditions to closing, including the receipt of all required regulatory approvals (including approval of the transaction by the

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 6 of 15

Federal Energy Regulatory Commission and the NYPSC and notification under the Hart-Scott-Rodino Antitrust Improvements Act of 1976) and completion of the transactions contemplated in the NRC Trust Transfer Approval (Reference). The approvals are being sought separately in accordance with the respective regulatory requirements. The transaction is also conditioned upon the execution of a contract with NYSERDA that reflects the implementation of the NYPSC CES Tier 3 program as anticipated.

The parties anticipate the transaction will close on or around April 1, 2017, which is the date that the CES Tier 3 program is expected to begin. In the meantime, ENO will continue to operate FitzPatrick. If the appropriate conditions are satisfied under the Asset Purchase Agreement (including a multi-year contract with NYSERDA paying FitzPatrick for its ZECs), then Entergy will take such steps as necessary with the NRC to reflect the intent of the parties to operate FitzPatrick beyond January 2017. Upon approval of the proposed license transfer and closing of the proposed transaction, Exelon Generation requests that the notice of intent to permanently cease power operations be deemed withdrawn.

III. STATEMENT OF PURPOSE OF THE TRANSFERS AND NATURE OF THE TRANSACTION MAKING THE TRANSFER NECESSARY OR DESIREABLE

A. Summary Description of the Transfer of Operating Authority

FitzPatrick is a single unit boiling water reactor electric generating facility. The operating license was granted in 1974 and commercial operation began in July 1975. The NRC issued a renewed operating license for FitzPatrick on September 8, 2008, which expires on October 17, 2034. Following the proposed transfer, Exelon Generation will become the owner and operator of FitzPatrick, at which point Exelon Generation will integrate the operation of FitzPatrick into the existing operation of Exelon Generation's nuclear fleet. Additional detail is provided below, in the section discussing Exelon Generation's technical qualifications.

B. Nature of the Transaction Making License Transfer Desirable

FitzPatrick is currently scheduled to permanently cease operations in January 2017. As a result, in the absence of a transaction involving the sale and purchase of FitzPatrick, the plant will permanently cease operations as planned, thereby eliminating a needed source of emissions-free generation and substantially reducing employment opportunities and property tax revenue for the local communities. Approving the transfer of the License to Exelon Generation will result in the continued operation of FitzPatrick. As explained in more detail in the section discussing Exelon Generation's technical qualifications, integration of the operation of FitzPatrick with Exelon Generation's current fleet of nuclear power plants will allow consolidated operations of

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 7 of 15

FitzPatrick and the other nuclear units operated by Exelon Generation. The seamless integration of FitzPatrick into Exelon Generation's operations will create a single organization with responsibility over all of the plants partially-or fully-owned by Exelon Generation and for which it is the licensed operator. As the operator of the largest nuclear fleet in the United States, Exelon Generation will bring substantial experience, knowledge, and skills to the operation of FitzPatrick. This consolidated structure will allow for the elimination of duplication of organizations and enhance sharing of resources and operating experience.

IV. GENERAL CORPORATE INFORMATION REGARDING EXELON GENERATION

Exelon Generation, a Pennsylvania limited liability company and wholly owned subsidiary of Exelon Corporation, is a major generator of electric power and a leading supplier of competitive electricity, with a current owned power generation portfolio of approximately 32,741 megawatts. Exelon Generation owns and operates the largest nuclear fleet in the United States comprising approximately 18,455 megawatts, and Exelon Generation has an ownership interest in an additional 1,005 megawatts (approximately). The company's Constellation business unit provides energy products and services to approximately two million residential, public sector, and business customers.

Exelon Corporation ("**Exelon**"), headquartered in Chicago, Illinois, is a U.S.-based energy company with power production, distribution operations, and related diversified services. Exelon is a Fortune 100 energy company, does business in 48 states, the District of Columbia, and Canada, and had 2015 revenue of \$34.5 billion. Exelon's six utilities deliver electricity and natural gas to approximately 10 million customers in Delaware, the District of Columbia, Illinois, Maryland, New Jersey, and Pennsylvania through its Atlantic City Electric, BGE, ComEd, Delmarva Power, PECO, and Pepco subsidiaries.

Detailed information regarding the business and management of Exelon Corporation and its subsidiaries, including Exelon Generation, is provided in the 2015 Annual Report (SEC Form 10-K) dated February 10, 2016, which is available on the Internet at:

<https://www.sec.gov/Archives/edgar/data/1109357/000119312516457652/0001193125-16-457652-index.htm>

or

<http://www.exeloncorp.com/investor-relations/reports-and-sec-filings>

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 8 of 15

Exelon Corporation's 10-K filings for the past five years can be found at:

<https://www.sec.gov/cgi-bin/browse-edgar?action=getcompany&CIK=1109357&dateb=&owner=exclude&count=40>

or

<http://www.exeloncorp.com/investor-relations/reports-and-sec-filings>

The general corporate information required by 10 CFR 50.33(d)(3) regarding the Exelon Generation and its parent company is provided in Enclosure 5. Upon the transfer of the License to Exelon Generation, FitzPatrick will become part of the Exelon Generation nuclear fleet. The anticipated corporate structure for FitzPatrick in relation to the corporate organization is shown in Enclosure 6.

V. FOREIGN OWNERSHIP, CONTROL, OR DOMINATION

Exelon Generation is not owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government. Exelon Generation is a wholly owned subsidiary of Exelon Corporation, a U.S. utility services holding company. Exelon's securities are widely held and publicly traded on the New York Stock Exchange (NYSE: EXC). Section 13(d) of the Securities Exchange Act of 1934 ("SEC"), 15 U.S.C. 78m(d), as amended, requires that a person or entity that owns or controls more than five percent of the securities of a company must file notice with the SEC. Based upon filings with the SEC, Exelon is not aware of any alien, foreign corporation, or foreign government that holds or may hold more than five percent of the securities of Exelon. Unless otherwise indicated in Enclosure 5, the current directors and executive officers of Exelon Corporation and Exelon Generation are United States citizens.

In seeking to become the licensed owner and operator of FitzPatrick, Exelon Generation is not acting as an agent or a representative of another entity.

Accordingly, the proposed transfer of ownership and operating authority of the Facility to Exelon Generation as proposed in this Application does not raise any issues related to foreign ownership, control, or domination within the meaning of the Atomic Energy Act of 1954, as amended.

VI. TECHNICAL QUALIFICATIONS

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 9 of 15

Exelon Generation is technically qualified to operate the Facility. Exelon Generation is the largest licensed nuclear operator in the United States. It currently owns or co-owns, directly or through a co-owned subsidiary, and operates thirteen nuclear plants consisting of twenty-two units (Braidwood Station Units 1 and 2, Byron Station Units 1 and 2, Calvert Cliffs Nuclear Power Plant Units 1 and 2, Clinton Power Station, Dresden Nuclear Power Station Units 2 and 3, LaSalle County Station Units 1 and 2, Limerick Generating Station Units 1 and 2, Oyster Creek Nuclear Generating Station, Nine Mile Point Units 1 and 2, Peach Bottom Atomic Power Station Units 2 and 3, Quad Cities Nuclear Power Station Units 1 and 2, R.E. Ginna Nuclear Power Station, and Three Mile Island Nuclear Station Unit 1). Together, the nuclear units operated by Exelon Generation produce approximately 18,455 megawatts of electricity. During 2015 and 2014, respectively, the nuclear generating units operated by Exelon Generation achieved capacity factors of 93.7% and 94.3%, respectively.

As the largest nuclear fleet operator in the United States, Exelon Generation will make significant nuclear operational and management experience, resources, and expertise available to FitzPatrick. The overall technical resources available to FitzPatrick will be enhanced as a result of Exelon Generation's acquiring ownership and assuming operating authority.

Prior to the closing, Exelon Generation will offer employment to substantially all of the Entergy employees currently employed at FitzPatrick. At the time of the closing of the transaction, employees at FitzPatrick who have accepted Exelon Generation's offers of employment will become employees of Exelon Generation. No material changes in the management or organization of FitzPatrick are expected to be made as part of the proposed transaction. No physical changes will be made to, and there will be no adverse changes in day-to-day operations of, the Facility as a result of the proposed transfer. The proposed transaction will not require any significant change in the staffing and qualifications of personnel who currently operate FitzPatrick.

FitzPatrick and Nine Mile Point Nuclear Power Station already share some facilities (such as the Emergency Operations Facility and the Joint Information Center) as well as certain employee resources. The integration of FitzPatrick into Exelon Generation's fleet will allow for even more sharing of resources and technical support than currently exists.

VII. FINANCIAL QUALIFICATIONS

Exelon Generation does not qualify as an electric utility under 10 CFR 50.2; therefore, the following information is provided in order to demonstrate financial qualifications in accordance with Section 50.33(f)(2).

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 10 of 15

The proposed transaction will have no adverse effect on the financial qualifications of Exelon Generation to own and operate FitzPatrick.⁷ Exelon Generation has an investment grade credit rating, and it is financially qualified based upon its own revenues and assets.⁸ *Moody's* and *Standard and Poor's* bond ratings for the past three years demonstrating Exelon Generation's investment-grade bond ratings are shown in the table below, with documentation confirming the current ratings included in Enclosure 3.

Moody's and Standard and Poor's Bond Ratings

Moody's			S&P		
2014	2015	2016	2014	2015	2016
Baa2	Baa2	Baa2	BBB	BBB	BBB

In addition, historical financial information regarding Exelon Corporation and its subsidiaries, including Exelon Generation, is provided in the 2015 Annual Report Exelon Corporation filed with the Securities and Exchange Commission and available on the Internet at:

<https://www.sec.gov/Archives/edgar/data/1109357/000119312516457652/0001193125-16-457652-index.htm>

The information contained in this parent company report supports the conclusion that Exelon Generation possesses or has reasonable assurance of obtaining the funds necessary to cover the operating costs of FitzPatrick for the period of FitzPatrick's License in accordance with 10 CFR 50.33(f)(2) and the Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance (NUREG-1577, Revision 1).

A. Projected Operating Revenues and Operating Costs

⁷ The NRC staff has found that there is no identified correlation between financial qualifications and safe operating performance. See, e.g., NRC Draft Regulatory Basis Document, "Financial Qualifications for Reactor Licensing Rulemaking" (RIN Number: 3150-AJ4; NRC Docket ID: NRC-2014-0161) (June 2015).

⁸ In accordance with the Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance, NUREG-1577, Revision 1, p. 10, for a licensee applicant that "has an 'investment grade' rating or equivalent from at least two of these sources [*Moody's*, *Standard and Poors*, and *Value Line*], . . . the reviewer will find such applicant financially qualified."

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 11 of 15

Five year *pro forma* financial projections for Exelon Generation and for FitzPatrick are provided in Enclosures 7A and 9A, respectively, for the years 2017 through 2021. Enclosures 7A and 9A are proprietary because they contain Exelon Generation's confidential commercial and financial information as described in the 2.390 Affidavit provided in Enclosure 8. Exelon Generation requests that Enclosures 7A and 9A be withheld from public disclosure pursuant to 10 CFR 9.17(a)(4) and 10 CFR 2.390(a)(4). Non-proprietary versions of Enclosures 7A and 9A suitable for public disclosure are provided as Enclosures 7 and 9, respectively. This proprietary financial information contained in Enclosures 7A and 9A demonstrates that Exelon Generation is financially qualified to own and operate FitzPatrick.

The projected income statements show that the anticipated revenues from sales of energy, capacity, and ZECs under the CES Tier 3 program from Fitzpatrick provide reasonable assurance of an adequate source of funds to meet anticipated expenses for FitzPatrick. The projected income statement for FitzPatrick also demonstrates financial qualifications to maintain the ISFSI. Exelon Generation's strong consolidated net income as indicated in the attached projected income statement for Exelon Generation in Enclosure 7A demonstrates that Exelon Generation will continue to possess the requisite financial qualifications in accordance with NRC requirements.

Exelon Generation's consolidated net income provides assurance of sufficient funds to cover the estimated fixed operating and maintenance expenses for a FitzPatrick outage of at least six months ("O&M Non-Outage," "O&M Outage," and "Property Taxes"). This is consistent with the guidance in NUREG-1577. Exelon Generation notes that the anticipated revenues from FitzPatrick presented in the financial projections include the anticipated payments for the CES Tier 3 ZECs, which are conditions precedent to closing the transaction.

B. Decommissioning Funding

Upon closing, a FitzPatrick nuclear decommissioning trust (the "JAF NDT") to be established by Entergy Nuclear FitzPatrick, including all cash and other assets in the trust, will be transferred to Exelon Generation. Information regarding the status of decommissioning funding for FitzPatrick as of December 31, 2015 was reported to the NRC in Entergy's Decommissioning Funding Status Report per 10 CFR 50.75(f)(1) and 10 CFR 50.82(a)(8)(v) – Entergy Nuclear Operations, Inc., dated March 30, 2016 (ADAMS Accession No. ML16090A355). Entergy provided information regarding the status of the ISFSI decommissioning funding plans for FitzPatrick in a letter dated December 17, 2015, ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30 (Accession No. ML15351A524). The proposed transfer does not involve any change to the information Entergy provided for FitzPatrick.

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 12 of 15

In its March 30, 2016 decommissioning funding status report, for the period as of December 31, 2015, Entergy reported costs to decommission FitzPatrick (site and ISFSI) of \$655,710,000, consisting of \$647,540,000 in costs to decommission the site (estimated per 10 CFR 50.75(b) and (c) in 2015 dollars) and \$8,170,000 in costs to decommission the ISFSI. Entergy reported a trust fund balance as of December 31, 2015 of \$746,190,000. Accordingly, Entergy met or exceeded the NRC's minimum funding requirements for FitzPatrick using the "prepayment" method in accordance with 10 CFR 50.75(e)(1)(i) and 10 CFR 72.30(e)(1).

On August 16, 2016, ENO, on behalf of itself, Entergy Nuclear FitzPatrick, Entergy Nuclear Indian Point 3, LLC (ENIP3), and the Power Authority of the State of New York (which does business as the New York Power Authority) ("**PASNY**"), requested that the NRC issue an order for the transfer to ENO of the PASNY Master Decommissioning Trust ("**Master Trust**") held by PASNY for FitzPatrick and Indian Point Nuclear Generating Unit No. 3 ("**IP3**"). ENO also requested the NRC's consent to issue an amendment to the Master Decommissioning Trust Agreement, dated July 25, 1990, and amended on November 21, 2000 ("**Master Trust Agreement**") governing the Master Trust. Concurrent with that request, ENO requested approval of amendments to the Fitzpatrick License to reflect the proposed transfer of the Master Trust under the terms of the Master Trust Agreement, including all rights and obligations thereunder, to ENO and to delete other conditions so as to apply the requirements of 10 CFR 50.75(h)(1).

At the time of the anticipated closing of the sale of the FitzPatrick Facility to Exelon Generation, it is anticipated that the NRC would have already granted the requested actions in the August 16, 2016 request submitted by ENO. Prior to closing, Entergy Nuclear FitzPatrick will establish the JAF NDT. Thereafter, ENO will transfer the assets of the nuclear decommissioning trust relating to FitzPatrick from the Master Trust to the JAF NDT. At the closing, Entergy Nuclear FitzPatrick will transfer the JAF NDT to Exelon Generation. As of May 31, 2016, the FitzPatrick decommissioning trust fund balance (in the Master Trust) totaled \$772,000,607. Thus, Exelon Generation will continue to provide decommissioning funding assurance using the prepayment method in accordance with 10 CFR 50.75(e)(1)(i) and 10 CFR 72.30(e)(1).

At the time of closing the proposed transaction, Exelon Generation will assume all liabilities for decommissioning of FitzPatrick. Exelon Generation's management of the JAF NDT, including all investments and disbursements, will continue to be consistent with the regulatory requirements in 10 CFR 50.75. Exelon Generation will maintain the decommissioning trust funds segregated from its assets and outside its administrative control in accordance with the requirements of 10 CFR 50.75(e)(1). Therefore, in accordance with 10 CFR 50.75, there

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 13 of 15

continues to be reasonable assurance that Exelon Generation will have the funds necessary to cover the estimated decommissioning costs of FitzPatrick at the end of licensed operations.

VIII. STANDARD CONTRACT FOR DISPOSAL OF SPENT NUCLEAR FUEL

Upon closing, Exelon Generation will assume title to and responsibility for the management and interim storage of spent nuclear fuel at FitzPatrick. Entergy and Exelon Generation will be seeking the consent of the U.S. Department of Energy to the assignment to Exelon Generation of the rights and obligations relating to FitzPatrick under the Standard Contract for the Disposal of Spent Nuclear Fuel and/or High Level Radioactive Waste, No. DE-CR01-83NE-44407 (“**DOE Standard Contract**”) with one of Entergy’s affiliates retaining the rights and obligations relating to Indian Point Unit No. 3 under that same contract. Subject to obtaining that consent, which is a condition to the closing of the transaction, Entergy will assign and Exelon Generation will assume Entergy’s rights and obligations under the DOE Standard Contract for FitzPatrick, including liability for payment of the one-time fee described in Article VIII of the Standard Contract and any fees payable to DOE under the Standard Contract for spent fuel existing as of the date of closing. Exelon Generation has entered or will enter into commercial arrangements through which it will be reimbursed for its payment of these fees, separate and apart from its obligations under the terms of the DOE Standard Contract.

IX. RESTRICTED DATA AND CLASSIFIED NATIONAL SECURITY INFORMATION

The proposed transfer of ownership and operating authority does not involve any Restricted Data or other Classified National Security Information or result in any change in access to such Restricted Data or Classified National Security Information. The existing restrictions on access to Restricted Data and Classified National Security Information are unaffected by the proposed transfer. In compliance with Section 145(a) of the Act and 10 CFR 95.35, the Applicants agree that restricted or classified defense information will not be provided to any individual until the Office of Personnel Management investigates and reports to the NRC on the character, associations, and loyalty of such individual, and the NRC determines that permitting such person to have access to Restricted Data will not endanger the common defense and security of the United States.

X. ANTITRUST INFORMATION

This Application post-dates the issuance of the License, and therefore no antitrust review is required or authorized. Based upon the NRC’s decision in *Kansas Gas and Electric Co., et al.* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441 (1999), the Atomic Energy

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 14 of 15

Act of 1954, as amended, does not require or authorize NRC antitrust reviews of post-operating license transfer applications.

XI. PRICE-ANDERSON INDEMNITY AND NUCLEAR INSURANCE

The proposed transfer does not affect the existing Price-Anderson indemnity agreements for FitzPatrick or the required nuclear property damage insurance pursuant to 10 CFR 50.54(w) and nuclear energy liability insurance pursuant to Section 170 of the Atomic Energy Act and 10 CFR Part 140. However, Exelon Generation hereby requests that the Price-Anderson indemnity be amended to include Exelon Generation as the licensee for the facility and to name Exelon Generation as an indemnified entity.

Exelon Generation will maintain all required nuclear property damage insurance and nuclear energy liability insurance. In addition, the Exelon Generation annual reporting in compliance with 10 CFR 140.21(e) provides reasonable assurance regarding its ongoing ability to pay any annual retrospective premium. Also, the Exelon Generation financial information submitted with or referenced in this Application provides assurance of the ability to pay deferred premiums in accordance with 10 CFR 140.21.

XII. ENVIRONMENTAL REVIEW

The requested consent to transfer operating authority for the Facility under the License is exempt from environmental review because it falls within the categorical exclusion contained in 10 CFR 51.22(c)(21) for which neither an Environmental Assessment nor an Environmental Impact Statement is required. Moreover, the proposed transfer does not directly affect the actual operation of the facility in any substantive way. The proposed transfer does not involve an increase in the amounts, or a change in the types, of any radiological effluents that may be allowed to be released off-site, and involves no increase in the amounts or change in the types of non-radiological effluents that may be released off-site. Further, there is no increase in the individual or cumulative operational radiation exposure, and the proposed direct transfer has no environmental impact.

XIII. EFFECTIVE DATE AND OTHER REQUIRED REGULATORY APPROVALS

Subject to the receipt of the required regulatory approvals, the Applicants wish to proceed with the proposed transfer promptly and have targeted a completion by April 1, 2017. Accordingly, the Applicants respectfully request that the NRC review this Application on a schedule that will permit the NRC to issue an Order consenting to the transfer and approving the conforming license amendment as promptly as possible and in any event by March 1, 2017. Once approved,

Enclosure 1
Application for Transfer of Renewed Facility Operating
License and Proposed Conforming License Amendment
Docket No. 50-333 and 72-012
Page 15 of 15

the Applicants will provide at least two business days' notice prior to the date planned to consummate the proposed transaction and transfer of operating authority so that NRC can issue the license amendment on that date. This is a regulatory commitment.

The Applicants are prepared to work closely with the NRC staff to help expedite the review of the Application. The Applicants further request that the consent to the license transfer be immediately effective upon issuance and that it permit the proposed transaction to be implemented at any time within one year of the date of approval of this Application or such later date as the NRC may approve.

The sale and purchase of FitzPatrick require approvals and/or actions from other regulatory agencies, including the Federal Energy Regulatory Commission and the NYPSC. These approvals are being sought separately under each agency's regulatory requirements.

XIV. CONCLUSION

Based upon the foregoing information, Applicants respectfully request that the NRC issue an Order consenting to the proposed license transfer related to Renewed Facility Operating License No. DPR-59 and the ISFSI general license and approving the conforming license amendment.

Attachments:

Attachment A – License Amendment Request

Attachment B – Mark-up of Renewed Facility Operating License

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 1, ATTACHMENT A

LICENSE AMENDMENT REQUEST

- 1.0 SUMMARY DESCRIPTION**
- 2.0 DETAILED DESCRIPTION**
- 3.0 TECHNICAL EVALUATION**
- 4.0 REGULATORY EVALUATION**
 - 4.1 Applicable Regulatory Requirements/Criteria**
 - 4.2 Significant Hazards Consideration**
 - 4.3 Conclusions**
- 5.0 ENVIRONMENTAL CONSIDERATION**

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 1 – Attachment A
License Amendment Request
Docket No. 50-333
Page 1 of 3

1.0 SUMMARY DESCRIPTION

The proposed change is a request to replace all references to Entergy Nuclear FitzPatrick, LLC and Entergy Nuclear Operations, Inc. in Renewed Facility Operating License No. DPR-59 (“License”) for the James A. FitzPatrick Nuclear Power Plant (“FitzPatrick”) and replace these references with Exelon Generation Company, LLC, as the licensed operator and owner under essentially the same conditions and authorizations included in the existing licenses. The amendment also includes certain conforming revisions to the license conditions that are no longer relevant as a result of the proposed transaction, and therefore should be revised or removed from the License.

Enclosure 1, Attachment B provides the marked-up pages of the License.

2.0 DETAILED DESCRIPTION

The proposed changes will revise the License to reflect the name and address of the new owner and operator, as well as make other conforming amendments, including the deletion of the requirement in Section 2(G) of the License that various Entergy entities provide a letter of credit.

The requested amendments will conform the licenses to reflect the transfer actions for which NRC consent is being requested pursuant to 10 CFR 50.80 (see the remainder of this license transfer transmittal package).

3.0 TECHNICAL EVALUATION

There will be no adverse changes in the day-to-day operations of the Facility. The proposed change will have no impact on the design, function, or operation of any plant structure, system, or component, either technically or administratively, nor will it have a programmatic effect on the Facility’s Quality Assurance Programs.

4.0 REGULATORY EVALUATION

4.1 APPLICABLE REGULATORY REQUIREMENTS/CRITERIA

The proposed license changes are primarily administrative in nature. These changes identify a name change for the operator and owner of FitzPatrick. These changes are considered administrative since the proposed changes reflect no change to the company structure or governance. No physical changes will be made and there will be no adverse change in the day-

Enclosure 1 – Attachment A
License Amendment Request
Docket No. 50-333
Page 2 of 3

to-day operations of the Facility. Therefore, the proposed license amendment does not adversely affect nuclear safety or safe plant operations.

The proposed license changes also include the deletion of the requirement in Section 2(G) of the License that various Entergy entities provide a letter of credit. The requirement in Section 2(G) for various entities to provide a letter of credit will no longer apply if the License is transferred to Exelon Generation. As explained in Enclosure 1, Exelon Generation maintains an investment grade rating and is financially qualified to own and operate FitzPatrick.

10 CFR 2.1315, Generic Determination Regarding License Amendments to Reflect Transfers.

This regulation states that the NRC has determined that license amendments that conform the license to reflect a transfer action involve no significant hazard consideration and do not adversely affect the health and safety of the public.

10 CFR 50.80 and 10 CFR 72.50, Transfer of Licenses. These regulations provide the basis for NRC approval of license transfers. The proposed license amendment is requested based on the request for the license transfer described in this transmittal package.

4.2 NO SIGNIFICANT HAZARDS DETERMINATION

The proposed changes to the License are primarily administrative in nature.

In its regulations, at 10 CFR 2.1315, the NRC has made a generic determination regarding no significant hazards consideration determinations required by 10 CFR 50.92. The determination is applicable to license amendments involving license transfers. In brief, the rule states that the NRC has determined generically that any amendment to the license of a utilization facility which does no more than conform the license to reflect the transfer action involves no significant hazards consideration. The proposed changes contained in this license amendment application are intended solely to conform the FitzPatrick License to reflect the change in operating authority as a result of the license transfer and thus meet the criteria specified by 10 CFR 2.1315.

4.3 CONCLUSIONS

In conclusion, based upon this analysis provided, the proposed license amendment will neither have any adverse impact on the public health and safety, nor be inimical to the common defense and security. Therefore, the proposed license amendment meets the requirements of 10 CFR 2.1315 and 10 CFR 50.90 and does not involve a significant hazards consideration.

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 1 – Attachment A
License Amendment Request
Docket No. 50-333
Page 3 of 3

5.0 ENVIRONMENTAL CONSIDERATION

This proposed license amendment is a direct result of an approval of a transfer of licenses issued by the NRC. Therefore, the proposed amendment is eligible for categorical exclusion as set forth in 10 CFR 51.22(c)(21). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is needed in connection with the proposed amendment.

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

ENCLOSURE 1, ATTACHMENT B

MARK-UP OF RENEWED FACILITY OPERATING LICENSE

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

ENTERGY NUCLEAR FITZPATRICK, LLC **EXELON GENERATION
COMPANY, LLC**

AND ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-59

1. The Nuclear Regulatory Commission (NRC or the Commission), having previously made the findings set forth in Facility Operating License No. DPR-59, dated November 21, 2000, has found that:
 - A. The application to renew Facility Operating License No. DPR-59 ~~filed by Entergy Nuclear FitzPatrick, LLC (ENF) and Entergy Nuclear Operations, Inc. (ENO)~~ **filed by Entergy Nuclear FitzPatrick, LLC (ENF) and Exelon Generation Company, LLC (EGC)** complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. Actions have been identified and have been or will be taken with respect to: (1) managing the effects of aging on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1) during the period of extended operation, and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3 for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations;
 - D. There is reasonable assurance (i) that the activities authorized by this renewed operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - E. ~~ENF and ENO are~~ **Exelon Generation Company is** financially and technically qualified to engage in the activities authorized by this renewed operating license;
 - F. ~~ENF and ENO have~~ **Exelon Generation Company has** satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations;

Renewed License No. DPR-59

- G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating license will be in accordance with the Commission's regulations; in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31; and
 - I. The issuance of this renewed operating license is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-59 (previously issued to the Power Authority of the State of New York and Niagara Mohawk Power Corporation pursuant to the Atomic Safety and Licensing Board's Initial Decision and Supplemental Initial Decision dated November 12, 1973, and January 10, 1974, respectively; and the Atomic Safety and Licensing Appeal Board's Decision dated January 29, 1974) as previously amended and transferred to ENF and ENO dated November 21, 2000, is superseded by Renewed Facility Operating License No. DPR-59, hereby issued to ~~ENF and ENO~~ **Exelon Generation Company** to read as follows:
- A. This renewed operating license applies to the James A. FitzPatrick Nuclear Power Plant, a boiling water nuclear reactor and associated equipment (the facility), owned ~~by ENF~~ and operated by ~~ENO~~ **Exelon Generation Company**. The facility is located in Scriba, Oswego County, New York, and is described in the "Final Safety Analysis Report," as supplemented and amended, and the Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," ~~a) ENF to possess and use and b) ENO~~ **Exelon Generation Company** to possess, use and operate the facility at the designated location in Scriba, Oswego County, New York, in accordance with the procedures and limitations set forth in this renewed operating license;
 - (2) ~~ENO~~ **Exelon Generation Company** pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (3) ~~ENO~~ **Exelon Generation Company** pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) **ENO-Exelon Generation Company** pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source and special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration; or associated with radioactive apparatus, components or tools.
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

ENO-Exelon Generation Company is authorized to operate the facility at steady state reactor core power levels not in excess of 2536 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 291 are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Fire Protection

ENO-Exelon Generation Company shall implement and maintain in effect all provisions of the approved fire protections program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated November 20, 1972; the SER Supplement No. 1 dated February 1, 1973; the SER Supplement No. 2 dated October 4, 1974; the SER dated August 1, 1979; the SER Supplement dated October 3, 1980; the SER Supplement dated February 13, 1981; the NRC Letter dated February 24, 1981; Technical Specification Amendments 34 (dated January 31, 1978), 80 (dated May 22, 1984), 134 (dated July 19, 1989), 135 (dated September 5, 1989), 142 (dated October 23, 1989), 164 (dated August 10, 1990), 176 (dated January 16, 1992), 177 (dated February 10, 1992), 186 (dated February 19, 1993), 190 (dated June 29, 1993), 191 (dated July 7, 1993), 206 (dated February 28, 1994), and 214 (dated June 27, 1994); and NRC Exemptions and associated safety evaluations dated April 26, 1983, July 1, 1983, January 11, 1985, April 30, 1986, September 15, 1986 and September 10, 1992 subject to the following provision:

ENO Exelon Generation Company may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(4) Systems Integrity
Deleted by Amendment No. 274

(5) Iodine Monitoring
Deleted by Amendment No. 274

(6) New or Revised ITS Surveillance Requirements Applicability:

The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 274 shall be as follows:

- (a) For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval that begins on the date of implementation of this amendment.
- (b) For SRs that existed prior to this amendment whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.
- (c) For SRs that existed prior to this amendment whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to implementation of this amendment.
- (d) For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.

D. Physical Protection

ENO Exelon Generation Company shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans¹, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "James A. FitzPatrick Nuclear Power Plant Physical Security, Training & Qualification and

¹ The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

Safeguards Contingency Plan, Revision 0," submitted by letter dated October 26, 2004, as supplemented by letter dated May 17, 2006.

E. Power Uprate License Amendment Implementation

The licensee shall complete the following actions as a condition of the approval of the power uprate license amendment.

(1) Recirculation Pump Motor Vibration

Perform monitoring of recirculation pump motor vibration during initial Cycle 13 power ascension for uprated power conditions.

(2) Startup Test Program

The licensee will follow a startup testing program, during Cycle 13 power ascension, as described in GE Licensing Topical Report NEDC-31897P-1, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate." The startup test program includes system testing of such process control systems as the feedwater flow and main steam pressure control systems. The licensee will collect steady-state operational data during various portions of the power ascension to the higher licensed power level so that predicted equipment performance characteristics can be verified. The licensee will do the startup testing program in accordance with its procedures. The licensee's approach is in conformance with the test guidelines of GE Licensing Topical Report NEDC-31897P-1, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate," June 1991 (proprietary), GE Licensing Topical Report NEDO-31897, "Generic Guidelines for General Electric Boiling Water Reactor Power Uprate," February 1992 (nonproprietary), and NEDC-31897P-AA, Class III (proprietary), May 1992.

(3) Human Factors

The licensee will review the results of the Cycle 13 startup test program to determine any potential effects on operator training. Training issues identified will be incorporated in Licensed Operator training during 1997. Simulator discrepancies identified will be addressed in accordance with simulator Configuration Management procedural requirements.

F. Additional Conditions

The Additional Conditions contained in Appendix C, as revised through Amendment No. 289, are hereby incorporated into this renewed operating license. ~~ENO~~ **Exelon Generation Company** shall operate the facility in accordance with the Additional Conditions.

- G. ~~(DELETED) ENF and ENO shall take no action to cause Entergy Global Investments, Inc. or Entergy International Ltd. LLC, or their parent companies, to void, cancel, or modify the \$70 million contingency commitment to provide funding for the facility as represented in the application for approval of the transfer of the facility license from PASNY to ENF and ENO, without the prior-written consent of the Director, Office of Nuclear Reactor Regulation.~~
- H. ~~(DELETED) The decommissioning trust agreement shall provide that the use of assets in the decommissioning trust fund, in the first instance, shall be limited to the expenses related to decommissioning of the facility as defined by the NRC in its regulations and issuances, and as provided in this license and any amendments thereto.~~
- I. ~~(DELETED) The decommissioning trust agreement shall provide that no contribution to the decommissioning trust that consists of property other than liquid assets shall be permitted.~~
- J. ~~(DELETED) With respect to the decommissioning trust fund, investments in the securities or other obligations of the PASNY, Entergy Corporation, Entergy Nuclear IP3, LLC, ENF, ENO, or affiliates thereof, or their successors or assigns, shall be prohibited. Except for investments that replicate the composition of market indices or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear plants is prohibited.~~
- K. ~~(DELETED) The decommissioning trust agreement shall provide that no disbursements or payments from the trust, other than for ordinary administrative expenses, shall be made by the trustee until the trustee has first given the NRC 30 days' prior written notice of the payment. In addition, the trust agreement shall state that no disbursements or payments from the trust shall be made if the trustee receives prior written notice of objection from the Director, Office of Nuclear Reactor Regulation.~~
- L. ~~(DELETED) The decommissioning trust agreement shall provide that the trust agreement shall not be modified in any material respect without the prior written consent of the Director, Office of Nuclear Reactor Regulation.~~
- M. ~~(DELETED) ENF, or its successors or assigns shall take no action that would adversely affect any contract between it and PASNY for PASNY's eventual payment of decommissioning funds from the trust.~~
- N. ~~(DELETED) ENF, or its successors or assigns shall inform the NRC within 30 days of any adverse developments with respect to PASNY's ownership of the decommissioning trust that could reasonably be expected to lead to a significant diminution of funds available for decommissioning the facility.~~
- O. ~~(DELETED) The decommissioning trust agreement shall state that the trustee, investment advisor, or anyone else directing the investments made in the trust shall adhere to a "prudent investor" standard, as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission's regulations.~~

- P. For purposes of ensuring public health and safety, ~~ENF~~**Exelon Generation Company**, upon the transfer of this license to it, **and upon transfer of decommissioning funds from PASNY to ENO** ~~ENF~~ **ENF to Exelon Generation Company**, shall provide decommissioning funding assurance for the facility, to be held in a decommissioning trust fund for the facility by the prepayment or equivalent method, of no less than the amount required under NRC regulations at 10 CFR 50.75. Any amount held in any decommissioning trust maintained by ~~ENO-PASNY~~ **Exelon Generation Company** for the facility after the transfer of the facility license to ~~ENF~~ **Exelon Generation Company** may be credited towards the amount required under this paragraph.
- Q. ~~ENF~~ **Exelon Generation Company** shall take all necessary steps to ensure that the decommissioning trust is maintained in accordance with the application for the transfer of this license to ~~ENF and ENO~~ **Exelon Generation Company, as modified by the request to transfer decommissioning funds from PASNY**, and the requirements of the order approving the transfer **and order approving the transfer of decommissioning funds from PASNY to ENO**, and consistent with the safety evaluations supporting such orders.
- R. Mitigation Strategy License Condition
- Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:
- (a) Fire fighting response strategy with the following elements:
 1. Pre-defined coordinated fire response strategy and guidance
 2. Assessment of mutual aid fire fighting assets
 3. Designated staging areas for equipment and materials
 4. Command and control
 5. Training of response personnel
 - (b) Operations to mitigate fuel damage considering the following:
 1. Protection and use of personnel assets
 2. Communications
 3. Minimizing fire spread
 4. Procedures for implementing integrated fire response strategy
 5. Identification of readily-available pre-staged equipment
 6. Training on integrated fire response strategy
 7. Spent fuel pool mitigation measures
 - (c) Actions to minimize release to include consideration of:
 1. Water spray scrubbing
 2. Dose to onsite responders
- S. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

- T. License Renewal Commitments/Conditions - The UFSAR supplement, as revised, describes certain future activities to be completed prior to and during the period of extended operation. ~~ENF and ENO~~ **Exelon Generation Company** shall complete these activities in accordance with Appendix A of NUREG-1905, Safety Evaluation Report Related to the License Renewal of James A. FitzPatrick Nuclear Power Plant, issued April 2008. ~~ENF and ENO~~ **Exelon Generation Company** shall notify the NRC in writing within 10 days of completion of those activities required prior to the period of extended operation and those activities required during the period of extended operation.
- U. UFSAR Supplement Changes - The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the UFSAR required by the 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, ~~ENF and ENO~~ **Exelon Generation Company** may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ~~ENF and ENO~~ **Exelon Generation Company** evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- V. Capsule withdrawal schedule - All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of the most recent NRC-approved version of the Boiling Water Reactor Vessel and Internals Project (BWRVIP) Integrated Surveillance Program (ISP) appropriate for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.
3. This renewed operating license is effective as of the date of issuance and shall expire at midnight on October 17, 2034.

FOR THE NUCLEAR REGULATORY COMMISSION

IRAI

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Appendix A - Technical Specifications
2. Appendix B - Deleted
3. Appendix C - Additional Conditions

Date of Issuance: September 8, 2008

APPENDIX C
ADDITIONAL CONDITIONS
RENEWED OPERATING LICENSE NO. DPR-59

Amendment
Number

Additional Conditions

- 243 ~~Entergy Nuclear Operations, Inc.~~ **Exelon Generation Company** shall describe snubber operation and surveillance requirements in the Final Safety Analysis Report such that future changes to those requirements will be subject to the provisions of 10 CFR 50.59.
- 250 ~~Entergy Nuclear Operations, Inc.~~ **Exelon Generation Company** shall relocate operability and surveillance requirements for logic bus power monitors, core spray sparger differential pressure, and low pressure coolant injection cross-connect valve position instruments to an ~~Entergy~~ **Exelon**-controlled document where future changes to those relocated requirements are controlled under the provisions of 10 CFR 50.59.
- 274 ~~Entergy Nuclear Operations, Inc.~~ **Exelon Generation Company** shall relocate the Technical Specification requirements identified in Table LA – “Removal of Details Matrix” and Table R – “Relocated Specifications” to licensee-controlled documents, as described in the application as supplemented on June 12, 2002, and the NRC staff’s Safety Evaluation enclosed with Amendment No. 274, dated July 3, 2002. Further, relocations to the updated Final Safety Analysis Report (UFSAR) shall be reflected in the next UFSAR update required by 10 CFR 50.71(e) following implementation of this amendment.
- 289 Control Room Envelope Habitability
- Upon Implementation of Amendment No. 289, adopting TSTF-448 Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage required by SR 3.7.3.3 in accordance with TS 5.5.14.c.(i), the assessment of CRE habitability as required by Specification 5.5.14.c.(ii) , and the measurement of CRE pressure as required by Specification 5.5.14.d shall be considered met. Following implementation:
- (a) The first performance of SR 3.7.3.3 in accordance with specification 5.5.14.c(i) shall be within the specified Frequency of 6 years, plus the 18-month allowance of SR 3.0.2 as measured from June 28, 2004, the date of the most recent successful tracer gas test, as stated in ~~Entergy's licensee's~~ letter "NRC Generic Letter 2003-01 Control Room Habitability Initial Action Summary Report" (JAFP-04-0159), dated September 27, 2004, or within 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.

Appendix C

- 2 -

(b) The first performance of the periodic assessment of CRE Habitability Specification 5.5.14.c(ii) shall be within three years, plus the 9-month allowance of SR 3.0.2 as measured from June 28, 2004, the date of the most recent successful tracer gas test, as stated in ~~Entergy's~~ **licensee's** letter "NRC Generic Letter 2003-01 Control Room Habitability Initial Action Summary Report" (JAFP-04-0159), dated September 27, 2004, or within 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.

(c) The first performance of the periodic measurement of CRE pressure, Specification 5.5.14.d shall be within 18 months, plus the 138-day allowance of SR 3.0.2 as measured from the date of the most recent successful pressure measurement test or within 138 days if not performed previously.

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 2

**STATE OF NEW YORK PUBLIC SERVICE COMMISSION, “ORDER ADOPTING A
CLEAN ENERGY STANDARD,” ISSUED AND EFFECTIVE AUGUST 1, 2016,
INCLUDING APPENDIX E, “ZERO-EMISSIONS CREDIT REQUIREMENT”**

~~INCLUDES PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 2

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard.

CASE 16-E-0270 - Petition of Constellation Energy Nuclear Group LLC; R.E. Ginna Nuclear Power Plant, LLC; and Nine Mile Point Nuclear Station, LLC to Initiate a Proceeding to Establish the Facility Costs for the R.E. Ginna and Nine Mile Point Nuclear Power Plants.

ORDER ADOPTING A CLEAN ENERGY STANDARD

Issued and Effective: August 1, 2016

Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 2

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY.....1
State Policy Goals3
Customer Choice7
Jurisdiction and Markets9
Cost Containment11
Program Elements12
Renewable Energy Standard14
Tier 1 - New Renewable Resources14
Tier 2 - Maintenance Tier17
Offshore Wind18
Zero-Emissions Credit Requirement19
II. PROCEDURAL BACKGROUND.....21
III. NOTICE OF PROPOSED RULEMAKING.....25
IV. STAFF PROPOSALS, COST STUDY, AND PARTY COMMENTS.....26
A. Renewable Standard: Obligation
of Participating Entities26
1. Staff Proposal.....26
a. Jurisdictional Entities26
b. Non-Jurisdictional Entities27
2. Party Comments.....27
B. Eligible Resources30
1. Staff Proposal.....30
2. Party Comments.....30
C. Tiers32
1. Staff Proposal.....32
2. Party Comments.....33
D. Annual Targets35
1. Defining the Baseline.....35
a. Staff Proposal35
b. Party Comments36
2. Establishing Tier Targets.....36
a. Staff Proposal36

Enclosure 2

b. Party Comments	37
3. Start Date for Targets.....	37
a. Staff Proposal	37
b. Party Comments	38
E. Compliance Mechanism	38
1. Renewable Energy Credits.....	38
a. Staff Proposal	38
b. Party Comments	38
2. Alternative Compliance Payments.....	39
a. Staff Proposal	39
b. Party Comments	39
3. Banking and Borrowing.....	40
a. Staff Proposal	40
b. Party Comments	41
F. Long-Term Contracting for RES Resources	41
1. Staff Proposal	41
2. Party Comments	42
G. Nuclear Facilities	45
1. Staff Proposal.....	45
2. Party Comments.....	46
3. Staff's Responsive Proposal.....	49
4. Party Comments to Responsive Proposal.....	52
H. Cost Study and Cost Management	61
1. Summary of the Cost Study.....	61
2. Party Comments.....	63
V. ESTABLISHING THE CLEAN ENERGY STANDARD.....	65
A. General Description	65
B. Legal Authority	66
C. Cost Study and Cost Mitigation	69
D. Adoption of the 50% by 30 Goal	76
VI. THE RENEWABLE ENERGY STANDARD.....	78
A. Tier 1 - New Renewable Resources	78

Enclosure 2

1. Overall Incremental 2030 Statewide Target.....	78
a. Calculating Statewide Load	79
b. No Behind-the Meter Generation Adjustment	79
c. Energy Efficiency Adjustment	81
d. No adjustment for Carbon Reducing Technologies	82
e. Net Total Load	84
f. Baseline Renewable Resource Adjustment	84
2. Annual Targets.....	85
3. LSE Obligation.....	93
4. Long-Term Procurement Issues.....	95
a. Need for Long-term Procurement	95
b. Types of Long-term Procurement	97
c. Power Markets in New York	98
d. Determination	99
e. Review of Procurement Practices	102
5. Design Parameters.....	103
a. No Separate New Resource Tiers	103
b. Eligibility	105
c. Compliance	106
d. Alternative Compliance Payment	109
e. Banking and Borrowing	110
f. Role of NYSERDA	111
6. Solicitation/Procurement Cycle.....	112
7. Procurement Guidelines.....	114
B. Tier 2	115
C. Periodic Review	117
1. Triennial Review Process.....	117
2. Interim Review.....	118
VII. ZERO-EMISSIONS CREDIT REQUIREMENT.....	119
A. Procedural Matters	119
B. Public Necessity	124
1. Verifiable Historic Contribution.....	125

Enclosure 2

2. Inadequate Compensation to Preserve Attributes...	125
3. BCA in Relation to Alternatives.....	126
4. Cost Impacts on Ratepayers.....	127
5. Overall Public Interest.....	128
C. ZEC Price Formula Mechanics	129
1. Social Cost of Carbon.....	131
2. Baseline RGGI Effect.....	135
3. Conversion Factor \$\$/Ton to \$\$/MWh.....	136
4. Forecast Energy & Capacity Price Change Adjustment.....	138
5. Contract Duration.....	141
6. Contract Performance.....	144
7. Facility Closure Contingency.....	146
8. LSE Obligations and Allocations.....	147
9. Conclusion.....	150
VIII. IMPLEMENTATION.....	152
IX. SEQRA FINDINGS.....	153
X. CONCLUSION.....	154

APPENDICES

1. Appendix A - Eligibility of Resources
2. Appendix B - Comment Summaries
3. Appendix C - New York Generation Attribute Tracking System
4. Appendix D - Renewable Energy Standard - Tier 2
5. Appendix E - Zero-Emissions Credits Requirement
6. Appendix F - Implementation Phase
7. Appendix G - SEQRA Findings Statement

Enclosure 2

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on August 1, 2016

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair
Patricia L. Acampora
Gregg C. Sayre
Diane X. Burman, concurring

CASE 15-E-0302 - Proceeding on Motion of the Commission to
Implement a Large-Scale Renewable Program and a
Clean Energy Standard.

CASE 16-E-0270 - Petition of Constellation Energy Nuclear Group
LLC; R.E. Ginna Nuclear Power Plant, LLC; and
Nine Mile Point Nuclear Station, LLC to
Initiate a Proceeding to Establish the Facility
Costs for the R.E. Ginna and Nine Mile Point
Nuclear Power Plants.

ORDER ADOPTING A CLEAN ENERGY STANDARD

(Issued and Effective August 1, 2016)

BY THE COMMISSION:

I. INTRODUCTION AND SUMMARY

By this Order, the Commission determines that a series
of deliberate and mandatory actions to build upon and enhance
opportunities for consumer choice are necessary to achieve State
environmental, public health, climate policy and economic goals;
to enhance and animate voluntary retail markets for energy
efficiency, clean energy and renewable resources; to preserve
existing zero-emissions nuclear generation resources as a bridge
to the clean energy future; to ensure a modern and resilient

Enclosure 2

energy system; and to accomplish its objectives in a fair and cost-effective manner. In accordance with the statutory obligation that agency actions must be reasonably consistent with the most recent State Energy Plan (SEP), the Commission adopts the SEP goal that 50% of New York's electricity is to be generated by renewable sources by 2030 as part of a strategy to reduce statewide greenhouse gas emissions by 40% by 2030.¹

In furtherance of that goal, and mindful of the Commission's role as a State regulator sharing jurisdiction with the federal government, in this Order the Commission also adopts a Clean Energy Standard (CES) consistent with the SEP goal, including: (a) program and market structures to encourage consumer-initiated clean energy purchases or investments; (b) obligations on load serving entities to financially support new renewable generation resources to serve their retail customers; (c) a requirement for regular renewable energy credit (REC) procurement solicitations; (d) obligations on distribution utilities on behalf of all retail customers to continue to financially support the maintenance of certain existing at-risk small hydro, wind and biomass generation attributes; (e) a program to maximize the value potential of new offshore wind resources; and (f) obligations on load serving entities to financially support the preservation of existing at-risk nuclear zero-emissions attributes to serve their retail customers.

¹ By Executive Order, it is also a goal of the State of New York to reduce current greenhouse gas emissions from all sources within the State 80% below levels emitted in the year 1990 by the year 2050. Executive Order No. 24 (2009) [9 N.Y.C.R.R. 7.24; continued, Executive Order No. 2 (2011) 9 N.Y.C.R.R. 8.2].

Enclosure 2

State Policy Goals

New York has adopted strongly proactive policies to combat climate change and modernize the electric system to improve the efficiency, affordability, resiliency, and sustainability of the system. One of the primary benefits of the CES will be a reduction in total emissions of air pollutants resulting from fossil fuel combustion. Increasing the contribution of renewable generation to meet the 50 by 30 mandate will not only reduce carbon emissions, but will reduce nitrogen oxides, sulfur dioxide, and particulate matter emissions as well by thousands of tons per year. Increased use of renewable energy sources leads to improved air quality and societal benefits from reduced health impacts and increased employee productivity. For example, as air quality improves, state health care expenditures for treatment of asthma, acute bronchitis, and respiratory conditions may be reduced. Reduced exposure to fine particulates may avoid other health problems such as increased morbidity and exacerbation of respiratory and cardiovascular ailments.

The CES adds to the regulatory and retail market changes that New York is already pursuing under its Reforming the Energy Vision (REV) program. Through existing initiatives, clean energy resources including energy efficiency, distributed energy, advanced storage and load control technologies are being integrated into the system to promote a modern, resilient and cost-effective network. As the Commission's stated in its 2013 initiating Order, the time has come to integrate clean energy as core, as opposed to ancillary, to our energy systems. Unlike in even the recent past, advancements in the capabilities of resources such as wind, solar and storage to work in combination, both on the bulk power system and behind the meter, results in the ability to develop and operate the grid to be

Enclosure 2

more responsive, efficient, secure and clean. Through better pricing and retail market design, New York is positioning itself to create a two-way fully transactive electric system that uses demand and clean energy as solutions that drive consumer value and choice. As noted in the order approving the Clean Energy Fund, a significant aspect of gaining this value is ensuring that markets are created that have the scale and scope to attract investment and reduce costs. The CES provides both.

For New York, the need and ability to take steps to combat climate change is immediate. New York's vulnerability to extreme weather events was vividly illustrated in 2011 and 2012 by the storms Sandy, Irene, and Lee. These storms, however, were only the most visible warning signs. Climate change will cause not only sea level rise, heat waves, and extreme weather events, but also threatens massive economic and lifestyle disruption from damage to agriculture, water resources, public health, energy and communication systems, and the natural ecosystems that define and support communities.²

Nationally, the U.S. Environmental Protection Agency estimates that in the absence of emission reductions and adaptation measures, damage to U.S. coastal property by 2100 will exceed \$5 trillion.³ Power outages caused by severe weather

² See Intergovernmental Panel on Climate Change, IPCC, 2014: Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change; Case 14-M-0101, Reforming the Energy Vision, Final Generic Environmental Impact Statement, Chapter Three (February 6, 2015); and New York State Climate Action Plan Interim Report, Chapter Two (November 9, 2010).

³ EPA 2015. Climate Change in the United States: Benefits of Global Action. United States Environmental Protection Agency, Office of Atmospheric Programs, EPA 430-R-15-001.

Enclosure 2

between 2003 and 2012 are estimated to have already cost the U.S. economy an annual average of \$18 billion to \$33 billion.⁴

Another weather event that revealed the vulnerability of New York's energy system was the polar vortex of January, 2014, which resulted in severe price spikes for gas and electric customers. In that event, the vulnerability was due to a prolonged and extremely cold weather system coupled with over-reliance on natural gas for both heating fuel and electric production. Electric customers suffered terribly from a streak of cold weather that increased prices by more than \$2 billion over a three-month period.⁵ The price increases were especially challenging to businesses and low-income and fixed-income customers.⁶

The 2015 SEP recognizes the importance of ensuring that New York's power system is modern, clean, and diverse. It concludes that to achieve these objectives, 50% of all electricity used in New York by 2030 should be generated from renewable sources.⁷ The SEP goal for renewable electricity is in the context of broader clean energy and economic development goals: 40% reduction in greenhouse gas emissions, 50% renewable electricity, and 600 trillion Btu in energy efficiency gains. An overwhelming majority of parties to the CES proceeding, as well as thousands of public comments, support the renewable

⁴ Economic Benefits of Increasing Electric Grid Resilience to Weather Outages, President's Council of Economic Advisers and the U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability, with assistance from the White House Office of Science and Technology, August 2013.

⁵ This figure is mitigated for some customers by hedged contracts although the extent of hedging value during that period is not known.

⁶ Northeastern Winter Natural Gas and Electricity Issues, U.S. EIA, January 7, 2014.

⁷ The Energy to Lead, 2015 New York State Energy Plan, p.112.

Enclosure 2

resource objectives of the SEP. The goals directed in the SEP are aggressive. Ambitious goals are needed, however, to provide scale to the industry and impetus to markets. Moreover, given the urgent challenge of climate change, the SEP goals should be considered the minimum to be achieved, not the maximum.

Consistent with these realities and with the State's policy objectives, including the actions the Commission has already taken under the REV program, the Commission finds in this Order that achieving a fifty percent renewable goal by 2030 is not only achievable but is an imperative of the Commission meeting its statutory responsibilities.

By letter of December 2, 2015, Governor Andrew Cuomo directed the Department of Public Service Staff (Staff) to develop and propose a CES that if adopted would convert the SEP goals into enforceable requirements. Staff filed its White Paper on Clean Energy Standard (White Paper or Staff Proposal) on January 25, 2016. This Order addresses the Staff proposal, the parties' written filings, and the outpouring of public comments that have followed the Staff proposal. In this Order, the Commission adopts a CES consistent with the SEP goal.

The 50 by 30 goal is not only part of a larger greenhouse gas goal, it is part of the State's sweeping initiative to transform the way energy is produced, delivered, and consumed. REV encompasses many interrelated initiatives, through which energy efficiency and clean energy development achieve not only carbon reduction but also market animation and grid modernization. There are many participants in REV beyond the Commission. The New York Power Authority (NYPA) and the Long Island Power Authority (LIPA), for example, will participate in the CES not only to conform to a carbon requirement but to engage in an integrated statewide policy.

Enclosure 2

The programs and retail market design elements approved to implement the CES conform to the Commission's objectives of using free consumer choice as the first mechanism to achieve this goal, but balanced by regulatory action and government activities that will ensure such market animation by establishing firm and clear targets, reducing barriers to entry, supporting economies of scale, and establishing a mechanism to ensure that regardless of the pace of self-initiating consumer actions, New York consumers will be well positioned to meet the State's necessary climate goals in a fair and cost effective manner. The CES is an ambitious but necessary response to the challenges of climate change and modernizing the electric system. By this Order, the Commission further advances the achievement of the broad set of industry reforms under REV and adopts significant carbon reducing measures.

The CES, along with REV, will benefit New York energy consumers and the overall economy by encouraging new investments in the State, maintaining existing jobs, and attracting capital from outside the State. It reflects a comprehensive and balanced approach to the challenges of climate change and the opportunities presented by a transforming electric industry.

Customer Choice

Under REV, the Commission initiated regulatory and retail market reforms to ensure the regulated distribution utility companies, the competitive energy and distributed energy providers, and the complementary actions of the State energy entities, including the New York State Energy Research and Development Authority (NYSERDA), NYPA and LIPA, are linked through the uniform goal of promoting consumer choice through competition and innovation as the chief vehicles of integrating clean energy into the fabric of a two-way integrated, efficient,

Enclosure 2

reliable and resilient modern New York electric power industry.⁸ The reforms being implemented in REV are designed to ensure that over time, all New York electric customers will have unfettered access to clean, efficient, reliable and resilient power. The REV policies are also looking to advance energy democracy by facilitating meaningful consumer choice so that regardless of income, location, or living structure, all consumers have the ability to choose the type of supply they want and how much they want to consume. Similarly, the SEP goals address concerns that affect all New Yorkers. The CES obligations to conform to a resource mix and the benefits they will bring should be shared by all energy consumers regardless of their energy supplier. While all suppliers are not subject to the Commission's jurisdiction, the Commission is looking to all suppliers, including NYPA, LIPA and all others, to participate by satisfying their requisite share of responsibility.

These energy policies are also reflecting the fact that New Yorkers are concerned about the natural environment and when they have the choice and financial opportunity, many New Yorkers will gladly choose the more environmentally benign resource.⁹ Energy efficiency, voluntary green energy purchases, and other market responses to REV will contribute towards the SEP goals. The public in New York is increasingly asserting its desire and preference for clean energy solutions. The Commission is compelled to ensure that New Yorkers are able to reveal their preference for clean energy by first giving them full opportunity to choose solutions that meet their individual

⁸ Case 14-M-0101, Reforming the Energy Vision.

⁹ For example, an April 2016 survey conducted by The Nature Conservancy indicated that a majority of New Yorkers in the survey were willing to pay higher costs for renewable electricity.

Enclosure 2

needs and advance the greater public interest. The CES must encourage individual customer choice that exceeds the State's objectives. Business and individual customers voluntarily choosing to become more energy efficient, and to deploy or buy economic clean energy resources are New York's most valuable asset towards achieving the SEP goals. Under well-designed products and regulatory structures, the value of those choices will only grow.

Jurisdiction and Markets

Under the system of federalism, governmental power is divided between the national or federal government and the governments of the states. The federally-designed wholesale markets operated by the New York Independent System Operator (NYISO) pursuant to tariffs approved by the Federal Energy Regulatory Commission (FERC) are by law fuel-neutral and do not value resources based upon their environmental attributes or their ability to offer a fuel diversity hedge. Public interest determinations of fuel type and resource adequacy are specifically reserved to the states. As the "laboratories of democracy,"¹⁰ it is welcomed that many states are advancing the achievement of our Nation's clean energy objectives by demonstrating through retail electric power market innovation various mechanisms available to encourage clean energy. Today at least twenty-nine states, including New York, serve this public interest through resource portfolio standards. In recent years, many jurisdictions including California, Oregon, Hawaii, District of Columbia, Vermont, and Maine have adopted renewable goals consistent with New York's adoption of the CES.

¹⁰ A concept described by U.S. Supreme Court Justice Louis Brandeis in New State Ice Co. v. Liebmann, 285 U.S. 262 (1932).

Enclosure 2

Therefore, while the CES places New York in a leadership position among states, it is not a fully unilateral action.

The mechanisms any state applies to best meet its clean energy goals are inextricably tied to the design of power markets in that state and their participation in federally regulated wholesale markets. In states with traditional fully-integrated utilities that are simultaneously responsible for the generation, distribution and retail sales functions, utilities bear the obligation directly to meet clean energy goals and fulfill them consistent with their obligation to serve. In California where the wholesale generation sector is competitive and supervised by the California ISO, but distribution and retail sales remain a utility function, clean energy obligations are met by the utilities by purchasing clean energy from independent generators for distribution and retail sale by the utility. Finally, in states which fully restructured and permit both wholesale and retail competition, clean energy standards have primarily been met through the development of REC markets that are reflective of the presence of competition and associated reluctance by retail suppliers to enter into supply purchase obligations that are incongruous with their short-term retail contracts. The obligation to meet clean energy goals falls on the individual retail commodity supplier that must either purchase sufficient RECs to cover its obligations or make a generally higher-priced Alternative Compliance Payment (ACP) to a central authority.

New York, a state that is fully restructured, has historically met its clean energy goals through a unique system that treated the compliance obligation as a delivery function of the distribution utility with RECs centrally-procured for the utilities by NYSERDA in long-term contracts intended to provide greater certainty to generators and corresponding lower REC

Enclosure 2

costs for consumers. Renewable resource generation facilities are long-lived capital assets that will only be financed and constructed if the investor building them can be assured of a reasonable opportunity to recover its costs. Generally, long-term contracts or other durable mechanisms are necessary to provide sufficient certainty for prospective investors to induce them to make the investment. By this Order, the Commission retains the benefit of New York's unique central procurement system while shifting the obligation for compliance from the distribution utility to the retail commodity supplier load serving entity (LSE), where it naturally belongs.

Cost Containment

The Commission must ensure that the actions it takes in pursuing the State's energy policy objectives rest soundly within its jurisdictional responsibilities. The existing electric system was designed at a time where the monopolistic regulatory structure reflected the domination of capital intensive long-lived assets, central station supply and the reality of inelastic demand. And while the structure of the industry including the asset base is changing, the Commission anticipates that the transformed modern electric system will continue to be capital intensive and long-lived. For that reason, markets and regulatory actions to promote markets must always be mindful of the need to retain and build investor confidence. The design of the CES is intended to retain and create investor confidence in this sector both for existing and new investors through the avoidance of actions that are abrupt, unfair and otherwise fail to provide sufficient clarity and certainty to offer investors sufficient confidence. As the economic regulator, the Commission deeply understands that investor confidence yields consumer benefits through encouraging

Enclosure 2

capital deployment, competition and lower overall financing expense.

Further, as the chief State agency with the experience and obligation of protecting consumer interests in an industry so affected with the broad public interest, the Commission is statutorily compelled to act in a manner that ensures that it is effective in ensuring that both during the transformation of the industry and in achieving the transformed industry that the energy sector in New York remains safe, cost-effective, reliable, resilient and protective of the natural environment. Cost containment and investor confidence will be achieved through a range of measures, including direct program elements (e.g., an alternative compliance mechanism), closely-related cost reduction programs such as aggressive pursuit of energy efficiency, and a deep transformation of the electric industry, which is needed to move beyond the inefficiencies of the traditional electric system and regulatory structure, as described in previous REV orders.

Program Elements

In this Order the Commission adopts a goal that 50% of electricity consumed in New York by 2030 will be generated from renewable sources. The Commission identifies numerous avenues for achieving the goal, including:

- Existing State-owned renewable attributes including NYPA hydropower as well as projects funded through the Renewable Portfolio Standard and NY-Sun;
- Aggressive pursuit of cost-effective energy efficiency, established through market initiatives and the Clean Energy Fund, with guidance from the Clean Energy Advisory Council;
- Consumer-initiated green energy purchases or investments, which will be encouraged through market-based incentives and a transparent certification program;

Enclosure 2

- A continued obligation and opportunity for utilities to ensure that low-income consumers have access to clean energy alternatives that help them reduce their energy burden and improve the environment;
- A program to maximize the value potential of offshore wind, designed and sponsored by NYSERDA in cooperation with the federal government, industry, and an inter-agency task force;
- Actions to reduce soft costs of development, including measures to reduce the cost and enhance the speed and predictability of interconnection and siting;
- Jurisdictional obligations on load serving entities to ensure the procurement of renewable credits generated in New York or delivered into New York;
- Jurisdictional maintenance obligations on distribution utilities to maintain the contributions of older, small, renewable facilities;
- Long Island Power Authority actions for its retail customers in concert with a broader range of REV initiatives;
- New York Power Authority actions for its retail customers in concert with a broader range of REV initiatives;
- Continued actions by the State and State entities as energy users to individually exceed the standard through their energy development and purchasing activities; and
- Continued participation and leadership in the Regional Green House Gas Initiative (RGGI) and support of universal complementary federal action under the Clean Power Plan.

Commission action on the CES will be comprised of this Order and subsequent implementation orders. This Order also enumerates implementation details to be proposed by Staff, subject to public comment, and to be considered and resolved by the Commission in the implementation phase. The CES is divided

Enclosure 2

into a Renewable Energy Standard (RES) and a Zero-Emissions Credit (ZEC) requirement.

Renewable Energy Standard

Tier 1 – New Renewable Resources

Tier 1 consists of an obligation imposed upon every LSE. LSEs comprise all entities serving retail load within a regulated utility territory. This includes investor-owned distribution utilities, energy service companies (ESCOs), Community Choice Aggregation programs (CCAs) not served by ESCOs, and jurisdictional municipal utilities. Retail customers self-supplying through the New York Independent System Operator will also be considered LSEs for this purpose.

In this Order, the Commission requires each New York LSE¹¹ to serve their retail customers by procuring new renewable resources, evidenced by the procurement of qualifying RECs, acquired in the following proportions of the total load served by the LSE for the years 2017 through 2021:

Year	Percentage of LSE Total Load
2017	0.6%
2018	1.1%
2019	2.0%
2020	3.4%
2021	4.8%

Over time through a triennial review process, the Commission will adopt incrementally larger percentages for the years 2022 through 2030, with sufficient lead time for the LSEs

¹¹ This discussion assumes participation by LIPA and NYPA customers. As described more fully below, the load forecasts used to set targets account for historic behind-the-meter generation and incremental annual energy efficiency achievements.

Enclosure 2

to incorporate the changes into their planning processes. As part of the implementation phase the Commission directs staff to develop a possible scenario for acquisitions up to 2030. The Commission recognizes that the actual procurement requirements will depend upon a number of exogenous market factors, and thus should only be taken as a potential guide, not a schedule. The periodic review and target setting will also take into account the balance of likely incremental supply with demand. Based on current forecasts of future loads, the above percentages will yield the following MWhs of output from new renewable resources:

Statewide Yield (MWhs)					
Year	Distribution Utilities & ESCOs	LIPA	NYPA	Direct Customers	Statewide Total
2017	705,595	120,244	139,225	8,936	974,000
2018	1,261,429	214,967	248,900	15,975	1,741,270
2019	2,263,192	385,682	446,563	28,662	3,124,100
2020	3,841,197	654,599	757,928	48,647	5,302,371
2021	5,455,424	929,688	1,076,440	69,090	7,530,642

	Renewable Resource MWhs	Percentage Renewable Resources
Baseline	41,296,000	25.71%
2017	42,270,000	26.32%
2018	43,037,270	26.81%
2019	44,420,100	27.69%
2020	46,598,371	29.08%
2021	48,826,642	30.54%

Enclosure 2

The LSEs will be able to meet their obligations by purchasing RECs from NYSERDA, by purchasing qualified RECs from other sources, or by making Alternative Compliance Payments to NYSERDA. Resources eligible to produce RECs will be resources that came into operation after January 1, 2015, and that meet the eligibility criteria set forth in Appendix A.

This Order also provides for NYSERDA to conduct regularly scheduled solicitations for the long-term procurement of RECs to achieve the following anticipated and minimum results for the years 2017 through 2021:¹²

Year	Anticipated Procurement Target (MWh)	Minimum Procurement Target (MWh)*
2017	1,966,449	1,769,804
2018	2,022,004	1,819,804
2019	2,077,560	1,869,804
2020	2,133,116	1,919,804
2021	2,188,671	1,969,804

* Assumes a 10% attrition rate from the Anticipated Procurement Target

As noted above, the statewide procurement of new large-scale renewable generation expected to result from Tier 1 during the period 2017 to 2021 is 9,347,020 MWh, or approximately 1,869,400 MWh per year. This is over two times the level of large-scale renewable generation that was procured through Renewable Portfolio Standard (RPS) solicitations during the period 2011 to 2015, which averaged 788,600 MWh per year.

¹² This discussion also assumes participation by LIPA and NYPA customers.

Enclosure 2

NYSERDA will thus acquire, annually, sufficient RECs to meet the entire electric demand of approximately 240,859 homes.

Consistent with the policy established in the Clean Energy Fund, the cost of Tier 1 REC procurement will not result in new charges to delivery customers; all charges will be to commodity customers. If periodic review of REC procurement reveals that REC demand is not being supplied at reasonable prices, procurement methods and this objective will be reconsidered.

The Commission's further objective is to ensure that in its totality the CES achieves the goals of a reliable clean energy industry in a cost-effective manner. Measures to achieve this will include:

- The continued use of long tenure REC procurement;
- An Alternative Compliance Mechanism which will cap the potential cost of RECs on an annual basis;
- Banking of excess RECs for use in future years;
- Establishing markets for voluntary green products;¹³ and
- Periodic review of the program to ensure best practices are followed, that balance is maintained between supply and demand, and to establish firm minimum targets.

Tier 2 - Maintenance Tier

At this time, there is no necessity for Tiers 2a and 2b as proposed in the Staff White Paper. The categories for REC support payments in Staff's proposal are either premature, unnecessary, or already provided for under the current maintenance program. For those resources such as small hydro that may retire without additional support for their

¹³ LIPA and NYPA are also anticipated to develop such market opportunities.

Enclosure 2

environmental benefits, Tier 2 as adopted in this Order will consist of a maintenance program as existed under the RPS. Staff is directed to develop and recommend for Commission consideration as part of an implementation plan whether there should be changes to the maintenance program to align support with zero-emissions facilities. For resources that are currently under NYSERDA contracts but might export their power to another state at the end of the contract period and jeopardize achievement of the 2030 target, the Commission will monitor their activities and consider action at a later time if necessary.

Offshore Wind

Achieving a de-carbonized electric system for the long-term, with reliable generation and an economically sustainable capacity factor, will inevitably depend on a mixture of technologies and combinations that are not fully developed at this time. New York is fortunate to have substantial potential for offshore wind production and with appropriate time, careful planning and deliberate action, the State has the opportunity to exploit its geographic advantage to develop offshore wind and promote the beneficial attendant economic activity associated with this burgeoning industry. In order to maximize the potential for offshore wind, in addition to the actions taken in this Order, the Commission is requesting NYSERDA to identify the appropriate mechanisms the Commission and the State may wish to consider to achieve this objective. Through this additional work and the actions the Commission is promoting in this Order, a future is being enabled where older, less efficient plants in New York are replaced exclusively with clean energy resources, including higher capacity factor offshore wind and renewable/storage combinations.

Enclosure 2

Zero-Emissions Credit Requirement

Tier 3, the independent but related component of the CES concerns the State's nuclear facilities. New York's total electric generation mix in 2014 was 37% gas, 31% nuclear, 23.5% hydro, 4.5% coal, 3.5% wind, solar, biomass and biogas, 1.3% solid waste, and 0.4% oil. New York's upstate nuclear plants avoid the emission of over 15 million tons of carbon dioxide per year. Based on current market conditions, losing the carbon-free attributes of this generation before the development of new renewable resources between now and 2030, would undoubtedly result in significantly increased air emissions due to heavier reliance on existing fossil-fueled plants or the construction of new gas plants to replace the supplanted energy. The added emissions would complicate the State's compliance with likely federal carbon standards and would result in dangerously higher reliance on natural gas, radically reducing the State's fuel diversity. Such reduced fuel diversity could affect system reliability and price stability, making consumers more vulnerable to natural gas and concomitant electric price spikes. The loss would also have other significant adverse economic impacts on State energy consumers and the State as a whole. New York can look to another leader in renewable power – Germany – for a lesson in the unintended consequences of losing zero-emissions attributes from all its nuclear plants. Germany's abrupt closure of all its nuclear plants resulted in a large increase in the use of coal, causing total carbon emissions to rise despite an aggressive increase in solar generation.

The Order establishes a mechanism and a price for zero-emissions attributes of nuclear zero-carbon electric generating facilities where public necessity to encourage the continued creation of the attributes is demonstrated. NYSERDA will offer qualifying nuclear facilities a multi-year contract

Enclosure 2

for the purchase of ZECs. For facilities that demonstrate public necessity and are awarded contracts prior to April 1, 2017, the contract period will run from April 1, 2017 through March 31, 2029. The ZEC price for these contracts will be \$17.48 per MWh for the first two-year tranche designated Tranche 1. The ZEC price would be adjusted every two years for Tranches 2 through 6 in accordance with the formula articulated in this Order, which is based on the social cost of carbon. Facilities subsequently demonstrating public necessity will be offered contracts at a ZEC price calculated by the formula established by this Order.

Each LSE that serves end-use customers in New York will be required, beginning April 1, 2017, for the benefit of the electric system, its customers and the environment, to purchase the percentage of ZECs purchased by NYSERDA in a year that represents the portion of the electric energy load served by the LSE in relation to the total electric energy load served by all such LSEs. LSEs will make ZEC purchases by contract with NYSERDA and will recover costs from ratepayers through commodity charges on customer bills.

The ZEC mechanism adopted in this Order is the best way for the State to preserve the nuclear units' environmental attributes while staying within the State's jurisdictional boundaries. ZECs provide a vehicle for monetizing the State's environmental preferences and the program will allow time for new clean energy technologies to mature and take their place in the ultimate generation mix. The independent renewable resource and ZEC obligations that together make up the CES each contribute uniquely to serving the long-term goal of achieving a largely de-carbonized energy system by the middle of the century.

Enclosure 2

II. PROCEDURAL BACKGROUND

This Order is a continuation of a series of Commission and State actions to increase the use of renewable electric generation and reduce the production of greenhouse gasses. In 2004, the Commission adopted a Renewable Portfolio Standard designed to achieve total renewable generation of 25% by 2013.¹⁴ In 2008, the Commission adopted an Energy Efficiency Portfolio Standard (EEPS) designed to reduce total electricity consumption in the state 15% by 2015. Reduction of greenhouse gasses was one of the principal goals of the EEPS initiative.¹⁵ Also in 2008, New York's Department of Environmental Conservation adopted a rule to establish the Regional Greenhouse Gas Initiative (RGGI). Through RGGI, New York, along with eight other Northeastern and Mid-Atlantic states, set a cap on total carbon dioxide emissions from electric generating facilities within the region.¹⁶ In December 2009, the Commission expanded the RPS goal to 30% by 2015.¹⁷

On February 26, 2015, in its REV proceeding, the Commission directed a reassessment of New York's approach for encouraging the expansion of large scale renewable energy

¹⁴ Case 03-E-0188, Retail Renewable Portfolio Standard, Order Regarding Retail Renewable Portfolio Standard (issued September 24, 2004).

¹⁵ Case 07-M-0548, Energy Efficiency Portfolio Standard, Order Establishing Energy Efficiency Portfolio Standard and Approving Programs (issued June 23, 2008), p. 2.

¹⁶ 6 NYCRR Part 242, CO₂ Budget Trading Program; 21 NYCRR Part 507, CO₂ Allowance Auction Program.

¹⁷ Case 03-E-0188, Retail Renewable Portfolio Standard, Order Establishing New RPS Goal and Resolving Main Tier Issues (issued January 8, 2010).

Enclosure 2

generation.¹⁸ On June 1, 2015, the Secretary issued a notice instituting this proceeding, and Staff filed a Large Scale Renewable Energy Development in New York Options and Assessment (Options Paper) prepared by NYSERDA. Forty-eight comments were filed on the Options Paper and 14 replies.

As noted, on June 25, 2015, the State Energy Planning Board adopted the SEP. The SEP calls for 50% of New York's electricity to be generated by renewable sources by 2030, as part of a strategy to reduce statewide greenhouse gas emissions by 40% by 2030.¹⁹ This goal exceeds the targets and caps established in the RPS and RGGI.²⁰

The State Energy Law requires that agency actions must be reasonably consistent with the most recent State Energy Plan.²¹ Further, on December 2, 2015, Governor Cuomo instructed the Department of Public Service (DPS) to begin implementing the State's goal of 50% renewable electricity by 2030.²² On January 21, 2016, the Commission expanded the scope of this proceeding to implement the 50% renewables by 2030 goal, and maintenance of

¹⁸ Case 14-M-0101, Reforming the Energy Vision, Order Adopting Regulatory Policy Framework and Implementation Plan (issued February 26, 2015), p. 83.

¹⁹ 2015 Energy Plan, Vol. I, p. 112.

²⁰ The State's climate change initiatives are paralleled by federal and international developments. On December 22, 2015, the U.S. Environmental Protection Agency adopted the Clean Power Plan which requires states to implement carbon emission reduction plans. On December 12, 2015, an international climate change accord was approved, including commitments from the United States.

²¹ New York Energy Law §6-104(5)(b).

²² Letter from Governor Andrew M. Cuomo to Audrey Zibelman, CEO, New York State Department of Public Service, December 2, 2105 (Cuomo Letter) available at https://www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/Renewable_Energy_Letter.pdf.

Enclosure 2

certain nuclear plants.²³ On the same date, the Commission adopted the social cost of carbon, less the RGGI value already internalized, as a component of externality values that could not otherwise be calculated.²⁴ The Commission further expanded the instant proceeding on February 24, 2016 to consider an expedited program to maintain the viability of certain nuclear power plants in order to maintain their zero-emissions characteristics.²⁵

Staff filed its White Paper on January 25, 2016. One hundred and five comments were filed on the White Paper and 34 replies. On April 8, 2016, Staff filed a Cost Study regarding the White Paper (Cost Study or Study), and on April 12th a Supplement to the Cost Study. Twenty-six comments were filed on the Cost Study. On July 8, 2016, Staff's Responsive Proposal for Preserving Zero-Emissions Attributes (Staff's Responsive Proposal) was filed. Thirty-two comments were filed in response to that filing. A summary of comments on the White Paper, Cost Study, and Staff's Responsive Proposal is attached as Appendix B.

The written comment process has been supplemented by an extensive series of public hearings and technical conferences. Staff convened five on-the-record technical conferences with active participation from a range of diverse stakeholder perspectives. The technical conferences focused on various topics included in the White Paper and Cost Study in

²³ Case 15-E-0302, Clean Energy Standard, Order Expanding Scope of Proceeding and Seeking Comments (issued January 21, 2016).

²⁴ Case 14-M-0101, Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework (issued January 21, 2016), p. 18.

²⁵ Case 15-E-0302, supra, Order Further Expanding Scope of Proceeding and Seeking Comments (issued February 24, 2016).

Enclosure 2

order to further discuss and investigate issues pertinent to development of the Clean Energy Standard.

Twenty-four public statement hearings were conducted across the state during the months of May and June to provide interested individuals and stakeholders the opportunity to comment on the Clean Energy Standard proposal. Over 3,500 comments have been submitted to the Commission's public comment website since the proceeding was expanded to consider the Clean Energy Standard proposal. In addition, at one of the public statement hearings, the Sierra Club presented 11,000 written public comments for inclusion into the record. Public comments have been overwhelmingly supportive of the CES initiative in general,²⁶ with commenters mixed on the inclusion of nuclear facilities, as described below.

A parallel process that will be affected by the implementation of the CES is the development of the State Resource Plan (SRP).²⁷ The Department of Public Service initiated the SRP in 2014 to determine bulk power system actions (e.g., procurement of additional regulation service, transmission) that will need to be taken to accommodate increased penetration of weather-variable resources in the supply mix. A base case will be evaluated to determine the potential electric resource needs for 2024 and 2030 under business-as-usual conditions. Then a policy scenario will be evaluated to determine the potential electric resource needs to

²⁶ The Nature Conservancy also conducted a survey of New Yorkers, as described in party comments, which indicated broad support for increased investment in renewable energy sources.

²⁷ The SRP working group consists of Staff, NYSERDA, the Department of Environmental Conservation, and the Utility Intervention Unit of the Department of State, the NYISO, and the major New York transmission owners.

Enclosure 2

meet the CES goal and federal requirements. SRP results will be taken into account in the ongoing review of the CES.

These proceedings have occurred against the backdrop of the overall REV initiative, which is the State's sweeping reform of the manner in which electricity will be generated, distributed, and consumed. REV intends to transform the century-old paradigm of a centralized, unidirectional utility system that is built to serve inelastic demand and be compensated through cost-of-service ratemaking. Under REV, system efficiency and customer value will be driven by markets and by new business and regulatory models that encourage the integration of distributed resources including generation, demand response, and energy efficiency.

III. NOTICE OF PROPOSED RULEMAKING

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), Notices of Proposed Rulemaking regarding various aspects of the Commission's consideration of the CES were published on January 27, 2016 [SAPA No. 15-E-0302SP1]; March 16, 2016 [SAPA No. 15-E-0302SP2]; April 20, 2016 [SAPA Nos. 15-E-0302SP3 and 15-E-0302SP4] and May 25, 2016 [SAPA No. 16-E-0270SP1]). In addition, a Notice Soliciting Comments and Providing for a Technical Conference and Public Statement Hearings was issued January 26, 2016, establishing initial and reply comment periods, which were later extended.²⁸ A Notice of Comment Period for the Staff White Paper and Cost Study was issued April 8, 2016. On July 8, 2016, a Notice Soliciting Additional Comments was issued regarding Staff's Responsive

²⁸ See Case 15-E-0302, et al., supra, Notice Extending Comment Period (issued March 8, 2016); Notice Extending Reply Comment Period (issued April 29, 2016); Notice Extending Deadline for Comments (issued July 15, 20).

Enclosure 2

Proposal for Preserving Zero-Emissions Attributes. Final comments in these proceedings were due July 22, 2016.²⁹ As noted above and discussed below, numerous comments were received from parties and the general public and have been relied upon to inform this decision.

IV. STAFF PROPOSALS, COST STUDY, AND PARTY COMMENTS

A. Renewable Standard: Obligation of Participating Entities

1. Staff Proposal

a. Jurisdictional Entities.

Staff proposes specific goals for MWh of renewable energy for 2017-2020, with subsequent goals to be established in triennial reviews. Achievement of the goals would be the responsibility of all LSEs serving retail load in the territory of electric distribution companies (EDCs). LSEs are defined as investor-owned utilities (in their capacity as commodity suppliers), jurisdictional municipal utilities, and all competitive ESCOs. Each LSE would be responsible for supplying a defined percentage of retail load with supply derived from eligible resources during each calendar year (Compliance Year).

Staff explains that this approach is already used by other Northeastern states with restructured retail markets. It has the advantage of placing compliance costs primarily in the generation supply charges, which sends the most direct price signal and reduces the need for charges on the delivery bill. The LSE obligation would also promote REV objectives by encouraging ESCOs to develop innovative products to increase customer options and reduce customer costs.

The CES obligation for each LSE would be determined by multiplying its MWh load obligation by the renewable percentage

²⁹ Case 15-E-0302, et al., supra, Notice Extending Comment Deadline (issued July 15, 2016).

Enclosure 2

CES target for that year. Each LSE would be required to meet its obligation for each tier within each Compliance Year.³⁰

A number of large institutions and customers take power directly from the NYISO. These end-use, direct NYISO customers are LSEs in their own right and are subject to the CES obligation.

b. Non-Jurisdictional Entities.

Staff states that NYPA and LIPA are expected to adopt renewable and non-emitting energy targets that are proportional to their load. This includes municipal utilities and rural cooperatives that obtain their full requirements from NYPA. The CES obligation of jurisdictional entities would be calculated under the assumption that NYPA and LIPA are adopting their proportional shares of the statewide goals.

2. Party Comments

Parties overwhelmingly support the basic goals of the CES initiative. Along with environmental advocates and clean energy industries, utilities and most consumer and citizen groups recognize the need for the CES. With few exceptions, party comments relate to how, not whether, to implement the 50 by 30 goal.³¹ The LSE mandate as a foundational approach to CES implementation is generally supported, although most of the discussion is framed in terms of the need for and approach to long-term contracts, described below. The Clean Energy Organization Collaborative (CEOC) and Environmental Defense Fund (EDF) support the LSE mandate in particular, because it would

³⁰ Staff's proposal regarding tiers is discussed below.

³¹ The Business Council questions whether the CES goal can be achieved without damaging the state's economy. The Green Education and Legal Fund argue that the 50 by 30 goal is inadequate to address the urgency of climate change and a 100% goal should be adopted.

Enclosure 2

hold market participants directly accountable, and it would reflect compliance costs in energy commodity charges.

Three EDCs filing jointly as “the Companies”³² describe the potential for CES to overlap with other forms of payments for renewables including non-wires-alternative projects, net metering, and voluntary green products. The Companies emphasize the importance of coordinating so that customers do not pay more than once for the same benefit. The Companies also urge that the CES obligation apply to self-generating microgrids. EDF notes that self-generating fossil units not connected to the grid would not be encompassed within the CES mandate, and that distributed generation must be measured with precision in order not to encourage either polluting generation that escapes the mandate or clean generation that is not properly credited. Three utility EDCs filing as the Indicated Joint Utilities (IJU)³³ argue that projects receiving net metering should transfer any REC value they receive to the host utility in order to avoid an excess payment.

The Natural Gas Supply Association (NGSA) proposes a fundamentally different approach to carbon reduction that recognizes environmental advantages of gas. The General Electric Company (GE) also argues that carbon benefits of natural gas should be accounted for. The Entergy entities (Entergy) also oppose the renewables approach to the CES and argue that a source-neutral carbon-intensity standard is the most effective way to reduce carbon emissions.

³² The Companies are New York State Electric & Gas Corporation (NYSEG), Rochester Gas and Electric Corporation (RG&E) and Central Hudson Gas & Electric Corporation (Central Hudson).

³³ The Indicated Joint Utilities are Consolidated Edison, Orange and Rockland, and Niagara Mohawk d/b/a National Grid.

Enclosure 2

The Business Council does not oppose the CES but the Business Council as well as the Manufacturing Association of Central New York (MACNY) oppose applying the REC obligation to sales to business customers. Multiple Intervenors (MI) and the New York Farm Bureau also express concern about impacts on energy costs. MI questions whether the 50 by 30 goal should be assumed to be a reasonable starting point.

The Retail Energy Supply Association (RESA) has strong concerns over the LSE mandate, citing fixed price contracts with customers and long-term supply contracts that have been entered into without anticipating the additional costs of the LSE mandate. NYPA and the New York State Economic Development Council (NYSEDC) express concern over the potential impact on NYPA's economic development customers. MI and Nucor Steel Auburn, Inc. (Nucor) also argue that application of the LSE mandate to energy intensive large customers would be counter-productive. NYPA states that it will work aggressively to implement its share of the 50 by 30 goal, but that its contracts do not provide it with flexibility to pass through costs. NYPA also states that sales to storage facilities should not be considered retail sales for purposes of triggering an LSE obligation to purchase RECs.

The New York Association of Public Power (NYAPP) and the New York Municipal Power Agency (NYMPA) argue that the CES mandate should not apply to municipal and cooperative utilities. The New York Battery Storage Technology Consortium (NYBEST) supported the CES but proposes that RECs should be supplemented by Flexible Energy Credits (FLECs) with a separate mandate for LSEs to acquire FLECs in addition to RECs; Alliance for a Green Economy (AGREE) supports this proposal.

In response to Staff's request for comments on how to avoid unintended consequences for beneficial electric end-use

Enclosure 2

technologies (BETs) such as geothermal heat pumps and electric vehicles; the NY Geothermal Energy Organization (NY GEO) proposes two options: the first option is to not count increased load from BETs against the LSE requirement; the second option is to establish Thermal Renewable Energy Certificates (TRECs). A TREC would be generated for every three units of geothermal heat paired with one unit of electricity. TRECs are under consideration in several states.

B. Eligible Resources

1. Staff Proposal

Staff proposes a list of eligible renewable resources that tracks the list under the current RPS, with an exception that would eliminate the 30 MW limit on low-impact run-of-river facilities and allow for larger run-of-river facilities. The requirement of no new storage impoundments will remain both for upgrades and, by definition, for run-of-river facilities.

Out-of-state generation would be eligible if it is located in a control area adjacent to the NYISO control area, and if the generation is accompanied by documentation of a contract path between the generator and the in-state purchaser that includes transmission rights. Staff notes that inclusion of these resources will help to reduce overall costs, and will also avoid any legal concerns related to interstate commerce.

Staff recognizes that some market activities can have the effect of reducing carbon while increasing electric demand (e.g., electric vehicles and geothermal heat pumps). This creates a concern that the CES obligation, based on total demand for electricity, could create a disincentive to the development of these beneficial uses.

2. Party Comments

Parties offer a wide range of comments on eligibility. Many comments submitted by representatives of industries argue

Enclosure 2

for the eligibility of their particular products, including waste-to-energy, biomass, biogas, and hydroelectricity. The Department of Environmental Conservation (DEC) observes that there are significant differences among various types of biomass and biogas generation. AGREE and the Citizens Environmental Coalition (CEC) are opposed to many forms of biomass and biogas eligibility. Vanguard Renewables seeks to clarify that the principle difference is between biomass and biogas. The Cow Power Coalition and Cornell University agree that biogas generation from anaerobic digestion should be considered renewable. The Energy Recovery Council (ERC) argues that waste-to-energy should be considered an eligible resource.

Hydro Quebec Energy Services U.S. (HQ) argues that there should be no limits on large scale hydropower, while a coalition of Renewable Energy Industries (REI)³⁴ along with the Sierra Club opposed any inclusion of large scale hydropower. The Low Impact Hydropower Institute (LIHI) suggests that its criteria for low-impact hydropower should be used to determine eligibility. The NYISO and RESA agree that out-of-state generation should be eligible. The Canadian Wind Energy Association (CanWEA) propose that hydropower eligibility should be broadened and that transmission projects to deliver wind and hydro should be solicited as part of the CES. The Independent Power Producers of New York (IPPNY) oppose any out-of-state generation owned by a government entity. HQ states that it is government-owned but that it receives no subsidies.

³⁴ REI is a coalition of renewable industry representatives. The members of REI do not encompass the entire renewable industry. Further references to REI in this Order are made in recognition that REI is a functional coalition of industries with common interests but does not represent all renewable interests.

Enclosure 2

GE supports the inclusion of combined heat and power (CHP) as well as supply efficiencies that reduce the amount of fuel needed for fossil generation. NY BEST argues that storage should be an eligible technology; AGREE and CEC support this. AGREE and Otego Microgrid Ratepayers agree with NY GEO that beneficial electric end uses should be eligible for some form of benefit to at least ensure that no disincentives for these technologies are created by the REC requirement.

C. Tiers

1. Staff Proposal

Staff describes that many states with RPS and CES programs utilize tiers that distinguish among eligible resources based on factors including vintage and technology, to promote both growth of new resources and maintenance of existing ones. For purposes of administrative simplicity, a small number of broad tiers is preferable; this also encourages competition among technologies within a tier. For purposes of minimizing compliance costs, tiers may need to distinguish among resources due to differing degrees of needed support. Co-incentives may also be used to target specific technologies within a tier, either because they have a specific public policy value or to improve the competitive balance within the tier.

Staff's proposal includes a single tier for new renewable resources, and a second tier for existing generation that is subdivided in sub-tiers to minimize compliance costs. A third tier is proposed to maintain existing eligible nuclear facilities.

Tier 1 would include all new resources with an in-service date on or after January 1, 2015. The categories of eligible generation sources generally mirror the current Main Tier of the RPS program. Co-incentives such as NY Sun would balance the competitive opportunities within the tier.

Enclosure 2

Tier 2 would include existing resources to support their continued contribution to meeting New York goals. Because the cost structures and alternative revenue opportunities of these resources vary significantly, Staff recommends further differentiation.

Tier 2a would be the competitive sub-tier intended to provide sufficient revenue to attract renewable attribute supply for which New York must compete with other states. Tier 2a would include merchant projects not currently receiving state support, expired RPS Main Tier contracts, and outputs from current RPS projects that exceed the contracted amounts.

Tier 2b would be the non-competitive sub-tier intended to provide sufficient revenue to maintain existing renewables that are not eligible to participate in growth tiers of other states. All existing resources that are not eligible under Tier 2a would automatically be included in Tier 2b.

Tier 3 is proposed for nuclear facilities, as discussed below. Tier 3 resources do not produce RECs for purposes of the LSE REC obligation.

2. Party Comments

Many parties including Town of Brookhaven, CEOC, Citizens for Local Power (CLP), Green Education and Legal Fund, REI, Otsego 2000 and Pepacton Institute (Pepacton), Deepwater Wind, and Dong Energy, urge a separate tier for offshore wind. These parties argue that offshore wind will be essential in meeting renewable goals and a separate tier would enable financing and accelerated development.

The City of New York (NYC or the City) strongly supports the CES initiative but expresses concern over geographic equity stemming from the fact that downstate consumers would have to pay for renewable generation that would have upstate economic benefits. According to the City, one

Enclosure 2

option to address this would be a downstate sub-tier of Tier 1, with costs socialized across the state in the same manner as the White Paper describes. The NYC notes that carbon emissions are often associated with other more local emissions, and the CES should provide an opportunity to reduce local emissions in the concentrated downstate area.

NYC also observes that the multi-tier purchase requirement could discourage customers who choose to voluntarily purchase 100% of their supply from new renewables, if those customers must also purchase a share of RECs and ZECs from Tiers 2 and 3. IJU also emphasizes that voluntary renewable purchases in excess of the LSE requirement must be encouraged, not discouraged, by the CES structure.

The IJU proposes that a separate Tier 4 should be established for large hydropower supply, so that environmental attributes can be considered along with the cost structure of large hydropower. GE proposes a separate tier for new emerging technologies, to encourage development of innovative technology solutions.

Numerous parties representing specific industries comment on the manner in which the tier structure would affect their product offerings. Brookfield Renewables (Brookfield) argues that existing hydropower should be eligible under Tier 1 as it is in some other states, and that Tier 2 will require midpoint reviews. Brookfield also argues that Tiers 2a and 2b should be merged into a single tier that provides appropriate compensation to retain all existing renewable resources.

Ampersand Hydro states that most small hydropower facilities would fall into Tier 2b and suggested a Social Benefits Adder of four cents per kWh for these facilities. HQ proposes that hydropower delivered over existing transmission lines should be included in Tier 2, with hydro delivered over

Enclosure 2

new transmission lines treated as incremental under Tier 1. The National Fuel Cell Research Center (NFCRC) describes the benefits of distributed power for meeting CES and REV objectives and proposes that 35% of the CES obligation should be set aside for distributed generation. The NY Cow Power Coalition advocates a separate tier for anaerobic digester generation, which would enable the aggregation of dairy-farm generated power within a utility service territory. The New York Solar Energy Industries Association (NYSEIA) supports the proposed tiered structure, but urges that a sub-tier for solar be established within Tier 1 for the growth of utility-scale solar.

D. Annual Targets

1. Defining the Baseline

a. Staff Proposal

Staff describes its method of calculating the CES baseline in Appendix B of the White Paper. The NYISO load forecast for 2025 was extrapolated to 2030 assuming linear continuation from 2024-2025 through 2030.³⁵ This forecast was supplemented with an assumption of 8,615,000 MWh of additional load by 2030 from electric vehicles and geothermal heat pumps, and 410,000 MWh of behind-the-meter generation. From this subtotal, incremental annual energy efficiency achievements of 2,227,000 Mwh were subtracted.³⁶ The resulting total of statewide need for 2030 is 150,017,000 MWh.

The 50% renewable goal, expressed in MWh, for the CES was obtained by dividing the total anticipated load by two, resulting in approximately 75,000,000 MWh in 2030. In 2014,

³⁵ The White Paper mistakenly describes the period 2023-2025 as the basis for extrapolation.

³⁶ The energy efficiency estimates are based on recently approved targets, increased pro rata to include NYPA, LIPA, and direct NYISO customers.

Enclosure 2

41,296,000 MWh, or approximately 26% of the fuel mix, was supplied from renewable sources. Subtracting this from the 50% goal resulted in a need for 33,700,000 MWh of additional renewable generation in 2030.

b. Party Comments

MI notes that the baseline calculation contains several assumptions that will need to be revisited periodically, including the load forecast, energy efficiency savings, and electric vehicle load. The Companies state that resources to be counted toward the baseline should be registered through the New York Generation Attribute Tracking System (NYGATS) (see below).

EDF, MI and IPPNY note that if CES targets are not coordinated with corresponding reductions in RGGI allowance caps, then reductions in New York will simply free up allowances for use elsewhere in the RGGI market, resulting in no actual reductions in greenhouse gas emissions on a regional level. Otsego 2000 argues that the RGGI caps and 25 MW threshold must be reduced.

NYSEIA argues that the baseline resources are such an important part of the overall goal that they should be tracked through a separate Tier 0, with no corresponding LSE obligation. CEOC argues that the amount of energy efficiency assumed in the baseline is far lower than is practically achievable, and submitted a study which claims that more than twice as much efficiency could be economically achieved, with corresponding reduction in the cost to achieve the CES. Energy Efficiency for All argues that the energy efficiency estimate in the baseline should be established through a clear mandate.

2. Establishing Tier Targets

a. Staff Proposal

Recognizing the many variables and forecasting difficulties beyond 2020, Staff proposes that fixed annual

Enclosure 2

targets be set for each tier through 2020, with targets for the next three years established well in advance of the end of 2020, and subsequent targets established through similar triennial reviews. Staff notes that this approach allows the achievement trajectory to be responsive to market developments, with specific targets established in time to avoid uncertainty.

Staff proposes targets for specific tiers, with the existing resources in Tier 2 remaining relatively stable while the annual percentage of new renewables increases each year. Progressive targets for the initial years of Tier 1 reflect estimates of projects being developed under the RPS and NY Sun programs.

b. Party Comments

The Companies and MI support the establishment of fixed targets through 2020 with a triennial review to fix targets beyond that date. The Department of State Utility Intervention Unit (UIU) supports the use of triennial reviews to establish targets.

Numerous parties including REI, EDF, GE, Green Education and Legal Fund, NFCRC, NYC, and NYSEIA argue that firm targets should be set for each year through 2030 in order to provide a predictable signal to the market. The Green Education and Legal Fund argues that a 100% renewables portfolio by 2030 should be the target. REI states that triennial reviews could be used to adjust targets if necessary. REI and EDP Renewables argue that the targets should be front-loaded in order to take advantage of federal tax credits before they expire. CEC and CEOC agree that targets should not be backloaded.

3. Start Date for Targets

a. Staff Proposal

Staff proposes that the first Compliance Year be 2017, for all tiers.

Enclosure 2

b. Party Comments

MI argues that the initial target should be set for 2018 rather than 2017, which would provide time for the necessary markets and associated infrastructure to be developed. REI opposes this suggestion, arguing that an additional year would create a gap in large-scale renewables procurements.

E. Compliance Mechanism

1. Renewable Energy Credits

a. Staff Proposal

Staff proposes that the principal medium of compliance would be the REC. One REC would be created for each renewable MWh generated. This is the universal unit of measure that allows RECs to be marketed within and among states. The REC method would make New York's CES system compatible across multiple systems, policies, and markets. Each LSE can self-supply, trade, and purchase RECs through short-term or long-term instruments. LSEs would demonstrate through annual compliance filings that they possess sufficient RECs to meet their obligations.

b. Party Comments

Most parties support the use of RECs as the medium of compliance, although support for RECs is qualified by a wide variety of positions as to the details of implementation. As noted above, several parties oppose the approach to renewables and supported a source-neutral carbon intensity standard. The National Energy Marketers Association (NEMA) stresses that the compliance system adopted for the CES should be clear and consistent. NEMA recommends that the Massachusetts model be followed.

MI voices the strongest concerns over the use of RECs. MI cites Staff's acknowledgement that interstate REC markets could result in generation owners pursuing the highest revenues

Enclosure 2

across state lines. MI argues that New York has been developing renewables under its RPS without having to resort to marketable RECs, and that this may be the mechanism that results in the lowest costs to ratepayers.

2. Alternative Compliance Payments

a. Staff Proposal

Staff proposes that LSEs have the option of complying with their REC obligation by making Alternative Compliance Payments. ACPs are widely used in other competitive market states. They provide flexibility and an effective cost cap. An ACP is not a penalty for non-compliance; it is a discretionary alternative mode of compliance. ACP levels would be established by the Commission based on forecasted REC prices, system needs, and other relevant factors.

Because ACPs do not represent actual renewable MWh, Staff proposes that the proceeds of ACPs be directed to reducing the costs of in-state renewable development toward meeting the 50 by 30 goal.

b. Party Comments

Most parties agree that some form of ACP is needed both to provide a price cap on RECs and to provide an alternative procurement method for smaller LSEs. Parties disagree over the method for setting ACP levels and over the disposition of ACP proceeds.

CEOC states that ACPs should only be used during scarcity conditions to guard against price spikes. Direct Energy Services suggests that ACPs start at a low level and gradually increase; this would allow time to adjust for LSEs with fixed price commodity contracts. REI and NYSEIA propose that ACPs should be set substantially higher than the estimated REC price in order to stimulate development. NRG, Energy, Inc. (NRG) states that ACPs must be set as high as other states to

Enclosure 2

avoid export. SEIA (Solar Energy Industries Association), Vote Solar, CEOC and EDF suggest that best practices identified from other states with REC markets should be used. Nucor and MI express the concern that ACPs can tend to establish a floor as well as a ceiling on REC prices. Nucor argues that ACP pricing should be tied to the value of the externality benefit.

The Companies and IJU agree with Nucor and MI that the ACP will have the effect of a price floor, to the point where the administratively determined ACP will act as a substitute for market forces. The Companies argue that central procurement through a competitive process would eliminate the need for an ACP and avoid this problem.

Parties broadly agree that ACP proceeds should not be used to support government functions but should instead be used to promote achievement of the CES. Parties have varying approaches to this goal. Several parties favor a broader approach that would use the funds to promote renewables development, comparable to the use of RGGI proceeds. Others including NYC, MI and UIU argue that proceeds should be refunded directly to customers. NYC argue that if ACP proceeds are refunded, while still holding LSEs as a whole to meeting the CES targets, then cost-effective compliance will be promoted. UIU, AGREE, and PosiGen Solar Solutions propose that ACP proceeds be targeted to low-income customer energy efficiency or CES compliance.

3. Banking and Borrowing

a. Staff Proposal

Additional flexibility and cost control can be achieved through banking of excess RECs and borrowing against shortfalls. These devices can help to smooth fluctuations in REC supply, and allow hedging against future price increases. Staff does not recommend any specific time limits on banking and

Enclosure 2

borrowing but notes that banking is typically subject to a time limit of two to three years and the amount bankable is limited to a percentage of individual LSE obligation such as 30%. The typical period for borrowing is much shorter, for example one or two calendar quarters, to ensure that compliance obligations are not inappropriately avoided.

b. Party Comments

Parties generally support banking and borrowing in the context of the LSE REC obligation. GE proposes that a force majeure provision be added to provide additional flexibility in the event of natural disasters.

F. Long-Term Contracting for RES Resources

1. Staff Proposal

Staff explains that one challenge of the LSE obligation approach is that financing of renewable facilities will often require long-term contracts, and LSEs in competitive markets do not have the certainty of long-term load commitments that would support their entering long-term purchase contracts for renewables.

Staff describes the risks faced by renewable project developers in a competitive market. Demand risk - i.e., the risk that there will be a market for the product - is addressed by the establishment of the CES mandate. Significant risks remain, however. As technology prices fall, project owners will need to compete against new entrants with lower costs. Also, if energy prices fall below forecasted levels, anticipated project revenues will not materialize. In a REC-only market, these risks will likely be passed along to consumers in increased REC costs. The Cost Study also indicates that a REC-only approach to long-term procurement is likely to result in higher REC costs by 2023 than an approach based on bundled PPAs.

Enclosure 2

In response to this challenge, Staff discusses a number of options related to long-term contracting. Staff draws heavily on the June 2015 Options Report and party comments that followed it.

Long-term contracts backed by EDCs provide near-term benefits for CES compliance, but they carry risks for utility ratepayers if energy costs or technology costs decline below forecasted levels. Also, the near-term benefits of utility-backed contracts must be balanced with the long-term benefits of self-initiated markets. Staff also considers the potential for utility-owned generation and recommends that there was no basis to deviate from the policy direction adopted in the REV Framework Order that generally prohibits utility ownership of generation resources, in order to promote entry by market participants.

Staff proposes that EDCs be required to purchase some portion of the REC target through long-term PPAs that provide for RECs, energy and/or capacity. EDCs should further be allowed to resell to third parties for shorter terms, and to keep an appropriate portion of the profits from those transactions as an incentive.

Staff also proposes that NYSERDA should serve as a central procurement entity for RECs. NYSERDA has long experience in this role, and the cost advantages of central procurement are described in the Options Report. Although NYSERDA's role will be intermediary, some assurance against financial risk will be needed; Staff proposes that EDCs serve as financial guarantors of NYSERDA's procurements.

2. Party Comments

Parties are split over the use of PPAs and over the potential for utility-owned generation facilities (UOGs) in the context of the CES. The Indicated Joint Utilities and the

Enclosure 2

Companies oppose PPAs backed by EDCs, arguing that this places risk onto utility customers in the event that energy prices or technology prices decline. Consumer Power Advocates (CPA) and Nucor agree with the utilities that PPAs would represent an inappropriate imposition of risk onto customers, citing past experience with PURPA³⁷ contracts and contracts pursuant to PSL Section 66-c.

As an alternative, the IJU proposes a portfolio approach comprised of continued NYSEERDA procurement of REC-only contracts, self-initiated market activity, and a “universal renewables” model in which EDCs would take ownership of projects built by independent developers. IJU argues that where there is uncertainty as to the best approach, a portfolio of approaches is prudent.

IJU submitted studies indicating that UOGs would be substantially less costly than PPAs, mainly because of lower utility finance costs and because UOGs would retain the residual value of facilities beyond the limited term of PPAs.

IPPNY opposes PPAs on the grounds that the contracts would insulate projects from competitive market pressures. The NYISO states that PPAs could endanger the efficient operation of markets.

Most clean energy developers and advocates are strongly in favor of the PPA approach. REI advocates that at least 85% of new renewables be procured through PPAs. REI and CEOC argues that any risk posed by PPAs is offset by hedging value in the event that prices rise above forecasted levels. REI further argues that the current proposal differs greatly from the older PURPA and 66-c situation because PPAs would be subject to competitive processes under the CES. REI also argues

³⁷ Public Utility Regulatory Policy Act of 1978, 16 U.S.C. §§ 2601, et seq.

Enclosure 2

that it was inconsistent for the IJU to advocate a portfolio approach while excluding PPAs from the portfolio.³⁸

NFCRC and Bloom Energy are not opposed to PPAs but caution that they should not crowd out the potential for distributed generation to meet CSE obligations. EDF also urges the Commission to consider the objective of a highly distributed system when deciding on procurement options.

IPPNY opposes allowing utility-owned generation, arguing that UOGs would overturn decades of policy that favors competitive markets in which risk is undertaken by market participants and not by ratepayers. IPPNY argues that EDCs' ability to recover all costs in rates would provide an incentive to bid low and then pass cost overruns through to ratepayers.³⁹

CPA supports the IJU proposal, arguing that EDCs could be held accountable for pursuing the least-cost options, and that they could only exert market power by withholding production which would be very difficult to do. EDF argues that more analysis is needed of the procurement options before the Commission commits to any one course of action. CEOC states that it would support further process to consider UOGs but only as a complement to a primary reliance on PPAs.

The Companies state that if the Commission decides to adopt a PPA approach, then NYPA should be the financial backer of the PPAs, instead of EDCs. CEOC also supports an approach where NYPA provides financial support for PPAs.

Central procurement through NYSERDA is supported from parties on both sides of the PPA/UOG division. The Companies argue that central procurement through NYSERDA should be the

³⁸ Other parties supporting the use of PPAs included AGREE, Brookfield, NYSEIA, NRG, SEIA/VoteSolar, and MI.

³⁹ Other parties opposed to UOGs included REI, Deepwater Wind, Citizens for Local Power, EDP Renewables, NYSEIA, and NRD.

Enclosure 2

only source for RECs, and that LSEs should not be allowed to bypass the NYSERDA process by self-supplying or procuring from other sources.

Energy Infrastructure Advocates (EIA) propose a process in which a central procurement entity (e.g., NYSERDA) obtains contracts through competitive bidding and PPAs are undertaken by a central supply aggregator (e.g., NYPA). EIA states that multiple pathways should be pursued for procurement.

G. Nuclear Facilities

1. Staff Proposal

In its initial proposal, Staff described how conditions in wholesale power markets, particularly low natural gas prices, have benefited consumers but have impaired the financial viability of upstate nuclear plants, to the point where plant owners have announced the intention to close plants that are otherwise fully licensed and operational. The closure of upstate nuclear plants would have a tremendous negative impact on the State's ability to meet the greenhouse gas reduction goal in the State Energy Plan. It would result in an increase of CO₂ emissions of more than 15.5 million tons per year.

Accordingly, in the White Paper, Staff proposed a Nuclear Tier (Tier 3) to ensure the proper valuation of carbon-free power from nuclear plants. Tier 3 would entail a separate obligation for LSEs to purchase ZECs. ZECs would not be eligible to demonstrate compliance with the REC obligation. In other words, the carbon-free generation represented by ZECs is in addition to the 50% renewable generation that will be represented by RECs. Staff described Tier 3 as a bridge to a renewable future, to avoid backsliding in the State's efforts to reduce carbon emissions, and to assist the transition from nuclear to non-nuclear resources if wholesale prices remain too

Enclosure 2

low to support the existing nuclear plants during their license lives.

As there are too few owners of the affected nuclear generation facilities to create sufficient competition to determine an accurate price to be paid for ZECs, the price of ZECs would be administratively determined by the Commission. Staff originally proposed that the price be based on a review of the anticipated operating costs of the plants and anticipated wholesale prices of energy. This would result in a fair price for the environmental attribute of each facility. However, upon further consideration and in response to party comments, Staff modified its proposal, filing Staff's Responsive Proposal, described below.

2. Party Comments

A wide spectrum of comments were submitted on Staff's initial proposal, ranging from strongly held views for and against nuclear power in general, to technical points regarding the ways that a ZEC program would operate in the context of the CES mandate.

A number of parties were opposed to any support for nuclear facilities, arguing that nuclear power is not safe, clean, or carbon-free.⁴⁰ Another group of parties were strongly supportive of ZECs, for the reasons expressed by Staff but also

⁴⁰ These parties include AGREE, Council on Intelligent Energy & Conservation Policy, Promoting Health and Sustainable Energy, Indian Point Safe Energy Coalition (IPSEC), Susan Shapiro, Green Education and Legal Fund, NY Climate Action Group, and CEC. Public comments supporting this position were also filed by Assemblywoman Barbara Lifton, Assemblywoman Ellen Jaffee, the Dutchess County Legislature, the Rockland County Legislature, the Suffolk County Legislature, and the Ulster County Legislature.

Enclosure 2

because of the economic impacts of the upstate nuclear plants.⁴¹ The strongly opposed and strongly supportive views were each represented by large numbers of participants in public statement hearings and contributors to the Commission's public comment page.

Most of the party comments on Staff's initial nuclear proposal did not fall simply into a "Yes" or "No" formula. A majority of the active parties either supported the proposal with conditions, or were neutral with concerns.

Both of the nuclear plant owners, Entergy and Constellation Energy Nuclear Group (CENG) argued that a fuel-neutral carbon standard would be a preferable approach rather than Staff's initial proposal which took financial need into account. CENG did not oppose the mechanism proposed by Staff, however, and emphasized the urgent need for action based on the refueling cycles of individual plants and the imminence of closure decisions. CENG also urged that 12-year contracts would be needed in order to provide assurance and suggested that a backstop pricing mechanism tied to the social cost of carbon be adopted to be available in the event that Staff's original proposal was found preempted under federal law.

Entergy opposed Staff's initial proposal because it was restricted to plants that are fully licensed and would thereby exclude the Indian Point facilities. Entergy argued

⁴¹ Comments supporting this view were filed by Assemblyman William Barclay, Assemblyman Robert Oakes, Senator Rich Funke, Senator Joseph Robach, Senator Pattie Ritchie, Boilermakers Local Lodge No. 5, Business Council, City of Oswego, Greater Oswego-Fulton Chamber of Commerce, IBEW Local 43, IBEW Local 1-2, Utility Workers Union of America Local 1-2, Laborers' International Union of North America Local 633, Onondaga County Legislature, Oswego County Legislature, Operation Oswego County, Plumbers and Pipefitters Local 112, Plumbers and Steamfitters Local 73, Town of Scriba, Upstate Energy Jobs, MACNY, and New York State Utility Labor Council.

Enclosure 2

that this distinction was arbitrary, discriminatory, not rationally based, and preempted by federal law. NYC argued that the Indian Point facilities reduce total carbon, are important to reliability, and provide economic support to the community. IPPNY and the New York Affordable Reliable Electricity Alliance also argued that the Indian Point plants should be included in the ZEC mandate.

IJU supported Staff's proposal but stated that the future of nuclear plants and their treatment in wholesale markets is a national issue that will eventually need to be addressed at the national level. The Companies supported the proposal, stating that procurement of ZECs should be centralized and allocated to all LSEs.

AGREE and GELF argued that Staff did not support its assumption that maintaining nuclear facilities was a necessary component of an overall strategy to reduce greenhouse gasses. In opposition to that view, the Nuclear Energy Institute observed that the closure of only the Ginna plant (R.E. Ginna Nuclear Power Plant) would undo all of the carbon reductions obtained through the RPS program to date.

Many parties representing environmental and clean energy interests argued that any support for nuclear power must be completely separate from a Clean Energy Standard. REI, CLP, CEOC, and EDF argued that nuclear subsidies should in no event divert support for renewable generation, and ideally should be established (if at all) in an entirely separate program.

Several parties expressed concern over the way that financial need would be determined. MI stated that Staff had not supported its assumptions of financial need. Both MI and Nucor argued that any proceeding to determine a level of support should be open, as it would be comparable to a utility rate proceeding to determine the cost of service to be supported by

Enclosure 2

ratepayers. MI also argued that, because nuclear facilities are allowed to earn unregulated levels of profits while energy prices are high, any support provided to nuclear facilities to maintain them in the short-term should be subject to a clawback - i.e., return to ratepayers - when the plants return to profitability.

Otsego 2000 supported Staff's proposal but only if it is found to be the most cost-effective way to reduce greenhouse gasses. Otego Microgrid Ratepayers support the Staff approach but only if it is not open-ended and if there is a clear plan to work toward eventual closure of nuclear plants.

AGREE, in the context of strong opposition to the proposal, argued that it is not clear what value the ZEC payments would be capturing - carbon, reliability, or economic. AGREE and other parties stated that the plants have been determined not to be necessary for reliability.

NYC, CLP, and AGREE stated that a ZEC mandate should not be imposed on LSEs that offer 100% renewable energy. They argued that customers should have the option of voluntarily buying 100% green power that does not include nuclear.

3. Staff's Responsive Proposal

After considering the comments submitted in response to the White Paper and Cost Study, Staff refined its recommendations pertaining to the proposed methodology for encouraging the preservation of the environmental attributes of zero-emissions nuclear power electric generating facilities. Staff's Responsive Proposal recommends valuing and paying for the zero-emissions attributes based on a formula that begins with published estimates of the social cost of carbon.

Specifically, Staff proposes that payments for zero-emissions attributes would be based upon the U.S. Interagency Working Group's (USIWG) projected social cost of carbon (SCC).

Enclosure 2

Such payments would be provided where there is a public necessity to encourage the preservation of a facility's zero-emissions environmental values or attributes for the benefit of the electric system, its customers and the environment. Staff proposes that public necessity be determined on a plant-specific basis at the discretion of the Commission, upon considerations of the following factors: (a) the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State regardless of the location of the facility; (b) the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emissions environmental values or attributes historically provided by the facility; (c) the costs and benefits of such a payment for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its customers and the environment; (d) the impacts of such costs on ratepayers; and (e) the public interest.

Upon a determination of facility-specific public necessity, the owner of the zero-emissions generating facility would be offered a multi-year contract administered by NYSERDA to purchase ZECs from the period beginning on the first day of the two-year tranche for which that facility was found eligible, through March 31, 2029. The facility will have an obligation to produce the ZECs and to sell them to NYSERDA for the duration of the contract, except during periods when the calculated ZEC price pursuant to the contract is \$0. This contractual obligation would be enforced by appropriate financial consequences for failure to produce.

For the contract period of Tranche 1, Staff proposes that the price of the ZEC would be based upon the average April

Enclosure 2

2017 through March 2019 projected SCC as published by the USIWG in July 2015 (nominal \$42.87/short ton), less a fixed baseline portion of that cost already captured in the market revenues received by the eligible facilities due to the RGGI program based upon the average of the April 2017 through March 2019 forecast RGGI prices embedded in the Congestion Assessment and Resource Integration Study (CARIS) Phase 1 report (nominal \$10.41/short ton). Staff's formula yields a net cost of carbon of \$32.47 (nominal \$/short ton), and a ZEC price of \$17.48 per MWh for the contract period of Tranche 1. For the contract periods of Tranche 2 through Tranche 6, the ZEC prices would be calculated pursuant to a formula, as follows: upstate ZEC Price = Social Cost of Carbon (average for each Tranche) - Baseline RGGI Effect (fixed at \$10.41/short ton) - Amount by which sum of Zone A Forecast Energy Price and ROS Forecast Capacity Price exceeds \$39/MWh. The 39/MWh reference price is used to measure the change in independent forecasts over time, it is not used to establish a quantity of energy or capacity revenues.

The amount of ZECs to be purchased annually would be based on actual output but will be capped at a MWh amount that represents the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State, as specified in the NYSERDA contract.

Through contracts with NYSERDA, each LSE (including NYPA and LIPA) would be required to purchase an amount of ZECs per year of the total amount of ZECs purchased by NYSERDA in proportion to the electric energy load served by the LSE in relation to the total electric energy load served by all load serving entities in the New York Control Area. The price charged by NYSERDA per ZEC would be the price established administratively by the Commission for the purchase of zero-

Enclosure 2

emissions attributes, plus NYSERDA's incremental administrative costs and fees associated with the ZEC program and ZEC revenues.

The contracts between NYSERDA and the LSEs would be based on initial forecasts of load and utilize a balancing reconciliation at the end of each program year such that each LSE would have purchased the correct proportion of ZECs on an annual basis. Staff proposes that ZECs not be tradable except between NYSERDA and the LSEs in this balancing process. Finally, Staff suggests that the Commission entertain proposals by LSEs and perhaps self-supply customers to alternatively meet their ZECs obligations by entering into combined energy and/or capacity and ZEC contracts with the nuclear facilities if such contracts are structured in a way as to not unfairly shift ZECs costs onto other ratepayers.

4. Party Comments to Responsive Proposal

Comments related to Staff's Responsive Proposal represent a broad range of topics and viewpoints. Both comments supporting and those opposing the proposal cite environmental and economic reasons to support or oppose the proposal. Many comments opposing the proposal claim the review process was too truncated for such a long-lived program.

A vast number of comments from individuals members of the public were submitted either opposing or supporting Staff's Responsive Proposal. A large number of State and local officials submitted comments. Support for the proposal among public officials is strong but not universal. Those opposing the proposal state that nuclear power is not renewable and is detrimental to the environment. They argue that the State would be better off investing in renewable energy.

State and local officials expressing support for Staff's proposal state that Staff's Responsive Proposal is a reasonable approach to maintaining emission levels and an

Enclosure 2

overall benefit for the environment. They also note the positives related to the local and regional economy.

Similarly, comments among environmental groups are divided. A number of environmental advocates oppose supporting nuclear, particularly for the 12 years Staff proposes. Citizens' Environmental Coalition (the Coalition) opposes the Responsive Proposal claiming that no environmental impact analysis or alternative analysis was performed. The Coalition, as well as other parties, also suggests that investing in renewable energy solutions would be more cost-effective. AGREE also argues that nuclear generation is dirty and dangerous and laments that the proceeding is no longer singularly focused on supporting large-scale renewable energy.

Many parties generally support the program as a means of limiting greenhouse gas emission until higher penetration of renewable generation is achieved including Pace Energy and Climate Center (Pace) and Californians for Green Nuclear Power. Environmental Progress supports the program arguing that nuclear power must play a central role in the effort to combat climate change and that closure of the upstate plants will result in increased emissions. It claims that New York's power sector emissions, per-capita, are 25% of the national average in part, because nuclear power generated 57% of the State's zero-emissions power last year.

Supporting comments also point toward the benefits of fuel diversity and protection against price volatility. The Indicated Joint Utilities expressed support for Staff's Responsive Proposal because the proposed program will ensure the continuance of the environmental benefits of the plants' emission attributes that is not being captured by existing markets.

Enclosure 2

Many commenters including Pace and the Indicated Joint Utilities support Staff's incorporation of the SCC into the ZEC price calculation as a step toward properly internalizing the true cost of carbon emissions including Pace and the Institute of Policy Integrity at New York University School of Law.

The American Petroleum Institute (API) and MI both question the use of the SCC because they argue, it has not been properly vetted or demonstrated to accurately reflect cost savings related to avoiding carbon emissions. MI further questions adjusting the SCC for inflation when future estimates of the SCC increase over time.

Public Utility Law Project (PULP) believes that the proposal does not properly consider the social costs of nuclear storage, radiation leaks, decommissioning and other attendant costs.

CENG supports basing the ZEC on SCC but notes that it likely undervalues the nuclear facilities environmental attributes because it does not account for other air pollutants avoided. CENG also notes that tying the ZEC price to the cost of carbon leaves the nuclear generators exposed to operating and market risks.

Many comments raised issues or concerns related to the cost of the ZEC program. However, many comments also indicate that the costs seemed reasonable.

Upstate Energy Jobs supports the program, and along with others, believes that the costs associated with the program are outweighed by the benefits including avoiding energy and economic costs related to the facilities shutting down. Similarly, many public officials and community leaders support Staff's proposal as a cost effective means of limiting emissions and transitioning to the 50% by 2030 goal.

Enclosure 2

AGREE claims that Staff's Responsive Proposal amounts to the largest gift of public funds to a single corporation in the State's history. Nucor also expresses concern regarding subsidizing the sale of FitzPatrick (James A. FitzPatrick Nuclear Generating Facility) arguing that New York rate payers should not need to provide financial support for transactions between private parties.

Many commenters argued that any program designed to value emission attributes would be more cost efficient and fair if it was technology neutral including Potomac Economics and API. Similarly, AGREE objects to the fact that even lower cost resources would be prevented from competing with nuclear facilities. The Institute of Policy Integrity argues that inconsistent valuation methods for emission attributes (market versus administratively set) across generation types could lead to a situation where consumers are paying more for ZECs than RECs resulting in an unfair advantage for nuclear generation. Ampersand Hydro, LLC and others argue that the program contradicts the rest of the CES proposal as well as the REV framework. CENG notes that the proposed ZEC price is well below subsidies for renewable energy including the average subsidy paid by NYSERDA and the federal production tax credit.

The NGSA opposes Staff's proposal, stating that the Commission should allow market forces to establish a path for carbon reduction. NGSA argues for preserving competitive market signals through: implementation flexibility; fuel and technology neutral incentives; and fostering the regional market.

MI raised cost concerns specific to high-load-factor customers which it states are disproportionately impacted by the CES costs. MI states that any economic benefits relied on to support the program must be weighed against the negative

Enclosure 2

economic impacts of higher-cost electricity - particularly the economic impacts on high-load customers.

New York City opposes the program because it feels that it will impose costs on downstate consumers who are unable to receive its direct benefits. The City argues that due to geography and system constraints that it is unlikely that the electricity or the economic benefits expected from the program will be enjoyed downstate. The City argues that costs associated with the program should be allocated to follow the benefits.

Individuals and groups located downstate submitted comments supporting the program including ArtsWestchester and New York City Hispanic Chamber of Commerce. National Grid argues that the beneficiaries are statewide and encourages inclusion of NYPA and LIPA in the ZEC program.

PULP challenges the Responsive Proposal over concerns that it will have a disproportionate impact on low-income and fixed-income customers. PULP argues that further analysis must be done to measure the impact of the program on the State's goal of a 6% energy burden for low-income customers.

NEMA argues that the support for emission free generation outside of the wholesale market is likely to disrupt markets and result in high cost to consumers because it would be outside the NYISO's least cost dispatch model.

The NYISO evaluated Staff's proposal pursuant to its market monitoring and mitigation obligations and concludes that Staff's proposal does not raise wholesale market power concerns. The Indicated Joint Utilities agree that the ZEC price must be administratively set because of the limited number of suppliers and the potential for market power issues to arise.

Some commenters challenge specifics contained in Staff's proposed formula for setting the ZEC price. MI

Enclosure 2

challenges the use of a 3% discount rate, suggesting a 5% rate would be more appropriate and less expensive. MI, the Indicated Joint Utilities and others argue that RGGI values should not be held constant. MI argues that RGGI could have a much higher impact if RGGI total allowances are reduced, as is being contemplated. The Indicated Joint Utilities argue that RGGI prices should follow the CARIS model to increase over time.

The Indicated Joint Utilities further argue that the emission factor should be updated in future tranches (to calculate how much carbon is avoided per MWh), to reflect changes in the resource mix. Some commenters suggested that the contract between NYSERDA and the nuclear generators should include performance factors to hold the generators accountable for performance.

NEMA raised concerns about the impact of the ZEC mandate on ESCOs expressing concern that ESCOs may not recover the cost of compliance. Specifically, NEMA requests that the Commission clarify that ESCOs can recover ZEC compliance costs from customers under "regulatory change," "change in law" or similar contract provisions without violating any disclosure requirements.

Nucor states that it supports continued operation of the upstate nuclear facilities but only at a reasonable cost, which it claims cannot be assured through Staff's Responsive Proposal. Nucor claims that its own analysis indicates that the proposal would overpay Constellation by overstating costs and unnecessarily including all upstate nuclear facilities.

Nucor and MI both believe that before any nuclear plant be eligible for subsidies they must demonstrate that they would otherwise deactivate the facility. Other parties, including New York City question whether and to what extent nuclear plants have demonstrated a need for any subsidy.

Enclosure 2

Nucor also suggests limiting ZEC contracts to three-years (with reapplication allowed) as another means of limiting program costs. National Grid believes that 12 years is too long because of the need to transition away from nuclear and into renewables. National Grid also argues that the best long-term solution is reforming the markets in order to properly internalize the cost of carbon.

Nucor points out that Exelon has disclosed to the investment community that through forward power sales from its existing New York units, it has largely hedged the prices that Constellation expects to realize at levels that are considerably higher than the near-term forward price indices. According to Nucor, Exelon has stated that it expects these forward sales to produce \$105 million in additional gross margin which NUCOR points out is not captured in Staff's Responsive Proposal.

New York City raises concerns regarding customers choosing to purchase renewable power over and above any mandate arguing that cost imposed related to ZECs will limit the monies available to support renewables. Many commenters echoed the comments from the City of Kingston which points out that because the mandate will be allocated across all retail customers, it becomes impossible for customers to pay only for renewable energy and be 100% renewable.

A number of commenters are dissatisfied with the time frame in which the Commission is acting on the ZEC program generally and Staff's Responsive Proposal. The New York Public Interest Research Group, Reinvent Albany and Common Cause New York as well as others submitted comments requesting more time to review the proposal. AGREE filed comments expressing concern that Staff's Responsive Proposal introduces new concepts, new obligations for utilities and new costs and that it reaches conclusions related to eligibility for specific units without

Enclosure 2

the required analysis. MI also raises concerns that Staff's Responsive Proposal has not been fully evaluated.

Other comments urged the Commission to act swiftly to ensure the economic and environmental benefits associated with keeping the plants operational.

Many commenters raised concerns relating to timing and the interactions between Case 16-E-0270 related to specific generation facilities and 15-E-0320 addressing support for environmental attributes of nuclear energy more broadly. Nucor and MI both argued that the Commission should refrain from responding to the petition until it has responded to Staff's Responsive Proposal.

Some parties claim that Staff's Responsive Proposal lacks the necessary detail or analysis to be fully evaluated. AGREE and MI raise a concern regarding the apparent lack of analysis regarding the cost and benefits of nuclear generation in comparison to other emission free resources. MI points to additional concerns including details regarding what would constitute an appropriate financial consequence for a nuclear facility's failure to produce ZECs. AGREE further points out that one factor for considering a public necessity determination is the cost and benefits of such a subsidy in relation to other clean energy alternatives but claims that no such analysis is available to support Staff's recommendation.

NEMA claims that the process violates the State Administrative Procedures Act because it failed to provide adequate notice or a meaningful opportunity to comment on the Responsive Proposal. NEMA further claims that Staff's Responsive Proposal is the same type of regulatory action invalidated by the Court in Hughes v Talen Energy Marketing,

Enclosure 2

LLC.⁴² Similarly, NSGA cautions that the ZEC proposal intrudes on FERC jurisdiction.

New York City states that the proposal lacks a discussion of the Commission's statutory authority to mandate that load serving entities enter into contracts with NYSERDA to purchase ZEC's and that the City is unaware of any such authority. PULP similarly states that the legal underpinnings are not sufficiently developed.

Ampersand Hydro raises the concern that if other non-emitting resources do not receive similar or greater value for their attributes, it would amount to an unconstitutional taking of the property of those facilities.

NYAPP argues that the Commission should exempt municipal and cooperative utilities from the ZEC requirement. NYAPP points out that as a group, 86% of NYAPP power comes from NYPA's Niagara Project, and through utilization of this low-cost renewable source, the group demonstrates a meaningful contribution to the State's renewable goals even absent mandatory requirements.

LIPA Staff submitted comments stating that it intends to seek the approval of its Board of Trustees to enter into the necessary agreements to procure its appropriate share of zero-emissions credits and to receive its appropriate share of such revenues as co-owner of the Nine Mile Point 2 Nuclear Station. Similarly, NYPA states that it fully intends to comply with the Staff Proposal, subject to any directive from its Board of Trustees following finalization of the initiative. MI and others state that NYPA customers should not pay any ZEC cost, as they have the ability to leave the State and go where there is no subsidy for the nuclear plants. They state that NYPA rates

⁴² Hughes v Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1292 (2016).

Enclosure 2

are for economic development, and such rates have not traditionally been charged for similar subsidies

H. Cost Study and Cost Management

1. Summary of the Cost Study

The Cost Study makes detailed projections to 2023. Beyond 2023, the combination of variables makes detailed projections less reliable.

Critical findings of the Cost Study are total bill impacts to customers of less than 1% under the base case scenario, with net benefits of \$1.8 billion taking into account \$3.1 billion in carbon savings.

Assumptions in the base case scenario through 2023 include:

- a 50/50 split between long-term PPAs and annual REC procurements;
- carbon values established by the Environmental Protection Agency and adopted in the Commission's Benefit Cost Analysis framework;
- a calculation that netted the gross program costs – i.e., the additional payments above energy and capacity that will be required to make projects viable – against the societal value of avoided carbon dioxide emissions;
- inclusion of Tier 3 nuclear costs and benefits;⁴³
- no costs or benefits of grid integration beyond costs borne by project developers;
- no offshore wind by 2023; and

⁴³ The study noted several indirect benefits of maintaining nuclear plants that were not included in the calculations. These are 28,800 jobs, \$3.16 billion in direct or secondary GDP, and \$144 million in State tax revenues.

Enclosure 2

- no distributed resources beyond the existing NY Sun goals.

The Study includes sensitivity analyses across major variables including procurement method, total power usage, and energy prices. The difference between 100% long-term procurement through PPAs and 100% reliance on RECs is estimated to be over \$1.4 billion by 2023. The Study does not include a utility-owned generation option, but it notes that UOG has the potential to reduce costs below those of PPAs.

The Study considers a high energy usage scenario of 22,000 additional GWh (which could be caused by numerous factors). The gross cost of compliance doubles under the high usage scenario.

High and low energy price scenarios, applied to the base case, result in a difference of 0.65% in bill impacts directly tied to the CES. The context of this sensitivity is very important. Lower energy prices increase the relative cost of CES compliance, but those higher CES premiums are paid in a context of lower overall energy bills. Conversely, higher energy prices reduce the relative cost of CES premiums but in the context of higher overall bills. The conclusion of the Study is that, while fluctuations in energy prices will have a strong effect on the gross cost of CES compliance, they will have a moderating effect on relative bill impacts of the CES.

The Study also notes that the value of PPAs is likely to increase in the years following 2023, as energy prices rise and the size of the required CES premium is reduced relative to new procurements.

Federal tax credits have a substantial impact on program costs. The base case assumes the currently scheduled phase out of credits. The Study also considers potential

Enclosure 2

changes in interest rates and technology costs and found that they have a relatively minor impact on costs.

Although the Study does not incorporate any estimated benefits from REV, it notes that an increase in economically responsive demand measures could have a substantial beneficial effect on total CES compliance costs, and will establish conditions to increase renewable procurement on an economic basis.

2. Party Comments

Comments on the Cost Study vary widely, with some parties arguing that important benefits have not been considered, while others argue that important costs have been omitted. CEOC and REI comment that the Study demonstrates overall net benefits and minimal bill impacts, and REI notes that the bill impacts were consistent with a comprehensive study of other states' renewable programs conducted in 2014 by the National Renewable Energy Laboratory (NREL).

Numerous parties comment that the Study was lacking in detail and transparency, to the point that it was not adequate to support a full decision on the issues.⁴⁴ A subset of these parties (Business Council, MI, and IPPNY) argue that due to uncertainty in the Cost Study the Commission should refrain from imposing any mandate at this time. NYC argues that the Commission should refrain from committing to a single procurement strategy. Other parties argue that uncertainty is best addressed through mandates, for example, that due to the sensitivity of overall costs to various load growth scenarios, the Commission should mandate energy efficiency targets. The Labor Coalition argues that the uncertainty of Tier 1 estimates reinforces the need to rely on nuclear facilities to achieve

⁴⁴ These parties include AGREE, Brookfield, Business Council, NYC, IPPNY, IJU, MI, and Nucor.

Enclosure 2

carbon goals. IJU agrees with limiting the mandate and schedule to 2023 due to the difficulty of estimating beyond that point.

The cost assumptions in the Study produce a wide range of comments. Many parties emphasize that there is little treatment of the potential costs of transmission upgrades.⁴⁵ MI and the Business Council argue that impacts on Installed Reserve Margins are also ignored; the API argues that the need for backup gas-fired capacity is not analyzed. IPPNY, IJU, and MI state that the energy price forecasts used in the Study may be too high, which has the result of lowering forecasts of net costs from the CES. MI notes that the subsidies provided to renewables coming on line in the 2017-2019 period are not factored into the analysis although the carbon benefits of those projects are included. NYC argues that the bill impact estimate covers the CES but not the nuclear mandate. AGREE argues that the estimated costs of nuclear support are understated. Nucor and Pepacton note that administrative costs of procurement are not identified.

Parties also note potential benefits, and cost-mitigating factors, that are not included in the Study. NYC, IJU, CEOC, and REI argue that other environmental benefits such as reductions in criteria pollutants should be counted. IJU objects to the absence of an analysis of utility-owned generation, and submitted a study concluding that a utility-owned generation option could reduce costs by 21% compared with PPAs. By contrast, several parties argue that PPAs are the most cost-effective procurement approach. REI argues that the potential for technology cost reductions is understated. Brookfield and LIHI argue that carbon benefits of Tier 2b procurements should have been counted, and that low-impact hydro

⁴⁵ These parties included IPPNY, NYC, the Business Council, Entergy, IJU, MI, and Nucor.

Enclosure 2

benefits are understated. Several parties argue that biogas can have a much more cost-beneficial role than is estimated in the Study. AGREE argues that the costs of replacing nuclear facilities with additional renewables has not been analyzed but that this could reduce the overall cost of the program. Pepacton notes that the benefits of distributed resources are not fully incorporated into the Study.

Several parties identify comparisons that are not made in the Study. NYC and Nucor argue that the cost of more energy efficiency should have been compared with the cost of renewables to achieve the State's goals. API states that the macroeconomic effects of CES should have been compared with alternative ways of achieving the goals. IPPNY states that the macroeconomic effect of plant retirements should have been accounted for. MI questions the basic premise of the netting of monetary costs against carbon benefits, noting that the monetary costs will be carried by New Yorkers while the benefits are global.

V. ESTABLISHING THE CLEAN ENERGY STANDARD

A. General Description

The Clean Energy Standard adopted here begins with adoption of the State Energy Plan goal that 50% of New York's electricity is to be generated by renewable sources by 2030, as part of a strategy to reduce statewide greenhouse gas emissions by 40% by 2030. To implement that goal, the CES is further comprised of a series of deliberate and mandatory actions to enhance opportunities for customer choice necessary to achieve the SEP goal. The mandated actions are divided into two categories, a Renewable Energy Standard and a Zero-Emissions Credit requirement. The RES consists of a Tier 1 obligation on LSEs to invest in new renewable generation resources to serve their retail customers; a Tier 2 obligation on distribution

Enclosure 2

utilities on behalf of all retail customers to continue to invest in the maintenance of existing at-risk generation attributes; and a program to maximize the value potential of new offshore wind resources. The ZEC requirement consists of a Tier 3 obligation on LSEs to invest in the preservation of existing at-risk nuclear zero-emissions attributes to serve their retail customers. The RES component and the ZEC component are interrelated but the goals are additive; that is, the carbon benefits of preserving the nuclear zero-emissions attributes will not count toward achieving the required number of renewable resources to satisfy the 50% by 2030 goal. The RES and ZEC components will however, in combination, contribute toward the State's comprehensive greenhouse gas reduction goals.

B. Legal Authority

The Commission's authority derives primarily from the New York Public Service Law (PSL), through which numerous legislative powers are delegated to the Commission. Pursuant to PSL §5(1), the jurisdiction, supervision, powers and duties of the Commission extends to the manufacture, conveying, transportation, sale or distribution of electricity. PSL §5(2) requires the Commission to encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources. PSL §66(2) provides that the Commission shall examine or investigate the methods employed by persons, corporations and municipalities in manufacturing, distributing and supplying electricity and have power to order such reasonable improvements as will best promote the public interest, preserve the public health and protect those using

Enclosure 2

such gas or electricity. PSL §4(1) also expressly provides the Commission with all powers necessary or proper to enable [the Commission] to carry out the purposes of the PSL including, without limitation, a guarantee to the public of safe and adequate service at just and reasonable rates,⁴⁶ environmental stewardship, and the conservation of resources.⁴⁷

In addition to the PSL, the New York Energy Law §6-104(5) (b) requires that “[a]ny energy-related action or decision of a state agency, board, commission or authority shall be reasonably consistent with the forecasts and the policies and long-range energy planning objectives and strategies contained in the plan, including its most recent update.” The program established here is consistent with the renewable and clean energy targets established in the 2015 New York State Energy Plan, as well as the underlying principles elucidated in the Plan.⁴⁸ Therefore under State law, the Commission’s authority to direct a comprehensive CES program is quite clear.

Federal law preempts contrary state law pursuant to the Supremacy Clause of the U.S. Constitution. Under the Federal Power Act, the FERC has exclusive authority to regulate the sale of electric energy at wholesale in interstate commerce.

⁴⁶ See International R. Co. v Public Service Com., 264 AD 506, 510 (1942).

⁴⁷ PSL §5(2); see also, Consolidated Edison Co. v Public Service Commission, 47 NY2d 94 (1979) (overturned on other grounds) (describing the broad delegation of authority to the Commission and the Legislature’s unqualified recognition of the importance of environmental stewardship and resource conservation in amending the PSL to include §5).

⁴⁸ See 2015 New York State Energy Plan available at <http://energyplan.ny.gov/Plans/2015.aspx> (setting a target of 50% renewable consumption by 2030 and describing “guiding principles” including “Market Transformation”; “Community Engagement”; “Private Sector Investment”; “Innovation and Technology;” and “Customer Value and Choice.”)

Enclosure 2

States retain the power to regulate the retail sale of electricity to end-use consumers. All Commission actions must take place within the "cooperative federalism"⁴⁹ structure of energy regulation and the myriad state and federal court cases each shedding its own light on the jurisdictional boundaries. FERC has previously said that REC programs, purchasing "attributes," are for a commodity created by states that is not within the wholesale sale of electricity jurisdiction of FERC. Recent U.S. Supreme Court cases also make it clear that all retail sales of electricity, as well as "any other sale" not considered a wholesale transaction, are under State Commission authority.⁵⁰ The directives to LSEs and distribution utilities under consideration in these proceedings are only related to retail sales of electricity and carbon-free energy generation attributes (RECs and ZECs), Commission jurisdiction over which is well established and settled.⁵¹

⁴⁹ See FERC v Elec. Power Supply Assn, 136 S. Ct. 760 (2016); The Federal Power Act (June 10, 1920, ch. 285, pt. III, §321, formerly §320, as added Aug. 26, 1935, ch. 687, title II, §213, 49 Stat. 863; renumbered Pub. L. 95-617, title II, §212, Nov. 9, 1978, 92 Stat. 3148).

⁵⁰ Hughes v Talen Energy Mktg., LLC., 136 S. Ct. 1288, 1292 (2016) and FERC v Elec. Power Supply Assn, 136 S. Ct. 760, 766 (2016) (explaining that the Federal Power Act places any sale of electricity other than those at wholesale beyond the jurisdiction of the Federal Energy Regulatory Commission).

⁵¹ Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1291 [2016]; see also WSPP, Inc., 139 F.E.R.C. 61,061 (2012) (explaining the REC transactions unbundled with wholesale energy and capacity are beyond FERC's jurisdiction); and Morgantown Energy Associates, 139 F.E.R.C. 61,066 (2012) (recognizing that RECs are state-created and are a separate product from energy and capacity); American Ref-Fuel Company, 105 F.E.R.C. 61,004 (2003) (explaining that RECs are a state law creation and not within FERC's jurisdiction).

Enclosure 2

"Wholesale" sales include "energy" and "capacity" sales among other types of wholesale sales. Federal Law gives FERC the responsibility to ensure that prices charged in wholesale sales are just and reasonable. In deregulated markets like New York, wholesale transactions typically occur through two mechanisms: bilateral contracts and auctions. For bilateral contracts between generators and LSEs, FERC may review the rate in the contract for reasonableness, although FERC generally presumes that rates established by good-faith arm's-length negotiation are reasonable. FERC may abrogate an otherwise valid bilateral contract if it harms the public interest, or it may apply buyer-side mitigation in the marketplace to counteract what it perceives to be the negative effects of the contract. Auctions in New York are conducted by the NYISO pursuant to a FERC-approved tariff. The clearing price if based on a reasonably competitive auction is generally accepted by FERC as being the basis for a just and reasonable rate. Once FERC sets wholesale rates, a state may not conclude in setting retail rates that FERC-approved wholesale rates are unreasonable. A state must give effect to Congress' desire to give FERC plenary authority over interstate wholesale rates, and FERC and the courts will ensure that the states do not interfere with this authority. States may not seek to achieve ends, however legitimate, through regulatory means that intrude on FERC's authority over interstate wholesale rates. States may encourage production of new or clean generation through measures "untethered" to a generator's wholesale market participation.⁵²

C. Cost Study and Cost Mitigation

The Cost Study demonstrates that CES targets through 2023 can be achieved with net societal benefits and modest bill

⁵² See Hughes, supra 136 S. Ct. 1288, 1299 (2016).

Enclosure 2

impacts, taking into account critical known facts, projected trends, and sensitivities around major variables. The comments of parties, both supportive and challenging of the Cost Study conclusions, illustrate that there are numerous detailed factors that will unfold during the implementation of the CES.⁵³ Parties who argue that the Cost Study is incomplete unless it has integrated all of the factors they enumerate miss the basic function of the Study in the context of the CES. The purpose of the Clean Energy Standard is to transform the electric system. It is not an isolated, discretionary spending program. The CES implements State policy decisions that are made necessary in part, and urgent, by a global problem that challenges traditional administrative and jurisdictional approaches.

Consideration of the Cost Study is driven by the dual statutory charges of providing for just and reasonable rates and achieving reasonable consistency with the State Energy Plan. In this context, the chief purpose of the Cost Study is to estimate a range of cost and bill impacts, to inform the determination whether the CES is likely to achieve its goals within a reasonable range of estimated bill impacts.

To accomplish this purpose, the Study used best estimates of critical cost and benefits elements and applied sensitivity analyses across several important variables. To avoid overreaching beyond what can be foreseen with a reasonable degree of confidence, the Study limited its scope to the period concluding at the end of 2023. The findings of the Study demonstrate both a reasonable range of bill impacts and a net

⁵³ Some of the parties' objections are factually incorrect. For example, an estimate for the cost of transmission upgrades is reflected in the Study at page 256. Also, the Study counts neither the costs nor the benefits of Tier 1 2017-2019 installations (pg. 284), as support for those projects is already approved.

Enclosure 2

societal benefit. By its nature, transformative change cannot rest on precise long-range forecasts of the very matters that are undergoing transformation. Several parties argued that the consequence of uncertainty should be inaction. It is certain, though, that the consequences of inaction on air pollution and climate change are not acceptable.

MI observed that the costs of renewable purchases will be borne locally, while the benefits of carbon reduction will be dispersed globally. Conversely, CEOC and others argued that other environmental benefits should have been counted. The treatment of externalities was subject to comment and was determined in the adoption of the Benefit Cost Analysis framework.⁵⁴ A narrow view of costs and benefits might limit environmental benefits to those experienced solely within New York. In the case of climate change, such an approach could lead to inaction not only in New York but in all other jurisdictions.

MI's point is important, however, in illustrating both the value for combined action and the need for leadership. The State Energy Plan determined that New York take its place among the leaders in this effort. Under the CES, New York's goals are comparable to those of California and Oregon. Of the 29 states that have adopted renewable portfolio standards, several more either have adopted or are considering increased goals.⁵⁵ The CES strikes a reasonable balance between the lowest common denominator of inaction, which is unacceptable, and aggressive unilateral action with its attendant economic risks.

⁵⁴ Case 14-M-0101, supra, Order Establishing the Benefit Cost Analysis Framework, January 21, 2016, pg. 17.

⁵⁵ See, e.g., Cal S.B. 350 (adopted February 14, 2015); Oregon S.B. 1547 (2016); Hawaii H.B. 623 (2015); Vermont H.B. 40 (2015).

Enclosure 2

On a similar note, several parties argued that the efficacy of New York's CES will be limited unless RGGI caps are also reduced. The setting of RGGI caps is a multi-state endeavor that also must be coordinated with plans to comply with the federal Clean Power Plan. Monitoring of this effort and its impact on RES targets, will be a subject for periodic review. Uncertainty around the future direction of RGGI further illustrates the importance of leadership shown by New York.

In adopting the CES, the Commission is implementing policy as developed by the statutory State Energy Plan process and in furtherance of the Commission's responsibilities pursuant to the PSL. The Cost Study is an essential way to inform the Commission's decision, and it demonstrates that the balanced approach of the CES as adopted is within a reasonable range of potential impacts.

A second important purpose of the Cost Study is to inform the development of the CES by identifying controllable variables that can be used to mitigate potential costs. The CES framework adopted here contains several mitigation measures, including continued aggressive pursuit of energy efficiency through various proceedings; the Alternative Compliance Payment option; adjustment of targets via triennial review to optimize targets in response to market developments; interim review as a safeguard against divergences; the banking of RECs; the consideration of the contributions of voluntary market activity; and Distributed Energy Resource integration via the REV initiative, so that load management and system balancing can improve the economic value of weather-variable generation. A related purpose is the identification of factors which, although not controllable, influence cost and should be considered. Examples include federal tax credits, interest rates, etc.

Enclosure 2

In a late filing, the NYISO stated that substantial transmission upgrades may be needed to move power from traditional generation centers to load centers. The NYISO also stated that a large increase in reserve margins will be needed to account for weather-variable generation. The NYISO further stated that it intends to develop long-term market mechanisms to retain nuclear generation.

The Commission agrees with the NYISO to the extent its comments are suggesting that the Commission must consider the reliability impacts of a change in the resource mix. Ensuring both the reliability and efficiency of the power system is one of the Commission's chief responsibilities. Under REV, the design and operations of the distribution grid will be modernized to take advantage of information and technology innovations that enhance value to consumers. The positive effects of these changes are already materializing. While the NYISO is a public entity regulated by FERC, as a significant participant in the State's power system, New York consumers need a NYISO that possesses the knowledge and skill sets to match the sophistication and transformation being made in the power system to ensure that consumer needs for a reliable power system are met in as an efficient way as possible. The Commission is confident that the NYISO is up for these challenges and will look forward to its continued cooperation.

The Public Service Law requires the Commission to ensure that utilities provide safe and adequate service. In carrying out its responsibilities, the Commission cannot and will not compromise the safety and reliability of New York State's electric system, both at the bulk system and distribution levels. For this reason, two years ago, DPS initiated the SRP working group primarily to study the potential

Enclosure 2

effects on reliability and to determine the tools needed to address any concerns identified.

The NYISO's filing describes outcomes that could potentially occur if the Commission were not proactive in considering the issues of grid reliability and system efficiency. The NYISO's filing represents a status quo outlook that fails to take into account a likely shift in system characteristics and generation location, the ongoing SRP process, the opportunities to deploy new fast-acting resources like storage and the overall system and operations of modernization that will address many of the expressed concerns.

The NYISO's declaration of transmission needs of over 1,000 miles of incremental bulk power transmission lines, above and beyond those in the AC Transmission and Western New York public policy initiatives now underway, assumes no actions beyond the current status quo. Notably, its position appears to ignore the consequential retirements of upstate fossil-fueled generating plants, the diversity of renewable resource output, and the probability of offshore wind, as well as other resources and technologies that are developed closer to load being a substantial component of the 2030 generation mix.

Similarly, the NYISO's simple declaration that reserve margins may need to increase overlooks the operational characteristics and benefits of a modernizing grid. New York and other states are experiencing a tremendous growth in entrepreneurial innovation and customer participation toward a grid that both incorporates storage technologies and is characterized by increasing levels of dynamic load management, both of which will complement the variable nature of some renewable generation.

Even under a status quo approach, the NYISO's concern about the reserve margin seems misplaced. As the NYISO itself

Enclosure 2

has stated, the increased capacity requirement will be largely met by the additional capacity contribution of the proposed renewable resources.⁵⁶ Importantly, the capacity market is valued in “unforced capacity” (UCAP) MWs and prices, and therefore, intermittent resources receive capacity payments that reflect their relative contribution to serving peak loads. The dynamic load management made possible by modernizing the grid, including new storage, will have a leveling effect on the difference between fossil-fueled and renewable generation that exists under the status quo.

This Order has been painstakingly designed to produce needed reforms and carbon reductions while protecting utility customers and maintaining an effective wholesale market and ensuring the continued bulk electric system reliability that New Yorkers expect and require. The SRP working group was created largely in response to a DPS request that the NYISO and transmission owners identify any potential reliability concerns and address how to deal with these concerns going forward. Nonetheless, if the SRP process itself does not sufficiently deal with potential bottlenecks or the need for new transmission lines, it is important for all stakeholders to continue to work towards the necessary solutions. Further, it is important that the design and operation of the bulk electric system and wholesale markets be modernized, much like is being done at the distribution level. Therefore, Staff is directed to engage stakeholders, including the NYISO, after the initial SRP working group completes its work, to ensure that the bulk transmission system is sufficiently modernized such that it can fully support the State’s renewable goals. Further, the Commission through its triennial review process will have ample opportunity to

⁵⁶ NYISO July 8, 2016, Supplemental Comments on the Clean Energy Standard, p. 10.

Enclosure 2

review the bill and system impacts of the ever changing system topology and ensure that appropriate actions are taken to protect the public interest in secure and cost effective electric service.

D. Adoption of the 50% by 2030 Goal

The statewide goal of 50% renewable resources by 2030 encompasses a wide range of initiatives, of which a requirement on load serving entities is only one. The 50 by 30 goal is itself a component of a larger statewide greenhouse gas goal, and is the product of a lengthy State Energy Planning process. The 50 by 30 goal is also consistent with goals adopted by other leading states.

MI questions why the 50 by 30 goal is assumed to be a reasonable starting point. From the standpoint of fuel diversity, a goal of at least 50% renewable resources by 2030 is imperative. The 2014 generation mix for New York included 37% natural gas, 31% nuclear, and 27% renewable resources as well as small amounts of coal, oil, and solid waste. As the licenses of half of the upstate nuclear generation units expire by 2030, a renewable resource goal of at least 50% will be needed to avoid an over-reliance on a single fuel.

The Cost Study indicates that 50 by 30 is reasonably achievable. The Commission has even greater concern over the potential cost of a less ambitious standard that would leave consumers vulnerable to an over-dependency on natural gas and uneconomic bypass by many consumers if the economic and performance advances in renewable and distributed energy resource and load management technologies are not accommodated. The resiliency advantages of clean power choices, and the economies of scale and scope that can be achieved through ambitious standards and well-designed retail markets that

Enclosure 2

support consumer-motivated transactions, are the best path to a better energy future.

Concerns on whether the 50 by 30 goal may impose too high a regulatory burden conflate the State's overall clean energy goal of 50 by 30 with the more discrete effort to establish mandatory resource obligations on LSEs. The 50 by 30 goal is a cumulative outcome that will be achieved through a number of activities in addition to the LSE mandatory obligation.

Understandably, given the task of developing a mechanism to achieve the CES, the bulk of the record concerns itself with the mandatory aspect of the RES. However, in establishing a mandatory RES obligation on jurisdictional LSEs, the Commission first considered the activities that occur outside of this process that will necessarily impact the scope of compulsory elements of the plan. Those activities include the existing inventory of baseline renewable resources including the sizable state-owned renewable resources; aggressive pursuit of cost effective energy efficiency; a continued obligation and opportunity for utilities to ensure that low-income consumers have access to clean energy alternatives that help them reduce their energy burden and improve the environment; consumer initiated green energy purchases or investments; State initiated green energy purchases or investments for energy consumption by State entities; and continued participation and leadership in RGGI and support of universal complementary federal action.

Gas and nuclear industry representatives argued that rather than a renewable resources goal, the Commission should adopt a source-neutral carbon intensity goal. The carbon reductions associated with the 50 by 30 goal, however, are not the only objective of the CES. Increasing fuel diversity is another goal, and even more importantly, the CES is one

Enclosure 2

component of a long-term strategy that aims to transform and decarbonize the way in which electricity is generated.⁵⁷ For those reasons the chief focus of the CES initiative is on building new renewable resource power generation facilities.

In consideration of the discussion above, the Commission finds and determines that the goal of the SEP that 50% of New York's electricity is to be generated by renewable sources by 2030, as part of a strategy to reduce statewide greenhouse gas emissions 40% by 2030, is reasonable and necessary to provide for the safe and adequate service of retail electric consumers in New York State and in a manner that promotes economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources. Therefore, the 50% by 2030 goal is hereby adopted by the Commission as a foundational basis and essential component of the Clean Energy Standard.

VI. THE RENEWABLE ENERGY STANDARD

A. Tier 1 – New Renewable Resources

1. Overall Incremental 2030 Statewide Target

Tier 1 of the RES consists of obligations on LSEs to invest in new renewable generation resources to serve their retail customers. The obligation is to be in the form of the procurement of new renewable resources, evidenced by the procurement of qualifying RECs, acquired in quantities that satisfy mandatory minimum percentage proportions of the total load served by the LSE for the applicable calendar year. In order to establish annual incremental targets, it is necessary to first establish a calculation methodology to translate the

⁵⁷ The relative carbon intensity of gas-fired generation is already taken into account in the RGGI market.

Enclosure 2

SEP goal of 50% renewable resources by 2030 into an incremental 2030 target for achieving the goal.

a. Calculating Statewide Load

The first step in the calculation methodology is to determine forecasted statewide load for 2030. Staff relies on the NYISO Gold Book forecast to estimate the total load expected in 2030. Since the Gold Book forecast only extends ten years, Staff extrapolates the forecast values to 2030 using a linear extension of the rate in the most recent Gold Book forecast. The Commission agrees that this is a reasonable starting point and will adopt this approach as the initial basis for the determination. Under this approach the unadjusted forecast statewide load for 2030 is 176,619,000 MWhs.

b. No Behind-the-Meter Generation Adjustment

Staff proposes to modify the base forecast by the addition of customer usage that is currently offset by behind-the-meter renewable generation. Staff proposes, for the purpose of calculating the 2014 base line, an addition of 410,000 MWhs based on NYSERDA estimates.

As a general principle, the Commission's concern in the RES is to calculate the level of load that all individual customers are placing on the electric system as the basis for establishing the level of load to be served by renewable resources. Where customers' consumption is offset by generation behind the meter, with the net result that no load is measured at the meter, whether the customers' consumption counts toward the base forecast depends on whether the generation results in RECs that are counted toward an LSE's RES compliance obligation. However, this criterion creates a version of double counting if the load is being served by renewable resources and the owner of the renewable attribute wishes to receive RECs for the MWh production. In this circumstance failing to include the load

Enclosure 2

associated with the REC would result in an underestimate of the amount of total demand that should be counted towards the 2030 goal. Ignoring such load is appropriate if the behind-the-meter generation is either not being registered in NYGATS or if such RECs are not counted towards the RES goal. In effect, as discussed below concerning voluntary consumer actions, the REC is retired. In this circumstance, neither the load associated with the renewable generation nor the generation itself is part of the program and the load will not count towards the RES goal.⁵⁸

The Indicated Joint Utilities commented that when BTM generation is receiving net energy metering (NEM) compensation, the associated REC should be provided to the benefit of ratepayers who have contributed to the payments received through NEM. The Commission does not agree with this approach. The RECs have been contractually allocated within each transaction and, therefore, RECs should not now be reallocated to ratepayers. However, while RECs will not be reallocated, a proceeding is underway to move from NEM to a more granular and hence accurate methodology for pricing the value of distributed energy resources.⁵⁹ Until that time and because of the value that NEM provides to solar development, it is fair to say that ratepayers are as a whole supporting the development of the industry and in recognition of this contribution, the BTM load

⁵⁸ This issue will be revisited if at some later date the Commission decides that while voluntary market actions with additionality will not offset LSE compliance obligation but may be counted toward achievement of the overall program goal.

⁵⁹ Case 15-E-0751, Value of Distributed Energy Resources.

Enclosure 2

will not be included as part of the base forecast or as future load growth.⁶⁰

At the time the current net energy metering (NEM) compensation mechanism moves to a LMP+D approach based on a more precise determination of the value of distributed energy resources, it will be appropriate to revisit the question of under what circumstances BTM load should be considered as part of the base forecast.

c. Energy Efficiency Adjustment

Staff proposes to modify the base forecast by the subtraction of customer usage that is expected to be supplanted by energy efficiency measures. Staff proposes the subtraction of 35,627,000 MWhs (2,227,000 MWhs annually) based on its analysis the State would achieve that level of statewide incremental energy efficiency gains, and believes that growth level is consistent with current NYSERDA and utility targets.⁶¹

Energy efficiency is a crucial and cost effective means to achieve clean energy objectives. Study after study has shown that when deployed well, energy efficiency is the cheapest

⁶⁰ This outcome is also consistent with the way BTM generation is treated by other states in the region. In states with similar LSE obligations, certificates associated with each MWh of behind the meter generation are treated on the same basis as other generation delivering directly to the grid, without adjustments to individual or aggregate obligations. See <http://www.mass.gov/eea/docs/doer/rps-aps/225-cmr-14-00-draft-srec-ii-reg-020414-tracked-changes.pdf>; 225 CMR 14.00 RENEWABLE ENERGY PORTFOLIO STANDARD - CLASS I.

⁶¹ This figure includes an assumed contribution from NYPA and LIPA based on their proportional share of load, in addition to targets established for utilities and NYSERDA. Case 15-M-0252, Utility Energy Efficiency Programs, Order Authorizing Utility-Administered Energy Efficiency Portfolio Budgets and Targets for 2016 - 2018 (Issued and Effective January 22, 2016), Case 14-M-0094, Clean Energy Fund, Order Authorizing the Clean Energy Fund Framework (Issued and Effective January 21, 2016).

Enclosure 2

and most effective manner to reduce carbon emissions in the energy sector. In the CEF Order, the Commission requested that the stakeholders work with Staff and NYSERDA to determine whether the State should adopt a MWh and MW target for energy efficiency and, if so, to identify the appropriate level to be achieved and over what time period. In the REV Ratemaking Order, the Commission added to this opportunity by allowing utilities to achieve specific incentives to achieve added levels of energy efficiency.

The achievement of higher levels than the current energy efficiency targets can clearly benefit individual consumers and create system-wide value through the cost effective achievement of the RES and carbon reduction goals.⁶² Higher levels of energy efficiency and its timing will positively impact both the total target and the trajectory proposed to achieve it. However, for the purpose of the initial calculation of the 2030 target, it is premature for the Commission to presume any level more than the current objectives. Rather, this determination will be revisited after the work of the Clean Energy Advisory Council is concluded. In addition, the Commission agrees with parties that the demand forecast should not remain static. During the triennial reviews the Commission will update the forecast to taken into account actions or events that are having a measurable impact on demand forecasts.

d. No Adjustment for Carbon Reducing Technologies

Staff proposes to modify the base forecast by the addition of customer usage that is expected to be created by the deployment of electric vehicles (EVs) and thermal heat pumps. Staff proposes the addition of 8,615,000 MWhs based on its

⁶² Case 14-M-0101, supra, Order Adopting a Ratemaking and Utility Revenue Model Policy Framework, issued May 19, 2016.

Enclosure 2

projections. As a general principle, load growth associated with de-carbonizing actions in the transportation and building sectors requires encouragement in the State's regulatory and market approaches to encourage clean energy activity of all types. In this vein, in the DSIP Order and CEF Order the Commission asked parties to pay particular attention to actions and incentives that would encourage these efforts.

With regard to EV penetration, it is appropriate for utilities to have specific incentives and offer services to build out this critical industry. Increased levels of EV can have several beneficial aspects for the electric system, including increasing load factor efficiency through the addition of night time load and increasing the levels of fast acting local regulation and other ancillary services that support integration of higher levels of renewable resources. Similarly, the use of geothermal heat pumps can also support reduction of carbon in the heating sector and again improve electric load efficiency.

The Commission does not agree, therefore, that the load estimates should be increased to account for these activities. In both instances, rather than affecting the calculation of the RES, improved pricing will be developed through the Value of DER proceeding,⁶³ where adoption of an LMP+D methodology is being considered, the actions of FERC in the wholesale market, and the activities of the Clean Energy Advisory Council to ensure that the total net impact of these efforts are carbon neutral or positive. In addition, as discussed further herein, the Commission will consider whether a TREC program should be added. Individual actors who engage in

⁶³ Case 15-E-0751, supra.

Enclosure 2

these carbon saving activities also should be attracted to participate in other carbon reducing activities like energy efficiency programs that in combination allow them to achieve either low or net zero carbon impact.

Moreover, given the limited current market share it is not necessary at this time to calculate their impact on load growth. Over time, if these efforts do have a significant impact on electric demand to the point where they would represent a substantial increase in the RES requirement, the Commission will reconsider how best to treat these particular forms of load growth. However, for the purposes of setting the initial base line target, the Commission rejects this element of the Staff's recommendation.

e. Net Total Load

The net result of the two approved adjustments to the original base load is as follows:

	<u>2030 MWhs</u>
NYISO Load Extrapolated to 2030	176,619,000
Energy Efficiency Subtractions	(35,627,000)
<u>Resultant 2030 Load</u>	<u>140,992,000</u>
50% of 2030 Load	70,496,000

f. Baseline Renewable Resource Adjustment

The next step in the calculation methodology is to subtract the existing baseline of renewable resources from the 50% of load figure to determine the incremental level of new renewable resources needed to satisfy the goal. The Commission believes that because these resources are already included in the base of resources used to meet State load, it is appropriate to subtract out the existing quantity. The Commission will accept Staff's estimate of 41,296,000 MWh and assumes that all

Enclosure 2

of these resources will remain operational.⁶⁴ The net result of the adjustment is as follows:

50% of 2030 Load	70,496,000
<u>Baseline Renewable Resources 2014</u>	<u>(41,296,000)</u>
2030 Incremental Statewide Target	29,200,000

2. Annual Targets

Although the 2030 target of 50% renewable resources is clear as a percentage goal, the targeted number of MWh that must be procured by LSE's in any time period is dependent on a number of factors that will necessarily alter the level of annual requirements. In the previous Renewable Portfolio Standard and Energy Efficiency Portfolio Standard programs the Commission derived final targets from forecasts at the outset and did not subsequently revise them.⁶⁵ The approach taken here reflects the longer term, market driven and more comprehensive nature of REV and the RES as a component of this reform. In particular, the Commission anticipates that the trajectory for renewable development will be impacted by all forms of voluntary market activity. In other words, retail market participation, including customer behavior in terms of energy efficiency, behind the meter supply investments, supply mix, and hedging strategies, can and will impact the requisite level of mandated procurement in any given time period. As already discussed, the Commission expects that utilities and NYSERDA will both pursue

⁶⁴ If any of the renewable resources currently counted in the baseline sell RECs into other markets at some point in the future, the Commission may adjust the baseline in the future accordingly.

⁶⁵ Case 07-M-0548, Energy Efficiency Portfolio Standard, Order Establishing Energy Efficiency Portfolio Standard and Approving Programs, issued June 23, 2008. Case 03-E-0188, Retail Renewable Portfolio Standard, Order Regarding Retail Renewable Portfolio Standard, issued September 24, 2004.

Enclosure 2

and achieve higher levels of energy efficiency savings than currently forecasted. This outcome will positively affect consumers both in terms of overall bill impacts and achievement of environmental objectives. It will also necessarily require an adjustment of both the ultimate 2030 target and the trajectory to achieve it.

Establishing annual targets also must be done in the framework of other REV enabled system changes and associated market developments. There are considerable efforts underway to support the wide deployment of distributed energy resources throughout New York as a means to increase system reliability and resiliency as well as promote a more efficient, cost effective and cleaner grid. Starting with existing efforts related to NY-Sun, community solar, community aggregation, demonstration projects and demand response activities, this market momentum is already taking root. In the last three years related to solar alone there has been a 500% increase in growth. With the efforts being made in the CEF fund, the growth of the Green Bank, the recent filing of the DSIPs and the Commission's Order on Regulatory and Rate Design changes, it is anticipated these markets will develop even more rapidly and consequently have a dynamic and positive effect on the supply available to meet the demand for renewable energy. Based upon the speed of this activity and the choices of individual customers, the State may find itself in an enviable position of accelerated achievement of the 2030 target.

Related to these market developments are the effect that improved information, pricing, and product definition will have on customer grid-based supply choices. One of the great advantages that the Commission has in the development of the RES targets is the increased public awareness and interest in taking personal action to combat climate change, whether in the

Enclosure 2

interest of protecting against environmental damage or to ensure resiliency and to achieve positive economic as well as environmental outcomes. Businesses and institutions as diverse as Walmart, Google, the State University of New York and the U.S. Military have adopted programs that increasingly rely on renewable resources due to their economic and environmental benefits. From 2012 to 2015, the capacity of publicly announced corporate renewable power purchases increased from 0.05 GW in 2012 to 3.23 GW in 2015.⁶⁶

The State also has the opportunity to stimulate mass market consumer interest in grid based renewable purchases through the actions taken in the development of the retail market, including product requirement and product definition. Increasingly, utilities and retail market providers are recognizing that the mass market that purchases their services is far from monolithic. Many ESCOs are finding that product differentiation beyond price and target marketing as part of customer attraction and retention is of significant value. As part of the ESCO reset process, the Commission is considering how to best define value added products offered by ESCOs to the mass market. Many ESCOs today offer green energy products that may or may not conform to the forthcoming RES requirements. There is considerable value in the development of defined green products that consumers who have an interest in protecting the

⁶⁶ Corporate Renewable Deals 2012 to 2016, Business Renewables Center. In 2015, USEPA's Green Power Partnership program had over 1300 partners collectively using 30 GWh of green power annually. <https://www.epa.gov/greenpower/green-power-partnership-program-success-metrics>. From 2012 to 2016 there was a 40% increase in companies adopting sustainable business principles, and the amount of assets subject to fossil divestment rose from \$50 billion in 2014 to \$2.6 trillion in 2015. State of Green Business 2016, GreenBiz Group Inc., pp. 34, 54. See also, Creating Renewable Energy Opportunities, Utility-Corporate Buyer Collaborative Forum, June 2016.

Enclosure 2

environment will naturally gravitate to if they have confidence in the veracity of the offering.

Defining these products is the appropriate subject of the ESCO reset docket where these issues are currently pending. However, in the interest of supplying additional guidance, the Commission notes that for these products to be real and avoid market place confusion, they must offer environmental value that is greater than the level of renewable resources that can be acquired as part of normal default load. Thus, in defining a green product, the minimum content should be in excess of annual mandatory targets.

Based upon experience in the development of shared renewable resources, the value of these products to customers will also be enhanced if customers are confident that some if not all of the renewable energy they are purchasing is produced in New York. Again, the determination of this content issue is beyond the scope of this proceeding, but Staff is directed to work with NYSERDA and other interested stakeholders within the pending reset process to develop content and definition standards that can be used to market a New York certified green electric product, i.e., a product that customers know has a defined content of NY-based green power.⁶⁷

The successful stimulation of these customer-initiated choices will have a necessary impact on the trajectory of the required acquisitions to achieve the 50% target for 2030. It is anticipated this demand will have separate effects based upon the consumers' individual choices. Many consumers will want to

⁶⁷ To avoid any suggestion of a commerce clause violation, the Commission is not suggesting that the LSE must use NY produced power to meet its compliance obligations. Rather, the focus here is on directing efforts to meet consumer demand for accurate information and full choice on the content of the supply they purchase and the location of the source.

Enclosure 2

claim that their participation is voluntary or additional to the State's program. When a purchase of renewable resources is made in the absence of a government mandate, or if it is not counted toward compliance with a government mandate, it is typically described as "voluntary" or "additional" to any compliance obligation. Over the years, well-established national and international protocols have been developed to ensure that any commercial claims of voluntary or additional activity conform to guidelines and are not misleading to the public.⁶⁸

In the context of the RES, for example, if a customer served by an LSE chooses 100% renewable energy, the customer may want to claim "additionality" and require the LSE to retire RECs associated with more than 50% of the served load. This action prevents the LSE from reducing the amount of RECs it would otherwise require to meet its minimal compliance obligation. In this way, the customer is increasing the amount of incremental renewable resources.

Other customers choosing to go higher than 50% may instead want or be indifferent to the LSE applying the excess to other customers less willing or able to make those choices. The net effect of this action is that, by revealing their preferences, customers may be able to accelerate the State's achievement of the 50% target, or, that the target becomes the minimum and that the revealed preference of New Yorkers as a whole is to have a greater than 50% resource mix of renewable resources. In all cases, the development of a vibrant market for consumer choice for clean resources and the development of standard products that create confidence, will impact the timing

⁶⁸ See, e.g., Guides for the Use of Environmental Marketing Claims (Federal Trade Commission Green Guide), 16 CFR Part 260; also see Environmental Marketing Guidelines for Electricity, National Association of Attorneys General.

Enclosure 2

of the mandated requirements and their associated costs. As discussed below, banking of RECs will be available for LSEs if demand for green products, as expected, proves to be substantial. A high demand for green products may also warrant an adjustment to the mandated target that better reflects positive market interest for renewable development and attendant lower risks and costs to those New York consumers who do not share that interest.⁶⁹

The Commission also is sympathetic to the interests of some consumers who would prefer to have a 100% renewable energy mix and make no contribution to the ZEC program. This type of reallocation of individual consumer obligations may prove to be in the broader public interest if it results in new renewable development in New York that counts towards the 50 by 30 standard and is subject to contractual obligations for at least as long as the NYSERDA contract with the nuclear units as described infra. Staff shall review the development of this opportunity and provide recommendations to be considered as part of the ESCO reset Order and implementation phase

The Commission also recognizes that even while it is optimistic for success, the development of new renewable resources or any new resource can take more time than anticipated. The concern here is that if supply is not able to meet the jurisdictional level of demand, the prices may increase higher than is reasonable for consumers. In this circumstance, the Commission may decide to adjust near-term targets downward, increase obligations in later years, or focus on actions that

⁶⁹ The Commission also notes that in addition to the consumer based actions, changes in RGGI pricing, wholesale market rules and federal clean energy requirements can all impact the pace of State action. Rather than detract, these phenomena add to the need for the State to remain flexible in its approach to annual targets.

Enclosure 2

can facilitate development. Before taking such a step, all reasonable measures to reduce project costs, including soft costs such as siting and interconnection, should be pursued.

Along with the ability to accommodate market dynamics, the trajectory for acquiring renewable resources under the RES must be informed by improvements in the cost structure for renewable resources, both in front of and behind the meter. Over the last three years the reported installed cost of solar has declined by about 26%. The cost of wind has seen a similar improvement and technology changes associated with offshore wind development and economies of scale will also improve these cost dynamics. Additionally, as noted in the cost study, supply prices for natural gas may also increase electric prices. The cost study also noted other factors such as the availability of federal tax credits, interest rates and other market factors which can affect the economics of acquiring new renewable resources. All of these fundamentals have the effect of potentially improving the competitiveness of renewable resources and reduce the attributed payment they seek in the REC auctions, all which benefit consumers.

All of these factors suggest a pragmatic approach to establishing the yearly targets for LSE compliance under the RES. Staff has recommended that the Commission establish firm targets in the initial years and then provide a triennial review. While firm targets for planning purposes are necessary for the near-term, there is value to the market in seeing a potential trajectory that is non-linear and that looks to take advantage of voluntary consumer activities and reduced renewable supply costs. The Commission directs Staff, as part of the implementation plan to i) review and either confirm or propose modifications to the targets adopted here for 2018-2021 after taking into consideration current market conditions including

Enclosure 2

the result of the 2016 NYSEDA LSR solicitation⁷⁰ and ii) develop a potential acquisition curve for the years 2022-2030. The curve will serve simply as a base case calculation that will be adjusted as necessary based upon actual market dynamics.

In summary, the Commission establishes, subject to the review directed above, the following fixed targets and requires each New York LSE to serve their retail customers by procuring new renewable resources, evidenced by the procurement of qualifying RECs, acquired in the following proportions of the total load served by the LSE for the years 2017 through 2021:

Year	Percentage of LSE Total Load
2017	0.6%
2018	1.1%
2019	2.0%
2020	3.4%
2021	4.8%

⁷⁰ NYSEDA is currently evaluating responses to the 2016 RPS solicitation. RECs procured through that solicitation will be treated as Tier 1 resources that will provides RECs in or after 2018. The Commission recognizes that current market conditions, including the limited continuation of applicable federal tax credits, may be favorable, resulting in attractive pricing in this current solicitation. In that case, there is no reason to delay additional procurement or supply. Any such additional procurement can be funded through an acceleration of the consumption targets for the years 2018 - 2030. Accordingly, if NYSEDA determines that acceleration is warranted because the additional financial commitment would result in an overall weighted average award price of 2016 Main Tier projects equal to or less than the 2015 Main Tier weighted average price of \$24.57 per REC, it is authorized to implement additional procurement levels in the 2016 procurement and file a report with the Commission documenting its determination and the results.

Enclosure 2

Over time through the triennial review process, the Commission will adopt incrementally larger percentages for the year 2022 through 2030, with sufficient lead time for the LSEs to incorporate the changes into their planning processes. The periodic review and target setting will also take into account the balance of likely incremental supply with demand. Based on current forecasts of future loads, the above percentages will yield the following MWhs of output from new renewable resources:

Statewide Yield (MWhs)

Year	Distribution Utilities & ESCOs	LIPA	NYPA	Direct Customers	Statewide Total
2017	705,595	120,244	139,225	8,936	974,000
2018	1,261,429	214,967	248,900	15,975	1,741,270
2019	2,263,192	385,682	446,563	28,662	3,124,100
2020	3,841,197	654,599	757,928	48,647	5,302,371
2021	5,455,424	929,688	1,076,440	69,090	7,530,642

3. LSE Obligation

Achieving the statewide 50 by 30 goal will involve a variety of elements and resources, including market-based, regulatory, and non-jurisdictional factors. The basic regulatory component of the RES will be an obligation on LSEs, consistent with the approach used in neighboring states. This will place compliance costs primarily on generation supply charges, where they are most appropriately applied. Placing compliance costs on supply will encourage efficiency, support voluntary hedging and power purchase agreements, and help to develop markets at the retail level, by encouraging competitive LSEs to develop innovative products. Consistency with other states will allow developers to participate in markets in

Enclosure 2

multiple jurisdictions and may enable trading to reduce overall costs.

The obligation will apply to every LSE serving retail load within a regulated distribution utility territory. This will include investor-owned utilities serving in their role as electric commodity supplier of last resort, jurisdictional municipal utilities, competitive ESCOs serving electric commodity to retail customers, and community choice aggregators not otherwise served by an ESCO.⁷¹ Customers purchasing power directly from the NYISO will be considered LSEs for this purpose, so that their consumption levels are accounted for without other customers bearing the burden.⁷² This adoption of the Renewable Energy Standard is a changed regulatory requirement for the purposes of the Uniform Business Practices (UBP).

Each LSE will be responsible for supplying a defined percentage of retail load with supply derived from eligible resources, as defined by the compliance methods discussed below. The obligation will be annual, determined by multiplying the LSE's actual load for that year by the percentage RES target for that year.⁷³

Representatives of ESCOs argued that some ESCOs have fixed price contracts with customers, and that these ESCOs could

⁷¹ See, Case 14-M-0224, Community Choice Aggregation Programs, Order Authorizing Framework for Community Choice Aggregation Opt-Out Program, issued April 21, 2016.

⁷² Under the Federal Power Act, any sale of electricity that is not a sale for resale is subject to Commission's jurisdiction instead of FERC's. A sale by the NYISO to a direct customer consumer is not a sale for resale, it is a retail sale subject to Commission jurisdiction.

⁷³ The LSE's obligation will be measured at the wholesale level, i.e., grossed up to reflect the generation needed to serve customers prior to line losses.

Enclosure 2

not pass through the additional costs created by the LSE obligation. As an equitable matter, all customers and market participants must share in the RES effort. In the early years of the RES, the incremental obligation will be small, so this will not fall outside the range of normal business risks. As the LSE obligation grows, ESCOs will have timed out of their fixed price obligations, and the RES obligation will provide both incentives for ESCOs to develop new products, and opportunities to appeal to voluntary 100% green markets.

Municipal utilities have argued that they should be exempt from the LSE obligation because they already are supplied with large amounts of hydropower. NYPA hydropower that is sold to municipal utilities on a wholesale basis, however, is part of the baseline. The jurisdictional increment of the RES is in addition to the baseline and is the responsibility of every load serving entity. If municipal utilities were exempt from the LSE obligation, other LSEs would have to carry their portion of the statewide goal. The fact that municipal utilities currently obtain very low-cost power is not a persuasive argument for exempting them from sharing in a statewide obligation.

Several parties commented that microgrids and combined heat and power generators should be subject to the LSE obligation. At this time, the amount of load represented by these categories is relatively small, and the CES should not become an obstacle to their further development. Potential application of the LSE obligation to new microgrids and CHP generators should be considered as part of the triennial review process.

4. Long-Term Procurement Issues

a. Need for Long-term Procurement

The entire RES goal could theoretically be satisfied by a spot market for RECs. In practice, however, given the

Enclosure 2

conditions of markets at this time, a sole reliance on a spot market - i.e., a completely self-initiated market without a long-term coordinated procurement strategy - would result in high compliance costs. A long-term procurement process is needed to achieve the 50 by 30 goal.

Staff described the risks faced by renewable project developers in competitive markets. These risks would lead to high compliance costs that would be passed on to customers. The most obvious concern is that financing for renewable projects will be more expensive without a long-term assurance of a revenue stream. Under an approach that relied on a spot market for RECs, developers would assume the risk of technology costs declining, with established projects having to compete against lower-cost entrants. A long-term contract for RECs can address this problem, although there will be a remaining risk of change in energy prices.

This concern is enhanced where there is a competitive retail market structure. Each LSE will have a compliance obligation based on its annual retail load. Customers are free to switch suppliers, however, and no LSE is guaranteed constant or predictable retail sales volume for commodity sales. There will be risk attached to long-term procurement obligations undertaken by any LSE, because the LSE has no assurance that it will retain customers to support the long-term obligation.

In short, developers argue that they will face risk in the absence of long-term bundled contracts, while LSEs argue that they will face risk in entering long-term contracts. Because demand for RECs will be mandated and thus relatively inelastic, REC supply shortages caused by these risks would result either in high prices or in non-compliance.

Establishing a long-term procurement process is intended to complement a spot market for RECs, not to eliminate

Enclosure 2

it. Depending on how procurement targets are set and how the market responds to solicitations, there are likely to be times when long-term procurement does not satisfy the entire LSE obligation. There will also be LSEs that choose not to participate in the long-term procurement process.

b. Types of Long-term Procurement

Much of the comments about long-term contracts have centered on a choice between bundled power-purchase agreements and utility-owned generation. REI argued that PPAs will be the most cost-effective means of bringing renewable developers into New York on the scale needed to meet the targets. They cited the Cost Study as confirming the value of PPAs. Utilities argued that PPAs would present risks to ratepayers, but that UOGs can substantially reduce costs due to lower financing costs and continued ownership of the residual value of plants. Renewable developers who oppose utility ownership argued that the residual value is reflected in their bid prices. IPPNY argued that allowing utility ownership would reverse a long-standing Commission policy. Opponents of utility ownership claimed that utilities would have an advantage in competitive processes because they could understate initial costs and then recover cost overruns from ratepayers. Utilities proposed that their ownership could be limited to a financial basis, with independent companies developing, building, and potentially operating the renewable facilities. IJU proposed a portfolio approach, combining a utility finance-only ownership model with a REC-only market and a voluntary market.

Under the current RPS program, long-term procurement is achieved through REC-only contracts executed by NYSEERDA following competitive solicitations. In this model, developers sell the power commodity in capacity and energy markets and only the REC is subject to a long-term contract. Proponents of PPAs

Enclosure 2

and UOGs argued that the energy price risk involved in a REC-only contract will result in higher bids for the REC attribute. Those parties suggest that REC contracts should be used only for the residual LSE obligation that is not procured through a bundled contract.

c. Power Markets in New York

The manner in which to best achieve the Commission's goals, at reasonable cost, is directly tied to the design of power markets in New York. In New York's restructured markets, distribution utilities do not own generation facilities. Generation plants are owned by independent producers, who sell wholesale power primarily through markets operated by the New York Independent System Operator. Power is sold at retail to customers by competitive ESCOs as well as distribution utilities as default service suppliers for those customers who do not choose a competitive supplier. The power sold at retail by ESCOs and utilities is primarily purchased from the independent generators through the wholesale market, and is delivered physically by distribution utilities.⁷⁴

Under this structure, competitive markets set the power price, and most of the Commission's rate regulation activities are limited to the costs of physically delivering the power and maintaining a reliable delivery system. The previously established clean energy programs such as the RPS and EEPS have been funded through surcharges on delivery bills. Costs related to energy usage, however, should be reflected in the energy component of the bill for the reasons previously discussed.

⁷⁴ The wholesale markets are complemented by bilateral markets. This description of New York's market structure is intended to be a general overview and does not reflect numerous exceptions and detailed qualifications.

Enclosure 2

d. Determination

The volume of new development that will be needed to achieve 50 by 30 is much greater than the annual pace the RPS program has achieved to date. Analysis of this issue is driven by the Commission's fundamental responsibility to consumers to achieve the SEP goal at a reasonable cost. For this it is apparent that some form of long-term procurement will be needed.

Investors simply will not look to build renewable generation facilities without sufficient certainty that they will successfully earn a return on their investment. In the case of the type of long-lived capital investment necessary to construct and operate a generation facility, a long-term contract or other durable mechanism providing reasonably certain terms will be necessary to induce such investment. Without the assurances that a long-term contract provides, the renewable generation projects that the State requires will not come to fruition.

The principal question is whether that procurement should involve only RECs or whether it should also involve bundled power contracts and/or direct utility investment. A subsidiary question would be whether a bundled procurement approach, if taken, should be achieved through PPAs, UOGs, or some combination. Reasonable arguments were made on various sides of this issue. In addressing this question, the Commission has broad authority under the Public Service Law. The determination will be governed by policy concerns as to the most reasonable and effective way to achieve the renewable goal.

Mandating utilities to enter long-term PPAs would present a significant financial risk to ratepayers and to utilities. Because customers in New York can choose their power suppliers, no supplier is assured of the size of its customer base, for purposes of energy sales, over the long-term. This is

Enclosure 2

true of distribution utilities as well as ESCOs. Because there is no assurance of a long-term customer base from which to recover the cost of power contracts, mandated PPAs would create the risk of utilities recovering costs from a dwindling group of default energy customers, or to resort to a non-bypassable surcharge that applies to all delivery customers. Because a delivery surcharge limits competitive choice, it is not the preferred alternative. Advocates of PPAs argued that there are hedge benefits as well; but hedging in power markets tends to occur over three- to five-year periods, not 20-year periods.

Utility-owned generation can cost less than the alternatives, in the near-term, largely because utilities have lower finance costs. But utility owned generation also has the potential to inhibit entry by other market participants, which can result in less competition and higher costs in the long-run.

Procurement that is limited to the REC, and does not include the power supply itself, avoids the pitfalls of PPAs and UOGs, but may result in higher costs for the renewable attribute, as developers build the increased risk of power cost fluctuation into their bids to sell the renewable attribute.

The potential for federal preemption creates a risk that could slow the implementation of the RES. The U.S. Supreme Court decision in Hughes v. Talen Energy Marketing, LLC, 136 S. Ct. 1288 (2016) does not directly bar power purchase agreements. It does, however, cast uncertainty over state-mandated contracts that parties may argue interfere with federally supervised wholesale markets.

An additional concern is a practice of FERC which places constraints on the Commission's ability to mandate PPAs in a cost-effective manner. FERC's current policy of imposing "buyer-side mitigation measures" upon various resources participating in the downstate installed capacity markets

Enclosure 2

creates significant risk that a PPA backed by a public resource (including utility ratepayers) could fail to clear the capacity market thereby forcing ratepayers to purchase capacity from other resources that would not otherwise be needed.⁷⁵ Although exemptions for certain renewable resources or other policy-driven procurements have been discussed in various orders, no clear policy delineations exist at this time. For instance, a proposal currently pending before FERC would allow limited exemptions from buyer-side mitigation for certain intermittent renewable resources below a 1,000 MW annual cap.⁷⁶ Whether this policy is ultimately adopted or not, FERC's current approach to capacity markets, and presumptions against bilateral contracts of major retail suppliers, cast a shadow over a reliance on mandated PPAs to achieve RES targets. The risk of federal preemption could disrupt and delay the entire RES initiative.

The arguments in favor of PPAs and UOGs are substantial. Consistent with the Commission's long-standing policies, however, as a matter of first preference long-term PPAs will not be mandated, nor will the Commission revert to a blanket authorization of traditional UOGs. Long-term procurement will begin by employing the current method of fixed-price REC contracts. This approach will provide a simple transition from the RPS program into the RES. Because of the much larger procurement levels under the RES, and because the

⁷⁵ There is also considerable risk that the buyer-side mitigation measures may be extended to the rest-of-state capacity markets, which is pending before FERC. Docket No. EL13-62, Independent Power Producers of New York, Inc. v. New York Independent System Operator, Inc., Order Denying Complaint (issued March 19, 2015).

⁷⁶ See Docket No. ER16-1404, New York Independent System Operator, Inc., NYISO Compliance Filing (filed April 13, 2016).

Enclosure 2

procurements will not be budget-bounded as RPS procurements are, a wider range of developers is expected to participate.

e. Review of Procurement Practices

The determination here is a continuation of the Commission's policy of relying on markets where feasible, as the best long-run approach to reducing costs and promoting innovation.⁷⁷ In the context of the RES, a balance is needed between long-run reliance on markets and the need to achieve consistent and measured progress toward the 2030 goal. For that reason, REC markets will be closely monitored and if projects are not being developed in New York at a satisfactory pace, the Commission will consider alternative procurement approaches.

The effectiveness of REC-only procurement will be evaluated in the triennial review process. Criteria to be considered in this review include:

- whether supply is available to meet LSE obligations;
- cost of RECs compared with neighboring states and other markets;
- extent of reliance on Alternative Compliance Payments;
- effects on ratepayer cost and risk and overall bill impacts;
- rate of entry by competitive developers;
- extent to which projects are developed in-state; and
- extent of in-state projects selling RECs into neighboring markets.

⁷⁷ The Commission's decision to limit mandated procurements to REC-only should not inhibit market participants in developing innovative approaches for the procurement of new Tier 1 resources.

Enclosure 2

5. Design Parameters

a. No Separate New Resource Tiers

Tier 1 is for the procurement of new renewable resources of all types beginning commercial operation on or after January 1, 2015. The use of multiple tiers would reduce the competition within tiers that is necessary to achieve lower long-term costs. Although numerous parties propose separate tiers for preferred types of new resources, it is more effective to allow all new resources to compete directly with each other. In its White Paper, Staff correctly points out that co-incentives can serve as an effective means to provide financial support that is determined to be appropriate to advance state policy.

Some parties argue for a separate obligation for offshore wind. Offshore wind is an evolving technology. The Bureau of Ocean Energy Management identified the coastal region of New York as an ideal location for offshore wind development. The Commission agrees that offshore wind will be a vital component in achieving the State's renewable goals. There is no need, however, to immediately establish a specific near-term target because NYSERDA is already tasked with developing a blue print for offshore wind development for the State. The appropriate next step, therefore, is to await NYSERDA's study and request that NYSERDA include in its analysis recommendations on the best solutions for maximizing the potential for offshore wind in New York.

Some parties also argue for a separate obligation related to energy storage. Storage is a critically important component of the energy system that is both distributed and increasingly reliant on intermittent resources. Unlike other resources, the load shifting and fast response capabilities of various forms of storage resources allow them to provide

Enclosure 2

simultaneous value as an energy and reliability resource. Storage can also provide value to the distribution based retail and bulk power markets. The Commission agrees with the view expressed by NYBEST that it is important for utilities to gain understanding of the capabilities of storage through direct hands on experience. For those reasons and in order for storage to gain its appropriate place as a resource that provides network value to the distribution system provider, the Commission has allowed utilities to invest in storage to support integration of renewables and is looking for the best mechanisms to value fast acting firming resources on the distribution grid in the development of pricing for DER. The Commission has specifically directed the utilities to consider the impact of storage as part of their DSIPs. It is expected that the value of storage to be accurately monetized in the development of the retail markets for energy efficiency and the utility EAMs for system efficiency. In this Order the Commission is also directing Staff to work with the ISO to make sure as part of the development of the CES, the ISO is improving the bulk power market to better signal and value the ability of storage to firm resources and improve the reliability of the bulk power system in a manner that is more efficient and secure than transmission alone. FERC has already commenced working on this specific issue.⁷⁸ In short, it is without question that modern markets must sufficiently and accurately value storage as a vehicle to design and optimize network planning and operations. However, as a reliability support and system optimizing resource, storage is not properly characterized as a standalone renewable energy

⁷⁸ FERC Docket No. AD16-20-000, Electric Storage Participation in Regions with Organized Wholesale Electric Markets, Letter Requesting New York Independent System Operator, Inc. Response (issued April 11, 2016).

Enclosure 2

resource under the CES. That being said, if the various mechanisms that the Commission is pursuing to ensure storage takes its rightful place as a critical resource for the modern grid prove insufficient, this topic will be revisited.

NY GEO proposes a separate thermal renewable energy credit or "TREC" requirement applicable to geothermal heat pumps, to recognize the manner in which they utilize renewable geothermal energy and reduce system wide carbon emissions. Including geothermal heat pumps as an eligible technology could add an additional source of competitive RECs to the overall compliance pool, which could reduce costs for all participants. NY GEO's proposal acknowledges, however, that there are administrative complexities involved in determining the mechanism by which geothermal exploitation can be converted into TRECs. During the Implementation Phase Staff will propose a process for parties to consider such complexities and to explore practical administrative mechanisms that might be employed to accommodate geothermal heat pumps as an eligible technology.

b. Eligibility

Staff's proposed eligibility framework is reasonable. Resources eligible to provide Tier 1 compliance will mirror the eligibility rules currently used for the Main Tier of the RPS, with the exception that the former 30 MW limit on low-impact run-of-river hydroelectric facilities is eliminated. The eligible resource categories will include Biogas, Biomass, Liquid Biofuels, Fuel Cells, Hydroelectric, Solar, Tidal/Ocean, and Wind. More detailed requirements as to eligibility of these resources are contained in Appendix A entitled Eligibility of Resources. Several parties argued that there should be no restrictions at all on the eligibility of large scale hydro facilities. This issue was extensively debated in the creation of the RPS, with many parties opposing the environmental impacts

Enclosure 2

of large impoundments, including methane emissions. The resolution in that proceeding, that no new storage impoundment will be permitted for any eligible hydroelectric facility, remains reasonable and is not changed. To the extent any factor has changed since the RPS Order, it is an increasing awareness of the climate change impacts of methane and concern over methane releases from large hydro impoundments, particularly new ones in which flooded vegetation would be decomposing and releasing methane.

Staff's proposed delivery criteria for geographic eligibility is also adopted. Eligible facilities must either be located in New York or in a control area adjacent to the New York Control Area, with documentation of a contract path and delivery of the underlying energy for consumption in New York between the generator and either the New York Spot Market administered by the NYISO or an LSE in New York, including transmission or transmission rights. More detailed requirements as to geographic eligibility are contained in Appendix A entitled Eligibility of Resources.

c. Compliance.

The medium of compliance will be the REC, with one REC created for each one MWh generated by an eligible facility. As mentioned, this is the universal unit of measure used in multiple jurisdictions, which allows efficient trading with liquidity, transparency, and verification. RECs will be tracked and verified through NYGATS. Ideally, NYGATS will be able to verify eligibility including the delivery requirement described above for some or all of the resources such that the delivery requirement documentation can be mostly met through NYGATS. A description of NYGATS is included in Appendix C.

Each LSE will demonstrate compliance through an annual compliance filing. LSEs may purchase RECs from NYSERDA for

Enclosure 2

retirement by the purchaser, or may self-supply by direct purchase and/or sale of tradable RECs,⁷⁹ but a REC can only be used once for compliance and after a REC is used to demonstrate compliance it is permanently retired. ESCO's may also develop and own renewable resources for sale to their retail customers. RECs purchased from NYSERDA in 2017 may not be traded, but may be sold back to NYSERDA at cost if not needed to demonstrate compliance. Any excess RECs held by NYSERDA at the end of a compliance period will be eligible and offered for sale by NYSERDA in subsequent compliance periods. NYSERDA's role as the central procurer of RECs is intended to contribute to reducing the cost of compliance. However, the tradability of NYSERDA procured RECs could result in increased cost. Accordingly, for Compliance Year 2018 and following, Staff will include a recommendation regarding whether NYSERDA procured RECs should be tradable as part of its implementation proposal and parties should be prepared to comment on the concern that trading of NYSERDA procured RECs may result in increased cost through the arbitrage.

MI questions the need for a REC obligation, arguing that the current method of RPS procurement may result in lower costs by preventing developers from selling RECs into other states. In a similar vein, some utilities argued that fully centralized procurement would obviate the need for a REC market.

Notwithstanding those comments, the parties demonstrated strong support for NYSERDA's continuing role as a central procurement agent. Some utilities argue that NYSERDA procurement should be exclusive. Their proposal that LSEs

⁷⁹ For example, if an entity enters into a combined power purchase agreement with RECs obtained outside of the NYSERDA central procurement process, the RECs obtained in that contact would be fully tradable.

Enclosure 2

should not be able to self-supply outside of the NYSERDA process is rejected. Self-supply and third-party procurement by LSEs will provide competition and a benchmark for measuring the effectiveness of central procurement.⁸⁰

The compliance period shall be January 1 to December 31 of each year, beginning in 2017. The settlement date for demonstrating compliance will not occur until a reasonable time after the NYISO settlement process for the compliance period ends to allow LSEs a settlement period opportunity to re-calibrate their REC supply for the compliance period to match their actual obligation quantity. The details of the settlement process will be included in an implementation proposal by staff for inclusion in an implementation order.

For the Year 2017 compliance period, by December 1, 2016, NYSERDA shall publish on its website a REC price and the estimated quantity of the RECs NYSERDA will offer for sale in the 2017 compliance period. The REC price offered will equal the weighted average cost per MWh NYSERDA paid to acquire the RECs to be offered, plus a reasonable Commission-approved adder to cover the administrative costs and fees incurred by NYSERDA to administer Tier 1. NYSERDA will file a petition with the Commission proposing the amount of the adder by August 25, 2016, in order to allow the Commission an opportunity to consider the adder at its November 2016 Session. For subsequent years, Staff will propose a methodology for pricing and offering RECs as part of the implementation phase of this proceeding.

By December 1, 2016 for the Year 2017 compliance period, each LSE will inform NYSERDA whether it intends to

⁸⁰ Although the precise terms of independent procurement may not be known due to proprietary reasons, the competitiveness of independent procurement may be inferred from the resulting market offerings.

Enclosure 2

purchase RECs from NYSERDA during the compliance period. During the 2017 compliance period, NYSERDA will offer the RECs for sale in the compliance period to each participating LSE with a right of first refusal to each participating LSE to purchase their proportional share of the available RECs based on historical share of load. As part of the aforementioned petition, NYSERDA will establish a sales and payment schedule during the compliance period intended to generally match on a periodic basis (monthly or quarterly) the sales quantity to the expected actual load quantity so as to minimize the time that NYSERDA is holding RECs in its own account. Any unsold RECs at the end of the compliance period will then be offered by NYSERDA for sale generally to the participating LSEs that wish to purchase them in a non-discriminatory manner during the settlement period to satisfy their then-current obligation. For years following 2017, Staff will propose a methodology for consideration by the Commission for determining the terms for the purchase of RECs.

d. Alternative Compliance Payment

The development of voluntary market activity, as described above, can potentially have a large effect on the overall bill impacts of the CES, as voluntary and market-driven actions increase the amount of renewable generation, reduce the total amount of jurisdictional load, and shift usage.

With respect to the LSE obligation itself, one vehicle by which costs will be mitigated through a principal compliance flexibility measure is the Alternative Compliance Payment (ACP), which is a payment made as an alternative to demonstrating compliance with RECs. The ACP is not a penalty for non-compliance; rather, it is an alternative avenue to compliance. In effect, it caps the total cost of the RES because LSEs will have no need to incur costs higher than the ACP. ACP payments

Enclosure 2

will be made to NYSERDA during the settlement period for the Compliance Year.

Disposition of ACP payments must always be applied to the benefit of consumers by reducing the cost of the RES program. As part of an implementation proposal, Staff will consider the ways this policy can be achieved and will make recommendations for consideration by the Commission as part of an implementation order.

By December 1, 2016 for the Year 2017 compliance period, NYSERDA shall publish on its website a per MWh ACP price for the 2017 compliance period. The ACP price will equal an amount calculated as the published REC price plus 10%. Staff will propose a methodology for establishing the ACP for the Commission's consideration for subsequent years as part of the implementation phase. Many states within our region have adopted ACP as part of their RPS programs. The alignment or divergence of ACP requirements can materially affect the cost of compliance. Moreover, regional markets enabled through consistency of state requirements can contribute to reducing the cost of achieving the RES goal. Accordingly, as part of implementation, the Commission will work with the State's RGGI counterparts to find ways of supporting stronger regional consistency that can benefit all consumers.

e. Banking and Borrowing

A second vehicle by which costs will be mitigated through a principal compliance flexibility measure is the banking of RECs. Staff proposes that banking of RECs should be permitted and left open the issue of borrowing. The Commission agrees that short-term banking of RECs is an effective tool to allow flexibility and manage compliance efficiently. Banking will also apply to NYSERDA procurements, which may exceed LSE Obligation targets by large amounts if market conditions are

Enclosure 2

favorable. Terms for banking will be adopted in an implementation order. As discussed previously, the cost of complying with the RES program can be reduced through consistency with other States and the development of regional markets. Accordingly, Staff should consider how other state programs in the region have addressed this issue and the applicability of those approaches to the NY RES.

The Commission will not allow borrowing of RECs at this time. It is not necessary because of ACP and produces a risk of non-compliance. An LSE facing a shortfall can either purchase tradable RECs on the market from eligible in-state or out-of-state sources, or make an ACP payment. If borrowing is not an option, LSEs will have a greater incentive to procure sufficient RECs during the compliance period.

GE proposed that a force majeure provision should be added to increase flexibility in the event of disasters. Rather than establishing a general provision in advance that could give rise to uncertainty and argumentation, the Commission will leave open the possibility of making adjustments as needed if exigent circumstances arise.

f. Role of NYSERDA

Although NYSERDA's role will be intermediary, NYSERDA will take title to RECs (including as a result of the 2016 solicitation and all other solicitations going forward) and will need initial capitalization as well as assurance against financial risk. Unlike the RPS, which operates on a pre-established budget, RES procurement will be driven by supply and demand and the total procurement expenditures in any given cycle will not be known beforehand. Although the financial risk to NYSERDA will be relatively small, it may nevertheless require a guarantor. The distribution utilities may be best situated to provide this service, subject to cost recovery from ratepayers

Enclosure 2

and accordingly are required to do so.⁸¹ Staff will consult with NYSERDA and develop for Commission consideration as part of an implementation proposal a plan for providing appropriate capitalization and cash flow for NYSERDA's role and to establish an equitable mechanism for distribution utilities to provide the necessary financing and guarantees, as necessary.

6. Solicitation/Procurement Cycle

There is considerable discussion in the record on the importance of establishing annual targets for REC contract solicitations. Renewable energy developers were uniform and clear that knowing the specifics of the State's procurement plan well in advance allows them to engage in the pre-development activities that yield the advantages of competition. Developers and others also pointed to the fact that historically the uncertainty around the timing and level of NYSERDA renewable solicitations reduced their interest and ability to compete and provide value to consumers. Developer and investor confidence will be critical to success moving forward. The Commission will require scheduled annual solicitations so that developers can prepare their participation.

Annual procurement targets must be established on a forward-looking basis that accounts for the typical lead time needed to develop projects and bring them into operation.

Factors to be considered include:

- The amount of investment that can be driven by spot REC markets, and voluntary market activity whether based on REV market activity or customer initiatives intended to be additional to an LSE's compliance requirements;

⁸¹ In furtherance of the ongoing effort to reduce the cost of compliance, NYSERDA should consider and present any options by which the costs associated with the development of a Tier 1 resource and therefore the cost of RECs can be reduced through securitization.

Enclosure 2

- Expected attrition, i.e., the rate at which executed contracts may fail to result in constructed projects;
- Time-lag and uncertainty in bringing projects into operation; and
- Likely development rates of policy-driven projects; and
- Whether NYPA and/or LIPA will be participating in NYSERDA's procurement process.

In contrast to RPS procurement, NYSERDA's procurement under the RES will be more predictable and reliable from the developers' standpoint thereby enabling the commitment of resources to actively participate in the New York market. Instead of being budget-bounded, RES procurements will be driven by a process that is predictable with established dates for solicitations, fixed targets and clear procurement goals set forth in both the compliance and procurement schedules. To that end, the Commission requires that no less than one solicitation will be conducted during the first half of each calendar year. If the solicitation acquires less than the minimum procurement target for that year, it will be followed by a second solicitation within the same calendar year. For the 2017 procurement period NYSERDA shall establish and publish on its website no later than December 1, 2016, a firm schedule of fixed dates for the annual and potential supplemental solicitations. Details regarding the procurement process from 2018 and following will be addressed in an implementation proposal and order.

The initial Anticipated and mandated Minimum procurement targets for years 2017-2021 will be as follows:

Enclosure 2

Year	Distribution Utilities & ESCOs	LIPA	NYPA	Direct Customers	Anticipated Procurement Target (MWh)*
2017	1,424,555	242,766	281,087	18,041	1,966,449
2018	1,464,801	249,624	289,028	18,551	2,022,004
2019	1,505,047	256,483	296,969	19,061	2,077,560
2020	1,545,293	263,342	304,911	19,570	2,133,116
2021	1,585,539	270,200	312,852	20,080	2,188,671

* Assumes that NYSERDA will be procuring RECs for NYPA and LIPA customer loads. In the event that NYPA and LIPA do not participate in NYSERDA's procurements, the procurement targets will be adjusted accordingly by reviewing the NYPA or LIPA portions shown in this table.

Year	Distribution Utilities & ESCOs	LIPA	NYPA	Direct Customers	Minimum Procurement Target (MWh)*
2017	1,282,099	218,489	252,978	16,237	1,769,804
2018	1,318,321	224,662	260,125	16,696	1,819,804
2019	1,354,542	230,835	267,272	17,155	1,869,804
2020	1,390,764	237,007	274,419	17,613	1,919,804
2021	1,426,985	243,180	281,567	18,072	1,969,804

* Assumes a 10% attrition rate from the Anticipated Procurement Target

7. Procurement Guidelines

Staff, in consultation with NYSERDA, will propose procurement guidelines for consideration by the Commission as part of the implementation plan. As a default, the part price, part economic development scoring that was previously used in RPS REC contract solicitations for comparing bids shall be

Enclosure 2

incorporated into the proposed guidelines unless it can be demonstrated to be ineffective. In addition to cost and deliverability, the following additional factors at a minimum should be considered for inclusion in the guidelines and evaluative criteria that will guide selection of projects:

- Viability of the project;
- Time frame for bid acceptance to operation;
- Diversity of resources of the overall portfolio;
- Diversity of owners;
- Alignment with REV goals specified in procurement solicitations;
- Project developer experience; and
- Non-cost economic benefits.

B. Tier 2

Staff proposes that Tier 2 be subdivided between Tier 2a representing renewable resources that are eligible to compete in other states' procurements, and Tier 2b representing renewable resources with no opportunities, likely due to vintage, to sell their resources outside of New York. The distinction is primarily based on concerns that without New York support, facilities with the option to do so will sell their resources into other states' REC programs thereby limiting New York's ability to benefit from them. Concern was also expressed that even with the low level of New York payments proposed by Staff under Tier 2b, the clean energy attributes of certain small hydroelectric facilities in the Tier 2b category would be at risk because the facilities might fail financially and retire for the lack of sufficient overall revenues. Under the RPS program, such small hydroelectric facilities were eligible for

Enclosure 2

maintenance contracts to ensure preservation of their clean energy attributes.

The facilities that Staff proposes to classify under Tier 2a have all likely already recovered all or most of their initial capital costs and only need to obtain market revenues sufficient to fund their comparatively low, going-forward operation and maintenance costs. These are primarily wind generation facilities that have no fuel costs unlike other large scale electric generation facilities and should be profitable even under today's lower market prices for energy and capacity. While it may be possible that some of these facilities will sell their clean energy attributes into other states, given vintage and delivery requirements in other states it remains merely hypothetical that there will be a mass flight of these resources. Therefore, at this time, there is no imminent risk of losing the emission attributes associated with these facilities permanently and no concomitant need to provide them with additional New York consumer support for those emission attributes. In the event that significant out-of-state sales occur to the detriment of the RES program, the Commission will reconsider the need to compete for these resources in one of the triennial reviews prior to 2030. The Tier 2a concept is not adopted.

Staff's proposal for Tier 2b includes facilities that by definition do not have competitive opportunities outside of New York because of their size and location. There is no need for a Tier 2b except for the concern that the clean energy attributes of these facilities may be at risk because they may fail financially and retire for the lack of sufficient overall revenues due to the failure of markets to fully internalize the value of their clean energy and fuel diversity benefits. Rather than adopting Staff's Tier 2a and 2b proposal, the Commission

Enclosure 2

will instead generally renew the RPS maintenance program in a new Tier 2 of the RES.

Eligibility for the new Tier 2 is limited to run-of-river hydroelectric facilities of 5 MW or less; wind facilities; and biomass direct combustion facilities that were in commercial operation any time prior to January 1, 2003, and were originally included in New York's baseline of renewable resources calculated when the RPS program was first adopted. Each facility seeking funds under this Tier 2 will be required to demonstrate that but for the maintenance contracts, the facility will cease operations and no longer produce positive emission attributes. Maintenance Contracts will be provided on a case-by-case basis and relief will be tailored to the situation presented. The criteria and process for determining eligibility of the facilities is set forth in Appendix D. Eligible costs, which are expected to be limited in relation to the other Tier costs, would be recovered from delivery customers in the same manner as in the RPS Program Maintenance Tier, or from such other sources as the Commission shall determine. Staff will review the current maintenance program, including the eligibility criteria, and propose any changes for consideration as part of the implementation phase.

C. Periodic Review

1. Triennial review process

Beginning in 2020 and each third year thereafter, the Commission will conduct a review of the CES initiative. The triennial review is an integral part of the program, establishing fixed targets on a going-forward basis to provide certainty to market participants. Triennial review will include a divergence test, i.e., an examination of the balance between mandated demand and anticipated supply. Criteria for the divergence test will be developed in the implementation phase.

Enclosure 2

The divergence test will affect the setting of the targets and will also be used to evaluate the effectiveness of centralized REC-only procurement as described above. The targets established in triennial reviews will also reflect the development of voluntary activity and the portion of the RES attainment wedge to be represented by voluntary activity in the subsequent procurement period. Other issues to be examined in the triennial review include:

- the effectiveness of compliance mechanisms including ACPs;
- changes to eligibility rules;
- application to microgrids and CHP;
- fuel diversity; and
- interactions with RGGI and the federal Clean Power Plan.

2. Interim review

Based on targets established in triennial review, markets bounded by ACPs will supply RECs within a reasonable cost range. As a safeguard against undersupply or oversupply imbalances, Staff will perform at least annually the divergence test which, if the test results fall outside of prescribed ranges, may trigger an interim review by the Commission. Interim review serves primarily as a safety valve against undersupply, but it should also consider potential oversupply situations. If serious imbalances develop, the Commission will consider taking corrective actions to maintain a reasonable level of price stability. Although interim review is an important safeguard, the triennial targets will be presumed reasonable and interim revisions will be undertaken only in unusual circumstances. Compliance flexibility measures

Enclosure 2

including the ACP should serve to mitigate most short-term divergences.

VII. ZERO-EMISSIONS CREDIT REQUIREMENT

A. Procedural Matters

Staff's White Paper filed on January 25, 2016, proposed that a Nuclear Tier be created to ensure that, to prevent backsliding from the State's efforts to limit greenhouse gas emissions, emission-free attributes from eligible operating nuclear generating plants are properly valued. Under Staff's White Paper proposal, each LSE would be obligated to purchase ZECs from nuclear facilities facing financial difficulty as determined by a Staff examination of the books and records of the facility at a price administratively set by the Commission and updated every year based upon the difference between the anticipated operating costs of the units and forecasted wholesale prices. Importantly, Staff characterized the proposed payments as only setting an appropriate and fair value of the environmental attribute independent of the actual wholesale prices for energy and capacity in the NYISO administered markets. Staff noted that plant owners had already announced the planned closure of the Ginna and FitzPatrick plants, that the Vermont Yankee nuclear plant was closed in December 2014 due to identical concerns, that it was announced that the Pilgrim nuclear power plant in Massachusetts would be closed for similar reasons, and that the economic pressures facing Ginna and FitzPatrick also apply to the Nine Mile Point 1 and 2 plants.

Additional reductions in the price of natural gas occurred during the time between when Staff prepared its analysis and then filed its White Paper. On February 24, 2016, the Commission issued an order further expanding the scope of the CES proceeding and seeking additional comments expressing

Enclosure 2

its concern that the need for support to maintain the zero-emissions attributes of the nuclear plants is reaching a critical turning point such that expedited action is necessary.⁸² The Commission noted that nuclear power plant operation is highly dependent on pre-scheduled fuel cycles, therefore certainty as to the availability and level of maintenance support may be critical to the decision of plant operators to order fuel and commence future cycles, and that these practical operational considerations create urgency that it is likely desirable to put an expedited maintenance support system in place. Attached to the February 24, 2016 order was a secondary proposal for expedited maintenance contracts that was intended to be simpler to implement pending the resolution of the proposed broader program.

In response to the expedited maintenance contract proposal, Entergy remained steadfast in its position that no ZEC program, expedited or not, would cause it as the owner of the FitzPatrick nuclear plant to keep that facility open.

In anticipation that the Commission might approve the expedited maintenance contract proposal, Constellation filed a petition to initiate a proceeding to establish the facility costs for the Ginna and Nine Mile Point nuclear power plants. Case 16-E-0270 (the Constellation Case) was established to consider the petition. That case is being heard here on a common record with Case 15-E-0302, the CES case. The parties in the Constellation Case had an opportunity, pursuant to a protective order to preserve the confidentiality of the commercially sensitive financial details, to participate in

⁸² Case 15-E-0302, Clean Energy Standard, Order Further Expanding Scope of Proceeding and Seeking Comments (issued February 24, 2016).

Enclosure 2

technical conferences examining the confidential financial data of the Ginna and Nine Mile Point nuclear power plants.⁸³

Among the many comments received on Staff's White Paper and the expedited maintenance contract proposals, Entergy, the owner of the FitzPatrick and Indian Point nuclear plants, proposed an option of using the social cost of carbon to set the fair value of the environmental attribute as a method to better keep the ZEC price independent of the actual wholesale prices for energy and capacity in the NYISO administered markets than Staff's originally proposed differential between the anticipated operating costs of the units and forecasted wholesale prices. Entergy proposed that its methodology be applied to all nuclear plants. Despite its proposal, Entergy reiterated that no program would cause it as the owner of the FitzPatrick nuclear plant to keep that facility open. Constellation proposed a similar methodology as a back-stop in the event the original methodology failed for any reason. Many of the comments expressed concern that any encouragement by the State of the production of clean generation must be by a methodology that is "untethered" to a generator's wholesale market participation, but that federal law on what measures are or are not untethered is currently unclear, creating an element of risk for any kind of program.

After consideration of the many comments that were received, Staff prepared and filed on July 8, 2016, Staff's Responsive Proposal. A notice and additional ten-day comment period was provided for parties to comment on Staff's Responsive

⁸³ Public Citizen Inc. requests that the owners of the nuclear power plants make available full unredacted balance sheet data so that the public can have a better understanding of their profit and so that ZECs can be properly formulated. Pursuant to the protective order, it could have had access to that data if it had participated in the Constellation Case.

Enclosure 2

Proposal, which was extended to become a full two-week additional comment period. A number of individuals and entities have asked for even more time to comment for the sake of broader participation.

In correspondence with the Secretary about the need to act expeditiously, Constellation, as the owner of R.E. Ginna and Nine Mile Station nuclear electric generating facilities, asserts that it must make critical, multi-million dollar business investment decisions by September 2016 regarding the future of its nuclear facilities that have been losing money, and that those decisions cannot be made in reliance on a mere proposal. According to Constellation, its decision regarding the investment of approximately \$55 million to refuel Nine Mile Unit 1 is already overdue if the facility is to be kept in service at the end of the current fuel cycle, and it must make a final decision whether to order fuel no later than the end of September 2016. Additionally, Constellation must file a notice of its intent to continue commercial operations with the Commission by September 30, 2016, and will incur substantial capital recovery balance costs if it does not intend to retire the Ginna facility at the expiration of the current Reliability Support Services Agreement supporting the facility. Constellation states that it will need a contract in hand by September 2016; therefore an order is needed from the Commission by August 1, 2016, to allow sufficient time to finalize a contract for the zero-emission attributes. Constellation also suggests that if there is any hope of saving the James A. FitzPatrick Nuclear Power Plant, the owner must also soon make near-term investment decisions, including a refueling determination. Constellation's subsidiary Exelon Corporation is in discussions with Entergy Corporation to purchase the FitzPatrick facility.

Enclosure 2

The Notice Extending Comment Period⁸⁴ to a full two-week period explained, among other things, the difficult balance between the desire for parties to have sufficient time to prepare their comments and the need to avoid implementing procedures that would defeat potential important Commission objectives or options in addressing the significant policy questions that must be decided. The extensive reasoning on all matters as set forth in the Notice is reaffirmed here and supports the need for the Commission to proceed with deliberate speed and without further extensions of the comment periods.

Regarding the facility cost matters in the Constellation Case, AGREE asserts that the petition is premature given the absence of a policy to subsidize nuclear power plants or a process established by the Commission for determining the cost of ZECs. AGREE believes Staff's Responsive Proposal proves their concerns correct in that Staff proposes a price-setting mechanism irrespective of plant operating costs. MI similarly asserts that the parties should not be expected to address Constellation's projected operating costs in detail given the fact that Staff's Responsive Proposal, if adopted, would render such costs meaningless, but that the Commission should allow for the submission of supplemental comments herein if, following the resolution of CES-related issues, Constellation's projected operating costs are determined to have relevance to potential customer-funded payments that may be awarded.

The parties are correct that the methodology in Staff's Responsive Proposal (later adopted herein with some modifications) does not rely on a detailed finding of the exact costs to operate the affected nuclear plants as might have been

⁸⁴ Case 15-E-0302, Clean Energy Standard, & Case 16-E-0270, Constellation Energy Nuclear Group LLC - Facility Costs, Notice Extending Comment Deadline (issued July 15, 2016).

Enclosure 2

done in a cost-of-service approach, therefore there is no need for further investigation or comments on the detailed costs. But the Commission notes that the in-depth examination of costs did reveal significant information confirming the Commission's concerns that the zero-emissions attributes of the upstate nuclear plants, are at serious risk absent a program to value and pay for the attributes. The Commission is aware that Staff in particular is extremely grateful to the parties that participated in the Constellation Case for the insight they brought to assist Staff in its examination.

B. Public Necessity

Staff proposes that the ZEC program provide a ZEC payment where there exists a public necessity to preserve the zero-emissions environmental attributes of a nuclear generating facility. Staff further proposes that public necessity be determined on a plant-specific basis at the discretion of the Commission, using criteria the Commission finds to be reasonable, on the basis of (a) the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State regardless of the location of the facility; (b) the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emission environmental values or attributes historically provided by the facility; (c) the costs and benefits of such a payment for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its customers and the environment; (d) the impacts of such costs on ratepayers; and (e) the public interest.

Enclosure 2

1. Verifiable Historic Contribution

There does not appear to be any dispute that the FitzPatrick, Ginna, and Nine Mile Point nuclear generation facilities have all made verifiable historic contributions to the clean energy resource mix consumed by retail consumers in New York State regardless of the location of the facility.⁸⁵ Their unit-specific contributions are well documented in numerous NYISO reports as well as in the DPS-administered Environmental Disclosure database. The Commission finds that these facilities have provided a significant verifiable contribution to New York State's clean energy resource mix as consumed by New Yorkers.

2. Inadequate Compensation to Preserve Attributes⁸⁶

The Commission accepts Entergy's commercial decision to close the FitzPatrick nuclear generating facility, evidenced by the filing of a Notice of Intent to Retire with the Secretary on November 2, 2015, as proof that the owner was receiving inadequate compensation to ensure that the zero-emissions attributes of the facility will be preserved and that the risk of losing those attributes is a certainty without action by the Commission. In the Constellation Case that makes up a part of the record in these proceedings, the Commission, Staff, as well as other interested parties, have reviewed financial data from the Ginna and Nine Mile facilities. The Commission has already authorized the Ginna facility to retire without further action

⁸⁵ The Indian Point nuclear generation facility has also made verifiable historic contributions, but is not included further in this discussion because its zero-emissions attributes are not currently at risk. The owner of Indian Point has not claimed that the zero-emissions attributes of the Indian Point facility are currently at risk.

⁸⁶ Units in single ownership located in the same NYISO Zone and that share costs at the same site are treated as a single facility for the determination.

Enclosure 2

from the Commission in 2017.⁸⁷ The information demonstrates that the projected revenues fall well short of anticipated costs, which seriously jeopardizes the preservation of the zero-emissions attributes of these facilities.

3. BCA in Relation to Alternatives

Considering the anticipated costs of the ZEC program against the benefits related to the large amount of zero-emission power the facilities will produce,⁸⁸ the benefits clearly outweigh the costs. Indeed, during the first two years of the program, the total attribute payments are calculated to be up to \$965 million, achieving a carbon-alone benefit of \$1.4 billion. If more of the value of the carbon-free attributes becomes internalized into the forecasts of energy and capacity prices in New York, as expected, it will result in reductions of the ZEC attribute payments adopted here. Further, given that the model adopted here locks in 12 years of significant carbon emission reductions at a fraction of the benefit to be achieved, New York customers will continue to benefit for years to come.

AGREE and NIRS suggest that because the marginal cost of additional increments of energy efficiency compares on a cost basis favorably with ZEC unit costs, it provides an alternative to nuclear plant retention. As noted elsewhere in this Order, the Commission is working to ensure that the potential of energy efficiency is maximized in New York. However, it is simply unrealistic to assume that sufficient additional energy efficiency measures could be identified and implemented in time to offset the 27.6 million MWh of zero-emissions nuclear power

⁸⁷ Case 14-E-0270, Proposal for Continued Operation of the R.E. Ginna Nuclear Power Plant, LLC., Order Adopting the Terms of a Joint Proposal (issued February 24, 2016), pp. 29-30.

⁸⁸ Upstate New York nuclear-power generating facilities are expected to produce approximately 27.6 million MWh of zero-emissions power per year.

Enclosure 2

that would need to be replaced per year. For example, even if the incremental energy efficiency rate could be increased by 25% per year above the projected rate, only 13% of the cumulative zero-emissions MWh produced by the nuclear plants would be offset during the 12-year duration of the program. To offset all of the cumulative zero-emissions MWh the annual incremental rate of energy efficiency would have to be tripled to 6.6 million MWh per year.

The marginal cost of additional increments of renewable resources is expected to always be significantly higher than ZEC prices. In periods where market revenues are expected to be low, both ZEC and REC prices will tend to be high, with REC prices projected to be higher than ZEC prices. In periods where market revenues are expected to be high, ZEC prices will fall, perhaps all the way to zero, but REC prices, while lower too, may not. In any event, under the RES the Commission is pursuing new renewable resources at an ambitious pace. As in the case of energy efficiency, it is not realistic to assume that sufficient additional renewable resources at a reasonable price or perhaps any price could be identified and implemented in sufficient time to offset the 27.6 million MWh of zero-emissions nuclear power per year. For example, replacing all the 27.6 Million MWh of zero-emission energy with renewable resources would require 9,000 MW of onshore wind or 22,000 MW of solar deployment. It is virtually impossible to deploy this magnitude of resources in the short-term.

4. Cost Impacts on Ratepayers

The Commission has reviewed the potential customer bill impacts of these investments and finds them to be reasonable, particularly in the context of today's historically low commodity costs. The expected bill impact for a residential customer using the statewide average monthly usage of about 600

Enclosure 2

kWh is less than \$2 per month in the first tranche. Since the cost of maintaining the zero-emissions attributes of the nuclear plants will be recovered on a volumetric energy consumption basis from all the LSEs, the expected impact on the State's higher load factor commercial and industrial customers will be higher and vary depending on their level of energy intensity. Such customers frequently benefit from low-cost power and/or reduced delivery charges resulting from their participation in various economic development programs offered by the utilities or NYPA. Additionally, the future ZEC prices can decline if market energy and capacity price forecasts go up; perhaps all the way to zero.

5. Overall Public Interest

Retention of the zero-emissions attributes of New York's upstate nuclear plants would avoid the emission of approximately 15 million tons of carbon per year. Losing the carbon-free attributes of nuclear generation, before the development of new renewable resources between now and 2030, would undoubtedly result, based on current market conditions, in significantly increased air emissions due to heavier utilization of existing fossil-fueled plants or the construction of new gas plants. The added emissions would complicate the State's compliance with likely federal carbon standards and would result in dangerously higher reliance on natural gas, radically reducing the State's fuel diversity and making consumers more vulnerable to natural gas and concomitant electric price spikes.

Applying the public necessity criteria described above, the Commission determines that there is a public necessity to provide ZEC payments to the FitzPatrick, Ginna and the Nine Mile Point facilities. The Commission finds that it is in the public interest to provide these ZEC payments for the purpose of maintaining the emission-free attributes because

Enclosure 2

there are insufficient zero-emission alternatives available to replace them any time soon. Retention of the upstate nuclear facilities would also help maintain fuel diversity and fuel security. The facilities in question represent significant investment in infrastructure, are operational, and have excellent safety records.

This determination of necessity in no way undermines the Commission's commitment to meeting the SEP's goal of having 50% of the State's electricity be generated by renewable resources by 2030. As Staff's proposal makes clear, the obligation of LSEs to purchase ZECs will be independent of the obligations imposed herein to encourage generation utilizing renewable resources. Ideally, as markets and technologies develop and more renewable generation becomes available, nuclear power could be replaced by those alternatives. In the near-term, however, the Commission is convinced that it is essential to keep these zero-emissions attributes available for New York consumers.

AGREE characterizes the ZEC proposal as contrary to the Commission's action in 1996 of divesting generation from utilities, where the Commission acted to shield ratepayers from the economic risks of failing power plants. This is an entirely different situation. The ZEC proposal does not leave the stranded costs of a closed facility on the shoulders of ratepayers. Quite to the contrary, it provides a mechanism to preserve the zero-emissions attributes these facilities are providing. Qualifying facilities will be paid for the value of the ZEC attributes, not reimbursed for costs stranded by their market position.

C. ZEC Price Formula Mechanics

Staff proposes that the ZEC contracts be administered in six two-year tranches with the price paid for the ZECs being

Enclosure 2

updated for each tranche pursuant to a set formula that provides certainty as to how the prices will be set. Staff proposes that the Tranche 1 ZEC price be based upon the average April 2017 through March 2019 projected SCC as published by the USIWG in July 2015 (nominal \$42.87/short ton). The proposal then subtracts a fixed baseline portion of that cost that is already captured in the market revenues received by the eligible facilities due to the Regional Greenhouse Gas Initiative (RGGI) program based upon the average of the April 2017 through March 2019 forecast RGGI prices embedded in the CARIS Phase 1 report (nominal \$10.41/short ton).⁸⁹ This yields a Tranche 1 net cost of carbon of \$32.47 (nominal \$/short ton), and a ZEC price of \$17.48 per MWh.⁹⁰

The Commission notes Staff's caveat that this approach may not make sense for establishing a ZEC price for the downstate Indian Point facility because of its location. Indian Point is located in an area of higher electric system constraints and has a much higher level of market revenues. At this time, the Indian Point zero-emissions attributes are not at risk. However, the Commission reserves the right should the Indian Point attributes become at risk, to possibly calculate the ZEC price to reflect the difference between upstate and downstate market revenues in order to put downstate facilities on an equal footing with upstate facilities. A methodology to calculate the upstate/downstate price differential may be developed if its use becomes necessary.

⁸⁹ The need for an administratively determined price results from too few owners of the affected facilities for there to be a valid competitive process.

⁹⁰ Staff's Responsive Proposal provided detailed calculations behind this price. They are also provided in Appendix E.

Enclosure 2

Staff proposes that for the contract periods of Tranche 2 through Tranche 6, the ZEC prices would be calculated pursuant to a formula by tranche. In general concept, the formula is as follows:

$$\text{Social Cost of Carbon} - \text{Baseline RGGI Effect} - \text{Amount Zone A Forecast Energy Price and ROS Forecast Capacity Price combined exceeds } \$39/\text{MWh} = \text{ZEC Price } (\$/\text{MWh})$$

1. Social Cost of Carbon

Staff proposes that the Social Cost of Carbon component (nominal \$\$ per short ton of CO₂) would be fixed by tranche based on SCC estimates published in July 2015 by the USIWG, as follows:

Period	SCC
Tranche 2	\$46.79
Tranche 3	\$50.11
Tranche 4	\$54.66
Tranche 5	\$59.54
Tranche 6	\$64.54

API expresses concerns about the certainty of the USIWG estimates because it believes they were not subject to a rigorous federal notice, review and comment process. MI characterizes the estimates as highly controversial and having not been subject to independent analysis or shown to be an accurate measure of savings if emissions are avoided. MI also notes that internalizing the SCC benefits society at large, not New York. NYC expresses concern that there is no link between the value of carbon and the ZEC payment needed to maintain the operation of the nuclear plants.

NYU Institute for Policy Integrity supports use of the SCC as the best available estimate of the marginal external damage caused by carbon dioxide emissions. Pace applauds the

Enclosure 2

proposal as an important first step in pricing the cost of carbon into energy consumption more broadly. Environmental Progress states that putting a monetary value on the benefits provided by zero emissions nuclear power derived from the federal government's estimate of SCC is a common-sense principle. The Indicated Joint Utilities state that basing the price of ZECs on the SCC, adjusted by removing the RGGI value embedded in rates, is a reasonable method to establish the emissions credit value that is not reflected in electric prices. CENG stated that compensating nuclear facilities based on the SCC is consistent with the programs' original environmental purpose and appropriately values the environmental attribute that nuclear facilities provide.

Indicated Suppliers (IS) argue that Staff's Responsive Proposal will significantly harm the NYISO wholesale competitive electricity market by artificially suppressing installed capacity (ICAP) prices thereby dis-incenting development of new capacity. Further, it claims that the proposal is a discriminatory and inefficient tool to meet the State's clean energy goals. As previously noted, FERC has determined that attributes credit payments do not interfere with wholesale competition. Instead, it argues that unless the RGGI emissions allowance cap is substantially reduced to increase RGGI auction prices to the level of the social cost of carbon, which is not anticipated in Staff's Responsive Proposal, all other resources in New York that provide carbon emissions reductions benefits will receive less than one fourth of the price that the uneconomic nuclear facilities receive for providing the same benefits.

IS is incorrect. The proposal is neither inefficient nor an attempt to artificially suppress wholesale prices. It does not establish wholesale energy or capacity prices, it only

Enclosure 2

establishes pricing for attributes completely outside of the wholesale commodity markets administered by NYISO. To the contrary, it addresses a well-recognized externality that otherwise would lead to economic inefficiencies with respect to the costs incurred due to environmental damage, in particular, climate change. Failing to adequately account for these costs has led the world's best scientists and economists to warn that inefficiencies caused by this externality will be significant unless action is taken immediately.⁹¹ In this case, failing to recognize this externality will lead to the uneconomic loss of significant zero-emissions attributes. But such losses and the related permanent environmental damage, is unnecessary if the value of zero-emissions attributes is better recognized.

Further, IS's suggestion that the only solution is to reduce RGGI caps and raise RGGI prices to the federal SCC is flawed. It fails to recognize the alternative ways the State can improve on the status quo. Raising the RGGI price is not within the State's unilateral control and is clearly not the only way to incent clean generation and conservation in an efficient manner. Indeed, each of the RGGI States have renewable portfolio standards that they apply to supplement and help implement RGGI's overall objective of reducing carbon in electric supply.

The cost to consumers of reducing the RGGI caps until wholesale energy market prices increase by \$17.48/MWh would be about \$2.8 billion dollars in the first year alone, or almost

⁹¹ See, e.g., IPCC, 2014: R.K. Pachauri and L.A. Meyer, "Climate Change 2014: Synthesis Report, Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change"; IPCC, Geneva, Switzerland, p. 151; William Nordhaus, The Climate Casino: Risk, Uncertainty, and Economics for a Warming World (New Haven: Yale University Press, 2013).

Enclosure 2

six times higher than the costs of Staff's Responsive Proposal (this could be partially offset by additional RGGI revenues). A residential customer using the statewide average monthly usage of about 600 kWh per month would see a bill increase of over \$11 per month under this alternative. Meanwhile, the only incremental emissions reductions of this approach identified by the Independent Market Monitor would be the potential construction of a 300 MW gas-fired combined cycle plant on Long Island, which could provide lower emissions relative to existing, less efficient gas-fired units.⁹²

Based on the comments received, the USIWG value of the SCC is the best available estimate and will be adopted. Notably, the USIWG value was developed by the Environmental Protection Agency in extensive coordination with other federal agencies. As noted earlier, the Commission has previously directed that avoided CO₂ emissions be valued at the SCC, less the RGGI value already internalized" in the bulk power market.⁹³ Those opposed to its use do not offer a method of setting ZEC prices by alternatively valuing the damage caused by carbon emissions. Instead, NYC and others propose different methodologies that fail to recognize the need to keep the ZEC pricing methodology untethered to a generator's wholesale market participation.

MI questions why future estimates of the SCC, which increase from year to year, then should be adjusted by inflation. The USIWG's SCC central values are expressed in constant 2007 dollars per metric ton, and reflects the federal group's estimation that the climate change damage caused by carbon emissions will increase over time. Staff correctly

⁹² See 2015 State of the Market Report, pp. 17 and A-24.

⁹³ Case 14-M-0101, supra, Order Establishing the Benefit Cost Analysis Framework (issued January 21, 2016), p. 13.

Enclosure 2

inflated the 2007 values to nominal year values by using the gross domestic product implicit price deflator, since the purchasing power of the dollar is forecast to decrease over time.

MI also questions why the SCC values are based on a 3% discount rate when using a larger discount rate, such as 5%, would be more appropriate and less expensive. This issue has been previously settled in the BCA Order wherein the Commission adopted the central SCC values after consideration of party comments. Use of SCC values in the ZEC formula based on the central value 3% discount rate is approved consistent with the Commission's prior determination.

2. Baseline RGGI Effect

Staff proposes that the fixed baseline portion of the SCC already captured in the market revenues received by the eligible facilities due to the RGGI program be subtracted from the SCC at the same fixed amount for all tranches at a nominal \$10.41/short ton. Staff notes that the energy price forecast part of the adjustment in the methodology would capture forward-going changes due to RGGI.

Some parties (e.g. MI, the Indicated Joint Utilities) urge that RGGI values not be held constant in future tranches. MI states that if RGGI allowances are reduced, the impact of RGGI on wholesale energy prices might be much higher in the future. The Indicated Joint Utilities agree with the approach of estimating RGGI values using the CARIS forecasts of RGGI prices, but offer that RGGI prices should follow the CARIS model to increase over time, either at the SCC escalation rate or the rate of inflation.

Staff's Responsive Proposal held RGGI prices constant in the ZEC price formula since increases in RGGI prices are expected to be reflected in the Forecast Energy & Capacity Price

Enclosure 2

Change Adjustment. The Commission agrees with Staff that inflating the RGGI offset in future tranches would constitute a double count when combined with the Adjustment. If for some reason increased RGGI prices failed to be reflected in Zone A energy price forecasts due to transmission constraints between upstate and downstate, the upstate nuclear units would receive reduced market revenues and therefore no additional offset to the SCC would be warranted.

3. Conversion Factor \$\$/Ton to \$\$/MWh

Staff proposes the use of a fixed 0.53846 conversion factor for all tranches to convert the SCC figures from \$\$/short ton to \$\$/MWh.⁹⁴ The conversion factor is based on the emissions rates of the mix of resources that would be avoided by the preservation of zero-emissions attributes. Indicated Joint Utilities believe the conversion factor used to reflect the quantity of carbon emissions avoided per MWh should be updated in future tranches to reflect changes that will occur in the resource mix.

While the Commission does not expect there to be radical swings in the resource mix over short time periods, the duration of the program is such that as cleaner resources enter the mix, continuing to use the current factor may overstate carbon value. The Staff Responsive Proposal utilized a marginal carbon emissions rate of 0.53846 short tons per MWh. This rate

⁹⁴ The 0.538456 is made up of contributions from natural gas, coal and oil on the margin. "The Benefits and Costs of Net Energy Metering in New York," Energy and Environmental Economics, Inc., December 11, 2015, p. 57, submitted December 17, 2015 in Case 15-E-0703 – In the Matter of Performing a Study on the Economic and Environmental Benefits and Costs of Net Metering Pursuant to Public Service Law §66-n.

Enclosure 2

was developed in the 2015 Net Metering Study⁹⁵ and measures the change in system emissions due to an incremental change in resources. The use of this rate is conservative, as the elimination of up to 27,618,000 MWh of nuclear zero-emissions attributes would likely lead to an increased reliance, at least in the near-term, on higher-emitting resources such as coal, oil, less efficient gas, and imports. Parties have pointed out that as the system mix changes, it may be appropriate to reduce the marginal emissions rate in the event that a significant amount of incremental renewable resources are built. The Commission agrees with this assessment, and believes that when setting the marginal emissions rate the formula must be forward-looking regarding the possible change in the rate that increasing amounts of renewable energy might bring about.

Given the forecasts under the RES, a material change is not expected to the marginal emissions rate due to additional renewable energy penetration in the near-term. However, beginning with Tranche 4, the total amount of renewable energy consumed in the State will be used to determine if a reduction in the marginal emissions rate is warranted. Tranche 4, which will cover the April 2023 through March 2025 time period, will use a marginal emissions rate based on the renewable energy consumed in the State during calendar year 2022. If this level is over 50,000,000 MWh, the marginal emissions rate will be adjusted downward. The amount of the adjustment will be 0.00491 tons per MWh for each 1,000,000 MWh of renewable energy consumed above 50,000,000 MWh.⁹⁶ Under this methodology, should the State

⁹⁵ See id.

⁹⁶ This adjustment factor is designed so that the marginal emissions rate begins to fall once 50,000,000 MWh of renewable energy is achieved, and a rate of 0.45 tons per MWh is reached when 68,000,000 MWh of renewable energy is achieved.

Enclosure 2

achieve a level of renewable energy consumed of 68,000,000 MWh (a level approximately 27,000,000 MWh above the 2014 baseline amount), the marginal rate will be 0.45 per MWh. This is a reasonable result, as an incremental 27,000,000 MWh of renewable energy would be approximately enough to replace all of the upstate nuclear plants' zero-emissions attributes. It is anticipated that this level of renewable energy usage would allow the marginal emission rate to reach a level consistent with natural gas units being on the margin.

For Tranche 5, the 2024 calendar year renewable energy level will be used (again, with a marginal emissions rate of 0.00491 per 1,000,000 MWh of renewable energy consumed above 50,000,000 GWh). For Tranche 6, the calendar year 2026 renewable energy level will be used. This approach will recognize the emissions impact of significant additional renewable energy, while providing a further incentive to ramp up renewable energy penetration New York.

4. Forecast Energy & Capacity Price Change Adjustment

For Tranches 2 through 6, Staff proposes to use changes in independently published forecasts of going-forward energy and capacity prices to adjust the ZEC price (downward only so as not to exceed the SCC) by the amount that future forecasts predict that NYISO Zone A energy prices combined with the Rest of State (ROS) capacity prices will exceed \$39/MWh. NYISO Zone A and ROS were chosen as relevant proxies that have liquidity and available data. These components measure only the change in forecasts over time; they do not establish energy or capacity prices. The \$39/MWh baseline figure approximates a recent period average of the forecasts of Intercontinental Exchange (ICE) of the NYISO Zone A energy prices projected by ICE for the period April 2017 through March 2019 combined with the per MWh equivalent of a recent period average of the

Enclosure 2

forecasts of New York Mercantile Exchange (NYMEX) NYISO Rest of State Capacity Calendar Month Futures projected by NYMEX for the period April 2017 through March 2018.⁹⁷

Various parties (e.g. Nucor, AGREE) incorrectly interpret the \$39/MWh baseline figure in the adjustment mechanism to be either an estimate of the market revenues that the upstate nuclear plants are currently receiving, or a floor price that they would be paid in the future for energy and capacity. Both of those interpretations are incorrect. Based on that misinterpretation, Nucor mistakenly concludes that the formula would result in combined market and ZEC payments to the upstate nuclear plants of \$56.48/MWh (the sum of the \$39/MWh Zone A market price forecasts and the \$17.48/MWh ZEC price), or more forecasted revenue than Constellation requested in the Constellation Case for its Ginna and Nine Mile Point facilities.

The upstate nuclear units, which are located in NYISO Zones B and C, do not receive market energy revenues at the Zone A LMP price. Zone A was chosen as a reference price solely for the mechanics of the adjustment mechanism because of the availability of regular ICE and NYMEX forecasts based on sufficiently liquid transactions. That same quality of independent forecasts is not available for Zones B and C. It must be understood that the reference price forecast does not act within the formula to establish a quantity of energy and capacity revenues. As a deliberate intention, no part of the formula establishes energy or capacity prices or revenues. Rather, the Zone A forecasts are used in the Adjustment to measure only the change in independent forecasts over time.

A significant basis differential exists between the Zone A prices and the prices within Zones B and C at the

⁹⁷ See Appendix E.

Enclosure 2

connection points called "busses" where the revenues paid to the nuclear facilities are determined. A forecast of approximately \$39/MWh at Zone A is inclusive of about \$6/MWh equivalent for the capacity forecast for "Rest of State" based on recent 12-month forecast prices and about \$33/MWh for energy. When the \$33/MWh LMP forecast is adjusted for the recent 12-month basis differential between Zone A and the nuclear unit busses of about \$6/MWh, the generator energy revenues forecast becomes only about \$27/MWh. Notwithstanding the capacity price forecast of \$6/MWh, if the most recent 12-month period actual capacity revenues of \$3/MWh equivalent is utilized as potential revenue to the generator, then the total revenue the generator is expected to receive would be only \$30/MWh at the relevant busses for energy and capacity.⁹⁸ The \$56.48/MWh computed by Nucor should be \$47.48/MWh (the sum of the \$30/MWh at-the-busses market price forecast and the \$17.48/MWh ZEC price). That forecasted level would be less than the level of revenue that Constellation requested in the Constellation Case for its Ginna and Nine Mile Point facilities.⁹⁹

The Indicated Joint Utilities believe that it would be reasonable to include a basis differential update in the mechanism. It is true that the current level of basis could be

⁹⁸ Using a \$3/MWh capacity price expectation is reasonable, rather than the \$6/MWh capacity price referenced in the Staff Responsive Proposal, because at the time of the \$6/MWh forecast, the market would have been factoring in the closure of both the Ginna and FitzPatrick plants. If these plants continue to operate, the capacity revenues will presumably be lower.

⁹⁹ In the Constellation case, the cost study presented was for Nine Mile and Ginna plants for a weighted average cost of \$49.60/MWh. FitzPatrick cost data is not included and as it is a single unit facility, its costs would be higher than the blended average of the Nine Mile and Ginna plant costs, driving the total weighted average cost above \$49.60/MWh.

Enclosure 2

an anomaly compared to historic lower levels. If the basis differential goes down, the revenue the generator would receive increases, all else equal. The formula could be adjusted to subtract the change in the basis differential from the \$39/MWh reference price. While again, the Commission does not expect there to be radical swings in the differential basis over short time periods, the duration of the program is such that the formula should be updated in Tranche 4, half way through the contract period.

The basis differential is dependent on the electric system configuration and especially the congestion patterns in the region. There are efforts to address Western New York congestion and it is likely the basis differential will change in the future. However, these changes will not happen overnight and will take some time. In order to capture the effects that changed congestion patterns will have on the basis differential, the \$39/MWh reference price used in ZEC price formula will be updated one time, at the time of the Tranche 4 ZEC price is determined.

The one-time update will be calculated by determining the historic basis over the 2017-2022 time period and adjusting the \$39/MWh reference price used in the ZEC price formula if the historic basis is outside of a range of \$5-\$7/MWh. The exact methodology is described in Appendix E.

5. Contract Duration

Comments were received from several parties regarding the duration of the ZEC requirement. The major theme of these comments was that if the Commission should approve a ZEC mechanism, the design and duration of the mechanism should be such that it can be modified or eliminated if market-based solutions develop or if the energy resources in New York are such that supporting the nuclear facilities is no longer

Enclosure 2

necessary. MI and some others suggest that in future tranches, the Commission should review whether the public interest criteria would still be satisfied.

Of those that indicate a preferred duration of the ZEC requirement, MI advocates for the shortest time period. It states that a time period of two years, or ideally no longer than the refueling cycles of the plants (e.g. 18-to-24 months), would be best. MI points out that the energy markets are continually evolving, so customers should not be locked into binding agreements through March 2029. MI also states that energy and capacity prices may not act in a manner which would lead to Staff's Responsive Proposal making sense over the full 12 years.

Like MI, Nucor is concerned with the proposed 12-year duration of the ZEC mechanism and states that the term of the program should not extend beyond 2020. Nucor urges that the proposal only lead to a bridge to a market-compatible approach. Nucor states that by 2020, it would be possible to revise NYISO's market-based tariff products and implement a new ZEC requirement that would be consistent with the revised market-based tariffs.

National Grid proposes a period of six years for the ZEC mechanism. It counsels that this time period is long enough to provide the nuclear plant owners with a reasonable level of financial certainty, while giving the Commission time to reassess if the nuclear plants are even still needed. National Grid expresses concern that a 12-year contract could delay the transition to a post-nuclear future which will be based on renewable energy. Further, National Grid says that market-based solutions to keeping the nuclear plants open could be developed, negating the need for the ZEC requirement.

Enclosure 2

The Indicated Joint Utilities do not propose any specific duration for the ZEC requirement, but agree that it was important to build in the flexibility to respond to future wholesale market and CO₂ allowance market development. Similarly, Pace states that the mechanism should be flexible so that given the State's evolving energy resource mix, it does not continue past the point where it is needed.

The Commission approves the 12-year duration for the program in six two-year tranches. As in the case with the RES, durability is important to the program's success. Under the RES program developers of new renewable facilities are to be offered 20-year REC contracts to provide sufficient certainty to induce them build new generation facilities. Just as it is unreasonable to expect an investor to make a long-lived capital investment without a revenue stream that is durable and certain, a purchaser will not invest in FitzPatrick without similar assurances. In the case of FitzPatrick, the magnitude of the risk taken on in the investment far exceeds refueling costs and capital improvements because a new owner must assume the risks of the ownership as part of the transaction. Given the continuing significant long-lived investments required for all of the units, a long-term contract providing certain terms is warranted. The long duration also has the considerable benefit of ensuring that the zero-emissions attributes will be preserved for a considerable period of time to give the RES program an opportunity to provide new renewable resources on a scale necessary to prevent backsliding on carbon emissions. The 12-year duration however will be conditional upon a buyer purchasing the FitzPatrick facility and taking title prior to September 1, 2018, the date six months before the commencement of the period of Tranche 2. If the sale and closing does not occur, there will be no commitment for the program to continue

Enclosure 2

beyond Tranche 1 and the Commission will have six months before the otherwise-planned commencement of Tranche 2 to determine a future course of action, if any. Similarly, the program and especially the caps on eligible production of ZECs is designed to preserve the zero-emissions attributes of all of the qualifying facilities and NYSERDA as the contract administrator shall ensure that contracts for all of the facilities are in place before any of the contracts are allowed to become effective.

The Commission also agrees and determines that the design and duration of the mechanism shall be such that it can be modified or eliminated by the Commission if there is a national, NYISO, or other program instituted that pays for or internalizes the value of the zero-emissions attributes in a manner that adequately replicates the economics of the program such that the Commission in its sole discretion is satisfied that the zero-emissions attributes are no longer at risk and that discontinuing the mechanism can be done in a manner that is fair to both the facility owners and the ratepayers.

6. Contract Performance

Staff proposes that the amount of ZECs to be purchased on an annual basis will be capped at a MWh amount that represents the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State. Staff further proposes that each facility have an obligation to produce the ZECs and to sell them to NYSERDA through March 31, 2029, except during periods when the calculated ZEC price pursuant to the contract is \$0. Finally, Staff proposes that the obligation to produce be enforced by appropriate financial consequences for failure to produce. Some parties have also advocated that the contract

Enclosure 2

between NYSERDA and the generators should include performance factors to hold the generators accountable for performance.

While the verifiable historic output of zero-emissions MWhs of the FitzPatrick, Ginna, and Nine Mile Point facilities has varied from year to year, the sum of the most recent four quarters of production, July 2015 through June 2016, is the most recent and is a reasonable measure of their output and will be applied as the MWh cap on an annual basis requested by Staff. Therefore, the amount of ZECs to be purchased on an annual basis will be capped at that amount, which sums to 27,618,000 MWh. The FitzPatrick plant, so long as it remains in ownership separate from the other facilities, shall have an individual cap and obligation of 25.4% of the total or 7,014,972 MWhs (based on a multi-year historic average). The Ginna and Nine Mile Point facilities under common ownership shall have a group cap and obligation of the remaining 74.6% of the total or 20,603,028 MWhs. If the FitzPatrick facility is acquired by the owner of the Ginna and Nine Mile Point facilities, the caps will all be combined and treated as a single group.

Clearly the mechanism that pays for ZECs on a per unit output basis provides incentives for the generators to maximize output. These plants have been performing at a very high level of performance. The intent of the ZEC program is to preserve the zero-emissions attribute benefits of the facilities to prevent backsliding in the State's carbon reduction performance that likely could not be avoided in any other way. However, the scale of the investment being made warrants further protections against poor short-term performance. A performance mechanism will be included in the contract between NYSERDA and the plant owners. The Ginna and Nine Mile Point facilities under common ownership will be treated as a group for these purposes. The FitzPatrick facility when in separate ownership from the other

Enclosure 2

facilities shall be considered a group of one for these purposes. If the FitzPatrick facility is acquired by the owner of the Ginna and Nine Mile Point facilities all three facilities will be considered together as a group for these purposes. If the facilities in a group perform in any tranche period at less than 85% of their group MWh cap and obligation for the tranche period, then the cap and obligation for the next tranche period for the group will be reduced by 1,000,000 MWh if all three facilities are in the group; 666,666 MWh if two facilities are in the group, and 333,333 MWh if only one facility is in the group. After the next tranche in which the facilities in a group perform at or above the new lower cap and obligation, the original cap and obligation will be restored for the subsequent tranche.

7. Facility Closure Contingency

Should any of the three facilities (FitzPatrick, Ginna and Nine Mile Point¹⁰⁰) permanently cease producing zero-emissions attributes for any reason whatsoever the overall cap of 27,618,000 MWh will be reduced by one-third for each facility that permanently ceases producing zero-emissions attributes. Therefore, if one of the facilities ceases producing zero-emissions attributes, the overall cap will be reduced to 18,412,000 MWh; if two of the facilities cease producing zero-emissions attributes, the overall cap will be reduced to 9,206,000 MWh. These requirements will act both as an incentive to the facility owners to keep all of the plants operating, and to ensure that the continuing program keeps the original balance between ratepayer and generator interests. The reductions will

¹⁰⁰ Nine Mile Point Units 1 & 2 qualified jointly as a single facility. If either unit permanently ceases producing zero-emissions credits, it will be treated as if the entire qualified Nine Mile Point facility has permanently ceased producing zero-emissions credits.

Enclosure 2

be pro-rated within a tranche period to the date upon which the facility permanently ceased producing zero-emissions.

8. LSE Obligations and Allocations

Staff proposes that each LSE, including NYPA and LIPA, be required to encourage the preservation of the environmental values or attributes of qualified zero-emissions nuclear-powered electric generating facilities for the benefit of the electric system, its customers and the environment by purchasing an amount of ZECs per year of the total amount of ZECs purchased by NYSERDA in proportion to the electric energy load served by the LSE in relation to the total electric energy load served by all LSEs in the New York Control Area. The ZECs obligation is separate from any obligation on LSEs to encourage generation utilizing renewable resources.

MI and Nucor raise concerns regarding the volumetric cost allocation, pointing out that nuclear costs have traditionally been recovered through delivery rates (physical plant) and energy prices. MI and others urge that NYPA customers should not pay any ZEC cost, as they have the ability to leave the State and go where there is no subsidy for the nuclear plants. They state that NYPA rates are for economic development, and such rates have not traditionally been charged for similar subsidies (e.g. SBC, RPS). Similarly, NYAPP urges that municipal and cooperative utilities should be exempted from the obligation to purchase ZEC's from NYSERDA based on the Commission's long-standing recognition of the unique nature of municipal utilities and co-op's which in the past has resulted in exemption from similar policies. For instance, in 2003, they were exempted from the Renewable Portfolio Standard because NYAPP members had already exceeded the proposed target, so additional requirements were not appropriate. NYAPP urges that the same rationale applies to the Clean Energy Standard in

Enclosure 2

general and ZEC's in particular because as a group, 86% of NYAPP energy comes from renewable resources, namely NYPA's Niagara Project. NYAPP says that it has demonstrated that it can meaningfully contribute to the State's clean energy goals even in the absence of mandatory requirements. Further, a mandate to purchase ZEC's may be counterproductive, inhibiting NYAPP's or NYPA's ability to develop innovative proposals to advance the State's clean energy goals.

NYPA commented that given the importance of retaining nuclear resources for New York's clean energy and emissions reduction goals, and subject to any directive from its Board of Trustees following finalization of the initiative, NYPA fully intends to comply with the Staff Responsive Proposal. LIPA also supports Staff's Responsive Proposal stating that LIPA staff intends to seek the approval of its Board of Trustees and applicable regulatory authorities to enter into the necessary agreements to procure its appropriate share of zero-emissions credits and to receive its appropriate share of such revenues as a co-owner of the Nine Mile Point 2 Nuclear Station, in accordance with the requirements to be adopted by the Commission.

AGREE urges exemption of customers who have voluntarily purchased extra renewable resources above and beyond that prescribed by the Clean Energy Standard as forcing these customers to pay for ZEC's on top of the premium for renewable resources will reduce the amount of funds they would have otherwise spent on renewable power and be a disincentive to voluntarily purchase additional renewable resources that would run counter to the State's clean energy goals. Similarly, ClearChoice Energy, an ESCO, argues that ESCOs that provide 100% renewable energy to their customers should not be required to purchase ZECs that subsidize nuclear facilities. ClearChoice

Enclosure 2

Energy notes that while nuclear power is zero-emission, it is not a renewable resource, and therefore, to the extent that LSEs that provide renewable energy to customers are forced to subsidize nuclear resources, there will be a double payment. ClearChoice Energy proposes a narrow exception that would exempt ESCOs that provide 100% renewable energy to their customers. AGREE also opposes allocating ZEC purchases based on electric usage that will impose costs on downstate consumers who will receive few direct benefits due to transmission constraints.

PULP asserts that the program places disproportionate costs on low-income and fixed-income customers and that more weight should be given to avoiding bill impacts and to avoid undermining the newly created statewide low-income/fixed-income rate reduction program.

The Commission has considered the requests for exemptions and is of the opinion that the threat to the preservation of the zero-emissions attributes of nuclear facilities is a general threat that affects all ratepayers and is of such a scope that the costs of protection should be spread as broadly as possible. The ZECs program obligation on LSEs is a separate obligation from the RES and is not satisfied by supporting renewable resources of whatever quantity. Applying the obligation on a volumetric basis is a rational and the most appropriate basis to broadly allocate the costs given the nature of carbon emissions that are a creature of the volume of electric generation and consumption. The Commission is instituting this program to prevent widespread damage from carbon emissions that affect everyone. It is fair and appropriate for all consumers to participate. Accordingly, the Commission directs each LSE that serves end-use customers in New York, beginning April 1, 2017, for the benefit of the electric system, its customers and the environment, to purchase the

Enclosure 2

percentage of ZECs purchased by NYSERDA in a year that represents the portion of the electric energy load served by the LSE in relation to the total electric energy load served by all such LSEs. LSEs will make ZEC purchases by contract with NYSERDA and will recover costs from ratepayers through commodity charges on customer bills.

9. Conclusion

Staff's research, the comments received in this proceeding and the Commission's review of the arguments made all point the Commission toward an undeniable conclusion that preservation of the zero-emissions attributes of New York State's existing upstate nuclear facilities in the near future is crucial in the strategy to fight climate change and to achieve New York State's commitment to reduce carbon emissions. Further, as Staff points out, the benefits of maintaining these attributes far outweighs the costs.

The Commission finds Staff's Responsive Proposal, in which it recommends paying ZEC payments to zero-emissions attributes based upon the social cost of carbon to be fully consistent with the Commission's approach in setting guidelines for Benefit-Cost Analysis.¹⁰¹ As emphasized by the Institute for Policy Integrity, the value of avoided carbon emissions is most accurate if tied to the value of the avoided external damage, or the value of avoiding the carbon emissions that would be emitted

¹⁰¹ Case 14-M-0101, Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework (issued January 21, 2016), pp. 17-19.

Enclosure 2

if zero-carbon generators are replaced by other generators.¹⁰² Further, this model more closely ties the pricing mechanism for ZECs to the environmental attribute, leaving no doubt that it falls squarely within the State's exclusive jurisdiction. Therefore, the Commission adopts Staff's Responsive Proposal, as modified and set forth in Appendix E, for a mechanism and a price for zero-emissions attributes of nuclear zero-carbon electric generating facilities where public necessity to encourage the continued creation of the attributes is demonstrated. This adoption of the Zero-Emissions Credit Requirement is a changed regulatory requirement for the purposes of the UBP.

Each Load Serving Entity is directed to enter into a contractual relationship with NYSERDA to periodically purchase ZECs during a program year based on initial forecasts of load and a balancing reconciliation at the end of each program year. In this manner, after the reconciliation process, each Load Serving Entity will have purchased the correct proportion of ZECs on an annual basis. In accordance with Staff's proposal, that ZECs will not be tradable except between NYSERDA and the Load Serving Entities during this balancing process.

¹⁰² Comments of the Institute for Policy Integrity, New York University School of Law (filed April 22, 2016), p. 16; see also, Reply Comments of Constellation Energy Nuclear Group, LLC Concerning Staff White Paper on Clean Energy Standard (filed May 13, 2016), p. 13. It is significant to point out that the cost of carbon-based approach for pricing RECs that appears in Staff's Responsive Proposal was proposed by these other parties in their comments to the White Paper. As more fully discussed with the July 15, 2016 Notice Extending Comment Deadline, supra, Staff's Responsive Proposal falls squarely within the issues that have been contemplated since the inception of this proceeding and within the scope of original Notice of Proposed Rulemaking issued in contemplation of the determinations made today.

Enclosure 2

As an alternative to contracting for ZECs with NYSERDA, LSEs and self-supply customers may seek permission from the Commission to meet their ZECs obligations by entering into combined ZEC plus energy and/or capacity contracts directly with the nuclear facilities. However, such proposals will be carefully scrutinized by the Commission to ensure that these alternate contracts will not unfairly shift ZECs costs onto other ratepayers.

The ZEC mechanism adopted in this Order is the best way for the State to preserve the nuclear units' environmental attributes while staying within the State's jurisdictional boundaries. ZECs provide a vehicle for monetizing the State's environmental preferences and the program will allow time for new clean energy technologies to mature and take their place in the ultimate generation mix. The independent renewable resource and ZEC obligations that together make up the CES each contribute uniquely to serving the long-term goal of achieving a largely de-carbonized energy system by the middle of the century.

VIII. IMPLEMENTATION

This Order adopts the Clean Energy Standard (CES) and establishes the policies that will govern the Renewable Energy Standard and the Zero-Emissions Credits Requirement. Given the need for momentum to implement the important initiatives adopted here, in many cases this Order establishes specific requirements to provide for swift implementation where necessary. But there are also a number of additional implementation measures that will be necessary to fully administer the CES. Those additional measures will be determined in an implementation phase that will address a number of issues identified in Appendix F, along with other implementation issues that may arise. Full implementation

Enclosure 2

will require various phases going forward and typically will involve a Staff or NYSERDA proposal, adequate notice, and the opportunity for comment before Commission action. The Commission intends that implementation matters will be addressed in a planned and deliberate manner to ensure that market participants receive timely guidance on matters that affect them.

IX. SEQRA FINDINGS

In February 2015, in accordance with the State Environmental Quality Review Act (SEQRA), the Commission finalized and published a Generic Environmental Impact Statement that explored the potential environmental impacts associated with two major Commission policy initiatives: REV and the Clean Energy Fund. On February 23, 2016, the Commission issued a Draft Supplemental Generic Environmental Impact Statement specifically relating to the CES and the establishment of a support mechanism to sustain the operations of eligible nuclear facilities. Seven entities submitted comments, and on May 19, 2016, the Commission adopted the Final Supplemental Generic Environmental Impact Statement (FSGEIS). In conjunction with the decisions made in this Order, the Commission has considered the information in the FSGEIS and FGEIS and hereby adopts the SEQRA Findings Statement prepared in accordance with Article 8 of the Environmental Conservation Law (SEQRA) and 6 NYCRR Part 617, by the Commission as lead agency for these actions. The SEQRA Findings Statement is attached to this Order as Appendix G. The SEQRA Findings Statement is based on the facts and conclusions set forth in the FSGEIS and the FGEIS. The CES program is expected to yield overall positive environmental impacts, primarily by reducing the State's use of, and dependence on, fossil fuels, among other benefits. In

Enclosure 2

conjunction with other State and Federal policies and initiatives, CES is designed to reduce the adverse environmental, social and economic impacts of fossil fuel energy resources by increasing the use of clean energy resources and technologies.

X. CONCLUSION

For the reasons stated above, and in accord with the discussion in the body of this Order, the Commission adopts a Clean Energy Standard consisting of a Renewable Energy Standard and a Zero-Emissions Credit Requirement program.

The Commission orders:

1. The goal of the State Energy Plan that 50% of New York's electricity is to be generated by renewable sources by 2030, as part of a strategy to reduce statewide greenhouse gas emissions 40% by 2030, is adopted as a foundational basis and essential component of the Clean Energy Standard.

2. The Clean Energy Standard consisting of the Renewable Energy Standard (RES) and the Zero-Emissions Credit Requirement, as described in the body of this order and in the appendices, is adopted.

3. Every Load Serving Entity (LSE) in New York State shall pursuant to Tier 1 of the RES invest in new renewable generation resources to serve their retail customers evidenced by the procurement of qualifying Renewable Energy Credits (RECs), acquired in quantities that satisfy mandatory minimum percentage proportions of the total load served by the LSE for the applicable calendar year as set forth herein. The compliance period shall be January 1 to December 31 of each year, beginning in 2017, and will continue annually, determined by multiplying the LSE's actual load for the year by the

Enclosure 2

percentage RES requirement for that year. LSEs may satisfy their obligation by either purchasing RECs acquired through central procurement by the New York State Energy Research and development Authority (NYSERDA); by self-supply by direct purchase of tradable RECs; or by making Alternative Compliance Payments to NYSEDA. Each LSE will demonstrate compliance through an annual compliance filing.

4. NYSEDA may offer RECs acquired in the 2016 Procurement for RES Tier 1 compliance and if NYSEDA determines that acceleration is warranted because the additional financial commitment would result in an overall weighted average award price of 2016 Main Tier projects equal to or less than the 2015 Main Tier weighted average award price of \$24.57 per REC, it is authorized to implement additional procurement levels in the 2016 procurement and file a report with the Commission documenting its determination and the results.

5. For the Year 2017 compliance period, by December 1, 2016, NYSEDA shall publish on its website a REC price and the estimated quantity of the RECs NYSEDA will offer for sale in the 2017 compliance period. The REC price offered will equal the weighted average cost per MWh NYSEDA paid to acquire the RECs to be offered, plus a reasonable Commission-approved adder to cover the administrative costs and fees incurred by NYSEDA to administer Tier 1. NYSEDA will file a petition with the Commission proposing the amount of the adder by August 25, 2016.

6. By December 1, 2016 for the Year 2017 compliance period, NYSEDA shall publish on its website a per MWh ACP price for the 2017 compliance period. The ACP price will equal an amount calculated as the published REC price plus 10%.

Enclosure 2

7. By December 1, 2016 for the Year 2017 compliance period, each LSE will inform NYSERDA whether it intends to purchase RECs from NYSERDA during the compliance period.

8. For the 2017 procurement period NYSERDA shall establish and publish on its website no later than December 1, 2016, a firm schedule of fixed dates for the annual and potential supplemental solicitations.

9. Pursuant to Tier 2 of the RES, if the Commission awards Maintenance Contracts, eligible costs will be recovered from delivery customers in the same manner as in the Renewable Portfolio Standard program Maintenance Tier, or from such other sources as the Commission shall determine.

10. Every LSE in New York State shall purchase through contract with NYSERDA, at a price and by the terms described in this Order, an amount of zero-emission credits (ZECs) representing that LSEs proportional share of ZECs purchased annually by NYSERDA pursuant to the Zero-Emissions Credit Requirement. The LSE's proportional share is determined based on the proportion of electric energy load served by the LSE in relation to the total electric energy load served by all LSEs in the New York Control Area. The LSE/NYSERDA contractual relationship will require LSEs to periodically purchase ZECs during a program year based on initial forecasts of load and a balancing reconciliation at the end of each program year.

11. The compliance period shall be for two-year tranches commencing April 1, 2017 and will continue until March 31, 2029. Each LSE will demonstrate compliance through an annual compliance filing.

12. There being a public necessity to preserve the zero-emissions environmental attributes of certain Zero Carbon Electric Generating Facilities, NYSERDA shall offer long-term contracts for the purchase of ZECs from the FitzPatrick, Ginna

Enclosure 2

and Nine Mile Point generating facilities in accordance with the price, contract period and other terms specified in this Order. The contract terms shall conform to all of the requirements specified in this Order.

13. In the Secretary's sole discretion, the deadlines set forth in this Order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least one day prior to the affected deadline.

14. Case 15-E-0302 is continued; Case 16-E-0270 is closed.

By the Commission,

(SIGNED)

KATHLEEN H. BURGESS
Secretary

APPENDICES

- Appendix A - Eligibility of Resources
- Appendix B - Comment Summaries
- Appendix C - New York Generation Attribute Tracking System
- Appendix D - Renewable Energy Standard - Tier 2
- Appendix E - Zero-Emissions Credits Requirement
- Appendix F - Implementation Phase
- Appendix G - SEQRA Findings Statement

Enclosure 2

Commissioner Diane X. Burman, concurring:

As reflected in my comments made at the August 1, 2016 session, I concur on this item.

ZERO-EMISSIONS CREDITS REQUIREMENT

The Zero-Emissions Credits Requirement is a component of the Clean Energy Standard (CES) adopted by the Public Service Commission (Commission) to encourage the preservation of the environmental values or attributes of zero-emissions nuclear-powered electric generating facilities for the benefit of the electric system, its customers and the environment. The requirement takes the approach of valuing and paying for the zero-emissions attributes based on a formula that starts with the best available published estimates of the social cost of carbon (SCC) developed for the Environmental Protection Agency (EPA) in coordination with other federal agencies and prepared by the U.S. Interagency Working Group (USIWG).

The design and duration of the Zero-Emissions Credits Requirement can be modified or eliminated by the Commission if there is a national, New York Independent System Operator (NYISO), or other program instituted that pays for or internalizes the value of the zero-emissions attributes in a manner that adequately replicates the economics of the Zero-Emissions Credits Requirement program such that the Commission in its sole discretion is satisfied that the zero-emissions attributes are no longer at risk and that discontinuing the mechanism can be done in a manner that is fair to both the facility owners and the ratepayers.

DEFINITIONS:

- A. The term "Load Serving Entity" means any entity that secures energy to serve the electrical energy requirements of end-use customers in New York State.
- B. The term "Zero Carbon Electric Generating Facility" means an electric generating facility that uses energy released in the course of nuclear fission to generate electricity.
- C. The term "Zero-Emissions Credit" or "ZEC" means credit for the zero-emissions attributes of one megawatt-hour of electricity production by an eligible Zero Carbon Electric Generating Facility which credit is purchased by NYSERDA or a Load Serving Entity to reduce carbon consumption by retail electric consumers in New York State.

Enclosure 2

APPENDIX E
Page 2 of 13

METHODOLOGY AND REQUIREMENTS:

1. As a component of the Clean Energy Standard (CES), New York State shall provide for payments for zero-emissions attributes to Zero Carbon Electric Generating Facilities when there is a public necessity to encourage the preservation of their zero-emission environmental values or attributes for the benefit of the electric system, its customers and the environment.
2. Public necessity shall be determined on a plant-specific basis in the discretion of the Commission considering (a) the verifiable historic contribution the facility has made to the clean energy resource mix consumed by retail consumers in New York State regardless of the location of the facility; (b) the degree to which energy, capacity and ancillary services revenues projected to be received by the facility are at a level that is insufficient to provide adequate compensation to preserve the zero-emission environmental values or attributes historically provided by the facility; (c) the costs and benefits of such a payment for zero-emissions attributes for the facility in relation to other clean energy alternatives for the benefit of the electric system, its customers and the environment; (d) the impacts of such costs on ratepayers; and (e) the public interest. Units in single ownership located in the same NYISO Zone and that share costs at the same site will be treated as a single facility for the determination. Therefore, Nine Mile Units 1 & 2 will be treated as a single facility, and Indian Point Units 2 and 3 will be treated as a single facility.
3. An initial determination of facility-specific public necessity has been made upon inception of the program. Subsequent determinations of facility-specific public necessity may be made at every two-year interval after inception for Zero Carbon Electric Generating Facilities that were not qualified upon inception of the program.
4. The ZEC contracts will be administered in six two-year tranches, as follows:
 - Tranche 1: April 1, 2017 - March 31, 2019
 - Tranche 2: April 1, 2019 - March 31, 2021
 - Tranche 3: April 1, 2021 - March 31, 2023
 - Tranche 4: April 1, 2023 - March 31, 2025
 - Tranche 5: April 1, 2025 - March 31, 2027
 - Tranche 6: April 1, 2027 - March 31, 2029

Enclosure 2

APPENDIX E
Page 3 of 13

5. Upon a determination of facility-specific public necessity, the owner of the facility will be offered a multi-year contract administered by the New York State Energy Research and Development Authority (NYSERDA) to purchase ZECs from the period beginning on the first day of the eligibility tranche through March 31, 2029. The facility will have an obligation to produce the ZECs and to sell them to NYSERDA through March 31, 2029, except during periods when the calculated ZEC price pursuant to the contract is \$0.
6. For the three facilities for which an initial determination of facility-specific public necessity has been made upon inception of the program, the 12-year duration will be conditional upon a buyer purchasing the FitzPatrick facility and taking title prior to September 1, 2018, the date six months before the commencement of the period of Tranche 2. If the sale and closing does not occur, there will be no commitment for the program to continue beyond Tranche 1 and the Commission will have six months before the otherwise-planned commencement of Tranche 2 to determine a future course of action, if any.
7. The obligation to produce will be enforced by appropriate financial consequences for failure to produce. For the three facilities for which an initial determination of facility-specific public necessity has been made upon inception of the program, a performance mechanism will be included in the contract between NYSERDA and the plant owners. The Ginna and Nine Mile Point facilities under common ownership will be treated as a group for these purposes. The FitzPatrick facility when in separate ownership from the other facilities shall be considered a group of one for these purposes. If the FitzPatrick facility is acquired by the owner of the Ginna and Nine Mile Point facilities all three facilities will be considered together as a group for these purposes. If the facilities in a group perform in any tranche period at less than 85% of their group MWh cap and obligation for the tranche period, then the cap and obligation for the next tranche period for the group will be reduced by 1,000,000 MWh if all three facilities are in the group; 666,666 MWh if two facilities are in the group, and 333,333 MWh if only one facility is in the group. After the next tranche in which the facilities in a group perform at or above the new lower cap and obligation, the original cap and obligation will be restored for the subsequent tranche.

Enclosure 2

APPENDIX E
Page 4 of 13

8. The program and especially the caps on eligible production of ZECs is designed to preserve the zero-emissions attributes of all of the qualifying facilities and NYSEERDA as the contract administrator shall ensure that contracts for all of the facilities are in place before any of the contracts are allowed to become effective.
9. Should any of the three facilities initially qualified (FitzPatrick, Ginna and Nine Mile Point¹) permanently cease producing zero-emissions attributes for any reason whatsoever the overall cap of 27,618,000 MWh will be reduced by one-third for each facility that permanently ceases producing zero-emissions attributes. Therefore, if one of the facilities ceases producing zero-emissions attributes, the overall cap will be reduced to 18,412,000 MWh; if two of the facilities cease producing zero-emissions attributes, the overall cap will be reduced to 9,206,000 MWh. These requirements will act both as an incentive to the facility owners to keep all of the plants operating, and to ensure that the continuing program keeps the original balance between ratepayer and generator interests. The reductions will be pro-rated within a tranche period to the date upon which the facility permanently ceased producing zero-emissions attributes.
10. The price to be paid for ZECs has been determined administratively by the Commission as there are too few owners of the affected generation facilities for there to be a valid competitive process to determine the prices as the owners would have too much market power for effective competition.
11. For the contract period of Tranche 1, the price of the ZEC is based upon the average April 2017 through March 2019 projected SCC as published by the USIWG in July 2015 (nominal \$42.87/short ton), less a fixed baseline portion of that cost already captured in the market revenues received by the eligible facilities due to the Regional Greenhouse Gas Initiative (RGGI) program based upon the average of the April 2017 through March 2019 forecast RGGI

¹ Nine Mile Point Units 1 & 2 qualified jointly as a single facility. If either unit permanently ceases producing zero-emissions credits, it will be treated as if the entire qualified Nine Mile Point facility has permanently ceased producing zero-emissions credits.

prices embedded in the Congestion Assessment and Resource Integration Study (CARIS) Phase 1 report (nominal \$10.41/short ton). The formula yields a net cost of carbon of \$32.47 (nominal \$/short ton), and a ZEC price of \$17.48 per MWh for the contract period of Tranche 1 [see Attachment 1 for the detailed calculations behind this price].

12. For the contract periods of Tranche 2 through Tranch 6, the ZEC prices would be calculated pursuant to a formula by tranche. In general concept, the formula is as follows:

$$\begin{array}{rcccl}
 \text{Social} & & \text{Baseline} & & \text{Amount} \\
 \text{Cost of} & & \text{RGGI} & & \text{Zone A Forecast} \\
 \text{Carbon} & - & \text{Effect} & - & \text{Energy Price} \\
 & & & & \text{and} \\
 & & & & \text{ROS Forecast} \\
 & & & & \text{Capacity Price} \\
 & & & & \text{combined} \\
 & & & & \text{exceeds } \$39/\text{MWh} \\
 & & & = & \text{Upstate} \\
 & & & & \text{ZEC} \\
 & & & & \text{Price}
 \end{array}$$

Note: the \$39/MWh figure is subject to adjustment.

13. The formula components are described more specifically, as follows:

(a) The Social Cost of Carbon (SCC) component (nominal \$\$ per short ton of CO₂) would be as follows:

Tranche 2	\$46.79	Average of April 2019 - March 2021 USIWG on SCC estimates (July 2015)
Tranche 3	\$50.11	Average of April 2021 - March 2023 USIWG on SCC estimates (July 2015)
Tranche 4	\$54.66	Average of April 2023 - March 2025 USIWG on SCC estimates (July 2015)
Tranche 5	\$59.54	Average of April 2015 - March 2027 USIWG on SCC estimates (July 2015)
Tranche 6	\$64.54	Average of April 2027 - March 2029 USIWG on SCC estimates (July 2015)

(b) The Baseline RGGI Effect component would remain fixed for all tranches at a nominal \$10.41/short ton. [Note: The

energy price forecast part of the adjustment described below will capture forward-going changes due to RGGI].

(c) The Conversion Factor used to convert the net CO₂ externality cost in nominal dollars per short ton to dollars per MWh will remain fixed at 0.53846 for the first three tranches. For Tranche 4, if the total energy from renewable resources consumed in New York State during calendar year 2022 is over 50,000,000 MWh, the marginal conversion factor will be adjusted downward. The amount of the adjustment will be 0.00491 tons per MWh for each 1,000,000 MWh of renewable energy consumed above 50,000,000 MWh.² For Tranche 5, if the total energy from renewable resources consumed in New York State during calendar year 2024 is over 50,000,000 MWh, the marginal conversion factor will be adjusted downward. The amount of the adjustment will be 0.00491 tons per MWh for each 1,000,000 MWh of renewable energy consumed above 50,000,000 MWh. For Tranche 6, if the total energy from renewable resources consumed in New York State during calendar year 2026 is over 50,000,000 MWh, the marginal conversion factor will be adjusted downward. The amount of the adjustment will be 0.00491 tons per MWh for each 1,000,000 MWh of renewable energy consumed above 50,000,000 MWh.

(d) The Forecast Energy & Capacity Price Change Adjustment component uses changes in independently published forecasts of going-forward energy and capacity prices to adjust the ZEC price (downward only so as not to exceed the Social Cost of Carbon) by the amount that future forecasts predict that NYISO Zone A energy prices combined with the Rest of State (ROS) capacity prices will exceed \$39/MWh. NYISO Zone A and ROS were chosen as relevant proxies. These components measure only the change in forecasts over time; they do not establish energy or capacity prices. The \$39/MWh baseline figure approximates a recent period average of the forecasts of Intercontinental Exchange (ICE) of the NYISO Zone A energy prices projected by ICE for the period April 2017 through March 2019 combined with the per MWh equivalent of a recent period average of the forecasts of New York Mercantile Exchange (NYMEX) NYISO Rest of State

² This adjustment factor is designed so that the marginal emissions rate begins to fall once 50,000,000 MWh of renewable energy is achieved, and a rate of 0.45 tons per MWh is reached when 68,000,000 MWh of renewable energy is achieved.

Capacity Calendar Month Futures projected by NYMEX for the period April 2017 through March 2018. The adjustment would be calculated as follows:

Tranche 2	Price adjustment in \$\$/MWh equals the sum of ICE's Calendar Year 2018 NYISO Zone A price forecasts for April 2019 through March 2021 ³ and the per MWh equivalent of the average of NYMEX's July through December 2018 NYISO Rest of State capacity price forecasts for April 2019 through March 2020, less \$39/MWh.	If the combined forecasted prices are \$39/MWh or less, the adjustment would be zero (there would be no adjustment).
Tranche 3	Price adjustment in \$\$/MWh equals the sum of ICE's Calendar Year 2020 NYISO Zone A price forecasts for April 2021 through March 2023 and the per MWh equivalent of the average of NYMEX's July through December 2020 NYISO Rest of State capacity price forecasts for April 2021 through March 2022, less \$39/MWh.	If the combined forecasted prices are \$39/MWh or less, the adjustment would be zero (there would be no adjustment).
Tranche 4	Price adjustment in \$\$/MWh equals the sum of ICE's Calendar Year 2022 NYISO Zone A price forecasts for April 2023 through March 2025 and the per MWh equivalent of the average of NYMEX's July through December 2022 NYISO Rest of State capacity price forecasts for April 2023 through March 2024, less \$39/MWh.	If the combined forecasted prices are \$39/MWh or less, the adjustment would be zero (there would be no adjustment). Note: the \$39/MWh figure is subject to adjustment.

³ NYISO Zone A energy price forecasts for each 24-month tranche will be determined as follows: 1) for each trading day during the calendar year preceding each tranche, ICE NYISO Zone A Day-Ahead Peak Fixed Price Future (ICE code NAY) and NYISO Zone A Day-Ahead Off-Peak Fixed Price Future (ICE code AOP) settled futures prices for the 24 months of the tranche will be separately averaged, yielding separate average on-peak and off-peak tranche energy prices for each trading day; 2) each trading day's average on-peak and off-peak energy prices (developed in step 1) will be time-weight averaged based on the number of on-peak and off peak hours in the tranche, yielding an single average energy price for the tranche for each trading day; 3) the average energy prices for each of the trading days during the calendar year preceding each tranche (developed in step 2) will be averaged, yielding the NYISO Zone A energy price forecast for the tranche.

Tranche 5	Price adjustment in \$/MWh equals the sum of ICE's Calendar Year 2024 NYISO Zone A price forecasts for April 2025 through March 2027 and the per MWh equivalent of the average of NYMEX's July through December 2024 NYISO Rest of State capacity price forecasts for April 2025 through March 2026, less \$39/MWh.	If the combined forecasted prices are \$39/MWh or less, the adjustment would be zero (there would be no adjustment). Note: the \$39/MWh figure is subject to adjustment to use the amount used for Tranche 4.
Tranche 6	Price adjustment in \$/MWh equals the sum of ICE's Calendar Year 2026 NYISO Zone A price forecasts for April 2027 through March 2029 and the per MWh equivalent of the average of NYMEX's July through December 2026 NYISO Rest of State capacity price forecasts for April 2027 through March 2028, less \$39/MWh.	If the combined forecasted prices are \$39/MWh or less, the adjustment would be zero (there would be no adjustment). Note: the \$39/MWh figure is subject to adjustment to use the amount used for Tranche 4.

In order to capture the effects that changed congestion patterns will have on the basis differential, the \$39/MWh reference price used in ZEC price formula will be updated one time, at the time the Tranche 4 ZEC price is determined. The one-time update will be calculated by determining the historic basis over the 2017-2022 time period and adjusting the \$39/MWh reference price used in the ZEC price formula if the historic basis is outside of a range of \$5-\$7/MWh. The exact methodology is as follows:

The historic \$/MWh difference between the six-year average Zone A day-ahead energy price and the individual six-year average generator bus day-ahead energy prices for each of the four nuclear units will be calculated based on historic NYISO data for calendar years 2017 through 2022.⁴

The four \$/MWh price differences (basis) will be weighted to determine a single average historic \$/MWh basis differential. The nuclear unit weightings will be based on the actual six-year cumulative energy output of each unit for the years 2017 through 2022. Depending on the methodology employed, the Tranche 1 forecast \$/MWh basis differential between Zone A and the upstate nuclear generator busses is between \$5/MWh and \$7/MWh. If the average historic basis

⁴ The historic NYISO data can be generated here:
http://www.nyiso.com/public/markets_operations/market_data/custom_report/index.jsp?report=dam_lbmp_gen.

differential is below \$5/MWh, the difference between \$5/MWh and the average historic basis differential will be subtracted from the \$39/MWh reference price contained in the ZEC price formula. If the average historic basis differential is above \$7/MWh, the difference between the average historic basis differential and \$7/MWh and will be added to the \$39/MWh reference price contained in the ZEC price formula. If the average historic basis differential is between \$5/MWh and \$7/MWh there will be no adjustment to the \$39/MWh reference price contained in the ZEC price formula.

If the basis differential decreases, consumers would benefit, all else equal, since the \$39/MWh reference price is adjusted downward; if the basis differential increases, consumers would never pay more than the Social Cost of Carbon in Staff's Responsive Proposal.

14. The amount of ZECs to be purchased on an annual basis will be capped at a MWh amount that represents the verifiable historic contribution the facilities have made to the clean energy resource mix consumed by retail consumers in New York State. For the three facilities for which an initial determination of facility-specific public necessity has been made upon inception of the program, the Commission has determined that the amount of ZECs to be purchased on an annual basis will be capped at 27,618,000 MWh. The FitzPatrick plant, so long as it remains in ownership separate from the other facilities, shall have an individual cap and obligation of 25.4% of the total or 7,014,972 MWhs (based on a multi-year historic average). The Ginna and Nine Mile Point facilities under common ownership shall have a group cap and obligation of the remaining 74.6% of the total or 20,603,028 MWhs. If the FitzPatrick facility is acquired by the owner of the Ginna and Nine Mile Point facilities, the caps will be combined and treated as a single group.
15. Verification of ZEC production shall be made by NYSERDA, in consultation with the Department of Public Service, subject to ultimate Commission authority.
16. If the zero-emissions attributes of the downstate Indian Point facility become at risk and the Commission determines that there is a public necessity to encourage the preservation of their zero-emission environmental values or

Enclosure 2

APPENDIX E
Page 10 of 13

attributes, the Commission reserves the right to possibly calculate the ZEC price to reflect the difference between upstate and downstate market revenues in order to put downstate facilities on an equal footing with upstate facilities. A methodology to calculate the upstate/downstate price differential may be developed if its use becomes necessary.

17. The price charged by NYSERDA per ZEC shall be at the price established administratively by the Commission as described above, plus an adder to cover NYSERDA's incremental administrative costs and fees associated with the ZEC program and ZEC revenues.
18. All Commission determinations of public necessity to pay for zero-emissions attributes for a facility are subject to the execution of an appropriate contract between NYSERDA and the owner of the facility in accordance with the Commission order establishing the Zero-Emissions Credits Requirement.

Attachment 1 - ZEC Calculations

Table 1

***USIWG Annual Estimates of Social Cost of Carbon (SCC)
 Adjusted for Inflation and Converted to Nominal Dollars per Short Ton***

A	B	C	D	E
			B*C/100	D*0.907184
	<u>US SCC "Central Value"</u>	<u>Inflation</u>	<u>US SCC "Central Value"</u>	<u>x 0.907184 (metric to short ton)</u>
	(\$2007)/m- ton	GDP-IPD Base 2007	(\$ Nominal) /m-ton	\$ Nominal /short ton
2017	\$39	117.0197464	\$45.64	\$41.40
2018	\$40	119.485483	\$47.79	\$43.36
2019	\$41	121.9512195	\$50.00	\$45.36
2020	\$42	124.5196951	\$52.30	\$47.44
2021	\$42	127.1909097	\$53.42	\$48.46
2022	\$43	129.8621242	\$55.84	\$50.66
2023	\$44	132.5333388	\$58.31	\$52.90
2024	\$45	135.3072924	\$60.89	\$55.24
2025	\$46	138.183985	\$63.56	\$57.66
2026	\$47	141.0606777	\$66.30	\$60.14
2027	\$48	144.0229519	\$69.13	\$62.71
2028	\$49	147.0474339	\$72.05	\$65.37
2029	\$49	150.13543	\$73.57	\$66.74

Note: Some of the numbers have been rounded.

Table 2

***Sample Conversion from Annual to Tranche Period
and Calculation of RGGI Baseline***

	<u>US SCC</u> <u>"Central Value"</u>	<u>RGGI</u> <u>estimate in</u> <u>CARIS LBMP</u>	<u>Net CO₂</u> <u>Externality</u>
	<u>\$ Nominal</u> <u>/short ton</u>	<u>\$ Nominal</u> <u>/short ton</u>	<u>\$ Nominal</u> <u>/short ton</u>
2017	\$41.40	\$10.12	\$31.28
2018	\$43.36	\$10.48	\$32.88
2019	\$45.36	\$10.99	\$34.37
4/1/2017-3/31/2019	\$42.87	\$10.41	\$32.47
[Tranche 1# = (¼ of 2017# + 2018# + ¼ of 2019#)/2]			

Note: Some of the numbers have been rounded.

Table 3

Calculation of Net CO₂ Externality by Tranche

		<u>US SCC</u> <u>"Central Value"</u>	<u>Baseline Avg</u> <u>2017-2018</u> <u>RGGI</u> <u>estimate in</u> <u>CARIS LBMP</u>	<u>Net CO₂</u> <u>Externality</u>
		<u>\$ Nominal</u> <u>/short ton</u>	<u>\$ Nominal</u> <u>/short ton</u>	<u>\$ Nominal</u> <u>/short ton</u>
Tranche 1	4/1/2017-3/31/2019	\$42.87	\$10.41	\$32.47
Tranche 2	4/1/2019-3/31/2021	\$46.79	\$10.41	\$36.38
Tranche 3	4/1/2021-3/31/2023	\$50.11	\$10.41	\$39.71
Tranche 4	4/1/2023-3/31/2025	\$54.66	\$10.41	\$44.26
Tranche 5	4/1/2025-3/31/2027	\$59.54	\$10.41	\$49.13
Tranche 6	4/1/2027-3/31/2029	\$64.54	\$10.41	\$54.13

Note: Some of the numbers have been rounded.

Table 4

Conversion of Net CO₂ Externality to Dollars per MWh by Tranche

		<u>Net CO₂ Externality</u>	<u>Short Ton to MWh</u>	<u>Adjusted SCC</u>
		<u>\$ Nominal /short ton</u>	<u>Conversion Factor</u>	<u>\$ /MWh</u>
Tranche 1	4/1/2017-3/31/2019	\$32.47	0.53846	\$17.48
Tranche 2	4/1/2019-3/31/2021	\$36.38	0.53846	\$19.59
Tranche 3	4/1/2021-3/31/2023	\$39.71	0.53846	\$21.38
Tranche 4	4/1/2023-3/31/2025	\$44.26	TBD	TBD
Tranche 5	4/1/2025-3/31/2027	\$49.13	TBD	TBD
Tranche 6	4/1/2027-3/31/2029	\$54.13	TBD	TBD

Note: Some of the numbers have been rounded.

Table 5

Calculation of ZEC Price by Tranche

		<u>Adjusted SCC</u>	<u>Zone A Reference Price</u>	<u>Energy & Capacity Forecast Adjustment</u>	<u>Upstate ZEC Price</u>
		<u>\$ /MWh</u>	<u>\$ /MWh</u>	<u>\$ /MWh</u>	<u>\$ /MWh</u>
Tranche 1	4/1/2017-3/31/2019	\$17.48	N/A	N/A	\$17.48
Tranche 2	4/1/2019-3/31/2021	\$19.59	\$39.00	TBD	TBD
Tranche 3	4/1/2021-3/31/2023	\$21.38	\$39.00	TBD	TBD
Tranche 4	4/1/2023-3/31/2025	TBD	TBD	TBD	TBD
Tranche 5	4/1/2025-3/31/2027	TBD	Tranche 4 Amount	TBD	TBD
Tranche 6	4/1/2027-3/31/2029	TBD	Tranche 4 Amount	TBD	TBD

Note: Some of the numbers have been rounded.

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 3

***MOODY'S AND STANDARD AND POOR'S CURRENT BOND RATINGS FOR
EXELON CORPORATION AND EXELON GENERATION COMPANY***

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 3

MOODY'S

INVESTORS SERVICE

Rating Action: Moody's Upgrades Pepco Holdings; Changes Rating Outlook to Stable from Developing; Exelon Affirmed

Global Credit Research - 24 Mar 2016

Approximately \$5 billion of debt affected

New York, March 24, 2016 – Moody's Investors Service, ("Moody's") today upgraded the ratings for Pepco Holdings, Inc. (PHI), including the senior unsecured rating to Baa2 from Baa3 and the short term commercial paper rating to Prime-2 (P-2) from Prime-3 (P-3). In addition, Moody's changed the rating outlook for PHI to stable from developing. Concurrently with this action, Moody's affirmed the ratings for Exelon Corporation (Exelon), including the Baa2 senior unsecured rating and Prime-2 (P-2) short term commercial paper rating. Exelon's rating outlook is stable.

Upgrades:

..Issuer: Pepco Holdings, Inc.

.... Issuer Rating, Upgraded to Baa2 from Baa3

....Senior Unsecured Commercial Paper, Upgraded to P-2 from P-3

....Senior Unsecured Regular Bond/Debenture, Upgraded to Baa2 from Baa3

Outlook Actions:

..Issuer: Exelon Capital Trust I

....Outlook, Remains Stable

..Issuer: Exelon Capital Trust II

....Outlook, Remains Stable

..Issuer: Exelon Capital Trust III

....Outlook, Remains Stable

..Issuer: Exelon Corporation

....Outlook, Remains Stable

..Issuer: Pepco Holdings, Inc.

....Outlook, Changed To Stable From Developing

Affirmations:

..Issuer: Constellation Energy Group, Inc.

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

..Issuer: Exelon Capital Trust I

....Pref. Stock Shelf, Affirmed (P)Baa3

..Issuer: Exelon Capital Trust II

....Pref. Stock Shelf, Affirmed (P)Baa3

Enclosure 3

..Issuer: Exelon Capital Trust III
....Pref. Stock Shelf, Affirmed (P)Baa3
..Issuer: Exelon Corporation
.... Issuer Rating, Affirmed Baa2
....Preferred Shelf, Affirmed (P)Ba1
....Subordinate Shelf, Affirmed (P)Baa3
....Senior Unsecured Shelf, Affirmed (P)Baa2
....Senior Unsecured Bank Credit Facility, Affirmed Baa2
....Senior Unsecured Commercial Paper, Affirmed P-2
....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

RATINGS RATIONALE

"With the merger completed, PHI benefits as an intermediate subsidiary holding company of Exelon," said Jim Hempstead, Associate Managing Director. "We see Exelon's larger size and scale bringing more resources and capital to help accelerate PHI's investment plans."

PHI's Baa2 rating reflects the company's status as an intermediate subsidiary holding company of Exelon, and its portfolio of three low business risk profile transmission and distribution (T&D) utilities. PHI's utilities (Atlantic City Electric Company, (Baa2 stable); Delmarva Power and Light Company, (Baa1 stable) and Potomac Electric Power Company, (Baa1 stable)) provide electric and natural gas delivery services to roughly 2.0 million customers. PHI's service territories cover the District of Columbia (DC), Maryland, Delaware and New Jersey, and are contiguous to Exelon's Maryland and Pennsylvania service territories. In 2015, PHI's T&D utilities produced roughly \$1.0 billion in cash flow that covered approximately \$7.1 billion in debt.

For Exelon, and its Baa2 senior unsecured rating, the acquisition of PHI is credit positive because it helps transition the company more towards a regulated business. PHI brings an incremental \$8 billion in rate base to Exelon's roughly \$20 billion, and adds regulatory diversity with new service territories in DC, Delaware and New Jersey.

"We see Exelon's business shifting more towards its regulated utilities, so we will now assess Exelon's credit profile under our Global Regulated Electric and Gas Utilities rating methodology," Hempstead added.

Prospectively, we see Exelon's roughly \$28 billion of regulated T&D utility rate base remaining higher than its combined T&D utility debt of approximately \$20 billion. In addition, we count an additional \$5.0 billion in parent holding company debt, which if added to the T&D utility debt, is still below the rate base, a credit positive. When looking at Exelon without its unregulated business operations, we see an ability to generate a ratio of cash flow to debt in the 20% range (considering only the T&D utility debt) and the mid-teen's range (considering the T&D utility debt and incorporating the holding company debt). In addition, we see approximately \$3.5 billion of debt at Baltimore Gas and Electric Company (A3 stable), \$8.1 billion of debt at Commonwealth Edison Company (Baa1 positive), \$3.1 billion of debt at PECO Energy Company (A2 stable), \$1.3 billion of debt at Atlantic City Electric Company (Baa2 stable), \$1.6 billion of debt at Delmarva Power and Light Company (Baa1 stable) and \$2.6 billion of debt at Potomac Electric Power Company (Baa1 stable).

Liquidity Profile

PHI's Prime-2 short term commercial paper rating reflects the strength and liquidity resources of Exelon. Going forward, we incorporate a view that PHI will no longer be utilized as a principal financing vehicle, and we expect the debt at PHI, including its existing short-term debt, to slowly transition to the Exelon parent holding company level.

Rating Outlook

The stable rating outlook for PHI reflects its role as an intermediate subsidiary holding company of Exelon. Exelon's stable rating outlook reflects the stability and predictability of its larger suite of T&D utilities, its

Enclosure 3

adequate liquidity profile and its conservatively managed and capitalized unregulated business operations. The stable outlook incorporates a view that Exelon will generate a consolidated ratio of cash flow to debt ratio in the high-teen's to 20% range on a sustained basis.

What Could Change the Rating -- Up

PHI's Baa2 rating could be upgraded with an upgrade in Exelon's rating. Exelon's Baa2 rating could be upgraded if its consolidated ratio of cash flow to debt rose to the mid-20% range for a sustained period of time, or if there was a material reduction in the corporate family's business risk profile.

What Could Change the Rating - Down

PHI's Baa2 rating could be downgraded with a downgrade in Exelon's rating. Exelon's Baa2 rating could be downgraded if there was a material increase in regulatory contentiousness in one or more of its major jurisdictions (i.e., Illinois, Maryland or Pennsylvania), or if the consolidated ratio of cash flow to debt declined to the low-to-mid-teen's range for a sustained period of time. Ratings could also be downgraded if Exelon deployed a more aggressive corporate finance strategy, where the level of holding company debt as a percentage of total consolidated debt rose to over 25% (excluding the debt of Exelon Generation Company LLC) or if there were any materially adverse developments in the unregulated business operations related to the nuclear generation fleet or the retail trading and marketing business.

The principal methodology used in these ratings was Regulated Electric and Gas Utilities published in December 2013. Please see the Ratings Methodologies page on www.moodys.com for a copy of this methodology.

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CREDIT OPINION
19 January 2016

Exelon Corporation

Diversified Utility and Merchant Power Company

Summary Rating Rationale

Exelon Corporation's (Exelon) Baa2 senior unsecured rating reflects its diversified operations across a growing, low risk transmission and distribution (T&D) utility business and a shrinking, high risk unregulated utility and merchant power business. As a diversified power company, Exelon is well capitalized, has adequate liquidity reserves, and can generate a ratio of cash flow from operations (CFO) to debt over 20% and retained cash flow to debt in the high teen's range. Exelon's T&D utilities include PECO Energy Company (PECO: A2 stable) in Philadelphia, Baltimore Gas and Electric Company (BGE: A3 stable) in Baltimore and Commonwealth Edison Company (CWE: Baa1 positive) in Chicago. The foundation of Exelon's Baa2 rating is its stable and predictable regulated utility business, which will benefit from the acquisition of Pepco Holdings (PH: Baa3 developing). The merger is expected to close by March 31st.

Exelon's rating is principally constrained by Exelon Generation Company LLC (ExGen: Baa2 stable), which owns a large fleet of unregulated nuclear generation assets and a retail energy marketing business. Although ExGen is conservatively capitalized, these unregulated businesses are volatile; exposed to commodity prices, such as natural gas and electricity; and face increasingly challenging market conditions.

RATINGS

EXELON CORPORATION	
Domicile	United States
Long Term Rating	Baa2
Type	LI Issuer Rating
Date	31 Aug 2015
Outlook	Stable
Date	31 Aug 2015

Please see the ratings section at the end of this report for more information.

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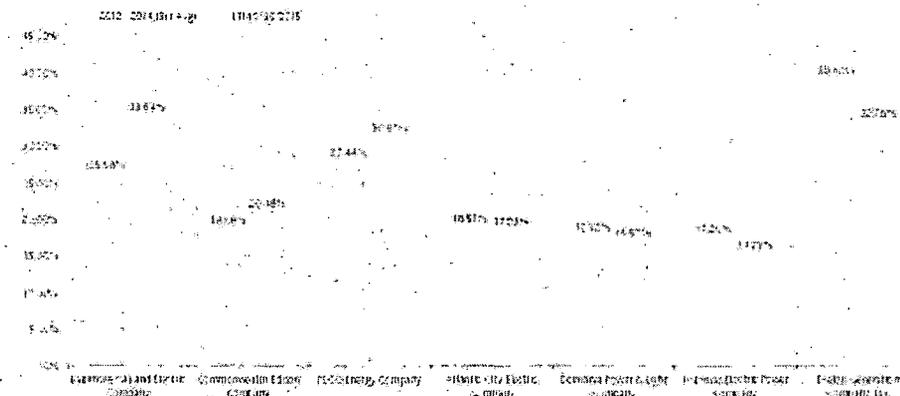
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Exhibit 1
CFO Pre-W/C to debt for Exelon's and PHI's subsidiaries



Source: Moody's Investors Service

Credit Strengths

- » Acquisition of Pepco Holdings, expected to close Q1 2016, brings incremental rate base and regulatory diversity
- » Utilities serve big city-systems in supportive regulatory jurisdictions
- » Consolidated financial profile is strong, with relatively predictable cash flow generation and a balanced shareholder rewards program
- » ExGen performing well in a challenging market environment, thanks to its large, diversified nuclear generating fleet, although nuke economics look stressed
- » Adequate liquidity reserves
- » Utilities serve big city-systems in supportive regulatory jurisdictions
- » Consolidated financial profile is strong, with relatively predictable cash flow generation and a balanced shareholder rewards program
- » ExGen performing well in a challenging market environment, thanks to its large, diversified nuclear generating fleet, although nuke economics look stressed
- » Adequate liquidity reserves and balanced shareholder rewards program

Credit Challenges

- » Holding company leverage is high (including PHI but excluding ExGen) which could pressure structural subordination notching relationships, if increased
- » ExGen faces a prolonged period of low power prices and rising operating costs, especially across its aging nuclear fleet
- » Exposure to Electricite de France (EDF: A1 negative) "put" related to selected nuclear reactors represents a liquidity risk more than a fundamental credit risk
- » Once PHI acquisition is completed, some execution risks associated with delivering on regulatory commitments

Rating Outlook

Exelon's stable rating outlook reflects the stability and predictability of its large T&D utility businesses, its adequate liquidity profile and a conservatively capitalized unregulated generation business. Exelon is well positioned to generate cash flow of over \$7.0 billion (pro-forma for PHI), which results in a ratio of cash flow to debt of around 18% - 20% - an important threshold for maintaining a stable rating outlook. With respect to ExGen, Exelon's stable outlook incorporates a view that ExGen's nuclear reactors will continue to operate in a safe and efficient manner, with roughly 90% capacity factors. We also think that the reactors will operate for the life of their existing, authorized NRC operating licenses and that Exelon's utilities (including PHI, assuming the transaction closes as scheduled), will continue to receive constructive and timely regulatory recovery mechanisms.

Factors that Could Lead to an Upgrade

- » A material shift in its corporate finance policies, where parent holding company debt is eliminated or significantly reduced and the ratio of consolidated CFO to debt were to rise to the mid-20% range (assuming the successful completion of the PHI acquisition) for a sustained period of time
- » A material derisking of the consolidated corporate family, specifically with respect to ExGen's large, merchant nuclear reactor fleet or its large commodity trading and marketing business

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- » Regulatory or legislative intervention into existing wholesale power markets could also lead to a rating upgrade, where structures designed to re-regulate the nuclear reactor fleet's revenue stream or cost structure create long term cash flow visibility and certainty

Factors that Could Lead to a Downgrade

- » If Exelon's financial performance deteriorated for a sustained period of time, where the ratio of CFO to debt fell to the low-teen's range (assuming the successful completion of the PHI acquisition)
- » If there were material shifts in shareholder rewards programs, resulting in higher leverage or an unsustainable dividend payout ratio
- » A more aggressive use of parent holding company debt, where the ratio of parent holding company debt to total consolidated debt (including PHI but excluding ExGen) increases to the high-20%
- » A material increase in the consolidated business risk profile, especially if it is associated with additional businesses within ExGen
- » The emergence of a highly contentious regulatory environment in either Maryland or Illinois
- » A major physical or cyber-related operating challenge with one or several of ExGen's nuclear reactors
- » If attempts at market intervention pressured ExGen's margins or profitability, or where the financial profile was negatively impacted
- » A material change in ExGen's retail market trading and marketing volatility, especially if sizeable, unexpected swings in liquidity demands arose

Key Indicators

Exhibit 2

KEY INDICATORS [1]					
Exelon Corporation					
	12/31/2011	12/31/2012	12/31/2013	12/31/2014	9/30/2015(L)
(CFO Pre-W/C + Interest) / Interest	8.5x	6.0x	4.8x	6.1x	6.3x
(CFO Pre-W/C) / Net Debt	46.2%	25.6%	26.0%	27.4%	30.2%
RCF / Net Debt	37.5%	26.1%	23.1%	23.0%	30.3%

[1] All ratios based on 'Adjusted' financial data and incorporate Mood's Global Standard Adjustments for Non-Financial Corporations
 Source: Moody's Investors Service

Detailed Rating Considerations

Large, diversified regulated utility portfolio is credit positive

Exelon's suite of regulated utilities provides a strong foundation to its consolidated credit profile. BGE, CWE and PECO are all low risk, big city T&D systems. They all receive relatively supportive and constructive regulatory treatment and enjoy the timely recovery of most operating costs and capital investments. We see Exelon's regulated utility business growing, with the acquisition of the contiguous PHI T&D utilities as a prime example.

Combined, Exelon's three T&D utilities have roughly \$20 billion in rate base, and generate close to \$7.0 billion in revenues and \$3.4 billion in cash flow. These service territories are not growing volumes quickly, but a heavy infrastructure refurbishment program will drive higher capital expenditures for the next few years. A supportive and transparent regulatory environment across Illinois, Maryland and Pennsylvania creates good visibility in rate base growth, a material credit positive.

Closing the PHI merger

Exelon's Baa2 rating is not materially impacted by the outcome of the PHI merger. That said, we think Exelon has a lot of money and reputation tied into the process, and is looking forward to completing the transaction by March 31st. Today, we view the Public Service Commission of the District of Columbia (DC PSC) as a higher risk regulatory environment, in part because of the unexpected August denial of the merger agreement. We still incorporate a view that managing regulatory relationships is a core competency for both Exelon and PHI management, despite the unexpected result delivered in August. If the merger is completed, we think PHI benefits from Exelon's larger size, greater resources, and relief from financing its shareholder dividends. Exelon will look to squeeze operating efficiencies from a bigger asset platform.

Reliance on parent holding company debt will constrain the rating due to structural subordination notching considerations

Exelon's decision to finance a large portion of the PHI acquisition with parent holding company debt is a credit negative, because it adds complexity to the capital structure, and raises an opportunity cost to not finance at the holding company in the future. Prior to the PHI merger, Exelon was reducing its parent holding company debt, mostly by transferring or refinancing holding company debt to ExGen. From a credit perspective, a parent holding company with little to no debt is credit positive because it provides some incremental financial flexibility.

Looking at Exelon's consolidated debt at its various levels, i.e., parent holding company, regulated utilities and ExGen is an additional component to our credit assessment, particularly given the increase in M&A activity in the sector and willingness to increase consolidated leverage. In light of Exelon's revised corporate finance policies, which looks to use parent holding company debt as a source of financing for the expansion of its regulated utility business segment, we expect to refine our analysis as additional insights regarding the use of holding company debt are provided. This could be challenging, since cash is fungible and parent holding company debt is not necessarily tied directly to a given subsidiary.

We expect to see roughly \$18 billion of debt at Exelon's T&D utilities after the PHI acquisition, another roughly \$8 billion at the parent holding company and \$12 billion at ExGen. With the utilities producing roughly \$4 billion in CFO, we see a ratio of utility CFO to utility debt at 22%, which translates to a low-A rating for low risk T&D utilities in supportive regulatory jurisdictions. This implied low-A rating for the T&D utilities would imply a 2-notch rating differential from the current Baa2 consolidated parent rating.

In our illustrative example, we also look at the \$4 billion in utility CFO but add another \$8 billion to the debt. This would result in a ratio of utility CFO to utility debt + holdco debt of roughly 15%, which is more characteristic of a Baa2 rating for low risk T&D utilities. Continuing with this example, the percentage of holding company debt to utility and holding company debt would be around 30%. When compared to selected peers, a 30% holding company debt level is usually associated with a 2-notch rating differential between the parent and the subsidiaries. A materially higher ratio of holding company debt would be more indicative of a 3-notch rating differential.

If we include the \$12 billion of ExGen debt into our illustration, the ratio of utility CFO to total consolidated debt would fall to roughly 10% (\$4 billion of utility CFO divided by \$38 billion of total consolidated debt). This illustrative example assumes zero contribution from ExGen, an extreme and unlikely scenario. Nevertheless, the ratio of holding company debt to total consolidated debt would fall to 20%, which is typically associated with only a 1-notch rating differential for structural subordination.

ExGen performing well thanks to nuclear fleet

ExGen's cash flow generation is more volatile than its regulated utility affiliates. For example, ExGen's CFO fell to \$1.8 billion in 2014 from \$3.9 billion in 2013, largely due to a negative working capital use associated with its hedging program. For the twelve months ended September 2015, CFO rose back to \$3.2 billion. This volatility, a material credit negative, was impacted primarily by the retail trading and marketing business. However, we note that ExGen keeps a significant amount of liquidity available to absorb these short-term swings.

Fundamentally, we see an extended period of low natural gas prices and rising operating costs for the nuclear fleet. Low natural gas prices usually keep a lid on power prices, which limits ExGen's ability to produce cash flow.

Despite the challenging market fundamentals, we see incremental transparency in forward power prices with respect to capacity payments in the Pennsylvania-New Jersey-Maryland (PJM) market. Given the most recent PJM capacity price auction, we estimate

close to \$1.0 billion in annual capacity payments accruing to ExGen's benefit, this equates to roughly \$6.5/Mwh if the nuclear fleet continues to generate roughly 150 TWh's. Although we don't see capacity payments as a key driver of the financials, over the next few years, ExGen's capacity payments alone will represent about 7% - 8% coverage of ExGen's debt. That said, the improved capacity prices were both directly and indirectly impacted by recent rule changes and amendments implemented by the PJM, and these rules can change again.

In addition to low natural gas prices and an improving capacity market, we also see higher power prices over the next few years due to the EPA's recently announced Clean Power Plan (CPP). In general, we think the CPP is favorable to nuclear powered electric generation, because nuclear generation does not produce any material carbon dioxide emissions.

EDF put option viewed a liquidity event

We see debt at ExGen rising, in part due to its exposure to Electricite de France's (EDF: A1 negative) option to "put" its interests in Constellation Energy Nuclear Group, LLC (CENG) back to ExGen starting on 1 January 2016. The put option expires on 31 December 2022, so EDF has plenty of time to evaluate its various options. Importantly, we think the relationship between both EXC and EDF is healthy and professional, and we do not see any contentiousness in the relationship at this time.

CENG includes minority ownership interests in roughly 3,400 MW's of nuclear generation capacity, including Ginna, Fitzpatrick and Nine Mile Point in New York and Calvert Cliffs in Maryland. Combined, these reactors generated over 34 GWh's of electricity in 2014. Based on publicly available information, we estimate fuel, non-fuel variable and fixed operating costs of roughly \$25 per MWh. This excludes capital costs and depreciation. As a result, we see more profits in PJM markets than in NY.

From a liquidity perspective, we assume the value of the put (to EDF from EXC) might be somewhere in a range between \$250 million and \$2.0 billion. Our illustrative values capture a wide disparity of outcomes on purpose. In our opinion, the put is not a material credit event, but instead represents a demand on liquidity. Because EXC is aware of the existence of the put option, and management is presumably in discussions with EDF about how best to value the option, we do not think EDF exercising the option will be a surprise to EXC.

From a credit perspective, we see the EDF put as a known risk factor, and incorporate a view that ExGen has ample liquidity resources and has prepared for the possibility that the put is exercised. We also incorporate a view that high put valuations will benefit ExGen's remaining fleet. Any signs of improving market conditions, in terms of the EPA's Clean Power Plan or higher sustained PJM capacity prices, will increase the value of the put option in favor of EDF.

Maintaining a strong financial profile will be key to credit

In 2014 and 2013, Exelon generated a ratio of funds from operations to debt of approximately 25%. This is down materially from the 40% ratio generated in 2010 and 2011 and the 30% ratio generated in 2012. It should be noted that during this time, Exelon acquired Constellation Energy, and its debt increased from roughly \$17 billion (in 2010 - 2011) to today's roughly \$30 billion range. Including another \$8 to 9 billion in debt for PHI's utility subsidiaries and parent holding company will increase total pro-forma consolidated debt closer to the \$40 billion range.

As a result, maintaining a ratio of CFO to debt near the 18% - 20% range means Exelon will generate CFO of roughly \$7.0 to \$8.0 billion. Assuming the T&D utilities (including PHI) could sustain the roughly \$4.0 billion in CFO generation that they achieved for the twelve months ended September 2015, this means ExGen will need to contribute roughly \$3.0 to \$4.0 billion in CFO. Assuming ExGen can continue to generate and sell at least 150 terawatt-hours (TWh's) of power from its nuclear fleet, this equates to roughly \$20- - \$25 / MWh in CFO.

Liquidity Analysis

As of September 30, 2015, Exelon's liquidity arrangements totaled \$8.5 billion. Approximately \$6.3 billion supports its unregulated business platform, including \$500 million at Exelon and nearly \$5.8 billion directly at ExGen. The regulated businesses have access to \$2.2 billion of liquidity, \$600 million at PECO, \$600 million at BGE and \$1 billion at CWE. The Exelon, PECO, BG&E and most of the ExGen facilities expire in May 2019. The CWE facility expires March 2019.

At September 30, Exelon and ExGen had about \$625 million in letters of credit and no commercial paper outstanding, leaving availability of about \$5.7 billion for the unregulated business. As of June 30, 2015, these draws amounted to \$1.5 billion.

Exelon's core syndicated credit facilities are used primarily to provide liquidity support and for the issuance of letters of credit. While the credit agreements do not contain any rating triggers that would affect borrowing access to the commitments and do not require material adverse change (MAC) representation for borrowings or the issuance of LOCs, there is a financial covenant for each entity; all of which were compliant.

At CWE, commercial paper outstanding totaled \$604 million and there were \$2 million in letters of credit outstanding, leaving approximately \$395 million of availability under its credit facility. As of June 30, 2015, CWE's commercial paper outstanding totaled \$503 million and there were \$2 million in letters of credit outstanding, leaving approximately \$495 million of availability under its credit facility.

At BGE, there was \$50 million commercial paper and no letters of credit outstanding, respectively, leaving \$550 million of availability under its credit facility. As of June 30, 2015, BGE had no commercial paper or letters of credit outstanding, respectively, leaving \$600 million of availability under its credit facility.

At PECO, there were \$1 million in letters of credit and no outstanding commercial paper borrowings, leaving \$599 million of availability under its credit facility. As of June 30, 2015, PECO had no letters of credit outstanding and \$1 million in outstanding commercial paper borrowings, leaving \$599 million of availability under its credit facility.

As of the last reporting period (September 30, 2015), in the event that ExGen were downgraded below investment grade, ExGen could be required to post additional collateral of \$2.1 billion. If PECO, BGE or CWE were downgraded to below investment grade, they would have been required to post \$18 million \$34 million, and \$17 million, respectively, of additional collateral.

As of June 30, 2015, in the event that ExGen were downgraded below investment grade, ExGen could be required to post additional collateral of \$2.2 billion. If PECO, BGE or CWE were downgraded to below investment grade, they would have been required to post \$20 million \$35 million, and \$8 million, respectively, of additional collateral.

On January 9, 2013, the US Court of Appeals reached a decision for the government in a lawsuit involving Consolidated Edison's (ConEd's) participation in a lease-in, lease-out (LILO) transaction that the IRS also has characterized as a tax shelter, and disallowed ConEd's deductions stemming from its participation in this investment. CWE deferred the \$1.2 billion of gain on the 1999 sale of its fossil generating facilities by acquiring like-kind property via a purchase leaseback transaction. The IRS has asserted that the Exelon purchase leaseback transaction is substantially similar to a leasing transaction known as a sale-in, lease-out transaction (SILO). Exelon believes that its like-kind exchange transaction is not the same as or substantially similar to a SILO.

In the first quarter of 2013, Exelon recorded a non-cash charge to earnings of approximately \$265 million, which represents the full amount of interest expense (after-tax) and incremental state tax expense in the event that Exelon is unsuccessful in its litigation efforts. Approximately \$170 million of the amount was recorded at CWE.

Exelon expects to hold CWE harmless from any unfavorable impacts of the after-tax interest amounts on CWE's equity. In the event of a fully successful IRS challenge to Exelon's like-kind exchange position, the potential tax and after-tax interest, exclusive of penalties, that could become payable as of September 30, 2015 may be as much as \$560 million, of which approximately \$165 million would be attributable to CWE and the remainder to Exelon.

Structural Considerations

Separating Exelon's debt between its parent holding company, its utilities and ExGen is a component to our credit assessment. In light of Exelon's revised corporate finance policies, which looks to use parent holding company debt as a source of financing for its regulated utilities, but not its unregulated ExGen, we expect to refine our analysis as additional facts regarding the use of holding company debt are provided. This could be challenging, since cash is fungible and parent holding company debt is not necessarily tied directly to a given subsidiary.

Enclosure 3

Profile

Exelon Corporation (Exelon: Baa2 stable) is a large diversified US holding company that owns three regulated transmission and distribution utilities and a large unregulated power company. Its three regulated transmission and distribution (T&D) utilities include: PECO Energy Company (PECO: A2 stable), Baltimore Gas and Electric Company (BGE: A3 stable) and Commonwealth Edison Company (CWE: Baa1 positive). PECO is regulated by the Pennsylvania Public Utility Commission (PAPUC), BGE is regulated by the Maryland Public Service Commission (MPSC) and CWE is regulated by the Illinois Commerce Commission (ICC). All three utilities are also regulated by the Federal Energy Regulatory Commission (FERC).

Exelon also owns Exelon Generation Company, LLC (ExGen: Baa2 stable), one of the largest competitive electric generation companies globally as measured by owned and controlled megawatts (MW), with net capacity of approximately 32 GW's. ExGen is regulated by the Federal Energy Regulatory Commission (FERC) and by the Nuclear Regulatory Commission (NRC).

In May 2014, Exelon agreed to acquire Pepco Holdings. The acquisition is expected to close no later than March 31, 2015.

Rating Methodology and Scorecard Factors

Exhibit 3

Rating Factors			Moody's 12-18 Month Forward View	
Exelon Corporation			As of date published [3]	
Unregulated Utilities and Unregulated Power Companies Industry Grid [1][2]			Current	Score
			LTM 9/30/2015	
Factor 1: Scale (10%)	Measure	Score		
a) Scale (USD Billion)	Aa	Aa		
Factor 2: Business Profile (40%)				
a) Market Diversification	A	A		
b) Hedging and Integration Impact on Cash Flow Predictability	Baa	Baa		
c) Market Framework & Positioning	Baa	Baa		
d) Capital Requirements and Operational Performance	Baa	Baa		
e) Business Mix Impact on Cash Flow Predictability	A	A		
Factor 3: Financial Policy (10%)				
a) Financial Policy	Baa	Baa		
Factor 4: Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	5.7x	Baa	5.7x - 6.2x	Baa
b) (CFO Pre-W/C) / Net Debt (3 Year Avg)	27.2%	Baa	23% - 28%	Baa
c) RCF / Net Debt (3 Year Avg)	25.6%	A	18% - 23%	Baa
b) (CFO Pre-W/C) / Debt (3 Year Avg)		NA		
c) RCF / Debt (3 Year Avg)		NA		
Rating:				
a) Indicated Rating from Grid		A3		Baa1
b) Actual Rating Assigned		Baa2		Baa2

[1] All ratios based on 'Adjusted' financial data and incorporate Mood's Global Standard Adjustments for Non-Financial Corporations

[2] As of 9/30/2015(L)

[3] This represents Moody's forward view; not view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

Source: Moody's Investors Service

If the acquisition of PHI is completed, we would consider moving Exelon into our Global Regulated Electric and Gas Utilities rating methodology (published in December 2013) and out from the Unregulated Utilities and Power Companies rating methodology (published in November 2014).

PHI helps shift Exelon's consolidated mix of regulated and unregulated business activities to approximately 60% regulated from roughly 50% today and diversifies its jurisdictional exposure to include New Jersey, Delaware and the District of Columbia. We viewed PHI's \$8 billion additional regulated rate base to Exelon's \$20 billion as a credit positive for the corporate family.

Enclosure 3

Moody's Investor Services

INFRASTRUCTURE AND PROJECT FINANCE

Absent the PHI transaction, we would likely keep Exelon under the Unregulated Utilities and Power Company rating methodology, but for analytical purposes, will continue to view Exelon under both methodologies, given the strategic focus on regulated assets.

Ratings

Exhibit 4

Category	Moody's Rating
EXELON CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Subordinate Shelf	(P)Baa3
Pref. Shelf	(P)Ba1
Commercial Paper	P-2
EXELON GENERATION COMPANY, LLC	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Pref. Shelf	(P)Ba1
Commercial Paper	P-2
COMMONWEALTH EDISON COMPANY	
Outlook	Positive
Issuer Rating	Baa1
First Mortgage Bonds	A2
Senior Secured	A2
Sr Unsec Bank Credit Facility	Baa1
Senior Unsecured	Baa1
Commercial Paper	P-2
PECO ENERGY COMPANY	
Outlook	Stable
Issuer Rating	A2
First Mortgage Bonds	Aa3
Senior Secured Shelf	(P)Aa3
Sr Unsec Bank Credit Facility	A2
Pref. Stock	Baa1
Commercial Paper	P-1
BALTIMORE GAS AND ELECTRIC COMPANY	
Outlook	Stable
Issuer Rating	A3
Senior Secured Shelf	(P)A1
Sr Unsec Bank Credit Facility	A3
Senior Unsecured	A3
Preference Stock	Baa2
Commercial Paper	P-2
PECO ENERGY CAPITAL TRUST IV	
Outlook	Stable
BACKED Pref. Stock	A3
CONSTELLATION ENERGY GROUP, INC.	
Outlook	No Outlook
Bkd Senior Unsecured	Baa2
BGE CAPITAL TRUST II	
Outlook	Stable
BACKED Pref. Stock	Baa1
COMED FINANCING III	

Enclosure 3

MOODY'S INVESTORS SERVICE

INFRASTRUCTURE AND PROJECT FINANCE

Outlook	Stable
BACKED Pref. Stock	Baa2
PECO ENERGY CAPITAL TRUST III	
Outlook	Stable
BACKED Pref. Stock	A3
EXELON CAPITAL TRUST I	
Outlook	Stable
BACKED Pref. Shelf	(P)Baa3
EXELON CAPITAL TRUST II	
Outlook	Stable
BACKED Pref. Shelf	(P)Baa3
EXELON CAPITAL TRUST III	
Outlook	Stable
BACKED Pref. Shelf	(P)Baa3

Source: Moody's Investors Service

Recent Developments

On 25 August 2015, the Public Service Commission of the District of Columbia (DC PSC) rejected the merger application between Exelon and PHI. On 6 October 2015, Exelon and PHI reached a settlement with the Office of the Mayor of the District of Columbia, the District's People's Counsel, the US Attorney of the District of Columbia and other stakeholders regarding the proposed merger. Along with the settlement, the merger agreement, which was originally set to expire on 29 October 2015, gets a 150-day extension until early March 2016. The settlement is credit positive for both Exelon and PHI because it puts the proposed merger back on track, with an aim to close in early March 2016. For now, we still assign a 50%-50% probability that the transaction will close. PHI's developing outlook will most likely be resolved when the transaction is completed, or when the merger agreement expires.

Enclosure 3

MOODY'S INVESTORS SERVICE

INFRASTRUCTURE AND PROJECT FINANCE

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REPORT NUMBER 1011/49

MOODY'S
INVESTORS SERVICE



CREDIT OPINION

20 January 2016

Exelon Generation Company, LLC

Unregulated merchant power company subsidiary of Exelon

Summary Rating Rationale

Exelon Generation Company, LLC's (ExGen) Baa2 senior unsecured rating reflects its conservative balance sheet, ample sources of liquidity and strong financial profile. Combined, these characteristics help ExGen mitigate the risks associated with its unregulated power generation business and its volatile retail marketing business.



RATINGS

EXELON GENERATION COMPANY, LLC	
Headquarters	Chicago, ILLINOIS, United States
Long Term Rating	Baa2
Type	IT Issuer Rating
Issue Date	31 Aug 2015
Outlook	Stable
Review Date	31 Aug 2015

Please see the ratings section at the end of this report for more information.

A prolonged period of weak market conditions will continue to erode some of ExGen's financial strengths. For example, the ratio of debt to EBITDA is rising closer to 3.0x from 2.0x. In addition, commodity price changes also drive changes in collateral postings, which can create volatility in cash flow. Nevertheless, ExGen can withstand a modest decline to its financial profile given its strong asset base, especially its nuclear generation fleet, which remains among the most reliable sources of supply in most wholesale markets. That said, the nuclear fleet is exposed to certain event risks, including regulatory pronouncements from the NRC.

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Exhibit 1
CFO Pre-WC to debt for ExGen and peers



Source: Moody's Investors Service

Credit Strengths

- » Safe, reliable performance of large nuclear fleet is most critical rating driver
- » Maintaining a strong balance sheet with robust financial ratios and ample sources of liquidity
- » Political and regulatory intervention risk is high, but outcomes most likely will be positive

Credit Challenges

- » Retail marketing business is high risk and require constant, proactive corporate governance oversight
- » Low power prices are stressing nuclear economics with recovery of capital costs and returns
- » Need to recycle capital and slowly diversify asset platform away from nuclear poses longer term risks

Rating Outlook

ExGen's stable rating outlook reflects its size, strong financial profile and liquidity availability. Its financial profile has deteriorated in 2014 - 2015 from prior years, and looks like it will remain under pressure for the 2016 - 2017 period as well. The stable outlook reflects the challenges that ExGen's large, unregulated generation fleet faces with a sustained period of low natural gas prices that translate into low power prices although we still see some structural uplift in ExGen's markets, especially its nuclear fleet. The outlook also incorporates a view that ExGen will generate positive free cash flow (CFO less cap ex less dividends) over the next few years.

Factors that Could Lead to an Upgrade

- » If the company reduced its overall risk profile, including revising its business mix and reducing its exposure to higher risk businesses
- » An improved financial profile, where the ratio of cash flow to debt rose above the 40% range for a sustained period of time
- » Organic deleveraging, by reducing both on and off balance sheet debt with the proceeds from any positive free cash flow

Factors that Could Lead to a Downgrade

- » A weaker financial profile, where the ratio of cash flow to debt fell into the mid to high 20% range or retained cash flow to debt remained below 20% for a sustained period of time
- » A material change to corporate finance policies, especially with respect to the dividend and capital expenditures, which results in a steady rise in leverage or decline in the ratio of retained cash flow to debt into the mid-teen's range

Key Indicators

Exhibit 3

KEY INDICATORS [1]

Exelon Generation Company, LLC

	12/31/2011	12/31/2012	12/31/2013	12/31/2014	9/30/2015(L)
{CFO Pre-W/C + Interest} / Interest	15.7x	9.7x	8.4x	8.8x	8.9x
{CFO Pre-W/C} / Net Debt	96.0%	42.6%	46.9%	39.5%	34.3%
RCF / Net Debt	91.9%	35.1%	46.7%	24.8%	14.7%
{CFO Pre-W/C} / Debt	86.4%	39.5%	40.2%	36.5%	32.8%
RCF / Debt	82.7%	32.5%	40.0%	22.9%	14.0%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics™

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Detailed Rating Considerations

Safe, reliable performance of large nuclear fleet is most critical rating driver

As the largest owner and operator of nuclear generation in the US, Exelon has a strong competitive position and continues to demonstrate an outstanding record as a nuclear operator. ExGen's large generation fleet brings unique characteristics with respect to reliability, carbon-friendliness, and economic contributions to regional communities. Unlike other sources of electric generation, nuclear reactors generate electricity at capacity factors in the low to mid-90% range for about 18-24 months before they need to be refueled. Compared to other carbon-friendly generation, such as wind and solar, nuclear reactors are big and have more capacity concentrated on a smaller footprint. For these reasons, we think ExGen's reactors have long term staying power, even when current market conditions makes them appear less economically viable if viewed solely from the perspective of power price or equity return.

That said, the unregulated power sector remains challenged, impacted by a sustained period of low natural gas and power prices; tepid economic growth which affects the demand for electricity; and increasing operating costs, including pension obligations. ExGen's nuclear fleet suffers from high fixed costs, and we see several key markets, such as Illinois and New York, looking at various forms of market intervention (in the form of changing, revising or amending the existing market structure) which will help some of ExGen's reactors over the near-term.

We think ExGen's nuclear fleet can generate about 150 TWH's of electricity every year, over the next few years, and that the overall cash operating costs reside somewhere in the mid-\$30 per MWh range. We see a steady investment in nuclear fuel, around \$1.0 billion per year, and increasing regulatory focus on long-term decommissioning liabilities. As a result of these factors, we think ExGen will look to maintain operations for all of its reactors over the long-term horizon, because there is a material concentration and exposure to the reactor fleet.

Maintaining a strong balance sheet with robust financial ratios and ample sources of liquidity

We think ExGen's exposure and concentration to its reactor fleet is directly tied to its conservative financial policies, which usually produce strong financial profiles. But lately, the financial profile has declined. For the twelve months ended September 2015, ExGen generated about \$3.2 billion in cash flow, invested almost \$3.8 billion and paid over \$2.5 billion in upstream dividends. By way of comparison, for the latest twelve months ended September 2014, ExGen generated approximately \$3.0 billion in cash flow (down from \$3.2 billion for the twelve months ended September 2013), invested approximately \$2.7 billion (down from \$2.9 billion) and made dividend payments of roughly \$0.9 billion (up from \$0.8 billion).

The key financial is cash flow generation, because ExGen can dial back its capital expenditures and dividend. In 2015, these figures were affected by asset sales, some of which were earmarked to help finance the acquisition of a regulated utility. Prospectively, ExGen's capital expenditures should decline closer to \$3.0 billion in 2016 to slightly over \$2.0 billion in 2017. This will help de-risk the business, but keeps a heavy concentration with the nuclear fleet.

ExGen's cash flows support over \$12 billion in debt, up from approximately \$10 billion in debt as of September 30, 2014. We include under-funded pensions and operating lease adjustments as debt. We also see higher debt at ExGen from potential liabilities triggered by any early nuclear reactor closures, from changes in accounting standards with respect to purchased power agreements or other contractual arrangements.

Retail marketing business is high risk and require constant, proactive corporate governance oversight

As an unregulated wholesale energy company whose gross margin can be materially impacted by changes in commodity prices, ExGen's commercial strategies remain an important rating factor. To that end, ExGen continues to manage its ratable hedging program over a 36 month cycle with targets of 90% or more of expected generation hedged in the first year, 70-90% in the second year, and less than 50% in the third year.

Need to recycle capital and slowly diversify asset platform away from nuclear poses longer term risks

ExGen continues to look for ways to recycle its capital and slowly diversify its asset platform away from its nuclear fleet. Although ExGen's capital expenditures are projected to fall towards the \$2.2 billion range in 2017, from over \$3.5 billion in 2015, these investments exclude potential growth opportunities, which are likely to arise given the challenges facing the unregulated power sector. Despite current market conditions, we see ExGen as well positioned to take advantage of those opportunities, should they arise, because it still has a strong balance sheet and a strategic asset platform.

Liquidity Analysis

Overall, we believe ExGen's liquidity profile is adequate. As of September 30, 2015, ExGen's principal liquidity arrangements included \$545 million in cash and \$5.3 billion in syndicated revolvers. In May 2014, these facilities along with the credit facilities of two of Exelon's regulated subsidiaries were extended to May 2019. As of September 30, 2015 ExGen had no commercial paper borrowings, but had \$599 million of letters of credit outstanding, leaving about \$4.7 billion available at the syndicated revolving facility. At September 30, 2014, ExGen had no commercial paper borrowings, but did have \$557 million of letters of credit outstanding.

The core syndicated credit facilities are primarily used to provide liquidity support and for the issuance of letters of credit. While the credit agreements do not contain any rating triggers that would affect borrowing access to the commitments and do not require material adverse change (MAC) representation for borrowings or the issuance of LOCs, there is a financial covenant for each entity, all of which were compliant.

We see cash flow from operations remaining above \$3.0 billion and a decline in capital expenditures beginning in 2016 as mentioned above. ExGen's financial metrics are falling as we expected, and as hedges roll off there are rising risks that cash flow falls even more. But with lower upstream dividend demands, we think ExGen might generate steady retained cash flow to debt metrics. ExGen's next scheduled debt maturity is a \$700 million 6.2% senior unsecured note due in October 2017.

Profile

Exelon Generation Company, LLC (ExGen; Baa2, stable) is one of the largest unregulated utilities in our rated universe, as measured by assets. ExGen owns approximately 32 GW of generating capacity which is well positioned for potential carbon dioxide regulations, including 19 GW of nuclear capacity, 8 GW of natural gas capacity, 2 GW of hydro capacity and 1GW of other, mostly wind and solar renewable capacity. That said, ExGen also has 2 GW of oil-fired capacity, and a small exploration & production business. In addition to unregulated electric power generation, ExGen owns one of the largest national retail energy supply business, serving over 1 million customers with about 150 terawatt-hours (TWH's) of electric load. ExGen is regulated by the Federal Energy Regulatory Commission (FERC) and by the Nuclear Regulatory Commission (NRC). At September 30, 2015, ExGen had total assets of about \$46.5 billion. ExGen is a wholly-owned subsidiary of Exelon Corporation (Exelon; Baa2, stable).

Rating Methodology and Scorecard Factors

Moody's evaluates ExGen's financial performance relative to the Unregulated Utility and Power Company methodology and, as depicted below, ExGen's indicated rating under the grid based on historical results and based on projected (next 12-18 months) is Baa1.

Enclosure 3

Moody's Investors Service

INTEGRATED AND PROJECT FINANCE

Exhibit 4

Unregulated Utilities and Unregulated Power Companies Industry Grid [1][2]	Current LTM 9/30/2015		Moody's 12-18 Month Forward View As of date published [3]	
	Measure	Score	Measure	Score
Factor 1 : Scale (10%)				
a) Scale (USD Billion)	A	A	A	A
Factor 2 : Business Profile (10%)				
a) Market Diversification	Baa	Baa	Baa	Baa
b) Hedging and Integration Impact on Cash Flow Predictability	Baa	Baa	Baa	Baa
c) Market Framework & Positioning	Baa	Baa	Baa	Baa
d) Capital Requirements and Operational Performance	Baa	Baa	Baa	Baa
e) Business Mix Impact on Cash Flow Predictability		NA		NA
Factor 3 : Financial Policy (10%)				
a) Financial Policy	A	A	A	A
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	8.7x	A	7.4x - 7.9x	Baa
b) (CFO Pre-W/C) / Net Debt (3 Year Avg)		NA		NA
c) RCF / Net Debt (3 Year Avg)		NA		NA
b) (CFO Pre-W/C) / Debt (3 Year Avg)	35.2%	A	28% - 33%	Baa
c) RCF / Debt (3 Year Avg)	26.2%	A	19% - 24%	Baa
Rating:				
a) Indicated Rating from Grid		A3		Baa1
b) Actual Rating Assigned		Baa2		Baa2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 9/30/2015(L);

[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures

Source: Moody's Financial Metrics™

Ratings

Exhibit 5

Category	Moody's Rating
EXELON GENERATION COMPANY, LLC	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Pref. Shelf	(P)Ba1
Commercial Paper	P-2
PARENT: EXELON CORPORATION	
Outlook	Stable
Issuer Rating	Baa2
Sr Unsec Bank Credit Facility	Baa2
Senior Unsecured	Baa2
Subordinate Shelf	(P)Baa3
Pref. Shelf	(P)Ba1
Commercial Paper	P-2

Source: Moody's Investors Service

Enclosure 3

MOODY'S INVESTORS SERVICE

INFRASTRUCTURE AND PROJECT FINANCE

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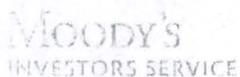
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REPORT NUMBER 1012773



Enclosure 3



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Table Of Contents

Rationale

Outlook

Standard & Poor's Base-Case Scenario

Business Risk

Financial Risk

Liquidity

Other Credit Considerations

Group Influence

Ratings Score Snapshot

Related Criteria And Research

Enclosure 3

Summary:

Exelon Corp.

Business Risk: STRONG

CORPORATE CREDIT RATING

Vulnerable

○
Excellent

bbb
○

bbb
○

bbb
○

Financial Risk: SIGNIFICANT

BBB/Stable/A-2

Highly leveraged

○

Minimal

Anchor

Modifiers

Group/Gov't

Rationale

Business Risk Strong

Financial Risk Significant

- Lower risk rate-regulated utility operations at diversified energy company Exelon Corp. currently represent nearly 60% of consolidated EBITDA, on the closing of the Pepco Holdings LLC (PH LLC) acquisition.
- Low-cost base-load generation has a strong operating track record, though it remains subject to considerable energy margin variability, driven by commodity prices, demand, and weather patterns; this has recently created some weakness in the merchant end of the business.
- Large natural gas production volumes have collapsed gas and power prices, carrying significant downside potential for a generation portfolio that is largely nuclear (more than 60% of total generation).
- A mild summer in 2015, declining market heat rates, and gas regional pricing differentials have weakened the economics of the company's generation plants in the next 24 months despite a stronger fundamental long-term outlook.
- Capacity prices could continue to languish because of lackluster electric demand, growing energy efficiency, and increased penetration of demand response initiatives. However, this could reverse in coming auctions as capacity performance schemes proliferate.
- Exelon still operates a large number of nuclear plants; this puts the company in a good position as carbon regulation and capacity performance incentives loom.
- The backward-dated EBITDA profile persists, although the curve is not as steep as it is for certain competitors, owing to a proactive hedging strategy and participation in robust capacity markets.
- As usual, cash flow on the generation side is significantly hedged during the next two years, plus hedges are regularly added; 2018 is hedged to around 30%.
- The company's liquidity position remains strong, especially because it can defer capital spending needs, which are comparatively low because Exelon's plants are more modern.
- Dividend policy is in line with industry norms, and continues to be supported by a steady stream of dividends from utility subsidiaries, which has increased with its most recent transaction.
- Although capital spending needs have been substantial in the past, we expect that they'll be more in line with industry norms because this company is already well suited for upcoming carbon regulations.

Outlook: Stable

The rating outlook on Exelon Corp. is stable. However, Standard & Poor's believes that higher-than-expected natural gas production from shale production regions and a delay in environmental rules related to plant retirements could weaken the company's financial performance during the next few years. If commodity prices weaken even more, the company might have to address a decline in its earnings profile with commensurate reductions in capital spending and debt. We expect the consolidated pro forma company to maintain adjusted funds from operations (FFO) to debt of about 23% to 25% and debt to EBITDA to increase to about an adjusted 3.2x to 3.4x, including the effects of the recent Pepco acquisition.

Downside scenario

Negative ratings momentum could occur due to a decline in commodity prices that would affect ExGen's and, as a result, Exelon's cash flows. We could lower the company's ratings post-acquisition if the adjusted consolidated FFO to debt ratios were to consistently decline below 18%.

Upside scenario

We could consider an upgrade if the company's reported adjusted consolidated FFO to debt levels stronger than about 25% and debt to EBITDA below about 3.4x. We think this is unlikely before the end of 2016.

Standard & Poor's Base-Case Scenario

Assumptions

- Henry Hub gas prices are \$2.50 per million Btu in 2016 and \$2.75 in 2017; PJM West hub power prices are between \$30 and \$35 per megawatt hour (MWh) in 2016; Northern Illinois hub hovers around \$30 per MWh through 2017.
- Nuclear capacity factors are consistently at about 93%-94% through 2017.
- Growth rates at the utilities are consistent with management's assumptions.
- Dividend policy remains in line with industry standards.
- Only current hedges are assumed.
- Spark spreads remain depressed in Texas, with an average of about \$6 per MWh during 2016, but rebound somewhat afterward.
- Total ExGen generation of about 190 gigawatts per hour in 2016, ticking up only modestly in subsequent years.

Key Metrics

	2016E	2017E
FFO/debt (%)	23%-25%	23%-26%
Debt/EBITDA (x)	3.1-3.3	3.1-3.3
EBITDA interest coverage (x)	5.2-5.5	5.2-5.6

FFO--Funds from operations. E--Estimate. Note: Our metrics include the impacts of the recently approved Pepco Holdings acquisition.

Enclosure 3

Summary: Exelon Corp.

Business Risk: Strong

Standard & Poor's current rating on Exelon reflects our view of the company's consolidated business risk profile, which we view as strong, combining the higher-risk operations of unregulated supply affiliate ExGen with the excellent business risk profiles of its rate-regulated transmission and distribution utilities Commonwealth Edison Co. (ComEd), PECO Energy Co., PEPCO Holdings, Inc. and Baltimore Gas & Electric Co. (BGE), Atlantic City Electric Co., Delmarva Power & Light Co., and Potomac Electric Power Co. (Pepco). Because of ring-fencing, we deconsolidate BGE's financial profile from Exelon and analyze it solely as an equity investment, incorporating the utility's distributions to the parent as BGE's only contributions to the parent's credit quality and financial profile.

As of Dec. 31, 2015, Exelon had about \$26.2 billion of adjusted debt, after considering the effects of operating leases, deconsolidation, power purchase agreements, and cash netting, as well as a recent debt issuance aimed at funding the Pepco Holdings acquisition.

Regulated utilities now contribute about 50% of Exelon's consolidated current cash flow. PECO's business risk profile is excellent under our criteria, reflecting monopolistic, rate-regulated utility transmission and distribution operations. PECO serves more than 1.6 million electric customers and 500,000 natural gas customers in southeastern Pennsylvania, including Philadelphia. Similarly, ComEd's business risk profile is excellent, reflecting the same monopolistic, rate-regulated utility transmission and distribution operational profile. ComEd serves more than 3.9 million customers in northern Illinois, including Chicago. BGE serves more than 1.3 million electric and 650,000 gas customers in Central Maryland, including Baltimore. The regulatory framework under which BGE operates can be challenging and unpredictable, but has been improving somewhat. PEPCO operates across several jurisdictions, including New Jersey, Delaware, Maryland, and District of Columbia, totaling more than 1.9 million customers.

ExGen's unregulated operations now constitute about 50% of the consolidated enterprise in terms of cash flow and capital spending during 2016 upon the closing of the Pepco acquisition. ExGen generates a significant portion of earnings from its retail operations. Through retail and wholesale channels, ExGen provided about 195 terrawatt-hours of load in 2015, or nearly 5% of total U.S. power demand, and enjoys significant regional diversity, participating in the PJM Interconnection in the Mid-Atlantic, New England, and Texas markets. The company's generation units are well positioned to grow where capacity available for competitive supply has room to grow. We expect these incremental revenue streams to make the consolidated Exelon somewhat more resilient to commodity prices. In most locations, ExGen has adequate intermediate and peaking capacity for managing load-shaping risks. However, we believe the company will still need to buy and sell generation in the market to manage its portfolio needs, which exposes it to considerable commodity risk. Moreover, ExGen has a significant open position in the Midwest to merchant markets, and a somewhat tighter position in Texas and New England, where it has some risk of finding itself short when loads and power prices are high.

ExGen's cash flow is sensitive to commodity prices because roughly 70% of the business's generation, including purchased power, is nuclear; unlike gas-fired assets, which have a lower cost structure if gas prices drag power prices down, its nuclear plants face winnowing margins based on lower market heat rates, especially if capacity prices are low. Given that base-load generation is price-taking by nature, we expect ExGen's adjusted FFO to debt to remain

volatile relative to its peers. For instance, we estimate gross margins in 2017 will be lower by about about \$100 million for every \$5 per MWh ('round-the-clock) decline in power prices, and about \$380 million for every \$1 per million Btu decline in 2017 natural gas prices. Near-term figures are not quite as volatile due to more thorough hedging and better visibility into pricing.

The issuer's hedges have effectively softened the aforementioned cash flow volatility; this was particularly apparent during otherwise weak market conditions in 2014 and 2015. Even though these hedges insulate ExGen, they continue to show the sensitivity of ExGen's margins to the prospect of continued shale gas production. The merchant generation margins at ExGen could face a decline as high-priced hedges expire, which is evident in the drop in wholesale hedged gross margins. Still, forward prices do show a modest contango (future prices are above expected future spot prices), as reflected in the increase in ExGen's open EBITDA from higher natural gas forward prices compared with year-end 2015.

ExGen's contribution to Exelon's cash flow has declined somewhat under our projected base case because of the decline in unregulated cash flow when commodity prices fall, as well as due to the renewed focus on regulated activities. However, despite lower power prices, we view the business risk profile of Exelon as strong. We expect financial measures to remain about flat during 2016. However, the corporate credit ratings reflect our expectation that 2016 will be a trough year, and that measures could improve in 2017 and 2018, with the business profile being fortified by the PHI acquisition. Based on the present forward-price curve, cash flow measures are adequate for the rated level in these years, even considering the recently announced dividend increase. Still, despite the improvement in free operating cash flow resulting from the decline in future gross margins, we view Exelon's consolidated cash flow adequacy ratio as having a significant financial risk.

Financial Risk: Significant

Exelon's dividend payout is currently in line with its peers at about 50%. However, capital spending requirements remain significant in 2016, with regulated utility spending at the three incumbent utilities reaching \$3.95 billion and as much as \$1.4 billion at Pepco; this should continue in subsequent years. Although utility capital spending tends to be funded through rate base additions, unregulated generation must recover the funding of its own capital requirements through capacity market prices (and energy margins, in Texas); these should eclipse \$3 billion in 2016.

Under our consolidated base case (we assume lower gas prices and market heat rates that result in power prices roughly 10% lower than the current forward contracts), we expect Exelon's consolidated FFO to total debt to hover around 23% to 26% through 2017. We expect to see negative discretionary cash flow (i.e., net of dividends) improve meaningfully. The FFO to total debt ratio is consistent with Standard & Poor's 'BBB' rating guideposts for a significant financial risk profile, especially since a meaningful amount of capital spending is discretionary.

At ExGen, we expect free operating cash flow to debt to remain positive even in 2016 and 2017 when we expect financial measures to trough due to lower gas prices. Because of the lower commodity prices, we expect ExGen's FFO-to-debt ratio to remain about 32% in 2016. Although the company's cash flows are relatively more volatile than those of its peers because of the larger base-load generation and significant fixed costs, the low variable cost (and

highly depreciated nature) of its nuclear plants means that natural gas prices must consistently stay below the current assumed level of \$2.50 per million Btu before its consolidated FFO to debt falls below 20%.

We expect free operating cash flow to debt to remain mostly positive throughout 2016-2018. Debt to EBITDA should increase to about 3.5x in 2016 before declining somewhat. These ratios are appropriate for Standard & Poor's 'BBB' guideposts for a significant financial risk profile. Nevertheless, we believe there are risks that cash flow may end up less than expected because merger synergies take longer to accrue, power prices trend lower due to higher natural gas production from shale plays, or because there is a delay in retiring coal plants owing to the Mercury and Air Toxics Standards remand of June 2015.

Because we give credit for nuclear fuel amortization in adjusted FFO, we expect subsidiary ExGen to remain operating cash flow positive (after capital spending that includes nuclear fuel costs). Through the forecast period, ExGen remains cash flow positive after accounting for capital spending.

Moreover, the utilities' dividends can fund a significant portion of the external dividend (we estimate that utility dividends can provide as much as 85% or 90% of external dividend in 2016-2018). Assuming Exelon's utility target of 70% payout ratios, the utility contributions would be able to cover the entire external dividend. However, we expect ExGen to continue to contribute to the external dividend, though less than the majority, as it did before the dividend cut.

Liquidity: Strong

The short-term rating on Exelon and affiliates is 'A-2'. We view liquidity across the Exelon group of companies as strong in light of the debt maturity schedule and available credit facilities. Exelon has sufficient alternative liquidity sources to cover current liquidity needs, including ongoing capital requirements, moderate capital spending, and upcoming debt maturities. Ironically, declining power prices are favorable from a liquidity perspective because cash is being posted to ExGen as it settles its forward hedges.

As of Dec. 31, 2015, Exelon, ExGen, ComEd, PECO, and BGE had revolving credit facilities of \$500 million, \$5.3 billion, \$1 billion, \$600 million, and \$600 million, respectively. These facilities generally expire in 2019. The facilities were largely available at that time, except for \$503 million of commercial paper outstanding at ComEd and BGE, as well as certain letters of credit outstanding.

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> • FFO exceeding \$6 billion in 2016. • Credit facility availability of about \$6 billion. • Cash on hand of about \$6 billion on Dec. 31, 2015, much of which has been used to fund the closing of the PHI acquisition. • Nonseasonal working capital inflows of about \$400 million. 	<ul style="list-style-type: none"> • Dividend payments of almost \$1.1 billion annually. • Capital spending and maintenance and environmental costs of over \$6 billion during the next 12 months. • Debt maturities of \$1.6 billion over the next 12 months. • PHI acquisition costs.

Enclosure 3

Summary: Exelon Corp.

Other Credit Considerations

We assess all modifiers as neutral, resulting in no change to the anchor score.

Group Influence

The group credit profile of Exelon is 'bbb'. As the parent company with one relatively small insulated subsidiary (BGE), Exelon's issuer credit rating is the same as its group credit profile. Senior unsecured debt at Exelon is notched down to 'BBB-' because of structural subordination to priority obligations at the operating subsidiaries.

Ratings Score Snapshot

Corporate Credit Rating

BBB/Stable/A-2

Business risk: Strong

- **Country risk:** Very low
- **Industry risk:** Low
- **Competitive position:** Strong

Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: bbb

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Strong (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb

- **Group credit profile:** bbb
- **Entity status within group:** Core (no impact)

Related Criteria And Research

Enclosure 3

Summary: Exelon Corp.

Related Criteria

- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Key Credit Factors For The Unregulated Power and Gas Industry, March 28, 2014
- Corporate Methodology, Nov. 19, 2013
- Key Credit Factors for The Regulated Utilities Industry, Nov. 19, 2013
- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Group Rating Methodology, Nov. 19, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012

Business And Financial Risk Matrix						
Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

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Table Of Contents

Rationale

Outlook

Standard & Poor's Base-Case Scenario

Business Risk

Financial Risk

Liquidity

Ratings Score Snapshot

Related Criteria And Research

Enclosure 3

Summary:

Exelon Generation Co. LLC

Business Risk: SATISFACTORY

Vulnerable ○ Excellent

bbb ○ bbb ○ bbb ○

CORPORATE CREDIT RATING

Financial Risk: INTERMEDIATE

Highly leveraged ○ Minimal

Anchor Modifiers Group/ Gov't

BBB/Stable/A-2

Rationale

Business Risk Summary

Financial Risk Summary

- U.S. power producer Exelon Generation Co. LLC's (ExGen) low-cost base-load generation has a strong operating track record, but it remains subject to considerable energy margin variability, driven by unpredictable commodity prices, demand growth, and weather patterns.
- Large natural gas production volumes have collapsed natural gas and power prices, carrying significant downside potential for a portfolio of power plants that is largely nuclear (more than 60% of total generation).
- A mild summer in 2015, declining market heat rates, and gas regional pricing differentials have weakened the economics of the company's generation plants in the next 18 months despite a stronger fundamental long-term outlook.
- Capacity prices could continue to languish because of lackluster electric demand, growing energy efficiency, and increased penetration of demand response initiatives. However, this could reverse in coming auctions as capacity performance schemes proliferate.
- Exelon still operates a large nuclear fleet; this puts the company in a good position as carbon regulation and capacity performance incentives loom.

- The backward-dated EBITDA profile persists, although the curve is not as steep as it is for certain competitors owing to a proactive hedging strategy and participation in robust capacity markets.
- As usual, cash flow on the generation side is significantly hedged during the next two years, plus hedges are regularly added; 2018 is hedged to around 30%.
- The company's liquidity position remains strong, especially since it can defer capital spending needs.
- Dividend policy is relatively aggressive, but this is supported by a steady stream of dividends from utility subsidiaries.
- Although capital spending needs have been substantial in the past, we expect that they'll be more in line with industry norms, as this company is already well suited for upcoming carbon regulations.

Outlook Stable

The outlook on the ratings is stable. However, Standard & Poor's Ratings Services believes that higher-than-expected production from shale gas regions and a delay in environmental rules related to plant retirements could weaken the company's financial performance during the next few years. If commodity prices weaken further, the company might have to address a decline in its earnings profile with commensurate reductions in capital spending and debt. We expect ExGen and its parent Exelon Corp. to maintain funds from operations (FFO) to debt of around 30% and 23%, respectively, which are the minimum levels to maintain current ratings.

Downside scenario

Negative ratings momentum could occur due to a decline in commodity prices that would affect ExGen's and, as a result, Exelon's cash flows. We could lower the company's ratings post-acquisition if the adjusted consolidated FFO to debt ratios were to consistently decline.

We could lower the stand-alone credit profile of ExGen if the company's adjusted FFO to debt were consistently below 23%. A change in ExGen's stand-alone credit profile (SACP) might not result in an immediate change in its issuer ratings if Exelon's growing utility segment were able to sustain the group's credit profile, and this aspect has grown over time. However, given that ExGen will still account for over 40% of the consolidated cash flow even after the PHI acquisition, a lower SACP would weigh negatively on the entire group profile.

Upside scenario

An upgrade could occur if natural gas prices stabilized and power prices responded favorably to coal plant retirements, resulting in consolidated FFO to debt levels of more than 26% on a sustained basis. This would reflect a stand-alone FFO to debt level at ExGen of more than approximately 35% consistently. Such a scenario could stem from an improved economy and higher electricity prices, as well as from a robust increase in the rate base of Exelon's regulated utility subsidiaries. A stronger PJM Capacity Market, stemming from a capacity performance scheme, could contribute also. We think this an upgrade is unlikely before 2017, and, at any rate, an improved SACP for ExGen would not result in a higher rating without the group credit profile improving due to higher credit quality at the regulated utilities.

Standard & Poor's Base-Case Scenario

Assumptions	Key Metrics
-------------	-------------

- Henry Hub gas prices are between \$2.50 per million Btu in 2016 and \$2.75 in 2017; PJM West hub power prices are between \$30 and \$35 per megawatt hour (MWh) in 2016; Northern Illinois hub prices hover around \$30 per MWh through 2016.
- Nuclear capacity factors are consistently at about 94% through 2017.
- Growth rates at the utilities are consistent with management's assumptions.
- Dividend policy remains in line with industry standards.
- Only current hedges are assumed.
- Spark spreads remain depressed in Texas, with an average of about \$6 per MWh during 2015, but rebound somewhat afterward.
- Total ExGen generation of about 190 gigawatts per hour in 2015, ticking up only modestly in subsequent years.

	2016E	2017E
FFO/debt (%)	32-36	32-35
Debt/EBITDA (x)	2.0-2.4	2.2-2.4
EBITDA interest coverage (x)	5.5-6.5	5.5-6.5

E--Estimate. FFO--Funds from operations. Note: These measures represent stand-alone credit measures for ExGen.

Business Risk: Satisfactory

Standard & Poor's rating on ExGen reflects our view of the consolidated creditworthiness of the company's diversified energy parent Exelon, whose business risk profile we view as strong due to the presence of several large utility subsidiaries.

A significant contribution to this consolidated assessment is the business risk profile of ExGen, which we view as satisfactory on a stand-alone basis. As of December 31st, 2015, ExGen had nearly \$12 billion of total adjusted debt after considering the effects of power purchase agreements, post-retirement benefit obligations, cash netting, and deconsolidation.

We expect ExGen's unregulated operations to constitute more than 50% of the consolidated enterprise in terms of cash flow and capital spending during 2016, even including the PHI acquisition. ExGen generates a significant portion of earnings from its retail operations. Through retail and wholesale channels, ExGen provided around 195 TWh of load in 2015, or nearly 5% of total U.S. power demand, and enjoys significant regional diversity, participating in the PJM Interconnection in the Mid-Atlantic, New England, and Texas markets. In most locations, ExGen has adequate intermediate and peaking capacity for managing load-shaping (matching resources with energy needs) risks. However, we believe the company will still need to buy and sell generation in the market to manage its portfolio needs, which exposes it to considerable commodity risk. Moreover, ExGen has a significant open position in the Midwest to merchant markets, and a somewhat tight position in Texas and New England, where it has some risk of finding itself short when loads and power prices are high.

Enclosure 3

Summary: Exelon Generation Co. LLC

ExGen's cash flow remains rather sensitive to commodity prices because more than 60% of the business' generation is nuclear; unlike gas-fired assets, which have a lower cost structure if gas prices drag power prices down, nuclear plants face winnowing margins based on lower market heat rates. Given that base-load generation is price-taking by nature, we expect ExGen's adjusted FFO to debt to remain volatile relative to peers. With all else being equal, we estimate gross margins in 2017 will be lower by about \$100 million for every \$5 per MWh ('round-the-clock) decline in power prices, and about \$430 million for every \$1 per million Btu decline in 2017 natural gas prices off of our base case. Near-term figures are not quite as volatile due to more thorough hedging and better visibility into pricing.

Current hedges demonstrate the significant value of Exelon's hedging program. Even though these hedges insulate ExGen, they also show the sensitivity of ExGen's margins to the prospect of continued shale gas production. The merchant generation margins at ExGen could decrease as higher-priced hedges expire, which is evident in the drop in wholesale hedged gross margins. Still, forward prices do show a modest contango (future prices are above expected future spot prices). In addition, retail competition has increased, and ExGen has lowered its growth estimates. We believe retail contributions can mitigate the wholesale decline, given the potential for cost savings, growth in retail volumes, and acquisitions.

Financial Risk: Intermediate

Because of the decline in commodity prices, we expect ExGen's standalone FFO to debt ratio to hover near 33% in 2016. Although ExGen's cash flows are relatively more volatile compared with peers because of the larger base-load generation and exposure to energy pricing, the low variable cost (and highly depreciated nature) of its nuclear plants means that natural gas prices must persistently stay below the current S&P assumption of \$2.50 per million Btu before its FFO to debt falls to a level that would lead to lower standalone credit quality.

Capital spending requirements remain significant between 2016 and 2017 at over \$3 billion for ExGen. Although utility capital spending tends to be funded through rate-base additions, unregulated generation must recover the funding of its own capital requirements through capacity market prices (and energy margins, in Texas). Consolidated cash flow from operations will largely cover capital spending and dividends, resulting in only modest external financing needs. Still, incrementally lower gas prices would hurt ExGen's debt protection measures more than increases in debt financing or in operating and maintenance costs, through 2015.

At ExGen, we expect free operating cash flow to debt to remain positive even in 2016 and 2017, when we expect financial measures to trough. We expect to see discretionary cash flow improve meaningfully thereafter. Despite the current pressure on energy prices, we expect ExGen to remain in the intermediate financial risk profile range during the next few years, given the current dividend scheme, one which is increasingly supplemented by contributions from the utility companies.

Liquidity: Strong

The short-term rating on Exelon and affiliates is 'A-2'. Standard & Poor's views liquidity across the Exelon group of companies as strong in light of the debt maturity schedule and available credit facilities. Exelon has sufficient

Enclosure 3

Summary: Exelon Generation Co. LLC

alternative liquidity sources to cover current liquidity needs, including ongoing capital requirements, moderate capital spending, and upcoming debt maturities.

As of Dec. 31, 2015, Exelon, ExGen, Commonwealth Edison Co. (ComEd), PECO Energy Co., and Baltimore Gas & Electric Co. (BGE) had revolving credit facilities of \$500 million, \$5.3 billion, \$1 billion, \$600 million, and \$600 million, respectively. These facilities expire in 2019. The facilities were largely available at that time, except for \$503 million of commercial paper outstanding at ComEd and BGE, as well as certain letters of credit outstanding.

ExGen's standalone liquidity is also strong; its sources of cash, including cash on hand, cash flow, and revolving credit facility capacity exceed uses--including amortization and capital spending--by more than 1.5x during the next 24 months. However, under our criteria, its liquidity profile is governed by that of the parent, because we view it as a core subsidiary.

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> • FFO of nearly \$6 billion in 2015. • Credit facility availability of about \$6 billion. • Cash on hand of about \$6 billion, much of which was recently used to fund the PHI acquisition. • Nonseasonal working capital inflows of about \$400 million. 	<ul style="list-style-type: none"> • Dividend payments of almost \$1.1 billion annually. • Capital spending and maintenance and environmental costs of more than \$6 billion during the next 12 months. • Debt maturities of \$1.6 billion during the next 12 months. • PHI acquisition costs.

Ratings Score Snapshot

Corporate Credit Rating

BBB/Stable/A-2

Business risk: Satisfactory

- Country risk: Very low
- Industry risk: Moderately high
- Competitive position: Satisfactory

Financial risk: Intermediate

- Cash flow/Leverage: Intermediate

Anchor: bbb

Modifiers

- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Financial policy: Neutral (no impact)

Enclosure 3

Summary: Exelon Generation Co. LLC

- **Liquidity:** Strong (no impact)
- **Management and governance:** Strong (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb

- **Group credit profile:** bbb
- **Entity status within group:** Core (no impact)

Related Criteria And Research

Related Criteria

- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria – Corporates: Key Credit Factors For The Unregulated Power and Gas Industry, March 28, 2014
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Group Rating Methodology, Nov. 19, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012

Business And Financial Risk Matrix						
Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	Intermediate	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Enclosure 3

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INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 4

**ASSET PURCHASE AGREEMENT BETWEEN ENTERGY NUCLEAR FITZPATRICK,
LLC AND EXELON GENERATION COMPANY, LLC, WITH DEFINED TERMS IN
EXHIBIT A**

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ASSET PURCHASE AGREEMENT

by and between

Entergy Nuclear FitzPatrick LLC

as Seller,

and

Exelon Generation Company, LLC

as Buyer

Dated as of August 8, 2016

TABLE OF CONTENTS

Page

Article I

Definitions and Rules of Construction

Section 1.01	Definitions.....	1
Section 1.02	Rules of Construction	2

Article II

Purchase and Sale

Section 2.01	Purchase and Sale of Assets.....	3
Section 2.02	Excluded Assets	6
Section 2.03	Assumption of Liabilities.....	8
Section 2.04	Excluded Liabilities	10
Section 2.05	Signing Fee	11
Section 2.06	Purchase Price	12
Section 2.07	Proration.....	12
Section 2.08	Closing	12
Section 2.09	Closing Deliveries.....	13
Section 2.10	Purchase Price Allocation	14
Section 2.11	Withholding	15
Section 2.12	Assignment of Certain Transferred Assets	15

Article III

Representations and Warranties of Seller

Section 3.01	Organization; Qualification	16
Section 3.02	Authorization	17
Section 3.03	Consents and Approvals; No Violation	17
Section 3.04	Absence of Certain Changes or Events.....	18
Section 3.05	Litigation.....	18
Section 3.06	Compliance with Law; Permits.....	18
Section 3.07	Material Contracts.....	19
Section 3.08	Real Estate	20
Section 3.09	Title to Assets	21
Section 3.10	Sufficiency of Assets	21
Section 3.11	Employee Benefit Matters	22
Section 3.12	Labor	23
Section 3.13	Nuclear Matters; Plant and Equipment.....	23
Section 3.14	Reports	24
Section 3.15	Regulation as a Utility	25

Enclosure 4 (Page 3 of 98)

Section 3.16	Environmental Matters.....	25
Section 3.17	Condemnation.....	26
Section 3.18	Taxes.....	26
Section 3.19	JAF NDT.....	26
Section 3.20	Insurance.....	27
Section 3.21	Intellectual Property.....	28
Section 3.22	Broker Fees.....	28
Section 3.23	Seller Guarantee.....	28
Section 3.24	Credit Support.....	28

Article IV

Representations and Warranties of Buyer

Section 4.01	Organization; Qualification.....	29
Section 4.02	Authorization.....	29
Section 4.03	Consents and Approvals; No Violation.....	30
Section 4.04	Absence of Certain Changes or Events.....	30
Section 4.05	Litigation.....	30
Section 4.06	Available Funds; Source of Funds.....	31
Section 4.07	Regulation; Qualified Buyer.....	31
Section 4.08	No Foreign Ownership or Control.....	31
Section 4.09	Broker Fees.....	31

Article V

Covenants

Section 5.01	Conduct of Business Pending the Closing.....	31
Section 5.02	Publicity.....	34
Section 5.03	Access to Properties; Access to Information.....	34
Section 5.04	Commercially Reasonable Efforts; Consents and Regulatory Approvals.....	38
Section 5.05	Post-Closing Transfers.....	42
Section 5.06	Pre-Refueling Conditions.....	43
Section 5.07	Schedule Updates.....	45
Section 5.08	Trust Transfer; Nuclear Decommissioning Trust; Favorable Letter Ruling.....	45
Section 5.09	Transition Services Agreement.....	46
Section 5.10	Excluded DOE Claims.....	48
Section 5.11	Transfer of Assets.....	48
Section 5.12	CES Order.....	48
Section 5.13	Cessation of Operations.....	48
Section 5.14	Entergy Restructuring.....	48
Section 5.15	Insurance.....	49
Section 5.16	Entergy Names and Marks.....	49
Section 5.17	Notifications.....	49
Section 5.18	Certain Contracts.....	49
Section 5.19	Atomic Energy Act Authorizations.....	50

Article VI

Conditions to the Closing

Section 6.01	Conditions to Each Party's Obligations	50
Section 6.02	Conditions to Obligation of Buyer	52
Section 6.03	Conditions to Obligation of Seller	53

Article VII

Survival

Section 7.01	Survival of Certain Representations, Warranties and Covenants	53
Section 7.02	Certain Limitations	54

Article VIII

Indemnification

Section 8.01	Indemnification by Seller	55
Section 8.02	Indemnification by Buyer	56
Section 8.03	Indemnification Procedures	58
Section 8.04	Indemnification Generally	60

Article IX

Termination

Section 9.01	Termination	61
Section 9.02	Termination Fees	62
Section 9.03	Effect of Termination	65

Article X

Certain Tax Matters

Section 10.01	Taxes	65
Section 10.02	Transfer Taxes	66
Section 10.03	Straddle Period	66
Section 10.04	Reimbursements	67
Section 10.05	Tax Claims	67
Section 10.06	Cooperation	67
Section 10.07	Tax Ownership	67

Article XI

Miscellaneous

Section 11.01 Expenses	67
Section 11.02 Notices	68
Section 11.03 Severability	69
Section 11.04 Amendments and Waivers	69
Section 11.05 Entire Agreement; No Third Party Beneficiaries.....	69
Section 11.06 Governing Law	70
Section 11.07 Specific Performance	70
Section 11.08 Consent to Jurisdiction; Waiver of Jury Trial.....	71
Section 11.09 EXCLUSIVITY OF REPRESENTATIONS AND WARRANTIES	71
Section 11.10 Assignment	72
Section 11.11 Schedules, Annexes and Exhibits	73
Section 11.12 Counterparts	73

Exhibits

- Exhibit A – Defined Terms
- Exhibit B – Pre-Refueling Conditions
- Exhibit C – Form of Assignment and Assumption Agreement
- Exhibit D – Form of Bill of Sale
- Exhibit E – Fund Assets Market Value Documentation
- Exhibit F – Owner’s Affidavit and Gap Undertaking
- Exhibit G – Seller Guarantee

ASSET PURCHASE AGREEMENT

This ASSET PURCHASE AGREEMENT (this "Agreement") is dated as of August 8, 2016 and is by and between Entergy Nuclear FitzPatrick LLC, a Delaware limited liability company ("Seller"), and Exelon Generation Company, LLC, a Pennsylvania limited liability company ("Buyer"). Each of Seller and Buyer is referred to, individually, as a "Party," and, collectively, they are referred to as the "Parties."

RECITALS

WHEREAS, Seller owns the James A. FitzPatrick Nuclear Power Station and related facilities (together, the "Facility");

WHEREAS, subject to the terms and conditions set forth in this Agreement, Seller desires to sell, and cause the Subsidiaries of Entergy Corporation ("Entergy") that own or purport to own Transferred Assets (together with Seller, the "Seller Entities") to sell, the Transferred Assets, and Buyer desires to purchase the Transferred Assets for the consideration specified in Section 2.06 of this Agreement and assume certain liabilities of the Seller Entities related to the Transferred Assets (together, the "Transaction");

WHEREAS, as a material inducement to Buyer to enter into this Agreement, Seller has agreed to deliver to Buyer at Closing the Seller Guarantee;

WHEREAS, NYPA has caused to be issued an irrevocable letter of credit in the amount of thirty five million dollars (\$35,000,000) (the "Available Funds L/C") in favor of Seller to be drawn upon and disbursed pursuant to the terms of an available funds agreement between Seller and NYPA (the "Available Funds Agreement") upon the occurrence of any Draw Event (as defined in the Available Funds Agreement);

WHEREAS, in connection with the Transaction, the Signing Related Agreements have been executed and delivered by the parties thereto (including, where applicable, the Parties) concurrently with the execution of this Agreement; and

WHEREAS, Seller and Buyer desire to make certain representations, warranties, covenants and agreements in connection with the Transaction and also to prescribe various conditions to the Transaction.

NOW THEREFORE, in consideration of the premises and the respective representations, warranties, covenants and agreements in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I

DEFINITIONS AND RULES OF CONSTRUCTION

Section 1.01 Definitions. Capitalized terms used in this Agreement shall have

the meanings ascribed to them in Exhibit A hereto or in the applicable section of this Agreement to which reference is made therein.

Section 1.02 Rules of Construction.

(a) Unless the context otherwise requires, references in this Agreement to Articles, Sections, Exhibits, Annexes and Schedules shall be deemed references to Articles and Sections of, and Exhibits, Annexes and Schedules to, this Agreement.

(b) If a term is defined as one part of speech (such as a noun), it shall have a corresponding meaning when used as another part of speech (such as a verb). Terms defined in the singular have the corresponding meanings in the plural and vice versa. Unless the context of this Agreement clearly requires otherwise, words importing the masculine gender shall include the feminine and neutral genders and vice versa. The word “or” shall not be exclusive. The words "includes" and "including" shall mean "including, without limitation." The words "hereof," "hereto," "hereby," "herein," "hereunder" and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and not to any particular section or article in which such words appear, unless the context otherwise requires.

(c) If a term is defined in this Agreement, then it shall have the corresponding meaning in any Exhibit, Schedule or Annex to this Agreement unless such Exhibit, Schedule or Annex shall otherwise expressly provide.

(d) Whenever this Agreement refers to a number of days, such number shall refer to calendar days unless Business Days are specified. When calculating the period of time before which, within which or following which any action must be taken hereunder, the date that is the reference date in calculating such period shall be excluded. If the last day of such period is on a day that is not a Business Day, then such action may be validly taken on or by the next day that is a Business Day.

(e) The Parties acknowledge that each Party and its attorney have reviewed this Agreement and that any rule of construction to the effect that any ambiguities are to be resolved against the drafting Party, or any similar rule operating against the drafter of an agreement, shall not be applicable to the construction or interpretation of this Agreement.

(f) The captions in this Agreement are for convenience only and shall not be considered a part of or affect the construction or interpretation of any provision of this Agreement.

(g) All accounting terms used herein and not expressly defined herein shall have the meanings given to them under GAAP.

(h) The dollar thresholds contained in Article VIII, including the Deductible and the Cap, are not an indication of materiality for any purposes under this Agreement.

(i) All references to "dollars" or "\$" shall be to U.S. dollars.

Enclosure 4 (Page 8 of 98)

(j) References to any Person include the successors and permitted assigns of that Person.

(k) Prior drafts of this Agreement are not an indication of the Parties' intent and shall not be applicable to the construction or interpretation of this Agreement.

(l) Any reference in this Agreement, the Schedules or any document delivered in connection with this Agreement to any Law, Contract or document, or any section thereof, shall, unless otherwise expressly provided in this Agreement, be a reference to such Law, Contract, document or section as amended, modified or supplemented (including any successor section) and in effect from time to time.

ARTICLE II

PURCHASE AND SALE

Section 2.01 Purchase and Sale of Assets. Upon the terms and subject to the conditions of this Agreement, at and effective as of the Closing, Seller shall (and shall cause the Other Seller Entities to) sell, assign, transfer, convey and deliver, or cause to be sold, assigned, transferred, conveyed or delivered, to Buyer, and Buyer shall purchase, assume and accept from Seller and the Other Seller Entities, free and clear of any Liens (except any Permitted Liens) all of Seller's and the Other Seller Entities' right, title and interest in and to the Transferred Assets. As used in this Agreement and except to the extent any such assets, properties or rights are Excluded Assets, the "Transferred Assets" means (i) all of the assets, properties and rights of Seller, (ii) all of the assets, properties and rights of any Other Seller Entity to the extent such assets, properties or rights exclusively relate to, or are exclusively used in, the ownership or operation of the Facility and (iii) all of the assets in the JAF NDT, along with all related tax and accounting records and the then most recent and final decommissioning study on file with the NRC). The Transferred Assets shall include the following:

(a) the Sites, including the real property and Improvements thereon set forth on Schedule 2.01(a), and all appurtenances thereto and easements with respect thereto, including (i) all related non-exclusive rights of ingress and egress; (ii) the 115kV and 345kV switchyards, transmission or generator tie lines and the lake water intake and discharge structures to the extent such may be deemed real property, fuel handling and storage facilities and installations, barriers, enclosures and other structures for the Site security plan and the administration facility, training facility and wellness center; and (iii) all right, title and interest with respect to the emergency operations facilities, including the environmental laboratory facility at Oswego County Airport located in Oswego County, New York (together, the "Real Property");

(b) all personal property located at or on any of the Sites;

(c) all machinery, mobile or otherwise, equipment (including computer hardware and communications equipment), weapons, detectors, monitors, testing devices and other devices or equipment required for or related to physical security (including access authorization and fitness for duty), safeguards or cybersecurity, radiation monitors, tools,

Enclosure 4 (Page 9 of 98)

spare parts, fixtures, furniture, furnishings, storage casks and canisters, vehicles and other personal property, including the equipment in the 115kV and 345kV switchyards, transmission or generator tie lines and lake water intake and discharge structures to the extent such may be deemed personal property, and the Inventories, including all transferable warranties and similar guarantees existing as of the Closing Date from Third Parties relating thereto, including those set forth on Schedule 2.01(c);

(d) all Permits relating to ownership or operation of the Facility which are transferable to Buyer by assignment or otherwise (including upon request or application to a Governmental Authority) or which will pass to Buyer as successor in title to the Facility by operation of Law, including those set forth on Schedule 2.01(d) and all FCC licenses relating to the Facility (collectively, the "Transferable Permits");

(e) all right, title and interest in and to any Material Contracts, including those set forth on Schedule 2.01(e), other than any Material Contracts that are Eligible Contracts that Buyer elects to include on Schedule 2.02(I) as updated in accordance with Section 2.02(I); provided, however, that Buyer may not elect to include on Schedule 2.02(I) the Material Contracts sets forth on Schedule 2.01(e) that are marked with an asterisk;

(f) all right, title and interest in and to the Facility Long-Term Agreement;

(g) (i) all files, records, reports and systems (including electronic systems) maintained as part of the Facility's access authorization and fitness for duty programs required by applicable Law and (ii) all books, records, operating, safety and maintenance manuals, security plans, inspection reports, engineering design plans, blueprints, as-built plans, specifications, procedures, studies, reports and equipment repair, safety, maintenance or service records of Seller relating primarily to the design, construction, licensing, regulation and operation of the Facility (collectively, the "Books and Records");

(h) all right, title and interest of Seller in and to the use of the name "James A. FitzPatrick Nuclear Power Station";

(i) all assignable right, title and interest in and to the NRC Licenses;

(j) all right, title and interest in and to Nuclear Fuel on the Closing Date;

(k) all right, title and interest in and to Spent Nuclear Fuel, including Pre-1983 Spent Nuclear Fuel, Radioactive Material and the spent fuel storage installation, in each case located on the Sites on the Closing Date;

(l) (i) all right, title and interest of Seller in and to the property and assets used or usable in providing emergency warning or associated with emergency planning or preparedness, including as set forth on Schedule 2.01(l)(i) and (ii) all right, title and interest in and to the Contracts and agreements associated with emergency warning, emergency planning or preparedness, including as set forth on Schedule 2.01(l)(ii) (the "Emergency Preparedness Agreements");

Enclosure 4 (Page 10 of 98)

(m) all right, title and interest in and to (i) any Site MOUs and (ii) the DOE Standard Contract for the Facility pursuant to the transfer of title of all of the Facility's Spent Nuclear Fuel and Radioactive Material and, subject to Section 2.04(j), the assignment to Buyer of such rights and obligations under the DOE Standard Contract for the Facility pursuant to the DOE Consent;

(n) (i) subject to the proviso in Section 2.01(e), all right, title and interest in and to the Contracts set forth on Schedule 2.01(n)(i); provided, that Buyer may update Schedule 2.01(n)(i) in its sole discretion at any time on or prior to September 30, 2016 to add or remove any Eligible Contract; and (ii) the portion of any assignable Shared Contracts or Multiparty Contracts set forth on Section 2.01(n)(ii) (the "Specified Shared Contracts") to the extent related to the Facility;

(o) all right, title and interest in and to Intellectual Property developed or owned by Seller;

(p) all right, title and interest in and a license or other right to use any drawings, designs, specifications and other documents owned by or licensed to Seller or any Other Seller Entity which are necessary for the licensing, operation or Decommissioning of the Facility, including (i) the Corporate Standard Procedures for the Facility, (ii) all drawings, designs and specifications related to the information technology systems used to operate the Facility and (iii) all drawings, designs, specifications and other documents related to the software set forth on Schedule 2.01(r)(ii)(A) and Schedule 2.01(r)(ii)(B);

(q) all right, title and interest in and to ANI nuclear liability policies which are transferable by Seller or any Other Seller Entity to Buyer by assignment and all associated rights and benefits (including any proceeds in respect of the Facility or any portion thereof);

(r) (i) all right, title and interest of Seller or any Seller Entity in and to the existing simulator application suite for the Fitzpatrick Training Simulator that includes the replicated plant models, executive, and instructor station; provided, however, that Buyer shall be responsible for all costs and expenses required to obtain any Third Party consent or other permission or replacement license therefor; and (ii) with respect to any other software: (A) owned by Seller or any Other Seller Entity, and used exclusively in the operation of the Facility, all right, title and interest in and to such software, including as set forth on Schedule 2.01(r)(ii)(A); and (B) licensed from Third Parties and exclusively used in the operation of the Facility, such right, title and interest in such software licenses, including as set forth on Schedule 2.01(r)(ii)(B), but only if (1) the terms of such licenses expressly allow for the assignment to Buyer, or if not, (2) Buyer secures consent from the licensors for such assignment, provided that such consent does not impose obligations on Seller on or after the Closing (other than to assign the license), and (3) Buyer presents evidence of such consent to Seller prior to the Closing; provided, that Seller shall cooperate with Buyer and assist Buyer, at Buyer's sole cost and expense, in obtaining such consent;

(s) except as provided for on Schedule 2.01(s), all Claims and rights against any Third Parties arising out of or relating to any of the Assumed Liabilities;

Enclosure 4 (Page 11 of 98)

(t) all right, title and interest in and to the CBAs to the extent applicable to any Transferred Employee (as defined in the Employee Matters Agreement) with respect to such employee's employment by Buyer or its Affiliates, subject to modification or termination by agreement between Buyer or its applicable Affiliate and the applicable labor union;

(u) all other assets related to the Facility set forth on Schedule 2.01(u).

Section 2.02 Excluded Assets. Notwithstanding any provision to the contrary in Section 2.01, the Seller Entities will retain all of their respective rights, titles and interests in and to, and shall not, and shall not be deemed to, sell, assign, transfer, convey or deliver to Buyer, and the Transferred Assets shall not, and shall not be deemed to, include any of the following assets, properties and rights (all such retained assets, the "Excluded Assets"):

(a) except as otherwise provided in any Related Agreement, any Seller Entity Plan, any trusts, insurance arrangements or other assets held pursuant to, or set aside to fund the obligations of Entergy or its Subsidiaries under, any Seller Entity Plan, any data and records (or copies thereof) required to administer the benefits of any Seller Entity Employee or any spouse, child, dependent, alternate payee or beneficiary of such Seller Entity Employee under any Seller Entity Plan, and any other assets attributable to or otherwise maintained in respect of the employment, termination of employment or retirement of any Seller Entity Employee or in respect of any spouse, child, dependent, alternate payee or beneficiary of such Seller Entity Employee;

(b) all assets of the Other Seller Entities that are not exclusively related to or exclusively used in the ownership and operation of the Facility (except to the extent expressly identified as Transferred Asset in clauses (a) through (t) of Section 2.01);

(c) except as provided in Section 2.01(q) and except to the extent such assets are held in the JAF NDT, all cash and cash equivalents (including marketable securities and short term investments), accounts receivable, checkbooks and canceled checks and bank deposits, and any income, sales, payroll or other refunds of any Tax for which Seller is liable pursuant to Section 10.01 and Section 10.02;

(d) all (i) Contracts, instruments or other agreements between the Seller Entities and their customers relating to sales by the Seller Entities of electric capacity or energy from the Facility and (ii) all tariffs, agreements and arrangements to which any Seller Entity is a party or has an interest for the purchase or sale of electric capacity and/or energy or for the purchase or sale of transmission or ancillary services, including each as set forth on Schedule 2.02(d);

(e) all right, title and interest in and to any Claims against Third Parties (other than a Governmental Authority having regulatory jurisdiction over the Transferred Assets) relating to (i) any period prior to the Closing (except to the extent such Claim relates to an Assumed Liability) or (ii) the Excluded Assets or Excluded Liabilities, whether payable in cash or as a credit against future liabilities, including insurance proceeds and condemnation awards, Claims for contribution or indemnity, tort Claims, causes of action, contract rights and

Enclosure 4 (Page 12 of 98)

refunds accrued and owing as of the Closing Date, including those set forth on Schedule 2.02(e);

(f) all right, title and interest in and to any refunds under any ANI nuclear liability and NEIL property insurance policies attributable to any period prior to the Closing (including any NEIL distributions due for periods prior to Closing);

(g) all right, title and interest in and to (i) the name "Entergy" or "Entergy Corporation," in any style or design, or the name of any other Affiliate of Seller, any trademark, trade name, identifying symbols, logos, emblems, signs, insignia or domain names comprised or derived from, confusingly similar to or including any of the foregoing, (ii) all trademarks and any other Intellectual Property that is not expressly designated as a Transferred Asset, and (iii) the reputation or goodwill of Seller or any of its Affiliates (collectively, the "Entergy Names and Marks");

(h) all right, title and interest in and to any properties or assets privileged under the attorney-client privilege, attorney work-product privilege, or any other self-auditing privilege or policy from a Governmental Authority;

(i) (i) all books and records related to the Facility which form part of the general ledger of the Seller Entities or their Affiliates, including any such Person's corporate or organizational books and records (including minute books), Tax Returns, financial and other accounting records necessary for the preparation of financial statements, Tax Returns or government-required filings, personnel records and other records that such Person is required by Law or Order to retain in its possession, including those set forth on Schedule 2.02(i) and, except as expressly set forth in the Employee Matters Agreement or Section 2.01(g), all files and records relating to any Seller Entity Employee (including files and records relating to skill and development training, biographies, seniority histories, salary and benefits, Occupational Safety and Health Administration reports (or the equivalent), active medical restriction forms, fitness for duty and disciplinary actions); provided, that all records relating to union negotiations pertaining to Active Employees shall be made available to Buyer for review and copying in the manner set forth in Section 5.03; and (ii) to the extent permitted by Law, copies of any Books and Records that are in the possession of Seller or any of its Affiliates;

(j) any employee e-mail, instant messages, text messages, recorded voicemails and other electronic employee communications whether on employee-owned devices or devices owned by Seller or its Affiliates;

(k) except as expressly provided in Section 2.01(g)(i) and Section 2.01(r), (i) all fleet-wide information technology systems and Intellectual Property, including as set forth on Schedule 2.02(k) and (ii) software developed, owned, or licensed by the Seller or the Seller Entities, used in connection with the operation of the Facility;

(l) subject to the proviso in Section 2.01(e), all right, title and interest in and to all (i) Contracts related to the Facility that are set forth on Schedule 2.02(l); provided, that (A) Buyer may update Schedule 2.02(l) in its sole discretion at any time on or prior to September 30, 2016 to add or remove any Material Contract in effect as of the date of this Agreement that is an Eligible Contract and (B) Buyer may update Schedule 2.02(l) in its sole

Enclosure 4 (Page 13 of 98)

discretion at any time within 30 days after it receives written notice from Seller of a Contract that would constitute a Material Contract if entered into on or prior to the date of this Agreement that is an Eligible Contract and entered into after the date of this Agreement; (ii) except as contemplated in the Reimbursement Agreement or the Transfer Agreement, Contracts that would constitute Material Contracts that are entered into after the date of this Agreement of which Seller does not provide Buyer written notice at least 30 days prior to the Closing Date; (iii) Contracts in effect as of the date of this Agreement that are Eligible Contracts of the type specified in clause (ii) of the definition of Eligible Contract, including as set forth on Schedule 2.02(l)(iii), that Buyer does not elect to include on Schedule 2.01(n)(i) as updated in accordance with Section 2.01(n), (iv) Contracts related to the Facility that are (A) in effect as of the date of this Agreement and were not made available to Buyer prior to the date of the Agreement or (B) entered into by Seller or any of its Affiliates on or after the date of this Agreement and that are not terminable by Buyer after the Closing without penalty upon not more than ninety (90) days' notice, (vi) non-severable Multiparty Contracts and Shared Contracts other than the Specified Shared Contracts and (vii) any Contract solely between or among Seller and any of its Affiliates (collectively, the "Non-Assigned Contracts");

- (m) all right, title and interest under the Prior Acquisition Agreement;
- (n) all right, title and interest to the Excluded DOE Claims;
- (o) all other assets of the Seller Entities set forth on Schedule 2.02(o);

and

- (p) all other assets of the Seller Entities not specified above which do not constitute a right or interest in the Transferred Assets.

Section 2.03 Assumption of Liabilities. Upon the terms and subject to the terms of this Agreement, Buyer shall, on the Closing Date, assume, agree to pay, perform and discharge when due any and all of the Assumed Liabilities. As used in this Agreement, and except to the extent any such Liability is an Excluded Liability, the "Assumed Liabilities" means any and all of the Liabilities of the Seller and any Other Seller Entity to the extent such Liabilities arise out of the operation of the Facility, whether arising from, or relating to, the period prior to, on or after the Closing Date, including the following:

- (a) all Environmental Liabilities (other than as provided in Section 2.04), including those set forth on Schedule 2.03(a);

- (b) all Liabilities arising after the Closing under the Material Contracts, the Contracts set forth on Schedule 2.01(n)(i) as updated in accordance with Section 2.01(n), the Specified Shared Contracts, Emergency Preparedness Agreements and Transferable Permits in accordance with the terms thereof, except in each case, to the extent such Liabilities (other than with respect to any Environmental Permit) relate to or arise out of breaches by the Seller Entities prior to the Closing or events, facts or circumstances existing prior to the Closing (Liabilities relating to or arising out of breaches by the Seller Entities prior to the Closing or events, facts or circumstances existing prior to the Closing, "Pre-Closing Contractual Liabilities");

Enclosure 4 (Page 14 of 98)

(c) except as provided for in this Agreement or any Related Agreement, all Liabilities in respect of Taxes for which Buyer is liable pursuant to Section 10.01 and Section 10.02;

(d) all Liabilities arising out of the use or ownership by Buyer or any of its Affiliates after the Closing of any Transferred Asset owned, leased or held by any Other Seller Entity at any time prior to the Closing;

(e) all Liabilities under any Orders relating to the Facility, the Transferred Assets or the Assumed Liabilities;

(f) all Liabilities in respect of: (i) the Decommissioning of the Site (including the Facility) following permanent cessation of operations; (ii) decontamination and decommissioning fund costs or fees arising from or in connection with the Facility pursuant to 42 U.S.C. §2297g-1 after the Closing; and (iii) any other post-operative sale, transfer or other disposition of the Facility or any other of the Transferred Assets;

(g) all Liabilities from and after the Closing for the management, storage, transportation and disposal of Spent Nuclear Fuel including, subject to Section 2.04(j), all Liabilities under the DOE Standard Contract for the Facility pursuant to the transfer of title of all of the Facility's Spent Nuclear Fuel and Radioactive Material and the assignment of such rights and obligations pursuant to the DOE Consent, including pursuant to Article VIII of the DOE Standard Contract the (i) one-time fee (plus interest on the outstanding fee balance) for Pre-1983 Spent Nuclear Fuel to be paid after Closing and (ii) any fee on electricity generated by the Facility that is imposed by the DOE after, or is payable after, the Closing (Seller being responsible to reimburse Buyer, or cause Buyer to be reimbursed, for Liabilities described in Section 2.04(j));

(h) all Liabilities for any Price-Anderson Act retrospective premium obligations under the secondary financial protection program applicable to the NRC License for the Facility for (i) nuclear worker liability on or prior to or after the Closing Date or (ii) any Third Party nuclear Liability arising out of any nuclear incident or occurrence on or prior to or after the Closing Date;

(i) all Liabilities for retrospective premium obligations under the NEIL account arising from losses incurred by the insurer after the Closing;

(j) all Liabilities under the NRC License (i) applicable to the ownership and operation of the Facility relating to the period after the Closing imposed by the NRC, including fees or charges accrued on or after the Closing or (ii) with respect to compliance with any corrective actions imposed after the Closing by the NRC with respect to the operation of the Facility after the Closing;

(k) all Liabilities and obligations expressly allocated to or assumed by Buyer or any Affiliate of Buyer in any Related Agreement;

(l) all Liabilities arising under or relating to nuclear Laws or Orders of the NRC or relating to any Claim in respect of nuclear material arising out of ownership or

operation of the Facility and the other Transferred Assets from and after the Closing Date, unless expressly excluded pursuant to Section 2.04;

(m) all Liabilities relating to any Claim by a Third Party that arise after the commencement of the Refueling and do not involve Excluded Disqualifying Conduct against or relating to the Seller Entities or the Transferred Assets for damages arising out of or resulting from the use, ownership or lease of the Transferred Assets by the Seller Entities (except to the extent such Claim was, to the Knowledge of Seller, threatened in writing prior to the Refueling);

(n) all Liabilities expressly allocated to Buyer in this Agreement; and

(o) all Liabilities expressly designated as Assumed Liabilities on Schedule 2.03(o).

Section 2.04 Excluded Liabilities. Notwithstanding any provision to the contrary in Section 2.03, and except as otherwise provided in any Related Agreement, Buyer shall not assume or be liable for, and shall not be deemed to have assumed or to have become liable for, the following Liabilities of the Seller Entities (the "Excluded Liabilities"):

(a) all Liabilities in respect of the Excluded Assets (including Non-Assigned Contracts);

(b) (i) all Liabilities arising under any Seller Entity Plan and (ii) all Liabilities to, or attributable or arising with respect to the employment or termination of employment or retirement of, any Seller Entity Employee or any spouse, child, dependent, alternate payee or beneficiary of any Seller Entity Employee;

(c) (i) all Liabilities arising under COBRA in respect of Business Employees insofar as the Liabilities relate to qualifying events (within the meaning of COBRA) that occur prior to, at or in connection with the Closing; and (ii) all Liabilities arising under Title IV of ERISA in respect of any Seller Entity Plan;

(d) all Liabilities arising out of any Indebtedness of any of the Seller Entities;

(e) all Liabilities arising out of any obligations to, or agreements by, any Seller Entity or any of its Affiliates, in each case other than as provided for pursuant to this Agreement or any Related Agreement;

(f) all Liabilities in respect of Taxes for which Seller is liable pursuant to Section 10.01 and Section 10.02;

(g) all Liabilities for goods delivered or services rendered prior to the Closing;

(h) Environmental Liabilities relating to the disposal, storage, transportation, discharge, release, recycling, or the arrangement for such activities, at any Off-Site Location by Seller or any Other Seller Entity, of Hazardous Substances that were generated

at the Sites where the disposal, storage, transportation, discharge, release or recycling of such Hazardous Substances at such Off-Site Location occurred prior to the Closing;

(i) all Liabilities of Seller for assessments for Decommissioning and decontamination fees relating to Nuclear Fuel purchased and consumed at the Facility for periods prior to the Closing under 42 U.S.C. §2297g-1;

(j) all Liabilities of Seller for fees (including interest) payable to the DOE under Article VIII of the DOE Standard Contract after the Closing for electricity generated by the Facility prior to the Closing (other than as provided in Section 2.03(g)(i)), regardless of whether the fee is imposed retroactively or is imposed prospectively (but then only for that portion of the fee that represents an increase in the fee to account for periods during which the DOE did not collect the fee), it being understood that, as between DOE and Buyer, Buyer shall become primarily liable for such fees as a result of its assumption of the DOE Standard Contract for the Facility, but that, as between Buyer and Seller, Seller shall remain responsible for such fees;

(k) all Liabilities and obligations expressly allocated to or retained by Seller or any Affiliate of Seller in any Related Agreement;

(l) all Liabilities for monetary fines, penalties or interest imposed by a Governmental Authority with respect to the Transferred Assets or the export of controlled information in violation of export control Laws and regulations, the Facility or Seller to the extent resulting from actions or omissions prior to the Closing;

(m) except to the extent expressly designated as an Assumed Liability in Section 2.03(m), all Liabilities relating to any Claim by a Third Party against or relating to the Seller Entities or the Transferred Assets (A) which is pending or threatened in writing prior to the Refueling or (B) which arises after the commencement of the Refueling and prior to the Closing and involves Excluded Disqualifying Conduct;

(n) all Liabilities expressly designated as Excluded Liabilities set forth on Schedule 2.04(n);

(o) all Pre-Closing Contractual Liabilities, including with respect to the CBAs except to the extent specifically provided in the Employee Matters Agreement; and

(p) except to the extent specifically identified as Assumed Liabilities in clauses (a) through (o) of Section 2.03, all Liabilities arising from the Transferred Assets or ownership and operation of the Facility prior to the Closing.

Section 2.05 Signing Fee. On the Business Day after the date of this Agreement, Buyer shall pay to Seller an amount in cash equal to ten million dollars (\$10,000,000) (the "Signing Fee") by wire transfer of immediately available funds in U.S. dollars to an account designated in writing by Seller. The Signing Fee is not refundable to Buyer if this Agreement is terminated pursuant to Section 9.01 for any reason.

Section 2.06 Purchase Price.

(a) The aggregate purchase price for the Transferred Assets is an amount in cash equal to one hundred million dollars (\$100,000,000) (the "Purchase Price"). For the avoidance of doubt, the Purchase Price shall not be reduced by the Signing Fee.

(b) At the Closing, Buyer shall pay to Seller the Purchase Price by wire transfer of immediately available funds in U.S. dollars to an account designated by Seller.

Section 2.07 Proration.

(a) Without limiting Seller's rights under the Reimbursement Agreement, Buyer and Seller agree that all of the items normally prorated, including those listed below (but not including Taxes, except as expressly set forth below), relating to the business and operations of the Transferred Assets will be prorated as of the Closing, with Seller liable to the extent such items relate to any period on or prior to the Closing Date, and Buyer liable to the extent such items relate to periods after the Closing Date: (i) except with respect to any penalties that are Excluded Liabilities, any personal property or real property Taxes, any payments made under the Payment In Lieu of Taxes Agreement for the Facility with the Town of Scriba, Mexico Academy & Central School District and County of Oswego, assessments and other charges of the type that could give rise to Permitted Liens, if any, on or associated with the Transferred Assets; (ii) any rent and other items payable by or to Seller under any of the Material Contracts, Emergency Preparedness Agreements, the Specified Shared Contracts or the Contracts set forth on Schedule 2.01(n)(i) as updated in accordance with Section 2.01(n) assigned to and assumed by Buyer hereunder (except for prepayments for Nuclear Fuel or Inventories); (iii) any Permit, license, registration or fees with respect to any Transferable Permit assigned to Buyer associated with the Transferred Assets; (iv) sewer rents and charges for water, telephone, electricity and other utilities; and (v) any other fees or charges (other than Taxes) imposed by any Governmental Authority.

(b) In connection with the prorations referred to in Section 2.07(a), if the actual figures are not available on the Closing Date, the proration shall be based upon the actual payments, for the preceding year (or appropriate period) for which actual payments are available and such payments shall be re-prorated upon request of either Seller or Buyer made within sixty (60) days of the date the actual amounts become available. If the Taxes which are apportioned are thereafter reduced by abatement, the amount of such abatement, less the reasonable cost of obtaining the same, shall be apportioned between the Parties; provided that no Party shall be obligated to institute or prosecute an abatement proceeding unless otherwise agreed in writing. Seller and Buyer agree to furnish each other with such documents and other records that may be reasonably requested in order to confirm all adjustment and proration calculations made pursuant to this Section 2.07.

Section 2.08 Closing. The closing of the Transaction (the "Closing") shall take place (a) at the offices of Skadden, Arps, Slate, Meagher & Flom LLP, 1440 New York Avenue NW, Washington, DC 20001, at 10:00 a.m. Eastern Time on the fourth (4th) Business Day following the satisfaction or waiver of the conditions set forth in Article VI (other than those conditions that by their nature are to be satisfied at the Closing but subject to the satisfaction or

waiver of such conditions) or (b) at such other time, date and place as may be mutually agreed upon in writing by the Parties (the date on which the Closing actually occurs being referred to as the "Closing Date"). For purposes of this Agreement, the effective time of the Closing shall be deemed to be 12:01 a.m. Eastern Time on the Closing Date.

Section 2.09 Closing Deliveries.

(a) At the Closing (unless otherwise indicated), Seller shall deliver the following to Buyer, duly executed and properly acknowledged, if appropriate:

(i) limited warranty deeds to the Real Property, and any properly executed owner's Transfer Tax forms in order to effectuate the transfer of the Real Property to Buyer;

(ii) the Owner's Affidavit and Gap Undertaking;

(iii) the Bills of Sale;

(iv) the Assignment and Assumption Agreements;

(v) the Related Agreements to which Seller or an Affiliate of Seller is a party;

(vi) the Transferable Permits, Material Contracts (other than Material Contracts set forth on Schedule 2.02(l) as updated in accordance with Section 2.02(l) or that are otherwise Excluded Assets in accordance with Section 2.02(l)), Emergency Preparedness Agreements, Specified Shared Contracts, Contracts set forth on Schedule 2.01(n)(i) as updated in accordance with Section 2.01(n) and the JAF NDT, which shall be delivered to Buyer at the Facility or such other location as Buyer shall reasonably request;

(vii) the Seller Guarantee;

(viii) the officer's certificate contemplated by Section 6.02(c);

(ix) Seller's FIRPTA Affidavit;

(x) copies, certified by the Secretary or any Assistant Secretary of Seller, of limited liability company resolutions authorizing the execution and delivery of this Agreement and the Related Agreements and all of the other agreements and instruments to be executed and delivered by Seller in connection herewith and therewith, and the consummation of the Transaction;

(xi) a certificate of good standing with respect to Seller, issued by the Secretary of State of the State of Delaware as of a recent date; and

Enclosure 4 (Page 19 of 98)

(xii) such other agreements, consents, documents, instruments and writings as are reasonably required to be delivered by Seller at or prior to the Closing Date pursuant to this Agreement or otherwise reasonably required or in connection herewith, including all such other instruments of sale, transfer, conveyance, assignment or assumption as Buyer or its counsel may reasonably request in connection with the sale and transfer of the Transferred Assets or the Transaction; provided that this Section 2.09(a)(xii) shall not require Seller to prepare or obtain any surveys or title insurance relating to the Real Property or to obtain and deliver any legal opinions.

(b) At the Closing, Buyer shall deliver the following to Seller, duly executed and properly acknowledged, if appropriate:

(i) the Purchase Price, in accordance with Section 2.06(b);

(ii) the Bills of Sale;

(iii) the Assignment and Assumption Agreements;

(iv) the Related Agreements to which Buyer or an Affiliate of Buyer is a party;

(v) the officer's certificate contemplated by Section 6.03(c);

(vi) copies, certified by the Secretary or any Assistant Secretary of Buyer, of limited liability company resolutions authorizing the execution and delivery of this Agreement and the Related Agreements and all of the other agreements and instruments to be executed and delivered by Buyer in connection herewith and therewith, and the consummation of the Transaction;

(vii) a certificate of good standing with respect to Buyer, issued by the Secretary of State of the State of Pennsylvania as of a recent date; and

(viii) such other agreements, consents, documents, instruments and writings as are reasonably required to be delivered by either Buyer at or prior to the Closing Date pursuant to this Agreement or otherwise reasonably required in connection herewith, including all such other instruments of assumption as Seller or its counsel may reasonably request in connection with the purchase of the Transferred Assets or the Transaction.

Section 2.10 Purchase Price Allocation.

(a) Buyer and Seller intend that the purchase and sale of the Transferred Assets pursuant to this Agreement will be treated for U.S. federal income Tax purposes as a purchase and sale of assets of Seller and the Seller Entities. Buyer and Seller shall

use their Commercially Reasonable Efforts to jointly agree within one hundred eighty (180) days after the Closing Date to an allocation among the Transferred Assets that is consistent with the allocation methodology provided by Code section 1060 and the Treasury regulations promulgated thereunder (the "Allocation"). Notwithstanding the foregoing, in the event that Buyer and Seller cannot agree as to the Allocation, each Party shall be entitled to take its own position in any Tax Return, Tax proceeding or audit.

(b) Notwithstanding the foregoing, to the extent required for purposes of determining the amount of Transfer Taxes attributable to the sale or transfer of the Facility and the Transferred Assets to Buyer and the scope of any exemptions from Transfer Taxes, Buyer shall deliver to Seller a schedule valuing the Real Property and tangible personal property (including a separate valuation for exempt tangible personal property) included in the Transferred Assets (the "Transfer Tax Valuation") at least ten (10) Business Days prior to the Closing Date. Seller shall provide a sales tax invoice at Closing (which shall be consistent with the Transfer Tax Valuation) on which it separately states (i) the value of real property transferred, (ii) a description and the value of taxable tangible personal property transferred, (iii) a description and the value of exempt or otherwise nontaxable tangible personal property transferred and (iv) the amount of sales tax applicable to the tangible personal property transferred. Buyer and Seller each agrees to file all applicable Transfer Tax Returns, and to remit all Transfer Taxes, in accordance with the Transfer Tax Valuation and otherwise agrees not to take any position for Transfer Tax purposes inconsistent with the Transfer Tax Valuation. Buyer and Seller each agrees to provide the other promptly with any other information necessary to complete any applicable Transfer Tax Return.

Section 2.11 Withholding. Buyer and Seller will be entitled to deduct and withhold from any amounts payable pursuant to this Agreement (including payments of the Purchase Price) such amounts as such Party or any of such Party's Affiliates shall determine in good faith they are required to deduct and withhold with respect to the making of such payment under the Code or any other provision of Law. At least fifteen (15) Business Days prior to the date on which any payment is made pursuant to this Agreement, Buyer or Seller, as applicable, shall provide the other Party with written notice of its obligation to withhold, if any, setting forth the amount of any such withholding and the jurisdiction requiring such withholding, and Buyer and Seller shall work in good faith to minimize or reduce such withholding. To the extent any such amounts are so withheld by Buyer or Seller, such withheld amounts will be treated for all purposes of this Agreement as having been paid to the Person in respect of whom such deduction and withholding were made.

Section 2.12 Assignment of Certain Transferred Assets. Notwithstanding any other provision of this Agreement to the contrary, this Agreement shall not constitute an agreement to convey, assign, transfer or deliver to Buyer any Transferred Asset that is a Contract, warranty, guarantee, license or other instrument or document that would otherwise be a Transferred Asset if an attempted conveyance, assignment, transfer or delivery thereof, or an agreement to do any of the foregoing, without the consent of a Third Party, would constitute a breach or other contravention thereof or a violation of Law or would in any way adversely affect the rights of Buyer (as assignee or transferee of Seller, or otherwise) or Seller thereto or thereunder. Subject to Section 5.04, and except as applies to the assets described in Section 2.01(r)(ii)(B) each of Seller and Buyer shall use its Commercially Reasonable Efforts to obtain

any consent necessary for the conveyance, assignment, transfer or delivery to Buyer of (a) any such Transferred Asset and (b) any warranties and similar guarantees existing as of the Closing Date from Third Parties relating to Transferred Assets of the type described in Section 2.01(c) that are not transferable as a result of the fact that a consent of such Third Party has not been obtained (collectively, "Consent-Required Warranties"). If, on the Closing Date, any such consent is not obtained, or if an attempted conveyance, assignment, transfer or delivery thereof or performance thereof by Buyer would be ineffective or a violation of Law so that Buyer would not in fact receive all such rights, Seller and Buyer will cooperate in a mutually acceptable arrangement under which Buyer would, in compliance with Law, obtain the benefits and assume the obligations and bear the economic burdens associated with such Transferred Asset in accordance with this Agreement, including subcontracting, sublicensing or subleasing to Buyer, or under which Seller would enforce for the benefit (and at the expense) of Buyer its rights against a Third Party associated with such Transferred Asset and Seller would promptly pay to Buyer when received all monies received by Seller and its Affiliates under or with respect to any such Transferred Asset. Notwithstanding the foregoing, any such Transferred Asset or Consent-Required Warranties shall be conveyed, assigned, transferred and delivered to Buyer upon receipt of the requisite consent unless such attempted contribution, conveyance, assignment, transfer or delivery thereof would be ineffective or a violation of Law or would adversely affect the rights of Buyer or Seller. Any provision of the benefits of any Transferred Asset pursuant to this Section 2.12 shall be deemed to satisfy the condition to closing in Section 6.03(e) with respect to such Transferred Asset. The obligations under this Section 2.12 shall terminate on the two-year anniversary of the Closing Date.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF SELLER

Seller hereby represents and warrants to Buyer that, as of the date of this Agreement and as of the Closing Date (except in each case to the extent any representation or warranty speaks expressly as of a different date), and except as set forth on the disclosure schedule delivered by Seller to Buyer concurrently herewith (the "Seller Disclosure Schedule"), as follows:

Section 3.01 Organization; Qualification. Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware, and each Other Seller Entity is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization. Each Seller Entity is duly qualified or licensed to do business in each other jurisdiction in which its ownership of the Transferred Assets, the operation of the Facility or the actions required to be performed by it hereunder, make such qualification or licensing necessary, except where the failure to be so qualified or licensed would not have, and would not reasonably be expected to have, a Seller Material Adverse Effect. Seller has all limited liability company power and authority required to own, lease and operate its assets and properties, and to operate the Facility in the manner it was operated immediately prior to the date of this Agreement. Each Other Seller Entity has all corporate, limited liability company or equivalent power and authority required to own, lease and operate the Transferred Assets. Copies of the Organizational Documents of Seller, as amended and in effect on the date hereof, have been made available to Buyer.

Section 3.02 Authorization.

(a) The execution, delivery and performance by Seller of this Agreement, any Related Agreements to which it is a party, and any other agreements and instruments to be delivered hereunder or thereunder to which it is a party, and the consummation by Seller of the Transaction and the other transactions contemplated hereunder and thereunder, have been duly authorized by all necessary limited liability company action on the part of Seller. Each Other Seller Entity has all requisite corporate, limited liability company or equivalent power and authority to enter into any Related Agreements to which it will be a party and to consummate the transactions contemplated thereby. This Agreement has been duly executed and delivered by Seller and, assuming due authorization and delivery by Buyer, this Agreement constitutes a valid and binding obligation of Seller enforceable against Seller in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium and other similar Laws now or hereafter in effect relating to or affecting creditors' rights generally or by general equitable principles (regardless of whether such enforceability is considered in a proceeding in equity or at law) (the "Bankruptcy and Equity Exceptions").

(b) Each Signing Related Agreement to which Seller or any Other Seller Entity is a party has been duly executed and delivered by Seller or such Other Seller Entity, as applicable, and, assuming due authorization and delivery by the other parties thereto, each such Signing Related Agreement constitutes a valid and binding obligation of Seller or such Other Seller Entity, as applicable, enforceable against each applicable Seller Entity in accordance with its respective terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions. Each other Related Agreement to which Seller or any Other Seller Entity is a party, when entered into at the times provided for in this Agreement, will be at such time duly executed and delivered by Seller or such Other Seller Entity, as applicable, and, assuming due authorization and delivery by the other parties thereto, each such other Related Agreement will constitute a valid and binding obligation of Seller or such Other Seller Entity, as applicable, enforceable against each applicable Seller Entity in accordance with its respective terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions.

Section 3.03 Consents and Approvals; No Violation.

(a) No consent or approval (each, a "Consent") of, or notice, declaration, registration or filing (each, a "Filing") with, any Governmental Authority is required to be obtained or made by Seller or any of its Affiliates (including the Other Seller Entities) which has not been obtained or made by such Person in connection with the execution, delivery and performance of this Agreement, the Related Agreements, or the other agreements and instruments to be delivered hereunder or thereunder by Seller or any Other Seller Entity, as applicable, or the consummation by Seller or any such Other Seller Entity, as applicable, of the Transaction or the other transactions contemplated hereby and thereby, other than (a) the Consents and Filings set forth on Section 3.03(a) of the Seller Disclosure Schedule (the "Seller Required Consents") and (b) the Consents and Filings the failure of which to obtain or make would not, and would not reasonably be expected to, result in a Seller Material Adverse Effect.

(b) Assuming that all Seller Required Consents have been timely made, obtained or given, as applicable, the execution, delivery and performance of this

Agreement, the Related Agreements and the other agreements and instruments to be delivered hereunder or thereunder by Seller or any Other Seller Entity, as applicable, do not, and the consummation by Seller or any Other Seller Entity, as applicable, of the Transaction and the other transactions contemplated hereunder and thereunder will not (with or without notice or lapse of time, or both), conflict with, or result in any violation of or default under, or give rise to a right of termination, cancellation or acceleration of any obligation, or result in the creation of any Lien (except for Permitted Liens) upon any of the Transferred Assets under, any provision of (a) the Organizational Documents of Seller or any applicable Other Seller Entity, (b) any Law or Order to which Seller or any applicable Other Seller Entity is subject or by which any property or asset of Seller or any of the Transferred Assets is bound or affected or (c) any Contract or other instrument or obligation to which Seller is a party or by which Seller, or any of the Transferred Assets may be bound, except, in the case of clauses (b) and (c), as has not had, and would not reasonably be expected to have, a Seller Material Adverse Effect.

Section 3.04 Absence of Certain Changes or Events. Except as contemplated by this Agreement and as set forth on Section 3.04 of the Seller Disclosure Schedule, since January 1, 2015, Seller has operated the Facility in the ordinary course of business consistent with past practice and since January 1, 2015 through the date of this Agreement there has not been any change or development that, individually or in the aggregate, has had, or would reasonably be expected to have, a Seller Material Adverse Effect.

Section 3.05 Litigation. Except as set forth on Section 3.05 of the Seller Disclosure Schedule, there are no Claims pending or, to Seller's Knowledge, threatened against or by Seller or any Other Seller Entity, related to or affecting the Transferred Assets, the Facility or the Assumed Liabilities, which, individually or in the aggregate, would have, or would reasonably be expected to have, a Seller Material Adverse Effect. Except as would not have a Seller Material Adverse Effect, since January 1, 2015, neither Seller nor any of the Other Seller Entities has received notice of any investigation by any Governmental Authority with respect to the Transferred Assets and, to Seller's Knowledge, no such investigation is pending or threatened.

Section 3.06 Compliance with Law; Permits.

(a) Since January 1, 2015, neither Seller nor any of the Other Seller Entities has received written notice from any Governmental Authority that it is not in compliance with any Laws applicable to the Transferred Assets, the Assumed Liabilities or the operation of the Facility, as applicable, other than as disclosed in Section 3.06(a) of the Seller Disclosure Schedule, and none of the Selling Entities has violated such Laws, except for violations which, individually or in the aggregate, have not had and would not reasonably be expected to have a Seller Material Adverse Effect.

(b) Except as has not had and would not reasonably be expected to have a Seller Material Adverse Effect, Seller has obtained all Permits necessary for the operation of the Facility as presently operated, and Seller and the Other Seller Entities have obtained all Permits necessary for the ownership of the Transferred Assets. Section 3.06(b)(i) of the Seller Disclosure Schedule lists each such Permit. Except as set forth on Section 3.06(b)(ii) of the Seller Disclosure Schedule, (i) all of such Permits are in full force and effect and no proceedings

for the suspension or cancellation of any of them is pending or, to Seller's Knowledge, threatened and (ii) no Seller Entity has received any notice that it is in violation of any of such Permits, except for notice of violations which have not had and could not, individually or in the aggregate, reasonably be expected to have had a Seller Material Adverse Effect. Each Seller Entity is in compliance with all Permits it holds, except for violations which, individually or in the aggregate, to Seller's Knowledge, have not had and would not reasonably be expected to have a Seller Material Adverse Effect.

Section 3.07 Material Contracts.

(a) Section 3.07(a) of the Seller Disclosure Schedule sets forth a list of the following Contracts in effect on the date of this Agreement (but expressly excluding any CBA or any employment Contract) to which Seller (or any Seller Entity, to the extent such Contract relates to the Facility) is a party (such Contracts, collectively, the "Material Contracts"):

(i) any Contract that reasonably would be expected to require the payment or delivery of goods or services with a value of more than five hundred thousand dollars (\$500,000), other than those Contracts that can be terminated without penalty upon not more than ninety (90) days' notice;

(ii) interconnection agreements;

(iii) Contracts with Global Nuclear Fuel – Americas, LLC entered into in connection with the Refueling;

(iv) Contracts (with respect to the Transferred Assets, Assumed Liabilities or the Facility) to which Buyer will be required to separately assume the guaranty obligations of a Seller Entity of another Person or indebtedness of a Seller Entity at the Closing;

(v) Site MOUs;

(vi) DOE Standard Contract;

(vii) Fourth Amendment and Restatement of Contract UD-3S for the Sale of Power to Long Island Lighting Company d/b/a LIPA, dated as of December 17, 2014, by and between Long Island Lighting Company d/b/a LIPA and Entergy Nuclear Power Marketing, LLC; and

(viii) material Contracts with any Governmental Authority (excluding any Permit or Site MOU, any Related Agreement or any other Agreement referenced in Section 3.07(c) to the extent NYPA is a party thereto).

(b) True and correct copies of all Material Contracts and Emergency Preparedness Agreements have been made available to Buyer, including all amendments, supplements and modifications thereto and waivers thereunder that are currently in effect.

Enclosure 4 (Page 25 of 98)

(c) Prior to the date of this Agreement, true and correct copies (or copies of execution drafts) of the Available Funds L/C, the Available Funds Agreement, the Trust Fund Transfer Agreement (and all related agreements), the Procured Nuclear Fuel Purchase Agreement (as defined in the Reimbursement Agreement) and the Prior Acquisition Agreement have been made available to Buyer, including all amendments, supplements and modifications thereto and waivers thereunder that are currently in effect.

(d) Except as would not, and would not reasonably be expected to, have a Seller Material Adverse Effect, (i) each Material Contract and Emergency Preparedness Agreement is a valid, binding and legally enforceable obligation of the applicable Seller Entity, as a party thereto, and, to the Knowledge of Seller, of the other parties thereto, subject in all respects to the Bankruptcy and Equity Exceptions, (ii) to the Knowledge of Seller, each Material Contract and Emergency Preparedness Agreement is in full force and effect, (iii) the applicable Seller Entity, as a party thereto, is not (with or without notice or lapse of time or both) in breach or default under any such Material Contract or Emergency Preparedness Agreement and, to the Knowledge of Seller, no other party to such Material Contract or Emergency Preparedness Agreement is (with or without notice or lapse of time, or both) in breach or default thereunder, and (iv) to the Knowledge of Seller, no event or circumstance has occurred that, with notice or lapse of time or both, would constitute a breach or default under any Material Contract or result in a termination thereof (other than an expiration at the end of the scheduled term thereof).

(e) For the avoidance of doubt, with respect to the Contracts with Global Nuclear Fuel – Americas, LLC, the representations and warranties set forth in Section 3.07(b) and Section 3.07(d) shall only be deemed made at Closing.

Section 3.08 Real Estate.

(a) Section 3.08(a) of the Seller Disclosure Schedule sets forth a description of, and exhibits indicating the location of, the Real Property.

(b) Seller or, as applicable, each Other Seller Entity has good and valid fee title to the Real Property, in each case free and clear of all Liens except (i) Permitted Liens; and (ii) Liens set forth on Section 3.08(b) of the Seller Disclosure Schedule. Copies of any recent surveys, title insurance policies, zoning reports, estoppels and subordination, non-disturbance and attornment agreements in Seller's or any applicable Other Seller Entity's possession with respect to the Real Property have been made available to Buyer.

(c) The Real Property has means of access, ingress and egress for automobiles and trucks to and from public highways, access to, and use of public utilities, in each case adequate and sufficient in all material respects, with respect to each contiguous group of parcels of the Real Property as well as all of the Real Property in the aggregate to permit the Facility to be operated following the Closing in all material respects as it is currently being operated.

(d) Neither Seller nor any of the Other Seller Entities is obligated under any outstanding option, right of first offer, right of first refusal, put option, equity participation right or other contractual right to offer, purchase, acquire, lease, license, sell, assign

or dispose of, or to grant or create any Lien on or affecting any portion of any of the Real Property in favor of any Person, except as set forth in Section 3.08(d) of the Seller Disclosure Schedule. Except for Seller or the Other Seller Entities, no Person has any right to use, lease, sublease, license, possess or occupy any portion of the Real Property and there are no oral or written agreements between Seller or Other Seller Entities and any other Person providing such Person the right to use, occupy or possess all or any portion of any of the Real Property (except as set forth in Section 3.08(d) of the Seller Disclosure Schedule).

(e) Neither Seller nor, solely with respect to the Facility, any Other Seller Entity, leases or subleases any real property.

Section 3.09 Title to Assets.

(a) Except as set forth on Section 3.09 of the Seller Disclosure Schedule, each Seller Entity has, and (except for assets sold or otherwise disposed of in compliance with Section 5.01 after the date of this Agreement) on the Closing Date shall have, good and valid title to, or a valid leasehold interest in, a license for or a right to use the Transferred Assets, free and clear of all Liens except for Permitted Liens.

(b) At the Closing, Buyer will acquire (i) good and valid title to all Real Property owned by the Seller Entities and property listed on Schedule 3.09(b) and (ii) a valid lease, license or other right to use all Real Property leased or licensed by the Seller Entities.

(c) The Seller Entities own, among other property, the property at or on the Sites listed on Schedule 3.09(c).

Section 3.10 Sufficiency of Assets.

(a) Except as set forth on Section 3.10(a) of the Seller Disclosure Schedule and except for any asset or property the benefit of which was provided by a Contract that Buyer elected not to assume pursuant to Section 2.01(n) or Section 2.02(l), as of the Closing, and, when taken together with the services to be made available pursuant to the Transition Services Agreement, the Transferred Assets will constitute all of the material tangible assets and properties used or held for use in the ownership or operation of the Facility and (ii) at the Closing, Buyer will acquire all of each Seller Entity's right, title and interest in and to the Transferred Assets and, together with the services to be made available pursuant to the Transition Services Agreement and all assets contributed to Seller pursuant to Section 5.11, will have sufficient tangible property and assets to own and operate the Facility immediately after the Closing in all material respects as conducted during the twelve (12) months prior to the Closing Date and will have all tangible property and assets necessary to own and operate the Facility immediately after the Closing in all material respects as conducted during the twelve (12) months prior to the Closing Date.

(b) Except as set forth on Section 3.10(b) of the Seller Disclosure Schedule, or as set forth in the operating logs of Seller for the months of February 2016 through July 2016 reviewed by Buyer at the Facility on August 6, 2016, which are expressly described in and deemed incorporated into Section 3.10(b) of the Seller Disclosure Schedule by reference, to Seller's Knowledge, there are no material defects in the physical condition of any material

Enclosure 4 (Page 27 of 98)

Improvements that constitute a part of the Real Property.

Section 3.11 Employee Benefit Matters.

(a) Section 3.11(a) of the Seller Disclosure Schedule contains a list, as of the date of this Agreement, of each Seller Benefit Plan. With respect to each Seller Benefit Plan, Seller has made available to Buyer copies of such Seller Benefit Plan and any amendments thereto and, as applicable, (i) the most recent summary plan description and any summaries of material modifications thereto, (ii) any trust, insurance, annuity or other funding Contract related thereto, (iii) the most recent financial statement and actuarial or other valuation report prepared with respect thereto and (iv) with respect to each Seller Benefit Plan that is intended to be qualified under Section 401(a) of the Code, the most recent determination letter received from the IRS.

(b) Except as set forth on Section 3.11(b) of the Seller Disclosure Schedule, No Seller Benefit Plan is a multiemployer plan (as defined in Section 3(37) of ERISA) or is subject to Title IV of ERISA or Section 302 of ERISA. No Liability under Title IV of ERISA has been incurred by Seller or any ERISA Affiliate that has not been satisfied in full when due, and no condition exists that is reasonably likely to present a material risk to Buyer or its Affiliates of incurring a Liability under Title IV of ERISA in respect of any Seller Entity Plan.

(c) Section 3.11(c) of the Seller Disclosure Schedule contains a list, as of the date of this Agreement, of each Seller Benefit Plan that provides to any Business Employee medical, dental, vision or life benefits after retirement or other termination of employment (other than as required under COBRA).

(d) There is no pending or, to the Knowledge of Seller, threatened Claim relating to any Seller Benefit Plan (other than routine claims for benefits). There is no audit, inquiry or examination pending or, to the Knowledge of Seller, threatened by the IRS, the Department of Labor, the Pension Benefit Guaranty Corporation or any other Governmental Authority with respect to any Seller Benefit Plan. Each Seller Benefit Plan that is intended to be qualified within the meaning of Section 401(a) of the Code, has received a favorable determination letter as to its qualification, and to Seller's Knowledge no events have occurred and no condition exists that could reasonably be expected to result in the revocation of such determination letter or otherwise materially adversely affect any such plan's qualified status. Except as could not reasonably be expected to result in any Liability (including contingent liability) to Buyer or any of its Affiliates (for these purposes, not taking into account Section 2.04 of this Agreement), each Seller Benefit Plan has been in all material respects maintained and operated in conformity with the terms of such Seller Benefit Plan and with all applicable Laws, including the Code and ERISA.

(e) Except as would not result in any Liability to Buyer or its Affiliates, the consummation of the transactions contemplated by this Agreement and the Related Agreements, whether alone or together with any other event, will not (i) entitle any Business Employee to any additional payment, compensation or benefit or (ii) accelerate the time of payment, funding or vesting of, or increase the amount of, compensation otherwise due any Business Employee.

Notwithstanding any provision of this Agreement to the contrary, the representations and warranties in this Section 3.11 are the sole and exclusive representations relating to employee benefit matters, including compliance with ERISA.

Section 3.12 Labor.

(a) Section 3.12(a) of the Seller Disclosure Schedule sets forth a list of all CBAs. Except as set forth on Section 3.12(a) of the Seller Disclosure Schedule, (i) no union certification or decertification proceeding has been filed before any Governmental Authority and, to the Knowledge of Seller, no union authorization card campaign or other union organizing activity has been conducted relating to the Business Employees since January 1, 2015, and (ii) since January 1, 2015, there have been no strikes, lockouts or other material labor stoppages involving the Business Employees with respect to the Transferred Assets or the Facility nor are any strikes, lockouts or other labor stoppages pending or, to the Knowledge of Seller, threatened with respect to the Transferred Assets or the Facility.

(b) Except as disclosed in Section 3.12(b) of the Seller Disclosure Schedule or as would not have a Seller Material Adverse Effect, with respect to each Business Employee, as applicable, (i) there are no Claims, investigations, audits or grievances pending or, to the Knowledge of Seller, threatened against any Seller Entity by or before any Governmental Authority or arbitrator by or on behalf of any current or former director, officer, employee, consultant or independent contractor of Seller or (solely with respect to current and former directors, officers, employees, consultants or independent contractors providing services with respect to the operation of the Facility) the Other Seller Entities or pertaining to labor or employment matters arising out of operation of the Facility and (ii) Seller and each Other Seller Entity is, and since January 1, 2015, has been, in compliance in all respects with Law and CBAs respecting labor and employment.

(c) Section 3.12(c) of the Seller Disclosure Schedule sets forth a list of each Business Employee who is not a United States citizen or permanent resident (i.e., green card holder), and has not been granted refugee/asylee status by the United States and for each such Business Employee, Section 3.12(c) of the Seller Disclosure Schedule identifies the country(ies) in which the individual is a citizen or foreign national and indicates whether each such Business Employee is working under a general authorization or a specific authorization from the Department of Energy under the export control regulations promulgated by the Department of Energy at 10 C.F.R. Part 810.

Notwithstanding any provision of this Agreement to the contrary, the representations and warranties in this Section 3.12 are the sole and exclusive representations relating to labor matters, including compliance with any CBAs.

Section 3.13 Nuclear Matters; Plant and Equipment. Except as set forth on Section 3.13 of the Seller Disclosure Schedule:

(a) Seller, ENOI and any applicable Other Seller Entity, with respect to the Facility, are, and since January 1, 2015, have been, in material compliance with all nuclear Laws and Orders of the NRC.

Enclosure 4 (Page 29 of 98)

(b) There are no Claims, audits or investigations pending or, to the Knowledge of Seller, threatened against Seller, ENOI or any applicable Other Seller Entity, with respect to the Facility, alleging any material violation of, or material liability under, any nuclear Laws, the NRC License or any Permit applicable to the ownership and operation of the Facility that is issued by the NRC.

(c) Seller (together with ENOI) holds (i) the NRC License and (ii) all Permits applicable to the ownership and operation of the Facility that are issued by the NRC, and is in compliance in all material respects with the NRC License and each such Permit. Seller has not received any written notification by the NRC which remains unresolved that Seller or ENOI, with respect to the Facility, is in material violation of the NRC License, any such Permit or any order, rule, regulation or decision of the NRC with respect to the Facility.

(d) The Facility conforms in all material respects to the technical specifications included in the NRC License in accordance with the requirements of 10 C.F.R. §50.36 and the Final Safety Analysis Report, as updated, that is required to be maintained for the Facility in accordance with the requirements of 10 C.F.R. §50.71(e), and is being operated in all material respects in conformance with all applicable requirements under the Atomic Energy Act, the Energy Reorganization Act, and the rules, regulations, Orders and licenses issued thereunder.

Notwithstanding any other provision of this Agreement, this Section 3.13 contains the exclusive representations and warranties of Seller concerning the NRC License and any Permit, certificate, license, consent, approval, exemption, registration or similar authorization issued by the NRC.

Section 3.14 Reports. Except as set forth on Section 3.14 of the Seller Disclosure Schedule, since January 1, 2015, Seller and its Affiliates (including the Other Seller Entities) have filed or caused to be filed with the NRC, DOE, FERC, NERC and any other applicable state or local utility commission or regulatory body or enforcement organization, as the case may be, all material forms, statements, reports, notices and documents (including all exhibits, amendments and supplements thereto) (together, the "Reports") required to be filed by Seller or any of its Affiliates (including the Other Seller Entities) with respect to the Transferred Assets or the ownership or operation of the Facility under Laws, including the Federal Power Act, the PUHCA, the Atomic Energy Act, the Energy Reorganization Act and the Price-Anderson Act and the respective rules and regulations thereunder, except for such filings the failure of which to make would not, individually or in the aggregate, have a Seller Material Adverse Effect. All such filings complied in all material respects with all applicable requirements of Law in effect on the date each such Report was filed. Neither Seller nor its Affiliates (including the Other Seller Entities) has received any written notification which remains unresolved that any of such filings is not in compliance with the applicable requirements of Law.

Notwithstanding any other provision of this Agreement, the representations and warranties in this Section 3.14 are the sole and exclusive representations and warranties relating to the Reports.

Section 3.15 Regulation as a Utility.

(a) Seller meets the requirements for, and has filed a self-certification with FERC or been found by FERC to be, an "exempt wholesale generator" within the meaning of PUHCA.

(b) Seller has received authorization from FERC to sell electric energy, capacity and ancillary services at market-based rates under a filed tariff in a Final Order no longer subject to rehearing or appeal and has been granted such waivers and blanket authorizations (including blanket authorization to issue securities and to assume liabilities under Section 204 of the Federal Power Act, as amended, and Part 34 of FERC's regulations) as are customarily granted to entities with market-based rate authority.

(c) Seller is not a "holding company" within the meaning of PUHCA.

Section 3.16 Environmental Matters.

(a) Except as disclosed in Section 3.16(a) of the Seller Disclosure Schedule or as would not have a Seller Material Adverse Effect:

(i) each of Seller, the Sites and the Facility are, and have been since January 1, 2015, in compliance with all Environmental Laws;

(ii) there are no Claims pending or, to the Knowledge of Seller, threatened against Seller, the Sites or the Facility alleging any violation of, or Liability under, any Environmental Law;

(iii) neither Seller nor the Sites are subject to any Order requiring the Remediation of any Hazardous Substance under any Environmental Law at or emanating from the Sites or the Facility;

(iv) there has been no release of any Hazardous Substance at the Sites or the Facility that would reasonably be expected to be the subject of any Claim against Seller, the Sites or the Facility or otherwise result in Liability to Seller;

(v) (A) Seller holds all Environmental Permits necessary for the operation of the Sites and the Facility, (B) all such Environmental Permits are in full force and effect and are final and nonappealable and (C) no Claim to revoke, limit or modify any of such Environmental Permits has either been served upon Seller, or is, to the Knowledge of Seller, threatened;

(vi) there are no capital expenditures required at the Facility or at any Site in order to meet any current or pending requirement of any Environmental Law that are not reflected in the operating budget of the Facility made available to Buyer prior to the date of this Agreement; and

(vii) all environmental audits or assessments and

Enclosure 4 (Page 31 of 98)

environmental reports, investigations or studies conducted on or after January 1, 2015 relating to the Sites or the Facility which are in the possession or control of Seller or any of its Affiliates have been made available to Buyer prior to execution of this Agreement.

Notwithstanding any provision of this Agreement to the contrary, the representations and warranties in this Section 3.16 are the sole and exclusive representations relating to environmental matters, including compliance with any Environmental Law or Environmental Permits or the use, generation, treatment, storage, disposal, release or handling of Hazardous Substances.

Section 3.17 Condemnation. Except as set forth on Section 3.17 of the Seller Disclosure Schedule or any proceeding therefor, which would not be material, no Seller Entity has received written notice from any Governmental Authority of any pending or threatened proceeding to condemn or take by power of eminent domain or otherwise, by any Governmental Authority, all or any part of the Transferred Assets or the Facility.

Section 3.18 Taxes. Except as set forth on Section 3.18 of the Seller Disclosure Schedule, the Seller Entities have filed all Tax Returns that are required to have been filed with respect to the ownership or operation of the Facility and the Transferred Assets, and have paid any Taxes that have become due with respect to the Facility or the Transferred Assets (whether or not shown in any Tax Return). All such Tax Returns are complete and accurate and disclose all Taxes required to be paid in respect of the Facility and the Transferred Assets. No Seller Entity is currently the beneficiary of any extension of time within which to file any such Tax Return, and has not waived any statute of limitations in respect of Taxes associated with the Facility or the Transferred Assets, which waiver is currently in effect. There is no action, suit, investigation, audit, Claim or assessment pending, proposed or threatened with respect to Taxes associated with the Facility or the Transferred Assets, and to Seller's Knowledge, no basis exists therefor. There are no Liens for Taxes upon the Transferred Assets or the Facility except for Permitted Liens. All monies required to be withheld by any Seller Entity (including from employees of the Facility for income Taxes and social security and other payroll Taxes) have been collected or withheld, and either paid to the respective Taxing Authorities, set aside in accounts for such purpose, or accrued, reserved against and entered upon the books of the Facility. None of the Transferred Assets or the Facility is properly treated as owned by Persons other than the Seller Entities for income Tax purposes. There is no unpaid Tax on any Seller Entity's ownership, operation or use of the Transferred Assets or the Facility for which Buyer could become liable.

Section 3.19 JAF NDT.

Notwithstanding anything to the contrary in this Agreement, the representations and warranties set forth in this Section 3.19 (other than the representations and warranties in Section 3.19(h)) shall only be made by Seller as of the Closing Date.

(a) JAF NDT is a trust validly existing under the laws of the jurisdiction of its formation that is authorized to and does include the Qualified Decommissioning Fund and the Non-Qualified Decommissioning Fund. Since the Fund

Enclosure 4 (Page 32 of 98)

Transfer Date, Seller has maintained the Qualified Decommissioning Fund and the Non-Qualified Decommissioning Fund in accordance with all terms and requirements of the JAF NDT Agreement and all applicable rules, regulations, approvals and Orders of the NRC and any other Governmental Authority. Since the creation of the Qualified Decommissioning Fund, Seller has maintained such fund in accordance with all requirements of Code §468A and the Treas. Reg. §§1.468A-1 through 1.468A-9.

(b) Since the Fund Transfer Date, Seller has not requested a schedule of ruling amounts pursuant to §468A(a) of the Code and Treas. Reg. §1.468A-3 ("Schedule of Ruling Amounts") from the IRS concerning the Facility and Seller has not made any contribution to its Qualified Decommissioning Fund pursuant to a Schedule of Ruling Amounts, except as otherwise contemplated by this Agreement.

(c) There are no (i) Liabilities, including any acts of "self-dealing" as defined in Treas. Reg. §1.468A-5(b)(2) or agency or other Claims that would materially affect the financial position of the Qualified Decommissioning Fund or (ii) Liens for income Tax upon the assets of the Qualified Decommissioning Fund (other than Permitted Liens).

(d) The Qualified Decommissioning Fund is, and always has been since the Fund Transfer Date, a "Nuclear Decommissioning Reserve Fund" within the meaning of §468A of the Code that meets the requirements of a "qualified nuclear decommissioning fund" pursuant to Treas. Reg. §§1.468A-1 through 1.468A-9, and specifically §1.468A-5.

(e) The Qualified Decommissioning Fund has filed or, as of the Closing Date, will have timely filed all material Tax Returns required to be filed by it prior to the Closing Date (taking into account all applicable extensions of time within which to file) with respect to all taxable periods ending prior to the Closing Date, including returns for estimated income Tax.

(f) There are no (i) Liabilities or agency or other Claims that would materially affect the financial position of the Non-Qualified Decommissioning Fund or (ii) Liens for income Tax upon the assets of the Non-Qualified Decommissioning Fund other than Permitted Liens.

(g) Neither the trustee of the JAF NDT nor Seller has received a notice of deficiency or assessment from any Taxing Authority during the period after the Fund Transfer Date. There are no outstanding agreements or waivers extending the applicable statutory periods of limitations for any income Tax associated with the Qualified Decommissioning Fund for any period.

(h) Seller has made available to Buyer on the date hereof a copy of the trustee valuation report, provided by NYPA to Seller, of the Fund Assets Market Value of the Facility as of the date specified in such report. To Seller's Knowledge, the Fund Assets Market Value as of the date specified in each such report is accurate. To Seller's Knowledge, the Fund Asset Market Value contained in the Fund Market Value Documentation to be delivered at Closing is accurate as of the date specified in such report.

Section 3.20 Insurance. Seller has made available to Buyer true and correct

Enclosure 4 (Page 33 of 98)

copies of all material insurance policies related to the Facility, the Transferred Assets or the Assumed Liabilities (collectively, the "Insurance Policies"). The Insurance Policies are in full force and effect on the date of this Agreement and there are no outstanding unpaid premiums with respect thereto. As of the Business Day immediately prior to the date of this Agreement, there is no material Claim by Seller or any of its Affiliates pending under the Insurance Policies with respect to the Facility, the Transferred Assets or the Assumed Liabilities as to which coverage has been denied or disputed by or on behalf of the underwriters of the Insurance Policies. As of the Business Day immediately prior to the date of this Agreement, no insurance with respect to the Facility, the Transferred Assets or the Assumed Liabilities has been refused, no coverage with respect to the Facility, the Transferred Assets or the Assumed Liabilities has been limited by any insurance carrier to which Seller or any of its Affiliates has applied for any such insurance during the past three (3) years, and all required notices have been sent to insurers to preserve all material claims under the Insurance Policies.

Section 3.21 Intellectual Property. Section 3.21(i) of the Seller Disclosure Schedule lists the registrations and applications for Intellectual Property that are owned by Seller and included in the Transferred Assets. Up to the Closing, and except as set forth on Section 3.21(ii) of the Seller Disclosure Schedule, Seller and the Other Seller Entities own or possess valid and fully paid-up licenses or other valid rights to use all Intellectual Property reasonably necessary for the operation of the Facility, except where the failure to do so would not have and would not reasonably be expected to have a Seller Material Adverse Effect. Except as would not have and would not reasonably be expected to have a Seller Material Adverse Effect, (a) neither Seller nor any Other Seller Entity has received any written notice or other written communication that Seller or any Other Seller Entity with respect to the ownership and operation of the Facility is infringing any Intellectual Property of any other Person and (b) to the Knowledge of Seller, (i) no Person is infringing upon any Intellectual Property of Seller or any Other Seller Entity and (ii) the operation and maintenance of the Facility and the Transferred Assets, as presently operated and maintained, up to the Closing does not infringe or otherwise violate any Intellectual Property rights of any other Person.

Section 3.22 Broker Fees. Except as set forth on Section 3.22 of the Seller Disclosure Schedule, neither Seller nor any of its Affiliates (including the Other Seller Entities) has any Liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement for which Buyer could become liable or obligated.

Section 3.23 Seller Guarantee. On the Closing Date, the Seller Guarantee will be in full force and effect and constitute (assuming the due execution of this Agreement and the Related Agreements by the Parties) a valid and legally binding obligation of Seller Guarantor, enforceable against Seller Guarantor in accordance with its terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions. On the Closing Date, no event will have occurred which, with or without notice, lapse of time or both, would constitute a default on the part of Seller Guarantor under the Seller Guarantee.

Section 3.24 Credit Support. Section 3.24 of the Seller Disclosure Schedule sets forth, as of the date of this Agreement, any form of credit support, financial assurance or financial guarantee, in each case, in excess of one million dollars (\$1,000,000) with any Third

Party to which Seller or any of its Affiliates is a party or otherwise providing with respect to the Facility or the Transferred Assets. Except as set forth on Section 3.24 of the Seller Disclosure Schedule, the aggregate amount of all such forms of support, assurances and guarantees does not exceed ten million dollars (\$10,000,000) in the aggregate.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF BUYER

Buyer hereby represents and warrants to Seller, solely with respect to itself, that, as of the date of this Agreement and as of the Closing Date (except in each case to the extent any representation or warranty speaks expressly as of a different date), and except as set forth on the disclosure schedule delivered by Buyer to Seller concurrently herewith (the "Buyer Disclosure Schedule"), as follows:

Section 4.01 Organization; Qualification. Buyer is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Pennsylvania and has all requisite limited liability company power and authority to carry on its business as it is now being conducted. Buyer is duly qualified or licensed to do business in each other jurisdiction in which the nature of the business conducted by it, and in which the actions required to be performed by it hereunder, make such qualification or licensing necessary, except where the failure to be so qualified or licensed would not have a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction.

Section 4.02 Authorization.

(a) The execution, delivery and performance by Buyer of this Agreement, any Related Agreements to which it is a party, and any other agreements and instruments to be delivered hereunder or thereunder to which it is a party, and the consummation by Buyer of the Transaction and the other transactions contemplated hereunder and thereunder, have been duly authorized by all necessary limited liability company action on the part of Buyer. This Agreement has been duly executed and delivered by Buyer and, assuming due authorization and delivery by Seller, this Agreement constitutes a valid and binding obligation of Buyer enforceable against Buyer in accordance with its terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions.

(b) Each Signing Related Agreement to which Buyer is a party has been duly executed and delivered by Buyer and, assuming due authorization and delivery by the other parties thereto, each such Signing Related Agreement constitutes a valid and binding obligation of Buyer enforceable against Buyer in accordance with its respective terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions. Each other Related Agreement to which Buyer is a party, when entered into at the times provided for in this Agreement, will be at such time duly executed and delivered by Buyer and, assuming due authorization and delivery by the other parties thereto, each such other Related Agreement will constitute a valid and binding obligation of Buyer enforceable against Buyer in accordance with its respective terms, except as enforceability may be limited by the Bankruptcy and Equity Exceptions.

Section 4.03 Consents and Approvals; No Violation.

(a) No Consent of, or Filing with, any Governmental Authority is required to be obtained or made which has not been obtained or made by Buyer in connection with the execution, delivery and performance of this Agreement, the Related Agreements, or the other agreements and instruments to be delivered hereunder or thereunder by Buyer or the consummation by Buyer of the Transaction or the other transactions contemplated hereby and thereby, other than (a) the Consents and Filings set forth on Section 4.03(a) of the Buyer Disclosure Schedule (the "Buyer Required Consents" and, together with the Seller Required Consents, the "Required Consents") and (b) the Consents and Filings the failure of which to obtain or make would not have a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction.

(b) Assuming that all Buyer Required Consents have been timely made, obtained or given, as applicable, the execution, delivery and performance of this Agreement, the Related Agreements and the other agreements and instruments to be delivered hereunder or thereunder by Buyer do not, and the consummation by Buyer of the Transaction and the other transactions contemplated hereunder and thereunder will not (with or without notice or lapse of time, or both), conflict with, or result in any violation of or default under, or give rise to a right of termination, cancellation or acceleration of any obligation to or loss of a benefit under any provision of (a) the Organizational Documents of Buyer, (b) any Law to which Buyer is subject or by which any property or asset of Buyer is bound or affected except, in the case of clause (b), as would not have a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction.

Section 4.04 Absence of Certain Changes or Events. Except as contemplated by this Agreement and as set forth on Section 4.04 of the Buyer Disclosure Schedule, since January 1, 2015, there has not been: (a) any change or development that has had or would reasonably be expected to cause a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction or (b) any damage, destruction or casualty loss, whether or not covered by insurance, which, individually or in the aggregate, has had or would reasonably be expected to cause a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction. All of the equity and voting interests of Buyer are indirectly owned by Exelon Corporation.

Section 4.05 Litigation. Except as set forth on Section 4.05 of the Buyer Disclosure Schedule (i) there are no Claims pending or, to Buyer's Knowledge, threatened before any Governmental Authority which, individually or in the aggregate, could reasonably be expected to have material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction; (ii) Buyer is not subject to any outstanding Order which, individually or in the aggregate, could reasonably be expected to cause a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction or the transactions contemplated by the Related Agreements; and (iii) Buyer has not received any written notification that it is in violation of any Laws or Permits, except for notifications of violations which could not, individually or in the aggregate, reasonably be expected to cause a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Transaction or the transactions contemplated by the Related Agreements.

Section 4.06 Available Funds; Source of Funds. Buyer has, and shall have at Closing, sufficient cash or other sources of immediately available funds to pay in cash the Purchase Price in accordance with Article II and for all other actions necessary for Buyer to consummate the Transaction and perform its obligations under this Agreement or any Related Agreement to which it is a party. All funds paid and to be paid to Seller shall not have been derived from, or constitute, either directly or indirectly, the proceeds of any criminal activity under the anti-money laundering laws of the U.S.

Section 4.07 Regulation; Qualified Buyer.

(a) As of the Closing Date, Buyer will be regulated as a "public utility" under the Federal Power Act and be authorized by FERC pursuant to §205 of the Federal Power Act to make such sales at market-based rates.

(b) Buyer is qualified, or will be qualified as of the Closing Date, to obtain and hold any Permits and Environmental Permits necessary for Buyer to own and operate the Transferred Assets as of the Closing Date, to the extent such operation is either required by this Agreement, or is contemplated by Buyer.

(c) Buyer is a "holding company" within the meaning of PUHCA.

Section 4.08 No Foreign Ownership or Control. Buyer conforms to the restrictions on foreign ownership, control or domination contained in §§103d and 104d of the Atomic Energy Act, as applicable, and the NRC's regulations in 10 C.F.R. §50.38. Buyer is not currently owned, controlled or dominated by a foreign entity and will not become owned, controlled or dominated by a foreign entity before the Closing Date.

Section 4.09 Broker Fees. Except as set forth on Section 4.09 of the Buyer Disclosure Schedule, neither Buyer nor any of its Affiliates has any Liability or obligation to pay any fees or commissions to any broker, finder or agent with respect to the transactions contemplated by this Agreement for which Seller could become liable or obligated.

ARTICLE V

COVENANTS

Section 5.01 Conduct of Business Pending the Closing.

(a) During the Interim Period, except (1) as required or expressly permitted by the provisions of this Agreement or any Related Agreement, (2) as set forth on Schedule 5.01(a), (3) as may be required under Law or Order or as reasonably required in response to any operational emergencies, equipment failures, repairs or immediate and material threats to the health and safety of natural Persons or (4) with the prior written consent of Buyer (which consent shall not be unreasonably withheld, conditioned or delayed), Seller shall (and shall cause its Affiliates to with respect to any Transferred Assets, the Assumed Liabilities and the Facility) (A) operate and maintain the Facility in the ordinary course of business in accordance with past practice and prudent industry practice and (B) use its Commercially Reasonable Efforts to preserve, maintain and protect the Transferred Assets and the Facility and

Enclosure 4 (Page 37 of 98)

preserve the goodwill and relationships with the Business Employees and independent contracts with vendors, suppliers and others having business dealings with Seller or its Affiliates in connection with the Facility or the Transferred Assets. Without limiting the foregoing, during the Interim Period, except (w) expressly permitted or required by the provisions of this Agreement or any Related Agreement (including any action permitted or required under the Reimbursement Agreement), (x) as set forth on Schedule 5.01(a), (y) as may be required under Law or Order or in response to any operational emergencies, equipment failures, repairs or immediate and material threats to the health and safety of natural Persons or (z) with the prior written consent of Buyer (which consent shall not be unreasonably withheld, conditioned or delayed), Seller shall not (and shall cause its Affiliates not to) with respect to the Transferred Assets, the Assumed Liabilities and the Facility:

(i) make any material change to the operations of the Facility or the levels of Inventories customarily maintained by Seller or at the Sites;

(ii) make any capital expenditures not included in the operating budget of the Facility made available to Buyer prior to the date of this Agreement (except, and without limiting Section 5.01(a)(w), as contemplated in Section 7.03 of the Reimbursement Agreement);

(iii) move Inventory or equipment from the Sites other than sales to Third Parties or the removal of equipment no longer in use, in each case, in the ordinary course of business consistent with past practice;

(iv) waive, release, assign, settle or compromise any material Claim by or against Seller or any Affiliate of Seller (the extent such Claim relates to the Sites or the Transferred Assets or Assumed Liabilities) or otherwise to the extent such Claim relates to the Sites, except waivers, releases, assignments, settlements or compromises that (A) relate solely to the payment of monetary damages that will be satisfied by Seller or (B) relate solely to an Excluded Liability;

(v) enter into any Contract that would constitute a Material Contract if entered into prior to the date of this Agreement or is a type of Contract contemplated in the definition of Material Contracts, except for any Material Contract (1) that does not impose any Liability on Buyer or any of its Affiliates after the Closing, or can be terminated by Buyer after the Closing without penalty upon not more than ninety (90) days' notice (2) that relates solely to an Excluded Asset or Excluded Liability or (3), without limiting Section 5.01(a)(w), as contemplated in the Reimbursement Agreement;

(vi) further modify the JAF NDT Agreement after Seller receives the JAF NDT from ENOI, other than (A) to transfer the assets of the Non-Qualified Decommissioning Fund into the Qualified Decommissioning Fund, at the direction of Buyer, and (B) to take actions necessary to, at the direction of Buyer, (1) invest the cash in the Qualified Decommissioning Fund

and (2) rebalance the assets remaining in the Non-Qualified Decommissioning Fund after assets have been transferred to the Qualified Decommissioning Fund;

(vii) sell, lease, transfer, convey, abandon, cancel or otherwise dispose of any of the Transferred Assets or the Facility, other than in the ordinary course of business consistent with past practice;

(viii) encumber, pledge, mortgage or suffer to be imposed on any of the Transferred Assets or the Facility any Lien other than (i) Permitted Liens or (ii) Liens caused or required to be imposed by any Governmental Authority;

(ix) enter into any commitment for the purchase of Nuclear Fuel or make any material modifications to any Contracts with respect to the purchase or delivery of Nuclear Fuel, except in connection with the Refueling;

(x) enter into any power sales agreements (or similar) with terms extending beyond Closing;

(xi) terminate, amend, supplement, modify or renew any of the Material Contracts, Emergency Preparedness Agreements or Permits;

(xii) move to the Sites any nuclear materials, except as required in connection with the Refueling;

(xiii) modify, increase or accelerate the amount, vesting or payment of any compensation or employee benefits to be paid or provided to any Business Employee, except for annual merit-based or promotion-based pay increases in the ordinary course of business, consistent with past practice, or as required by Law, any Seller Benefit Plan or an applicable CBA;

(xiv) hire any new Business Employees or recall any Business Employee on layoff as of the date hereof, except the hiring of a new Business Employee for a position included on the organization chart made available by Seller to Buyer which hiring (A) uses screening and other hiring procedures in the ordinary course of business consistent with past practice and (B) is for a position that is below the department head level;

(xv) permit or cause any individual to alter his or her status as, or as not, a Business Employee by transferring (A) positions or (B) between Seller and any of its Affiliates (including the Other Seller Entities);

(xvi) except as required by Law or an applicable CBA adopt, amend or terminate any Seller Benefit Plan (or any employee benefit plan that would be a Seller Benefit Plan if in effect on the date hereof) (other than amendments to broad-based Seller Benefit Plans that are applicable to all employees of Entergy and its Affiliates that participate in such Seller Benefit Plan or amendments to Seller Benefit Plans that do not increase the level of

compensation and benefits payable to any Business Employee under such Seller Benefit Plan);

(xvii) fail to make Commercially Reasonable Efforts to pursue currently pending regulatory approvals and Permit applications, approvals and renewals relating to the Transferred Assets that are reasonably necessary to operate the Facility; or

(xviii) enter into any agreement or commitment to do any of the foregoing.

(b) During the Interim Period, notwithstanding anything to the contrary contained in this Agreement and for the avoidance of doubt, Seller and ENOI, as the licensed owner and operator of the Facility, shall retain the exclusive responsibility for safe operation of the Facility and nothing in this Agreement shall prevent Seller and ENOI from fulfilling any duties or obligations in connection with the ownership or operation of the Facility under Law, any NRC Orders or the NRC License.

Section 5.02 Publicity. During the Interim Period, no Party or its respective Affiliates shall make any public announcement or issue any public communication regarding this Agreement, the Related Agreements and the transactions contemplated hereby or thereby without the prior written consent of the other Party (which consent shall not be unreasonably withheld, conditioned or delayed), except any such announcement or communication (a) as may be required by Law or the rules and regulations of any applicable national securities exchange (provided that such Party uses its Commercially Reasonable Efforts to coordinate or communicate such announcement or communication with the other Party prior to announcement or issuance) or (b) is consistent with previous announcements or communications made jointly by the Parties or other documents mutually approved by the Parties; provided that each Party or any of its respective Affiliates may make any public statements (i) describing the anticipated benefits of the transactions contemplated by this Agreement and the Related Agreements or (ii) in response to questions by the press, analysts, investors or those attending industry or other conferences or analyst or investor conference calls, in either case, so long as such statements are not inconsistent with previous announcements or communications made jointly by the Parties or other documents mutually approved by the Parties.

Section 5.03 Access to Properties; Access to Information.

(a) During the Interim Period, subject to the terms and conditions of this Section 5.03, and subject to compliance with all nuclear and other Laws and all NRC Orders, Buyer shall be permitted, through its designated Representatives (the "Observers"), to reasonably observe all operations at the Facility, and such observation will be permitted on a cooperative basis in the presence of one or more individuals designated by Seller in order to facilitate an orderly transition of the Transferred Assets and the Facility. Notwithstanding anything in this Section 5.03(a) to the contrary, (i) the Observers may be excluded from access to any material, operations or meeting or portion thereof if Seller determines that such exclusion is reasonably necessary to preserve the attorney-client privilege (provided, that Buyer and Seller shall work in good faith to develop substitute arrangements that do not result in the loss of such privilege) or to

protect confidential or proprietary information or for other similar reasons, but only if Seller reasonably believes that the disclosure of such information to Buyer would be competitively harmful to Seller (and provided, that Buyer and Seller shall work in good faith to develop substitute arrangements that permit Buyer to have access to as much of such information as possible without resulting in competitive harm to Seller) or to not supply Buyer with any information that Seller or its Affiliates is legally prohibited from supplying, (ii) the Observers and their actions shall not unreasonably interfere with the operation of the Facility, and (iii) the number of Observers observing at any particular time and the scheduling and duration of their observation shall be subject at all times to the approval of Seller (which approval shall not be unreasonably withheld, conditioned or delayed). Notwithstanding anything in this Agreement to the contrary, during the Interim Period, Buyer and its Representatives shall not have the right to perform or conduct any environmental sampling or testing at, in, on or underneath the Facility without the prior written consent of Seller (which consent shall not be unreasonably withheld, conditioned or delayed). During the Interim Period, Buyer has the right to obtain an ALTA survey of the Real Property at its sole cost and expense. Upon receipt of such survey, Buyer shall promptly deliver to Seller a complete copy of such survey.

(b) During the Interim Period, subject to the terms and conditions of this Section 5.03, subject to compliance with all nuclear and other Laws and NRC Orders, and subject to approval in advance by Seller or one or more individuals designated by Seller (which approval shall not be unreasonably withheld, conditioned or delayed), (i) Seller shall give to Buyer, through its Representatives, reasonable access to (A) all Books and Records and (B) the employees of Seller and its Affiliates providing services relating to the Facility, upon notice to applicable bargaining representatives, (ii) Seller shall furnish to Buyer such historical financial and operating data and other information with respect to the Transferred Assets and the Facility as Buyer may from time to time reasonably request and (iii) if requested by Buyer, promptly furnish Buyer a copy of each material report, schedule or other document filed or received by it since the date hereof with respect to the Transferred Assets and the Facility with any Governmental Authority. Any such access shall be conducted during regular business hours upon reasonable advance notice and under reasonable circumstances, and shall be subject to restrictions under Law and any confidentiality obligations to which the Seller or any of its Affiliates is bound. Seller shall cause its Representatives to reasonably cooperate with Buyer and Buyer's Representatives in connection with such access and, notwithstanding the foregoing, agrees that meetings between Buyer's Representatives and the labor unions representing the employees of Seller and its Affiliates described above may also occur away from the Facility and outside of regular business hours; provided, that Seller and Buyer shall cooperate to coordinate any such meeting and Representatives of Seller may attend any such meeting. Buyer and Buyer's Representatives shall conduct any activities set forth in this Section 5.03(b) in such a manner as to minimize any disruption to, and to not interfere unreasonably with, the business or operations of Seller or the prompt and timely discharge by the employees of Seller or its Affiliates of their normal duties. Notwithstanding anything to the contrary in this Section 5.03(b), no such investigation or examination shall be permitted to the extent that it would require Seller to disclose (i) information about Seller or any of its Affiliates that Seller reasonably determines to be sensitive, competitive or proprietary, but only if Seller reasonably believes that the disclosure of such information to Buyer would be competitively harmful to Seller or any of its Affiliates (and provided, that Buyer and Seller shall work in good faith to develop substitute arrangements that permit Buyer to have access to as much of such information

Enclosure 4 (Page 41 of 98)

as possible without resulting in competitive harm to Seller or any of its Affiliates); (ii) information regarding any Excluded Assets or Excluded Liabilities (other than personnel records and labor history and negotiation files pertaining to employees to be offered employment in accordance with the Employee Matters Agreement and the union representatives of any such employees, in all cases, upon consent of the affected employee or bargaining representative); (iii) information (but only that portion thereof that is) subject to attorney-client, work product or similar privilege (provided, that Buyer and Seller shall work in good faith to develop substitute arrangements that permit Buyer to have access to as much of such information as possible without resulting in the loss of such privilege); (iv) forecasts that include information relating to Affiliates of Seller or (v) information that Seller or any of its Affiliates is legally prohibited from supplying or contractually prohibited from supplying pursuant to any agreement made available to Buyer prior to the date of this Agreement.

(c) Buyer shall indemnify, defend and hold harmless Seller and its Affiliates, and each of their Representatives, against any and all Claims or Liabilities, including costs and expenses for Indemnifiable Loss, injury to or death of any Representative of Buyer or any other Person, and for any loss, damage to or destruction of any portion of the Facility (or any other property visited by any Representatives) or any other assets of the Seller or its Affiliates, in each case, arising directly out of the rights of Buyer under Section 5.03(a) or Section 5.03(b) or resulting from any action or inaction taken by any of the Representatives of Buyer during any visit to the Facility or any other property of Seller or its Affiliates prior to the Closing Date pursuant to Section 5.03(a) and Section 5.03(b). During any visit to the Facility or any other property of Seller or its Affiliates, Buyer shall, and shall cause its Representatives accessing such Facility or property to, comply in all material respects with all Laws and all of the safety and security procedures of the Seller or its Affiliates that are disclosed in advance to Buyer.

(d) All information furnished to or obtained by Buyer or its Representatives pursuant to this Section 5.03 shall be subject to the Confidentiality Agreement and shall be treated as Evaluation Material (as defined in the Confidentiality Agreement).

(e) For a period of six (6) years after the Closing, Buyer will use Commercially Reasonable Efforts to give Seller, its Affiliates and its and their Representatives access, subject to restrictions under Law and Buyer's internal policies and procedures, to properties transferred to Buyer, Books and Records transferred to Buyer (even if such transferred Books and Records are or become commingled with books and records of Buyer and its Affiliates), and personnel and Representatives of Buyer, as may be reasonably required by Seller or its Affiliates for reasonable business purposes in respect of its ownership of the Transferred Assets (including the Facility) (excluding, for the avoidance of doubt, in connection with any matter that is or would reasonably be expected to become the subject of a dispute with Buyer or with respect to the participation of any personnel or Representative of Seller, any participation that could result in adverse consequences to such personnel or Representative), including to the extent reasonably necessary for the preparation of financial statements, regulatory filings or Tax Returns of Seller or its Affiliates in respect of periods ending on or prior to the Closing, or in connection with any Tax audits or Claims relating solely to the Excluded Liabilities or in connection with any insurance Claim related to any Business Employee; provided, that to the extent the personnel or Representatives of one Party are made available to the other party or its Affiliates or Representatives pursuant to this Section 5.03(e), the other Party shall pay or

reimburse the providing Party for all reasonable expenses which may be incurred by such personnel or Representative in connection therewith, including all reasonable travel, lodging and meal expenses. At Seller's cost and expense, Seller, its Affiliates and its and their Representatives shall be entitled to make copies of the Books and Records to which such Persons are entitled to access pursuant to this Section 5.03(e). Any such access shall be conducted during regular business hours upon reasonable advance notice and under reasonable circumstances, and shall be subject to restrictions under Law. During any visit to the Facility or any other property of Buyer or its Affiliates, Seller shall, and shall cause its Representatives accessing such Facility or property to, comply in all material respects with all applicable Laws and all of the safety and security procedures of Buyer or its Affiliates that are disclosed in advance to Seller. Notwithstanding anything to the contrary in this Section 5.03(e), no such investigation or examination shall be permitted to the extent that it would require Buyer to disclose (i) information (but only that portion thereof that is) subject to attorney-client, work product or similar privilege (provided, that Buyer and Seller shall work in good faith to develop substitute arrangements that permit Seller to have access to as much of such information as possible without resulting in the loss of such privilege); or (ii) information that Buyer or any of its Affiliates is legally prohibited from supplying. Buyer agrees that it shall preserve and keep the Books and Records held by Buyer or any of its Affiliates relating to the Transferred Assets and the Facility prior to the Closing for a period of six (6) years following the Closing Date. Seller shall, and shall cause its Affiliates and Representatives to (i) keep all information and Books and Records accessed pursuant to this Section 5.03(e) confidential, (ii) not disclose such information or Books and Records to any other Person (except where such disclosure, upon the advice of outside counsel, is required by Law and only to the extent required by Law); provided, that Seller or its Affiliates may disclose such information or such Books and Records to its Representatives or other Persons that have a duty of confidentiality (or similar duty or obligation of non-disclosure) to Seller and its Affiliates, but only to the extent such disclosure is required for reasonable business purposes, and (iii) not use such information or Books and Records other than for the express purposes set forth on the first sentence of this Section 5.03(e). Notwithstanding the foregoing, any and all such Books and Records may be destroyed by Buyer after the sixth (6th) anniversary of the Closing Date (or longer if required by Law) if Buyer sends to Seller written notice in accordance with Section 11.02 of its intent to destroy such Books and Records, specifying in reasonable detail the contents of the Books and Records to be destroyed. Such Books and Records may then be destroyed after the sixtieth (60th) day following such notice unless Seller notifies Buyer that Seller desires to obtain possession of such Books and Records, in which event Buyer shall transfer the records to Seller and Seller shall pay all reasonable expenses of Buyer in connection therewith. The provisions of this Section 5.03(e) shall not apply to matters that are the subject of Section 4.5 of the Employee Matters Agreement.

(f) For a period of six (6) years after the Closing, Seller will use Commercially Reasonable Efforts to give Buyer, its Affiliates and its and their Representatives access, subject to restrictions under Law and Seller's internal policies and procedures, to properties retained by Seller, books and records retained by Seller (even if such retained books and records are or become commingled with books and records of Seller and its Affiliates), and personnel and Representatives of Seller, as may be reasonably required by Buyer or its Affiliates for reasonable business purposes in respect of the Facility (excluding, for the avoidance of doubt, in connection with any matter that is or would reasonably be expected to become the subject of a dispute with Buyer or, with respect to the participation of any personnel or Representative of

Enclosure 4 (Page 43 of 98)

Seller, any participation that could result in adverse consequences to such personnel or Representative), including to the extent reasonably necessary for the preparation of financial statements or regulatory filings, or in connection with any Tax audits or Claims relating solely to the Assumed Liabilities; provided, that to the extent the personnel or Representatives of one Party are made available to the other Party or its Affiliates or Representatives pursuant to this Section 5.03(f), the other Party shall pay or reimburse the providing Party for all reasonable expenses which may be incurred by such personnel or Representative in connection therewith, including all reasonable travel, lodging, and meal expenses. At Buyer's cost and expense, Buyer, its Affiliates and its and their Representatives shall be entitled to make copies of the books and records to which such Persons are entitled to access pursuant to this Section 5.03(f). Any such access shall be conducted during regular business hours upon reasonable advance notice and under reasonable circumstances, and shall be subject to restrictions under Law. During any visit to any property of Seller or its Affiliates, Buyer shall, and shall cause its Representatives accessing such Facility or property to, comply in all material respects with all applicable Laws and all of the safety and security procedures of Seller or its Affiliates that are disclosed in advance to Buyer. Notwithstanding anything to the contrary in this Section 5.03(f), no such investigation or examination shall be permitted to the extent that it would require Seller to disclose (i) information (but only that portion thereof that is) subject to attorney-client, work product or similar privilege (provided, that Seller and Buyer shall work in good faith to develop substitute arrangements that permit Buyer to have access to as much of such information as possible without resulting in the loss of such privilege); or (ii) information that Seller or any of its Affiliates is legally prohibited from supplying. Seller agrees that it shall preserve and keep the books and records retained by Seller or any of its Affiliates in connection with this Transaction for a period of six (6) years following the Closing Date. Buyer shall, and shall cause its Affiliates and Representatives to (i) keep all information and books and records accessed pursuant to this Section 5.03(f) confidential, (ii) not disclose such information or books and records to any other Person (except where such disclosure, upon the advice of outside counsel, is required by Law and only to the extent required by Law); provided, that Buyer or its Affiliates may disclose such information or such books and records to its Representatives or other Persons that have a duty of confidentiality (or similar duty or obligation of non-disclosure) to Buyer and its Affiliates, but only to the extent such disclosure is required for reasonable business purposes, and (iii) not use such information or books and records other than for the express purposes set forth on the first sentence of this Section 5.03(f). Notwithstanding the foregoing, any and all such books and records may be destroyed by Seller after the sixth (6th) anniversary of the Closing Date (or longer if required by Law) if Seller sends to Buyer written notice in accordance with Section 11.02 of its intent to destroy such books and records, specifying in reasonable detail the contents of the books and records to be destroyed. Such books and records may then be destroyed after the sixtieth (60th) day following such notice unless Buyer notifies Seller that Buyer desires to obtain possession of such books and records, in which event Seller shall transfer the records to Buyer and Buyer shall pay all reasonable expenses of Seller in connection therewith. The provisions of this Section 5.03(f) shall not apply to matters that are the subject of Section 4.5 of the Employee Matters Agreement.

Section 5.04 Commercially Reasonable Efforts; Consents and Regulatory Approvals.

- (a) During the Interim Period, subject to the terms and conditions of

Enclosure 4 (Page 44 of 98)

this Agreement, each Party agrees to use its Commercially Reasonable Efforts (except where a different efforts standard is specifically contemplated by this Agreement, in which case such different standard shall apply) to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable to consummate and make effective the Transaction and the other transactions contemplated by this Agreement and the Related Agreements in an expeditious manner.

(b) The Parties will use their respective Commercially Reasonable Efforts to obtain the Required Consents, any approvals of parties to any Contracts that are Transferred Assets and any Filings or Consents with or from any Governmental Authority, including by (i) each preparing and filing as soon as practicable (and, in any event, within fifteen (15) days following the date of this Agreement), all necessary filings required to be made with the DOJ and the FTC under the HSR Act to consummate the Transaction, (ii) jointly preparing and filing as soon as practicable (and, in any event, within fifteen (15) days following the date of this Agreement) all necessary filings required to be made with FERC under Section 203 of the Federal Power Act to consummate the Transaction, which shall be submitted to FERC in a form mutually acceptable to the Parties, (iii) each preparing and filing as soon as practicable (and, in any event, within fifteen (15) days following the date of this Agreement) all necessary filings required to be made with the NRC to consummate the Transaction, including an application requesting consent under Section 184 of the Atomic Energy Act for the transfer of any NRC License and approving the transfer of trust funds and amendment of trust fund license conditions necessary to consummate the Transaction, (iv) jointly preparing and filing as soon as practicable (and, in any event within fifteen (15) days following the date of this Agreement) all necessary filings required to be made with the NYPSC to approve the Transaction, (v) making all filings required with the FCC to receive the approval of the FCC for the transfer of control over the FCC licenses that are Transferred Assets, (vi) making all such other Filings or Consents with any Governmental Authority or other Person to obtain the transfer, reissuance or amendment, to the extent necessary, of all applicable Permits and Environmental Permits that are required to be filed or obtained in order to consummate the transactions contemplated hereby and requesting expedited treatment of such Filings, (vii) using their respective Commercially Reasonable Efforts to assure that all such Filings are in material compliance with the requirements of Laws, (viii) using their respective Commercially Reasonable Efforts to furnish the other Party with such necessary information and reasonable assistance as may be reasonably necessary in connection with the preparation of necessary filings or submission of information to any Governmental Authority and consistent with appropriate confidentiality safeguards, (ix) subject to applicable legal limitations and the instructions of any Governmental Authority, keeping each other Party apprised of the status of material matters relating to the completion of the transactions contemplated hereby, including promptly furnishing the other with copies of Filings or other material written communications or correspondence between the Parties, or any of their respective subsidiaries, and any Governmental Authority (or members of their respective staffs) with respect to the transactions contemplated hereby, (x) responding to and complying with, as promptly as reasonably practicable, any request for information or documentary material regarding the transactions contemplated hereby from any relevant Governmental Authority (including responding to any "second request" for additional information or documentary material under the HSR Act as promptly as reasonably practicable), (xi) using their respective Commercially Reasonable Efforts to obtain (A) the prompt expiration or termination of any applicable waiting period and clearance or approval by any relevant Governmental Authority,

including defense against, and (B) the avoidance, elimination and resolution of, any objections or challenges, in court or otherwise, by any relevant Governmental Authority preventing consummation of the transactions (including as may be asserted by the DOJ, FTC, FERC or FCC under the HSR Act, the Sherman Antitrust Act of 1890, as amended, the Clayton Act of 1914, as amended, the Federal Trade Commission Act of 1914, as amended, the Federal Power Act or the Communications Act of 1934, as amended) and (xii) using their respective Commercially Reasonable Efforts to take all commercially reasonable actions necessary to cause all conditions set forth in Article VI to be satisfied as soon as practicable. Buyer shall bear the filing fees associated with any Filings by Buyer or Seller with any Governmental Authority in connection with or otherwise related to the transactions contemplated hereby. Prior to communicating any information regarding Transferred Assets and any Filings or Consents with or from any Governmental Authority to any Governmental Authority (or members of their respective staffs) in written form, to the extent practicable, each Party shall permit counsel for the other Party a reasonable opportunity to review and provide comments on, and consider in good faith the views of the other Party in connection with, any such proposed written communication to any Governmental Authority (or members of their respective staffs) to the extent permitted by Law; provided, that either Party may redact, or otherwise not provide for review, any written communication or Filing to the extent such written communication or Filing contains commercially sensitive information (including any “4(c)” or “4(d)” documents under the HSR Act). In exercising the foregoing rights, each of Seller and Buyer shall act reasonably and as promptly as reasonably practicable. Each of Buyer and Seller agrees not to participate in any in-person meeting where any material substantive matters are scheduled to be discussed with any Governmental Authority regarding Transferred Assets or any Filings or Consents with or from any Governmental Authority in connection with the Transaction unless, to the extent practicable and not prohibited by such Governmental Authority or by Law, it gives the other Party the opportunity to attend and participate in such in-person meeting.

(c) No Party will, without the prior written consent of the other Party, advocate, support or take any action which would reasonably be expected to prevent or materially impede, interfere with or delay the Transaction, the other transactions contemplated by this Agreement and the transactions contemplated by the Related Agreements, or the performance of the Related Agreements.

(d) Each of Seller and Buyer shall use its Commercially Reasonable Efforts to (i) give the other Party prompt notice of the commencement or threat of commencement of any Claim by or before any Governmental Authority with respect to the Transaction, the other transactions contemplated by this Agreement or the transactions contemplated by the Related Agreements, in each case, of which it becomes aware; (ii) keep the other Party informed in all material respects as to the status of any such Claim or threat; and (iii) reasonably cooperate in all respects with each other and shall use their respective Commercially Reasonable Efforts to contest and resist any such Claim and to have vacated, lifted, reversed or overturned any Order, whether temporary, preliminary or permanent, that is in effect and that prohibits, prevents or restricts consummation of the Transaction, the other transactions contemplated by this Agreement or the transactions contemplated by the Related Agreements. In connection with the Required Consents, no Party shall settle any Claim or enter into any consent or order without the prior written consent of the other Party, such consent not to unreasonably be withheld, conditioned or delayed.

Enclosure 4 (Page 46 of 98)

(e) From and after the date of this Agreement, each of Buyer and Seller shall use its Commercially Reasonable Efforts to negotiate and enter into the Long-Term Agreements with NYSERDA no later than November 18, 2016; provided, however, that the form and substance of each Long-Term Agreement shall be satisfactory to each of Seller and Buyer in their sole discretion.

(f) Notwithstanding anything to the contrary in this Agreement, each of the Parties hereby agrees and acknowledges that neither of this Section 5.04 nor the "Commercially Reasonable Efforts" standard shall require, or be construed to require, in order to obtain the NYPSC Approvals, Seller, or any Affiliate of Seller, to propose, negotiate or offer to effect, or consent or commit to, any terms, conditions or restrictions that, individually, or in the aggregate, are reasonably likely to adversely affect Seller's or any Seller Affiliate's ability to own or operate any of their respective businesses or operations or ability to conduct any such businesses or operations, including the ability of any Affiliate owner or operator of any nuclear power facility to fulfill any duties or obligations in connection with the ownership or operation of such facility under Law or its NRC licenses or any such Affiliates' ability to continue to operate such nuclear power facility (any such condition, a "Seller Burdensome Condition"). Seller acknowledges and agrees that nothing in the CES Order as in effect on the date of this Agreement constitutes, shall be considered, or shall be taken into account in determining whether a condition constitutes a Seller Burdensome Condition.

(g) To the extent that any of the Required Consents include terms and conditions that do not, individually or in the aggregate, constitute a Seller Burdensome Condition or a Buyer Burdensome Condition or a material adverse effect on Buyer's ability to perform its obligations hereunder, any costs with complying with such terms and conditions shall be borne by the Party to whom such condition applies (it being understood that any such costs on the Transferred Assets will be borne by Buyer).

(h) Notwithstanding anything to the contrary in this Agreement, each of the Parties hereby agrees and acknowledges that neither of this Section 5.04 nor the "Commercially Reasonable Efforts" standards shall require, or be construed to require, in order to obtain the HSR Approval, the NRC Approval or the FERC Approval, Buyer to propose, negotiate or offer to effect, or consent or commit to, any terms, condition or restrictions that would, individually or in the aggregate with any other terms, condition or restrictions with respect to the HSR Approval, NRC Approval or the FERC Approval, result in or would reasonably be likely to result an aggregate negative economic effect on Buyer and its Affiliates (including the Transferred Assets after the Closing) in excess of seventy-five million dollars (\$75,000,000) on a net present value basis (any such condition, a "Buyer Burdensome Condition"); provided, however, that with respect to any request, order or requirement of the NRC for Buyer to provide financial assurances, credit support, guarantees or similar arrangements regarding the ownership and operation of the Facility following consummation of the Transaction (such assurances, "NRC Financial Assurances"), the provision by Buyer of any NRC Financial Assurances in an amount equal to up to one (1) year of operating costs of the Facility (or, only in the event that in determining the required amount of the NRC Financial Assurances, the NRC does not take into account any portion of the zero-emission credits available under the CES Order (whether in effect as of the date of this Agreement or as otherwise modified or rescinded), the sum of (i) up to one (1) year of operating costs of the Facility and (ii)

the portion of the amount of required NRC Financial Assurances exclusively resulting the NRC's determination not to take into account the zero-emission credits available under the CES Order), shall not be taken into account in determining whether a term, condition or restriction constitutes a Buyer Burdensome Condition; provided, further, however, that, for the avoidance of doubt, any conditions, terms or restrictions otherwise arising under Law and generally applicable to owners or operators of wholesale nuclear power plants shall not be considered and shall not be taken into account in determining a Buyer Burdensome Condition.

(i) During the Interim Period, each of Seller and Buyer shall cooperate use Commercially Reasonable Best Efforts to obtain any consent to sever or partially assign to Buyer any Specified Shared Contract (including, if request to the counterparty thereto, Buyer entering into a new agreement with such counterparty). All costs, expenses and fees payable to any such counterparty in order to obtain such consent or assignment shall be borne by Buyer. If any such consent or assignment is not obtained by the Closing, the benefit of such Specified Shared Contract may be provided pursuant to, and subject to the conditions of, Section 2.12. In the event the benefits of such Specified Share Contract cannot be provided to Buyer pursuant to Section 2.12, such event shall not give rise to the failure of the satisfaction of the condition to closing in Section 6.03(e).

Section 5.05 Post-Closing Transfers. If at any time following the Closing, any Party (or any Affiliate of such Party) shall receive or otherwise possess any asset or Liability that is allocated to the other Party pursuant to this Agreement or any Related Agreement, such Party shall (or shall cause its Affiliate to) (the "Transferor Party") promptly transfer, or cause to be transferred, such asset (each, a "Non-Transferred Asset") or liability (each, a "Non-Transferred Liability"), as the case may be, to the other Party (or to such Party's Affiliate) (the "Transferee Party") entitled to such Non-Transferred Asset or responsible for such Non-Transferred Liability, as the case may be, and the Transferee Party entitled to such Non-Transferred Asset or responsible for such Non-Transferred Liability shall accept such Non-Transferred Asset or accept, assume and agree faithfully to perform or discharge such Non-Transferred Liability, as applicable. If any transfer or assignment of any Non-Transferred Asset under this Section 5.05 is unable to be consummated promptly for any reason, then, insofar as reasonably possible, the Transferor Party retaining such Non-Transferred Asset shall thereafter hold such Non-Transferred Asset for the use and benefit of the Transferee Party entitled thereto (at the expense of the Transferee Party entitled thereto). In addition, the Transferor Party retaining such Non-Transferred Asset shall, insofar as reasonably possible and to the extent permitted by applicable Law, take such actions as may be reasonably requested by the Transferee Party to whom such Non-Transferred Asset is to be transferred or assigned, in order to place such Transferee Party in a substantially similar position as if such Non-Transferred Asset had been transferred as contemplated hereby and so that all the benefits and burdens relating to such Non-Transferred Asset, including use, risk of loss, potential for gain, and dominion, control and command over such Non-Transferred Asset, is to inure from and after the Closing to the Transferee Party. The reasonable out-of-pocket costs and expenses associated with any such transfers or assignments of Non-Transferred Assets or assumption of Non-Transferred Liabilities, including reasonable attorneys' fees and all recording or similar fees, shall be borne by the party that would have been responsible for such costs and expenses if the transfer, assignment or assumption had occurred at or prior to the Closing.

Section 5.06 Pre-Refueling Conditions.

(a) Upon satisfaction of the Pre-Refueling Conditions, Seller shall cause the Facility breakers to be opened and the Facility to be disconnected from the transmission grid for the purposes of commencing the Refueling, deliver the Refueling Disconnect Notice to Buyer and conduct the Refueling (and use Commercially Reasonable Efforts to commence the Refueling by mid-January 2017) in accordance with Schedule 5.06, subject to the terms and conditions of the Reimbursement Agreement; provided, that in no event shall Seller or any of its Affiliates cause the Facility breakers to be opened, the Facility to be disconnected from the transmission grid for the purposes of commencing the Refueling, deliver the Refueling Disconnect Notice to Buyer or begin to conduct the Refueling prior to mid-January 2017.

(b) Each of Buyer and Seller shall confirm in writing to the other the satisfaction or non-satisfaction of any Pre-Refueling Condition promptly (but in no event later than the applicable deadlines set forth for such condition in Exhibit B hereto), upon receipt of an Order by the NYPSC approving such condition or upon finalization of the Long-Term Agreements with NYSERDA, as applicable. Except as provided in Section 5.06(e), upon mutual written confirmation of the satisfaction thereof, any such Pre-Refueling Condition shall be deemed satisfied.

(c) Notwithstanding anything to the contrary in this Agreement, each of the Parties hereby agrees and acknowledges that prior to the expiration of the Pre-Refueling Period, none of Section 5.04, the "Commercially Reasonable Efforts" standard, Section 5.06, Exhibit B or any other provision of this Agreement shall require, or be construed to require, in order to obtain the NYPSC Approvals or enter into the Facility Long-Term Agreement, Seller, or any Affiliate of Seller, to propose, negotiate or offer to effect, or consent or commit to, any terms, conditions or restrictions that are reasonably likely to adversely affect Seller's or any Seller Affiliate's ability to own or operate any of their respective businesses or operations or ability to conduct any such businesses or operations, including the ability of any Affiliate owner or operator of any nuclear power facility to fulfill any duties or obligations in connection with the ownership or operation of such facility under Law or its NRC licenses or any such Affiliates' ability to continue to operate such nuclear power facility (any such condition, a "Pre-Refueling Seller Burdensome Condition").

(d) Notwithstanding anything to the contrary in this Agreement, each of the Parties hereby agrees and acknowledges that prior to the expiration of the Pre-Refueling Period, none of Section 5.04, the "Commercially Reasonable Efforts" standard, Section 5.06, Exhibit B or any other provision of this Agreement shall require, or be construed to require, in order to obtain the NYPSC Approvals or enter into any Long-Term Agreement, Buyer, or any Affiliate of Buyer, to propose, negotiate or offer to effect, or consent or commit to, any terms, conditions, restrictions that are not acceptable to Buyer in its sole discretion (any such condition, a "Pre-Refueling Buyer Burdensome Condition").

(e) In the event that any time after the date of this Agreement and prior to the expiration of the Pre-Refueling Period, any Order or action by any Governmental Authority adversely overturns, reverses, annuls, sets-aside, suspends, enjoins, restrains, or

Enclosure 4 (Page 49 of 98)

modifies in any respect, or takes similar judicial or regulatory action with respect to, the NYPSC Approvals, the CES Order or any of the agreements set forth in Exhibit B or the transactions contemplated thereby, or any Law is enacted that has the same effect, (each a "Reversal Event"), then either Party shall have the right to assert that the Pre-Refueling Condition subject to such Reversal Event is no longer satisfied and to terminate this Agreement pursuant to Section 9.01(g) by delivering written notice thereof (a "Reversal Notice") to the other Party provided that such notice is delivered to the other Party no later than the earlier of (i) ten (10) Business Days after the applicable Party becomes aware of such Reversal Event or (ii) the expiration of the Pre-Refueling Period. If no Reversal Notice is delivered or any Party fails to deliver a Reversal Notice within the time periods specified above, the right of such Party to assert that the Pre-Refueling Condition is no longer satisfied and to terminate this Agreement pursuant to Section 9.01(g) shall be deemed waived by such Party.

(f) For the avoidance of doubt, in the event any Law, Order or action by a Governmental Authority exists or occurs after the Pre-Refueling Period, in each case, having the effect of a Reversal Event on the Facility Long-Term Agreement, Buyer shall not assert such Law, Order or action, or any effects arising thereunder or resulting therefrom, as a basis for a failure of a Closing condition to be satisfied.

Section 5.07 Schedule Updates. From time to time during the Interim Period, if Seller first becomes aware of any fact, circumstance, development, event or occurrence first arising after the date of this Agreement that would make any of the representations or warranties in Article III inaccurate or incorrect if such representation or warranty were made on the date of the occurrence of such fact, circumstance, development, event or occurrence or on the Closing Date, then Seller may provide Buyer with a written description thereof within ten (10) Business Days after the occurrence of such fact, circumstance, development, event, effect or occurrence (any such description, a "Schedule Update"). Except as provided in Section 9.01(e), no such Schedule Update shall be deemed to have amended the Seller Disclosure Schedule and no fact, circumstance, development, event, effect or occurrence disclosed in such Schedule Update shall be deemed incorporated into such Seller Disclosure Schedule, or to have cured any misrepresentation or breach of warranty that otherwise exists hereunder by reason of the existence of such fact, circumstance, development, event, effect or occurrence; provided, that, with respect to a Claim made pursuant to Section 8.01(a)(i) resulting from, arising out of or in connection with a misrepresentation or breach of warranty that exists hereunder by reason solely of the existence of any fact, circumstance, development, event, effect or occurrence expressly set forth in a Schedule Update in accordance with this Section 5.07, the Indemnified Buyer Entities shall not be entitled to indemnification for Indemnifiable Losses with respect to all such Claims unless and until the aggregate of Indemnifiable Losses to all Indemnified Buyer Entities with respect to all such Claims exceeds one million dollars (\$1,000,000) (the "Schedule Update Deductible") in addition to the application of the Deductible in accordance with Section 8.01(b) (it being agreed that any Claim made pursuant to Section 8.01(a)(i) with respect to a Schedule Update shall first be applied to the Schedule Update Deductible prior to being applied to the Deductible and any such Claims shall be subject to the limitations and other provisions in Article VIII).

Section 5.08 Trust Transfer; Nuclear Decommissioning Trust; Favorable Letter Ruling.

(a) After receipt of the Power Authority of the State of New York Master Decommissioning Trust from NYPA, Seller will create the JAF NDT, which will have investment guidelines approved by Buyer, and ENOI will transfer the Fund Assets to the JAF NDT.

(b) The Parties agree that Buyer shall participate in the preparation and filing of a private letter ruling request to be made by Seller with the IRS in order to obtain the Seller IRS Ruling. Seller shall provide Buyer copies of all documents filed with the IRS in support of Seller IRS Ruling. After receipt of a favorable Seller IRS Ruling, Seller will cause Fund Assets to be transferred from the Non-Qualified Decommissioning Fund to the Qualified Decommissioning Fund at the direction of Buyer, which will have investment guidelines approved by Buyer; provided, however, that Seller shall only be required to transfer an amount of Fund Assets from the Non-Qualified Decommissioning Fund to the Qualified Decommissioning Fund that does not exceed the amount allowed as a deduction to Seller under Section 468A of the Code and Treas. Reg. §1.468A-6(e).

(c) The Parties agree to cooperate in the preparation and filing of a private letter ruling request with the IRS to be jointly made by Buyer and Seller in order to

Enclosure 4 (Page 51 of 98)

obtain the Joint IRS Ruling desired by the Parties with respect to the transfer of the legal or beneficial rights, title and interests (the "Beneficial Interest") in the Qualified Decommissioning Fund and the assets held therein pursuant to the terms of this Agreement. Without limiting the generality of the foregoing, Buyer and Seller shall use Commercially Reasonable Efforts to obtain the Joint IRS Ruling. Neither Buyer nor Seller shall take any action that would cause the transfer of the Beneficial Interest in the Qualified Decommissioning Fund to Buyer to fail to be treated as satisfying the requirements of Treas. Reg. §1.468A-6(b) (assuming solely for purposes of this sentence that the interest acquired by Buyer constitutes a "qualifying interest" in a "nuclear power plant" as defined in Treas. Reg. §1.468A1(b)), or cause Buyer and Seller to fail to obtain the Joint IRS Ruling. Buyer shall be primarily responsible for the preparation and filing of the Joint IRS Ruling. The filing fees payable in connection with any joint request submitted to the IRS shall be borne by Buyer.

(d) Seller and its Affiliates shall not withdraw Fund Assets from the FitzPatrick Unit Fund of the Power Authority of the State of New York Master Decommissioning Trust or the JAF NDT; provided, however, that Seller or its Affiliates shall be permitted to withdraw Fund Assets to satisfy any administrative costs (including any Liability for income Taxes) of the FitzPatrick Unit Fund of the Power Authority of the State of New York Master Decommissioning Trust or the JAF NDT incurred during the period beginning on the date that NYPA transfers the FitzPatrick Unit Fund of the Power Authority of the State of New York Master Decommissioning Trust to ENOI and ending on the Closing; provided, however, that for purposes of determining any Liability for income Taxes the applicable tax rate shall equal twenty percent (20%).

Section 5.09 Transition Services Agreement.

(a) After the date of this Agreement, each of the Parties shall negotiate in good faith the terms, conditions and form of a transition services agreement (the "Transition Services Agreement") to be entered into at the Closing (and each of the Parties shall use Commercially Reasonable Efforts, negotiating in good faith, to finalize the form of the Transition Services Agreement no later than fourteen (14) days after the date of this Agreement; provided, however, that (i) the terms of any transition services under the Transition Services Agreement shall be limited to twelve (12) months unless otherwise agreed to in writing by the Parties, (ii) the fees for each such service shall be equal to Seller's or its applicable Affiliate's actual cost to provide such service, (iii) such services shall include the services set forth on Schedule 5.09(a), and (iv) Seller will make appropriate employees and data available to Buyer through Seller's employees or representatives to assist Buyer. Buyer shall ensure that Seller is authorized to access and use any software required to perform such transition services by the applicable licensor(s). Seller shall not be required to license such software or otherwise ensure that it is authorized to use such software on behalf of Buyer for the purpose of performing such transition services.

(b) The Parties shall establish, as soon as practicable after the execution of this Agreement, a committee (the "Transition Committee") comprised of at least four (4) natural persons, including two (2) natural persons designated by Seller and two (2) natural persons designated by Buyer. The Transition Committee shall remain in existence until the Closing Date and shall oversee and manage the transition process through the Closing Date.

Subject to applicable Laws, the Transition Committee will be kept fully apprised by Seller of all the management and operating developments with respect to the Facility, including with respect to any pre-closing outage, any repairs and any capital expenditures. The Transition Committee shall meet on a regular basis to (i) review current management and operating procedures, systems and developments with respect to the Facility; (ii) discuss and examine transition issues relating to or arising in connection with plans for integration of the Facility following the Closing and (iii) develop the specific implementation plan for the Transition Services Agreement to ensure the continued processing of all regular business transactions and assist in the migration of files and data during the Interim Period and up to the Closing. Without limiting the obligations of the Parties set out hereunder, it is intended that Seller and Buyer each will, through the Transition Committee, keep the other apprised of the status of matters relating to completion of the Transaction. Members of the Transition Committee shall have no authority to bind either Party and shall not make or commit to make any concessions, agreements or other undertakings with or to any Governmental Entity or other Person. During the Interim Period, for the purpose of planning, facilitating and implementing the transition of the Transferred Assets to Buyer and the transition to new systems or systems of Buyer or its Affiliates (the “IT Transition”), Seller shall, and shall cause its Affiliates to, (i) provide to Buyer, through its Representatives, access to (A) the Facility necessary to implement required infrastructure capabilities in connection with the IT Transition, including for the purpose of installing required infrastructure, and (B) documentation, designs and specifications for the purpose of the IT Transition, and (ii) make available the resources and provide the services set forth on Schedule 5.09(b) in connection with the IT Transition.

(c) During the Interim Period, Buyer shall use Commercially Reasonable Efforts to plan, facilitate and implement the IT Transition to transition all of the Transferred Assets to Buyer and the transition to new systems or systems of Buyer or its Affiliates the systems and software required for the safe and reliable operation of the Facility as if the Closing were scheduled to occur on April 1, 2017 (the “IT Transition”). Seller shall, and shall cause its Affiliates to, reasonably cooperate with Buyer, at Buyer’s expense, in effecting the IT Transition. If Buyer reasonably believes it will be unable to effect the IT Transition on the Closing Date, Buyer shall, at least 60 days prior to the anticipated Closing, identify in writing such systems with potential deficiencies to Seller. Upon receipt of such written notice, Buyer and Seller shall consult on the status of such systems with potential deficiencies. For the systems set forth on Schedule 5.09(c), Seller shall, and shall cause its Affiliates to, and, for any systems with potential deficiencies other than those systems set forth on Schedule 5.09(c) that Buyer identifies in such written notice, upon Seller’s approval (not to be unreasonably withheld, delayed or conditioned) Seller shall, and shall cause its Affiliates to, following the Closing, provide limited access to its systems and software by a limited number of Buyer’s personnel approved by Seller (such approval not to be unreasonably withheld, delayed or conditioned) only to the extent necessary, and only for as long as necessary (not to exceed 60 calendar days following the Closing), to assist with the continued effective execution of Site and Facility activities with respect to such systems with potential deficiencies.

(d) Buyer shall be responsible for all reasonable costs and expenses and other Liabilities incurred or suffered by Seller or any of its Affiliates in connection the IT Transition (including as contemplated by Section 5.03(c)).

Section 5.10 Excluded DOE Claims. With respect to the Excluded DOE Claims, Buyer shall make available those Business Employees employed by Buyer or its Affiliates whose assistance or testimony is reasonably necessary to assist Seller in connection with prosecuting the Excluded DOE Claims after the Closing as witnesses or consultants and provide such information and documents as may be appropriate at any time with respect to the Excluded DOE Claims, subject to appropriate protections of confidential, proprietary or privileged information. Seller shall reimburse Buyer for any out of pocket costs (including any reasonable travel costs but excluding any payroll or benefit costs) incurred by Buyer in connection with the foregoing.

Section 5.11 Transfer of Assets. Prior to the Closing, at Seller's sole discretion and determination, Seller shall cause any of its Affiliates to (a) transfer, assign or deliver to Seller all assets used or held in connection with the ownership or operation of the Facility (whether or not a Transferred Asset) and owned or held by such Affiliate (and upon such transfer, assignment or delivery, such asset shall be deemed to be a Transferred Asset) or (b) provide transition services to Buyer at and as of the Closing (subject to and in accordance with the terms set forth in Section 5.09 and the Transition Services Agreement), in each case contemplated in clause (a) or (b) of this Section 5.11, in order to make the representation and warranty of Seller set forth in Section 3.10 true and correct as of the Closing. All costs and expenses incurred in connection with any such transfers, assignments or deliveries or the provision of any such transition services to Buyer pursuant to this Section 5.11 shall be paid by Buyer.

Section 5.12 CES Order. Notwithstanding anything to the contrary in Section 5.04, (a) Seller and its Affiliates shall support the CES Order in effect as of the date of this Agreement and Long-Term Agreements approved by the Parties; and (b) Seller and its Affiliates shall not raise or support any objections to the CES Order in effect as of the date of this Agreement or Long-Term Agreements approved by the Parties and shall not seek as a remedy, nor support, any action to challenge, overturn or enjoin the CES Order in effect as of the date of this Agreement or Long-Term Agreements approved by the Parties (and, for the avoidance of doubt, shall not, with respect to the CES Order in effect as of the date of this Agreement, seek as a remedy the elimination in whole or in part of the CES program or any modification thereto).

Section 5.13 Cessation of Operations. From and after the date of this Agreement until the earlier to occur of (i) the Closing and (ii) December 31, 2018, Buyer shall not, and shall cause its Affiliates not to, file any notice with the NYISO providing for the permanent cessation of operations of the Nine Mile Nuclear Power Station (a "Nine Mile Termination Notice"); provided that Buyer or its Affiliates may file a Nine Mile Termination Notice if Buyer has given written notice to Seller at least twenty (20) Business Days prior to filing a Nine Mile Termination Notice (an "Advance Termination Notice"). From and after the date the Advance Termination Notice is delivered, and notwithstanding any provision to the contrary in this Agreement, Seller and its Affiliates shall have the right to file a notice with the NYISO providing for the permanent cessation of operations of the Facility (including prior to Buyer or its Affiliates filing the Nine Mile Termination Notice with NYISO).

Section 5.14 Entergy Restructuring. Notwithstanding anything to the contrary in this Agreement, Entergy shall be permitted to effect a restructuring involving Seller or any

Enclosure 4 (Page 54 of 98)

intermediate holding company thereof with the prior written consent of Buyer (such consent not to be unreasonably withheld, delayed or conditioned).

Section 5.15 Insurance.

(a) Buyer acknowledges and agrees that, except for insurance policies that constitute Transferred Assets, from and after the Closing, the Facility shall cease to be insured by Seller's policies of liability and property insurance with respect to the ownership, operation and maintenance of the Facility.

(b) Seller shall use Commercially Reasonable Efforts to cooperate with Buyer's efforts to obtain insurance, including insurance required under the Price-Anderson Act or other nuclear Laws with respect to the Transferred Assets and the Facility. Buyer agrees to reimburse Seller for its reasonable out-of-pocket expenses incurred in providing such assistance and cooperation.

Section 5.16 Entergy Names and Marks.

(a) Except as set forth in this Section 5.16, from and after the Closing Buyer shall not use, or permit any of its Affiliates to use, any Entergy Names and Marks in the operation or ownership of the Transferred Assets (including the Facility) and Buyer shall, as soon as practicable, and in any event within ninety (90) days following the Closing Date, remove, strike over or otherwise obliterate all Entergy Names and Marks from all materials, including signage, vehicles, facilities, business cards, schedules, stationery, packaging materials, displays, promotional materials, manuals, forms, computer software or other materials. From and after the Closing until such removal occurs, Seller, on behalf of Entergy, grants Buyer a non-exclusive license to use the Entergy Names and Marks consistent with this Section 5.16.

(b) The license granted under this Section 5.16 may be terminated by written notice if Buyer or any of its Affiliates is in material breach of any provision of this Section 5.16 that remains uncured for more than twenty (20) calendar days after written notice thereof from Seller. Upon such termination of the license granted hereunder for any reason, Buyer shall not use, and shall cause its Affiliates not to use, any of the Entergy Names and Marks.

(c) Notwithstanding anything to the contrary this Section 5.16, at all times after Closing, Buyer may use the name "Entergy Corporation" and "Entergy Nuclear FitzPatrick" (i) to describe the historical ownership of the Facility prior to the Closing and (ii) on any legal documents, business correspondence and similar items that are not public facing or do not confuse the public as to the separate legal status of Buyer, on the one hand, and Seller and its Affiliates, on the other.

Section 5.17 Notifications. Until the Closing, each Party shall promptly notify the other Party in writing of any fact, circumstance, event or action of which it has actual Knowledge, the existence, occurrence or taking of which has resulted in any of the conditions set forth in Article VI becoming incapable of being satisfied.

Section 5.18 Certain Contracts.

(a) During the Interim Period, except with the prior written consent of Buyer (such consent not to be unreasonably withheld, delayed or conditional), (i) Seller shall not (and shall cause each of ENOI and Seller's other Affiliates with respect to the Transferred Assets, the Assumed Liabilities and the Facility not to) terminate, amend, modify, amend, supplement, modify or waive any right under or renew, the Facility Long-Term Agreement, the Trust Fund Transfer Agreement, the Procured Nuclear Fuel Purchase Agreement (as defined in the Reimbursement Agreement), the Interconnection Agreement or the Prior Acquisition Agreement, (ii) Seller shall (and shall cause each of ENOI and Seller's other Affiliates with respect to the Transferred Assets, the Assumed Liabilities and the Facility to) use Commercially Reasonable Efforts to enforce its rights under the Facility Long-Term Agreement, the Trust Fund Transfer Agreement, the Procured Nuclear Fuel Purchase Agreement, the Interconnection Agreement and the Prior Acquisition Agreement and (iii) Seller shall (and shall cause each of ENOI and Seller's other Affiliates with respect to the Transferred Assets, the Assumed Liabilities and the Facility to) perform in accordance with the terms of the Facility Long-Term Agreement, the Trust Fund Transfer Agreement, the Procured Nuclear Fuel Purchase Agreement, the Interconnection Agreement and the Prior Acquisition Agreement. During the Interim Period, Seller shall (A) promptly give Buyer written notice upon having Knowledge of any material breach by any party to the Facility Long-Term Agreement, the Trust Fund Transfer Agreement, the Procured Nuclear Fuel Purchase Agreement, the Interconnection Agreement or the Prior Acquisition Agreement and (B) promptly give Buyer a copy of any notice received from NYPA or NYSERDA, as applicable, by Seller, ENOI or any of Seller's Affiliates with respect to the Transferred Assets with respect to the Facility Long-Term Agreement, the Trust Fund Transfer Agreement, the Procured Nuclear Fuel Purchase Agreement, the Interconnection Agreement or the Prior Acquisition Agreement.

(b) Until the time at which Buyer has no further obligations under Section 9.02, Seller shall (i) use Commercially Reasonable Efforts to enforce its rights under the Available Funds L/C and the Available Funds Agreement, perform in accordance with the terms of the Available Funds L/C and the Available Funds Agreement, (ii) promptly give Buyer written notice upon having Knowledge of any material breach by any party to the Available Funds L/C or the Available Funds Agreement, (iii) promptly give Buyer a copy of any notice received with respect to the Available Funds L/C or the Available Funds Agreement, (iv) not, except with the prior written consent of Buyer (such consent not to be unreasonably withheld, delayed or conditioned), terminate, amend, modify, amend, supplement, modify or waive any right under, the Available Funds L/C or the Available Funds Agreement.

Section 5.19 Atomic Energy Act Authorizations. Prior to Closing, Seller shall provide Buyer with copies of all specific authorizations regarding the export of controlled information to foreign nationals currently in effect and all reports of generally authorized activities to the extent such activities are ongoing, in each case, as required under the Atomic Energy Act.

ARTICLE VI

CONDITIONS TO THE CLOSING

Section 6.01 Conditions to Each Party's Obligations. The obligation of each

Enclosure 4 (Page 56 of 98)

Party to consummate the Closing is subject to the satisfaction (or waiver by such Party) on or prior to the Closing Date of each of the following conditions.

(a) Anti-trust Matters. All applicable waiting periods (and any extensions thereof) under the HSR Act shall have expired or otherwise been terminated.

(b) Required Consents. The other Required Consents shall have been obtained and such Required Consents shall have become Final Orders.

(c) No Legal Restraints. No Law and no Order, whether preliminary, temporary, or permanent, shall be in effect that prevents, makes illegal or prohibits the consummation of the Transaction or the performance of the Transition Services Agreement, the Employee Matters Agreement, the Seller Guarantee or the agreement between Buyer and NYPA with respect to the one-time fee payable pursuant to the DOE Standard Contract (any such Law or Order, a "Legal Restraint").

(d) Permits. All material Permits (including Environmental Permits) necessary for the ownership and operation of the Facility shall have been obtained and shall be in full force and effect, except where the failure to obtain such Permits would not result in a failure to operate the Facility in compliance with applicable material Laws.

(e) Refueling. The Refueling shall have been completed.

(f) Joint IRS Ruling. The Parties shall have received a favorable Joint IRS Ruling and such ruling shall be in full force and effect.

(g) Decommissioning Trust Transfer. The Power Authority of the State of New York Master Decommissioning Trust shall have been transferred by NYPA to ENOI pursuant to the terms of the Trust Fund Transfer Agreement. Seller shall have created the JAF NDT and ENOI shall have transferred the Fund Assets to the JAF NDT.

(h) Fund Assets Market Value. Buyer shall have received the Fund Assets Market Value Documentation.

(i) Qualified Decommissioning Fund and Qualified Decommissioning Trust Assets. If requested by Buyer at the time of the transfer of the Fund Assets to the Qualified Decommissioning Fund and at Buyer's direction, Seller shall have taken all necessary actions to (i) invest the cash transferred to the Qualified Decommissioning Fund and (ii) rebalance the assets remaining in the Non-Qualified Decommissioning Fund after assets in the Non-Qualified Decommissioning Fund have been transferred to the Qualified Decommissioning Fund.

(j) Seller IRS Ruling. Seller shall have received the Seller IRS Ruling and such ruling shall be in full force and effect.

(k) Closing Deliverables. All closing deliverables set forth on Section 2.09 shall have been delivered.

(l) Full Force and Effect. The Employee Matters Agreement, the

Enclosure 4 (Page 57 of 98)

Transition Services Agreement, the Seller Guarantee and the agreement between Buyer and NYPA with respect to the one-time fee payable pursuant to the DOE Standard Contract are in full force and effect on the Closing Date.

Section 6.02 Conditions to Obligation of Buyer. The obligation of Buyer to consummate the Closing is subject to the satisfaction (or waiver by Buyer) on or prior to the Closing Date of each of the following additional conditions.

(a) Covenants of Seller. Each of Seller and each of its Affiliates shall have performed and satisfied in all material respects each of its respective covenants and agreements set forth in this Agreement, the Facility Long-Term Agreement, the Reimbursement Agreement, the Employee Matters Agreement, the Transfer Agreement and the EUP Procurement Agreement required to be performed and satisfied by it at or prior to the Closing.

(b) Representations and Warranties of Seller. The representations and warranties of Seller (i) contained in Section 3.01 (first sentence only), Section 3.02, Section 3.08(a), Section 3.08(b) (first sentence only), Section 3.09 and Section 3.22 shall be true and correct in all material respects as of the Closing Date as though made on and as of the Closing Date, (ii) contained in Section 3.04 shall be true and correct in all respects on the Closing Date as though made on the Closing Date (except to the extent expressly made as of an earlier date, in which case as of such earlier date) and (iii) otherwise set forth in Article III shall be true and correct (without giving effect to any qualification as to "materiality" or "Seller Material Adverse Effect" set forth on such Article) as of the Closing Date as though made on and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except where the failure of any representation or warranty to be true and correct, individually or in the aggregate, would not have a Seller Material Adverse Effect.

(c) Officer's Certificate of Seller. Seller shall have delivered to Buyer a certificate, dated as of the Closing Date, executed on behalf of Seller by an authorized executive officer thereof, certifying that the conditions specified in Section 6.02(a) and Section 6.02(b) have been fulfilled.

(d) No Seller Material Adverse Effect. There shall not exist a Seller Material Adverse Effect.

(e) Transfer of Transferred Assets. Subject to Section 2.12, the Transferred Assets, including the JAF NDT, shall have been transferred and delivered by Seller and the Other Seller Entities to Buyer pursuant to the terms of this Agreement.

(f) No Buyer Burdensome Condition. No Order with respect to any of the Required Consents (other than an Order of the NYPSC with respect to the NYPSC Approvals) individually or with all other Orders (other than an Order of the NYPSC with respect to the NYPSC Approvals) and other factors imposes or would be reasonably expected to result in any Buyer Burdensome Condition.

(g) DOE Consent. The DOE Consent shall have been obtained, in form and substance satisfactory to Buyer.

Enclosure 4 (Page 58 of 98)

(h) Facility Power Generation. The Facility is operating and generating power.

(i) IT Transition. The IT Transition shall have been completed to Buyer's reasonable satisfaction such that, upon and following the Closing, the Facility will be effectively positioned to operate with the information technology systems of Buyer and its Affiliates (including any information technology assets included in the Transferred Assets); provided, however, that after March 31, 2017 this Section 6.02(i) shall cease to be a condition to the obligation of Buyer to consummate the Closing.

Section 6.03 Conditions to Obligation of Seller. The obligation of Seller to consummate the Closing is subject to the satisfaction (or waiver by Seller) on or prior to the Closing Date of each of the following additional conditions.

(a) Covenants of Buyer. Buyer shall have performed and satisfied in all material respects each of its covenants and agreements set forth in this Agreement, the Reimbursement Agreement, the Employee Matters Agreement, the Buyer Long-Term Agreement, the Transfer Agreement and the EUP Procurement Agreement required to be performed and satisfied by it at or prior to the Closing, including the receipt by Seller of all amounts required to be paid by Buyer at the Closing under Section 2.06.

(b) Representations and Warranties of Buyer. The representations and warranties of Buyer set forth in Article IV shall be true and correct in all material respects as of the Closing Date as though made on and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case as of such earlier date), except where the failure of any representation or warranty to be true and correct, individually or in the aggregate, would not reasonably be expected to have a material adverse effect on Buyer's ability to perform its obligations hereunder or to consummate the Closing.

(c) Officer's Certificate of Buyer. Buyer shall have delivered to Seller a certificate, dated as of the Closing Date, executed on behalf of Buyer by an authorized individual thereof, certifying that the conditions specified in Section 6.03(a) and Section 6.03(b) have been fulfilled.

(d) DOE Consent. The DOE Consent shall have been obtained, in form and substance reasonably satisfactory to Seller.

(e) No Seller Burdensome Condition. No Order with respect to the NYSPC Approval imposes or would be reasonably expected to result in any Seller Burdensome Condition.

ARTICLE VII

SURVIVAL

Section 7.01 Survival of Certain Representations, Warranties and Covenants. The representations and warranties and all Claims with respect thereto contained in Section 3.01 (first sentence only), Section 3.02, Section 3.08(a), Section 3.08(b) (first sentence only), Section

Enclosure 4 (Page 59 of 98)

3.09 and Section 3.22 (the "Seller Fundamental Representations") and Section 4.01 (first sentence only) and Section 4.09 (the "Buyer Fundamental Representations") shall terminate on the date that is four (4) years following the Closing Date. The representations and warranties and all Claims with respect thereto contained in Section 3.16 shall terminate on the date that is three (3) years following the Closing Date. The representations and warranties and all Claims with respect thereto contained in Section 3.18 and Section 3.19 (the "Seller Tax Representations") shall terminate on the date that is ninety (90) days following the expiration of the statute of limitations with respect to the applicable Tax Return. All other representations and warranties and all Claims with respect thereto contained in this Agreement shall terminate on the date that is twelve (12) months following the Closing Date. All of the covenants and agreements of the Parties contained in this Agreement which, by their terms, are to be performed or complied with in their entirety at or prior to the Closing, and all Claims with respect thereto, shall terminate on the date that is three (3) months following the Closing Date. All of the covenants and agreements of the Parties contained in this Agreement which, by their terms, are to be performed or complied with in whole or in part following the Closing, and all Claims with respect thereto, shall survive for the period provided in such covenants and agreements, if any, or until performed in accordance with their respective terms. The Parties expressly agree that the provisions of this Section 7.01 shall operate as a contractual statute of limitations. Notwithstanding anything to the contrary contained in this Agreement, any breach of any representation, warranty, covenant or agreement or any Claim with respect thereto, shall survive the time at which it would otherwise terminate pursuant to the preceding sentences of this Section 7.01 if notice of the inaccuracy or breach thereof giving rise to such right of indemnification shall have been properly given pursuant to this Agreement at or prior to the time at which such representation, warranty, covenant or agreement or Claim with respect thereto would otherwise expire pursuant to this Section 7.01.

Section 7.02 Certain Limitations. Notwithstanding anything in this Agreement to the contrary:

(a) Except under the Seller Guarantee, no Representative or Affiliate of, or direct or indirect equity owner in, Seller shall have any personal liability to Buyer or any other Person as a result of the breach of any representation, warranty, covenant, agreement or obligation of Seller in this Agreement, and no Representative or Affiliate of, or direct or indirect equity owner in, Buyer shall have any personal liability to Seller or any other Person as a result of the breach of any representation, warranty, covenant, agreement or obligation of Buyer in this Agreement; and

(b) no Party shall be liable for special punitive, exemplary, consequential or indirect damages, lost profits or losses calculated by reference to any multiple of earnings or earnings before interest, Tax, depreciation or amortization (or any other valuation methodology), whether based on contract, tort, strict liability, other Law or otherwise and whether or not arising from the other Party's sole, joint or concurrent negligence, strict liability or other fault for any matter relating to this Agreement and the Transaction, except to the extent any such damages are paid to a Third Party in the accordance with the terms of this Agreement; provided, however, that, after the Closing, and without limiting any of the limitations in Article VIII, each Party shall be liable for any Indemnifiable Losses that constitute consequential damages (including lost profits) to the extent such damages are reasonably foreseeable

(provided, that in no event shall any Party's aggregate Liability to the other Party's Indemnified Entities for such consequential damages exceed twenty million dollars (\$20,000,000)).

ARTICLE VIII

INDEMNIFICATION

Section 8.01 Indemnification by Seller.

(a) From and after the Closing, subject to the other provisions of this Article VIII, Seller agrees to indemnify Buyer and its Affiliates and each of their Representatives (collectively, the "Indemnified Buyer Entities") for, and to hold each of them harmless from and against, any and all Indemnifiable Losses actually suffered, paid or incurred by such Indemnified Buyer Entity resulting from, arising out of or in connection with:

(i) any breach of or inaccuracy in any of the representations and warranties made by Seller in Article III (or contained or referred to in any certificate delivered by or on behalf of Seller pursuant hereto) or the Employee Matters Agreement;

(ii) any failure to perform any covenant or agreement of Seller contained in this Agreement or the Employee Matters Agreement and that survives the Closing (including in accordance with Section 7.01);

(iii) any Excluded Liabilities;

(iv) any Excluded Assets; or

(v) for all costs and expenses associated with (x) the transfer of the Power Authority of the State of New York Master Decommissioning Trust from NYPA to ENOI and (y) the Fund Transfer (other than any administrative costs and expenses pursuant to which Seller or its Affiliates is permitted to withdraw pursuant to the proviso in Section 5.08(d)).

(b) Notwithstanding anything to the contrary contained in this Section 8.01, the Indemnified Buyer Entities shall be entitled to indemnification:

(i) with respect to any Claim for indemnification pursuant to Section 8.01(a)(i), only if the aggregate of Indemnifiable Losses to all Indemnified Buyer Entities with respect to all such Claims exceeds \$1,000,000 (the "Deductible"), whereupon (subject to the provisions of clauses (ii) and (iii) below) Seller shall be obligated to pay in full all such amounts but only to the extent such aggregate Indemnifiable Losses are in excess of the amount of the Deductible; provided, however, that the Deductible shall not apply, and shall not be taken into account in determining the Deductible, with respect to any Claim for indemnification pursuant to Section 8.01(a)(i) solely with respect to the Seller Fundamental Representations or the Seller Tax Representations;

Enclosure 4 (Page 61 of 98)

(ii) with respect to any Claim for indemnification pursuant to Section 8.01(a)(i), only with respect to individual items, together with any other items arising out of substantially similar facts and circumstances, where the Indemnifiable Losses relating thereto are in excess of \$100,000 (the "Minimum Claim Amount") (any items less than such threshold shall not be aggregated for the purposes of the immediately preceding clause (i)); provided, however, that the Minimum Claim Amount shall not apply with respect to any Claim for indemnification pursuant to Section 8.01(a)(i) solely with respect to the Seller Fundamental Representations or the Seller Tax Representations; and

(iii) with respect to any Claim for indemnification pursuant to Section 8.01(a)(i), only if such Claims are made on or before the expiration of the survival period pursuant to Section 7.01 for the applicable representation or warranty.

(c) Notwithstanding anything to the contrary contained in this Agreement, with respect to any Claim for indemnification pursuant to Section 8.01(a)(i), in no event shall Seller's aggregate Liability to the Indemnified Buyer Entities exceed twenty million dollars (\$20,000,000) (the "Cap"); provided, however, that the Cap shall not apply with respect to any Claim for indemnification pursuant to Section 8.01(a)(i) solely with respect to the Seller Fundamental Representations and the Seller Tax Representations; provided, further, however, that under no circumstances will Seller's aggregate Liability to the Indemnified Buyer Entities with respect to Claims for indemnification pursuant to Section 8.01(a)(i) (except with respect to the Seller Tax Representations) exceed fifty million dollars (\$50,000,000).

(d) This Section 8.01 is subject to the limitations set forth in Section 7.02(b).

(e) For purposes of this Section 8.01, the determination of whether a breach or a violation of any representation or warranty of Seller (other than the representations and warranties contained in Section 3.10(b)) has occurred and the amount of Indemnifiable Losses resulting from a breach or inaccuracy of any representation or warranty of Seller shall be made by disregarding and not giving effect to any qualifiers in the applicable agreement as to "Seller Material Adverse Effect," "materiality," "in all material respects," or words of similar import and instead interpreting such representation or warranty as if such terms were deleted.

(f) Any payments pursuant to the Owner's Affidavit and Gap Undertaking made by Seller to the title company named therein on account of Indemnifiable Losses (as defined in the Owner's Affidavit and Gap Undertaking) shall be taken into account in determining (i) the Deductible and the Cap to the extent the Deductible and the Cap would apply if such payments were made with respect to a Claim by an Indemnified Buyer Entity for indemnification pursuant to Section 8.01(a)(i) and (ii) Seller's aggregate Liability pursuant to the last proviso in Section 8.01(c).

Section 8.02 Indemnification by Buyer.

(a) From and after the Closing Date, subject to the other provisions of

this Article VIII, Buyer agrees to indemnify Seller and its Affiliates and each of their Representatives (collectively, the "Indemnified Seller Entities") for, and to hold each of them harmless from and against any and all Indemnifiable Losses actually suffered, paid or incurred by any such Indemnified Seller Entity resulting from, arising out of or in connection with:

(i) any breach or inaccuracy of any of the representations and warranties made by Buyer in Article IV or the Employee Matters Agreement;

(ii) any failure to perform any covenant or agreement of Buyer contained in this Agreement or the Employee Matters Agreement that survives the Closing (including in accordance with Section 7.01);

(iii) any Assumed Liabilities;

(iv) the ownership or use of any Transferred Assets after the Closing, other than with respect to any Excluded Liability.

(b) Notwithstanding anything to the contrary contained in this Section 8.02, the Indemnified Seller Entities shall be entitled to indemnification:

(i) with respect to any Claim for indemnification pursuant to Section 8.02(a)(i), only if the aggregate of Indemnifiable Losses to all Indemnified Seller Entities with respect to all such Claims exceeds the Deductible, whereupon (subject to the provisions of clauses (ii) and (iii) below) Buyer shall be obligated to pay in full all such amounts but only to the extent such aggregate Indemnifiable Losses are in excess of the amount of the Deductible; provided, however, that the Deductible shall not apply, and shall not be taken into account in determining the Deductible with respect to any Claim for indemnification pursuant to Section 8.02(a)(i) solely with respect to the Buyer Fundamental Representations;

(ii) with respect to any Claim for indemnification pursuant to Section 8.02(a)(i), only with respect to individual items where the Indemnifiable Losses relating thereto are in excess of the Minimum Claim Amount (any items less than such threshold shall not be aggregated for the purposes of the immediately preceding clause (i)); provided, however, that the Minimum Claim Amount shall not apply with respect to any Claim for indemnification pursuant to Section 8.02(a)(i) solely with respect to the Buyer Fundamental Representations; and

(iii) with respect to any Claim for indemnification pursuant to Section 8.02(a)(i), only if such Claims are made on or before the expiration of the survival period pursuant to Section 7.01 for the applicable representation or warranty.

(c) Notwithstanding anything to the contrary contained in this Agreement, with respect to any Claim for indemnification pursuant to Section 8.02(a)(i), in no

Enclosure 4 (Page 63 of 98)

event shall Buyer's aggregate Liability to the Indemnified Seller Entities exceed the Cap; provided, however, (i) that with respect to any Claim for indemnification pursuant to Section 8.02(a)(i) solely with respect to the Buyer Fundamental Representations the Cap shall not apply, and (ii) Buyer's aggregate Liability to the Indemnified Seller Entities with respect to all Claims for indemnification pursuant to Section 8.02(a)(i) shall not exceed fifty million dollars (\$50,000,000).

(d) This Section 8.02 is subject to the limitations set forth in Section 7.02.

(e) For purposes of this Section 8.02, the determination of whether a breach or a violation of any representation or warranty of Buyer in this Agreement has occurred and the amount of Indemnifiable Losses resulting from a breach or inaccuracy of any representation or warranty of Buyer contained in this Agreement shall be made by disregarding and not giving effect to any qualifiers in this Agreement as to "material adverse effect," "materiality," "in all material respects," or words of similar import and instead interpreting such representation or warranty as if such terms were deleted.

Section 8.03 Indemnification Procedures.

(a) If an Indemnified Buyer Entity or an Indemnified Seller Entity (each, an "Indemnified Entity") believes that a Claim or other fact or circumstance exists that may give rise to a right of indemnification under this Article VIII (whether or not the amount of Indemnifiable Losses relating thereto is then quantifiable), such Indemnified Entity may assert its Claim for indemnification by giving written notice thereof (a "Claim Notice") to the Party from which indemnification is sought pursuant to Section 8.01 or Section 8.02, as applicable (the "Indemnifying Entity"). The Claim Notice shall be given reasonably promptly (and in any event within ten (10) Business Days) after the Indemnified Entity becomes aware of any fact or circumstance that may give rise to a Claim for indemnity. Each Claim Notice shall describe in reasonable detail the nature of the Claim, identify the section of this Agreement that forms the basis of such Claim, attach copies of all material written evidence thereof received from any Third Party to the date of the Claim Notice. and set forth the estimated amount of Indemnifiable Losses relating thereto to the extent reasonably estimable. The failure of the Indemnified Entity to notify or a delay in notifying the Indemnifying Entity, as the case may be, will not relieve the Indemnifying Entity of its obligations pursuant to this Article VIII, except to the extent that such Indemnifying Entity is materially prejudiced as a result thereof.

(b) Upon receipt by an Indemnifying Entity of a Claim Notice in respect of a Claim brought by a Third Party that (i) is solely for money damages or includes equitable relief that can be substantially resolved through the expenditure of an immaterial amount of money and (ii) which would not reasonably be expected to exceed the maximum amount for which indemnification may be required by an Indemnifying Entity, the Indemnifying Entity shall be entitled to (x) assume and have sole control over the defense and investigation of such Claim at its sole cost and expense (subject to the last sentence of this Section 8.03(b)) and with counsel of its own choosing if it gives notice of its intention to do so to the Indemnified Entity within thirty (30) days of the receipt of such Claim Notice from the Indemnified Entity and (y) negotiate a settlement or compromise of, or consent to the entry of a judgment with

respect to, such Claim; provided that if such settlement, compromise or consent does not include a full and unconditional waiver and release by the Third Party of all applicable Indemnified Entities for all costs or liabilities with respect to such Claim, such settlement, compromise or consent shall be permitted hereunder only with the written consent of the Indemnified Entity (whether or not the Indemnified Entity is an actual or potential party to such Claim), which consent shall not be unreasonably withheld, conditioned or delayed. If the Indemnifying Entity is not entitled to assume and control the defense or investigation of such claim, or within thirty (30) days of receipt from an Indemnified Entity of any Claim Notice with respect to a Third Party Claim, the Indemnifying Entity advises such Indemnified Entity in writing that the Indemnifying Entity does not elect to defend and investigate such Claim or (B) fails to make such an election in writing, then (1) such Indemnified Entity may, at its option, defend, investigate, settle or compromise, or consent to an entry of judgment with respect to, such Claim; provided that any such settlement, compromise or consent shall be permitted hereunder only with the written consent of the Indemnifying Entity (whether or not the Indemnifying Entity is an actual or potential party to such Claim), which consent shall not be unreasonably withheld, conditioned or delayed, and (2) the Indemnifying Entity may participate in (but not control) any such defense and investigation at its sole cost and expense. Each Indemnified Entity shall make available to the Indemnifying Entity all information available to such Indemnified Entity relating to such Claim, except as may be prohibited by Law, including providing the Indemnifying Entity promptly (but in any event within five (5) Business Days) after the Indemnified Entity's receipt thereof, with copies of all notices and documents (including court papers) received by the Indemnified Entity relating any Claim by a Third Party and shall grant the Indemnifying Entity and its Representatives reasonable access to the books, records, employees, Representatives and properties of any such Indemnified Entity to the extent reasonably related to the matters to which the Claim Notice relates. In addition, the Parties shall render to each other such assistance as may reasonably be requested in order to ensure the proper and adequate defense and investigation of any such Claim. If the Indemnifying Entity elects to assume control of the defense and investigation of any such Claim, then the Indemnified Entity shall be entitled to participate in (but not control) such defense and investigation at such Indemnified Entity's sole cost and expense. In the event the Indemnifying Entity assumes control of the defense and investigation of (or otherwise elects to negotiate a settlement or compromise of or consent to an entry of judgment with respect to) any such Claim, the Indemnified Entity shall reimburse the Indemnifying Entity for all costs and expenses incurred by the Indemnifying Entity in connection with such defense and investigation (or negotiation, settlement, compromise or consent) to the extent, if applicable, that such costs and expenses do not exceed the amount of the remaining Deductible; provided that such costs and expenses shall be included in the calculation of the Deductible.

(c) Upon receipt by an Indemnifying Entity of a Claim Notice not brought by a Third Party (a "Direct Claim"), the Indemnifying Entity shall notify the Indemnified Entity within thirty (30) days of receipt of such Claim Notice whether the Indemnifying Entity disputes such Direct Claim. If the Indemnifying Entity does not dispute such Direct Claim, then it shall promptly pay the full amount of such Direct Claim to the Indemnified Entity.

Section 8.04 Indemnification Generally.

(a) The amount of Indemnifiable Losses which the Indemnifying Entity is required to pay to any Indemnified Entity pursuant to this Article VIII shall be reduced (retroactively, if necessary) by any insurance proceeds (net of recovery costs and other related costs, including deductibles and premium adjustments) actually received or recoverable by or on behalf of such Indemnified Entity or its Affiliates with respect to such Indemnifiable Losses, and an Indemnified Entity shall use Commercially Reasonable Efforts to receive or recover such proceeds or other amounts; provided that an Indemnified Entity has no obligation to pursue such recovery for Indemnifiable Losses prior to such Indemnified Entity's right to make a Claim for recovery pursuant to this Article VIII. An Indemnified Entity shall take, or cause its Affiliates to take, Commercially Reasonable Efforts to pursue payment from any Third Party with respect to any Indemnifiable Loss under any Contract, arrangement or commitment pursuant to which such Indemnified Entity or its Affiliates are entitled to reimbursement or indemnification with respect to such Indemnifiable Loss; provided, that such Commercially Reasonable Efforts shall be taken by the Indemnified Entity at the Indemnifying Entity's sole cost and expense. If an Indemnified Entity shall have received the payment required by this Agreement from the Indemnifying Entity in respect of Indemnifiable Losses (including any Purchase Price adjustment with respect to the circumstances giving rise to such payment under this Article VIII) and shall subsequently receive (or any of its Affiliates shall subsequently receive) any insurance proceeds or other amounts in respect of such Indemnifiable Losses, then such Indemnified Entity shall promptly repay, or cause to be repaid, to the Indemnifying Entity a sum equal to the amount of such insurance proceeds or other amounts actually received (net of recovery costs and other related costs, including deductibles and premium adjustments).

(b) In addition to the requirements of Section 8.04(a), each Indemnified Entity shall be obligated in connection with any Claim for indemnification under this Article VIII to use Commercially Reasonable Efforts to mitigate Indemnifiable Losses upon and after becoming aware of any fact or circumstance that may give rise to such Indemnifiable Losses.

(c) Except for Claims arising from actual and intentional fraud in connection with this Agreement or any Related Agreement, the indemnification provided in this Article VIII shall be the exclusive post-Closing remedy available to any Party or its Affiliates or Representatives with respect to any breach of any representation, warranty, covenant or agreement in this Agreement or otherwise in respect of the transactions contemplated by this Agreement. Without limiting the generality of the foregoing, Buyer, for itself and its Affiliates, does hereby irrevocably release Seller and its Affiliates from any and all Environmental Liabilities (other than Excluded Liabilities) resulting from or arising out of or in connection with the Transferred Assets except for the remedies expressly set forth in this Agreement and Claims arising from actual and intentional fraud in connection with this Agreement or any Related Agreement. In furtherance of, but subject to, the foregoing, Buyer, for itself and on behalf of its Affiliates, hereby irrevocably waives any and all rights and benefits with respect to such Environmental Liabilities that it now has, or in the future may have conferred upon it by virtue of any Law or common law principle, in each case, which provides that a general release does not extend to claims which a party does not know or suspect to exist in its favor at the time of executing the release, if knowledge of such claims would have materially affected such party's

settlement with the obligor. In connection with the foregoing, Buyer hereby acknowledges that it is aware that factual matters now unknown to it and Seller or any of their respective Affiliates may have given, or hereafter may give, rise to Environmental Liabilities, and Buyer further agrees that the release set forth in this Section 8.04(c) has been negotiated and agreed upon in light of that awareness, and Buyer, for itself and its Affiliates, nevertheless hereby intends irrevocably to release Seller and its Affiliates from all such Environmental Liabilities (other than Excluded Liabilities) except for the remedies expressly set forth in this Agreement and Claims arising from actual and intentional fraud in connection with this Agreement or any Related Agreement.

(d) All Indemnifiable Losses shall be determined without duplication of recovery under other provisions of this Agreement or any other document or agreement delivered in connection with this Agreement. Without limiting the generality of the prior sentence, if a set of facts, conditions or events constitutes a breach of more than one representation, warranty, covenant or agreement of this Agreement that is subject to an indemnification obligation under this Article VIII, only one recovery of Indemnifiable Losses shall be allowed with respect to such set of facts, conditions or events, and in no event shall there be any indemnification or duplication of payments or recovery under different provisions of this Agreement arising out of the same set of facts, conditions or events.

(e) Except as set forth herein, neither Party shall have any right to off-set or set-off any payment due pursuant to this Article VIII.

ARTICLE IX

TERMINATION

Section 9.01 Termination. This Agreement may be terminated (each of the following, a "Termination Event"):

(a) at any time prior to the Closing Date by mutual written agreement of Buyer and Seller;

(b) by either Buyer or Seller by giving written notice to the other Party if the Closing shall not have occurred on or prior to June 8, 2017 (the "Outside Date"); provided that the right to terminate this Agreement under this Section 9.01(b) shall not be available to any Party whose failure to fulfill any obligation under this Agreement has been the cause of, or resulted in, the failure of the Closing to occur on or before such date; provided further that if all conditions to the Closing set forth in Article VI have been fulfilled (other than those conditions that by their nature are to be satisfied at the Closing) except for the receipt of any Required Consents and any Legal Restraint related to such Required Consents or the DOE Consent, then the Outside Date shall be extended to August 8, 2017;

(c) by either Buyer or Seller by giving written notice to the other Party if (i) the condition set forth in Section 6.01(c) is not satisfied and the Legal Restraint giving rise to such nonsatisfaction has become final and nonappealable or (ii) any of the Required Consents the receipt of which is a condition to the obligation of such first Party to consummate the Closing

Enclosure 4 (Page 67 of 98)

as provided in Article VI, shall have been denied in a final and nonappealable Order or shall have been granted subject to or containing terms and conditions that prevent the satisfaction of one or more of such first Party's conditions to Closing set forth in Article VI; provided, however, that the right to terminate this Agreement under this Section 9.01(c) shall not be available to any Party whose failure to fulfill any obligation under Section 5.04 has been the cause of, or resulted in, the failure to satisfy such condition.

(d) by either Buyer or Seller by giving written notice to the other Party if there has been a breach by such other Party of any representation, warranty, covenant or other agreement contained in this Agreement or any Signing Related Agreement and such breach (i) would result in the failure to satisfy one or more of the conditions to the Closing of the Party sending such notice and (ii) is of a character that is capable of being cured (unless waived by the non-breaching Party) but has not been cured prior to the date that is thirty (30) days from the date that the breaching Party is notified or waived in writing by the other Party of such breach (or such shorter period contained in the applicable Signing Related Agreement);

(e) by Buyer by giving written notice to Seller within ten (10) Business Days after the delivery by Seller of a Schedule Update if such Schedule Update discloses a fact, circumstance, development, event or occurrence, the existence of which would have otherwise permitted Buyer to terminate this Agreement pursuant to Section 9.01(d) (with or without giving effect to any cure period contained in Section 9.01(d)); provided that, if Buyer does not exercise its termination right under this Section 9.01(e) within such ten (10) Business Day period, then (i) Buyer shall not have the right to terminate this Agreement solely as a result of any fact, circumstance, development, event or occurrence expressly disclosed in such Schedule Update and (ii) Buyer shall be deemed to have irrevocably and forever waived any termination right or any right to assert the failure to satisfy any condition to the Closing set forth in Article VI solely with respect to any such fact, circumstance, development, event or occurrence;

(f) by Buyer, if Seller files with the NRC a notice for the permanent cessation of operations of the Facility;

(g) by either Buyer or Seller, if such Person delivers a Reversal Notice pursuant to Section 5.06(e); or

(h) automatically without any action by either Party on November 23, 2016 if the Pre-Refueling Conditions are not satisfied by November 18, 2016; provided that the Parties may mutually agree in writing to waive such Termination Event prior to November 23, 2016.

Section 9.02 Termination Fees.

(a) If this Agreement is terminated (i) by either Buyer or Seller pursuant to Section 9.01(a), Section 9.01(b), Section 9.01(c) or Section 9.01(g), (ii) by Seller pursuant to Section 9.01(d), (iii) by Buyer pursuant to Section 9.01(e) or (iv) automatically without action of either Party pursuant to Section 9.01(h), Buyer shall pay to Seller a fee of five million dollars (\$5,000,000) (provided that, if both of the following occur: (A) this Agreement is

terminated pursuant to Section 9.01 after the commencement of the Refueling (other than, for the avoidance of doubt, by Buyer pursuant to Section 9.01(d), Section 9.01(e) or Section 9.01(f)) and at a time of such termination Buyer did not also have the right to terminate this Agreement pursuant to Section 9.01(d), Section 9.01(e) or Section 9.01(f) and (B) the conditions set forth in Section 6.02(a) and Section 6.02(b) would be satisfied (except where the failure of such conditions to be satisfied is the result of a failure of Buyer to perform its obligation under this Agreement or any Related Agreement) if the Closing Date were the date of such termination, then such fee shall be an amount equal to the sum of (x) five million dollars (\$5,000,000) plus (y) either (I) the difference, if (and only if) such difference is a positive amount, between (a) twenty-five million dollars (\$25,000,000) and (b) all amounts paid to Seller in connection with the Available Funds L/C or the Available Funds Agreement or (II) zero dollars (\$0), if such difference is not a positive amount) (the "Buyer Termination Fee"), it being understood that in no event shall Buyer be required to pay the Buyer Termination Fee on more than one occasion (except as set forth below with respect to any payment under the Available Funds L/C or Available Funds Agreement being rescinded, restored, or returned). The Buyer Termination Fee shall be payable in immediately available funds by wire transfer no later than two (2) Business Days (to an account designated in writing by Seller) after such termination in the event terminated by Seller or concurrently with such termination by Buyer; provided, however, that in the event this Agreement is terminated in circumstances that result in the Buyer Termination Fee being calculated by taking the sum of the amounts set forth in clauses (x) and (y) above following the occurrence of any event that may give Seller a right to payment under the Available Funds L/C or the Available Funds Agreement, Buyer shall not be obligated to pay to Seller the portion of the Buyer Termination Fee that is the amount set forth in clause (y) above until (i) Seller has used its Commercially Reasonable Efforts to seek such payment under the Available Funds L/C or the Available Funds Agreement for a period of at least than five (5) Business Days and failed to obtain such payment (provided, however, for the avoidance of doubt, Seller shall not have to seek such payment if it reasonably believes that it is not entitled to any such payment under the terms of the Available Funds L/C or the Available Funds Agreement) and (ii) two (2) Business Days after Seller delivers to Buyer written notice of such failure and of the amount of all payment to Seller in connection with the Available Funds L/C or the Available Funds Agreement (or two (2) Business Days after Seller delivers notice to Buyer that it reasonably believes that it is not entitled to any such payment). In the event any payment to Seller under the Available Funds L/C or the Available Funds Agreement is rescinded or must otherwise be restored or returned by Seller for any reason (including if compelled to do so under any Order by any Government Authority, including upon the insolvency, bankruptcy, dissolution, liquidation or reorganization of NYPA or upon or as a result of the appointment of a receiver, intervenor or conservator of, or trustee or similar officer for, any of NYPA or any substantial part of NYPA's property), Buyer shall pay to Buyer an amount equal to the difference between (A) the amount of the Buyer Termination Fee that would be payable calculated as if such rescinded, restored or returned amount had not been paid and (B) the amount of the Buyer Termination Fee previously paid by Buyer. In the event Buyer has made any payment of any portion of the Buyer Termination Fee that is the amount set forth in clause (y) above for which Seller subsequently receives a payment in connection with the Available Funds L/C or the Available Funds Agreement, Seller shall pay to Buyer the amount of such payment no later than two (2) Business Days after Seller receives it. For the avoidance of doubt, any amount received by Seller as recovery for its reasonable out-of-pocket attorney fees and expenses to enforce the

Available Fund Agreement or the Available Funds L/C shall not be deemed an amount paid to Seller for purposes of clause (y) above. If this Agreement is terminated and Seller is entitled to draw funds under the terms of the Available Funds L/C or the Available Funds Agreement, Seller shall draw and demand funds under the Available Funds L/C and the Available Funds Agreement. In the event Buyer makes a payment of the Termination Fee in an amount calculated in accordance with the first proviso above in this Section 9.02(a), Seller shall, promptly (and in any event, within one (1) Business Day) following such payment, deliver a joint written notice with Buyer to NYPA of such payment by Buyer. Buyer shall be responsible for any transfer fee in the event the Available Funds L/C is transferred to Buyer.

(b) If this Agreement is terminated and the aggregate Reimbursement Credit Amount (as defined in the Reimbursement Agreement) is a positive amount, Seller shall pay to Buyer a fee equal to such positive amount (the "Seller Termination Fee"), it being understood that in no event shall Seller be required to pay the Seller Termination Fee on more than one occasion. The Seller Termination Fee shall be payable in immediately available funds by wire transfer no later than two (2) Business Days (to an account designated in writing by Buyer) after such termination in the event terminated by Buyer or concurrently with such termination by Seller.

(c) Without limiting any Party's rights pursuant to Section 11.07, such Party's rights to receive payment of the applicable Termination Fee and, if applicable, its costs and expenses pursuant to Section 9.02(d), shall be the sole and exclusive remedy of the other Party or any of its Affiliates against such first Party or any of its Affiliates or any of their respective stockholders, partners, members or Representatives for any and all losses that may be suffered based upon, resulting from or arising out of this Agreement or the Transaction; provided, however, that, regardless of whether such Party pays or is obligated to pay the applicable Termination Fee, nothing in this Section 9.02(c) shall release such Party from any liability for a Willful Breach of this Agreement or for any liability for any breach of any provision of this Agreement that expressly survives termination of this Agreement.

(d) If any Party fails to promptly pay an amount due pursuant to Section 9.02(a) or (b) and, in order to obtain such payment the other Party commences a Claim that results in a judgment against such first Party for the amount of the applicable Termination Fee or any portion thereof, such Party shall pay to the other Party its costs and expenses (including reasonable attorneys' fees and the fees and expenses of any expert or consultant engaged by the other Party) in connection with such Claim. All amounts payable pursuant to this Section 9.02 shall accrue interest at the prime lending rate published in The Wall Street Journal and in effect on the date of payment, with such interest being payable in respect of the period from the date that payment was originally required to be made pursuant to this Section 9.02 through to and including the date of payment.

(e) Each of the Parties acknowledges that the agreements contained in this Section 9.02 are an integral part of the Transaction and that each of the Buyer Termination Fee and the Seller Termination Fee is not a penalty, but rather is liquidated damages in a reasonable amount that will compensate Buyer or Seller, as applicable in the circumstances in which such fee is payable for the efforts and resources expended and opportunities foregone while negotiating this Agreement and in reliance on this Agreement and on the expectation of the

consummation of the Transaction, which amount would otherwise be impossible to calculate with precision.

Section 9.03 Effect of Termination.

(a) If this Agreement is terminated pursuant to Section 9.01, written notice of such termination (including specific reference to the provision in Section 9.01 pursuant to which this Agreement is being terminated) shall be given by the terminating Party to the other Party. In the event that this Agreement is validly terminated in accordance with Section 9.01, this Agreement shall forthwith become null and void and have no effect, without Liability or obligation on the part of Seller or Buyer (or any Affiliate or Representative thereof), whether arising before or after such termination, based on, arising out of or relating to this Agreement or the negotiation, execution, performance or subject matter hereof (whether in contract or in tort or otherwise, or whether at law or in equity) except for (i) the provisions of this Article IX, Section 5.03(c), Section 5.03(d), Section 5.09(d), Section 5.13, Section 5.18(b) and Article XI, which provisions and any Liability therefore will survive such termination, and (ii) any Liability for any Willful Breach of this Agreement prior to such termination.

(b) Each of the Parties acknowledges on behalf of itself and its Affiliates that, except as contemplated by Section 5.18(b), Section 9.02(a) or the Available Funds Agreement (including with respect to Buyer's third party beneficiary rights thereunder), (i) any payment or proceeds pursuant to the Available Funds Agreement or the Available Funds L/C is compensation for Seller and its Affiliates for the efforts and resources expended and the opportunities foregone while negotiating this Agreement and the Related Agreements, (ii) Buyer and its Affiliates shall have no rights under, or interest to, the Available Funds Agreement, the Available Funds L/C or any payments or proceeds therefrom, (iii) the availability of, or the payments or proceeds from, the Available Funds Agreement or the Available Funds L/C shall not otherwise reduce any recovery of damages that Seller may properly Claim under this Agreement against Buyer or otherwise affect Buyer's obligation to pay the Buyer Termination Fee when payable pursuant to this Agreement, and (iv) Buyer shall not assert any Claim that is contrary to the foregoing.

ARTICLE X

CERTAIN TAX MATTERS

Section 10.01 Taxes. Seller shall be liable for and pay and, pursuant to Article VIII, shall indemnify, defend and hold harmless the Indemnified Buyer Entities from and against any and all Indemnified Losses suffered, paid or incurred by such Indemnified Buyer Entity relating to or arising out of (a) all Taxes attributable to the Excluded Assets and the Excluded Liabilities, or otherwise unrelated to the Facility, the Transferred Assets or the Assumed Liabilities; and (b) (other than Taxes subject to reimbursement as Transaction Related Incremental Costs under the Reimbursement Agreement) all Taxes applicable to the Facility, the Transferred Assets and the Assumed Liabilities, in each case attributable to a Pre-Closing Tax Period and, with respect to any Straddle Period, the portion of such Straddle Period ending on and including the Closing Date. Except as provided in this Agreement or any Related Agreement, Buyer shall be liable for and pay and, pursuant to Article VIII, shall indemnify,

defend and hold harmless the Indemnified Seller Entities from and against any and all Indemnified Losses suffered, paid or incurred by such Indemnified Seller Entity relating to or arising out of all Taxes applicable to the Facility, the Transferred Assets and the Assumed Liabilities that are attributable to taxable years or periods beginning after the Closing Date and, with respect to any Straddle Period, the portion of such Straddle Period beginning after the Closing Date.

Section 10.02 Transfer Taxes. Notwithstanding Section 10.01, Buyer shall be solely liable for and shall pay all Transfer Taxes attributable to the sale or transfer of the Facility and the Transferred Assets to Buyer and shall indemnify, defend and hold harmless Seller and its Affiliates from and against any and all Liability for the payment of such Transfer Taxes. Each of Buyer and Seller agrees to timely sign and deliver any such certificates or forms as may be necessary or appropriate to establish an exemption from (or otherwise reduce), and Seller agrees to file any Tax Returns required to be filed by it (after review and approval by Buyer) with respect to, such Transfer Taxes. Seller agrees to accept and honor any New York Direct Payment Permit or any exemption certificate provided by Buyer. For the avoidance of doubt, notwithstanding anything in this Agreement, the Reimbursement Agreement or any other Related Agreement to the contrary, Buyer shall not be liable, nor shall Buyer be required to reimburse Seller for (i) any Transfer Taxes that would not have been imposed but for the failure of Seller (or any Affiliate of Seller) to provide certificates or forms as may be necessary or appropriate to establish an exemption from (or otherwise reduce) Transfer Taxes, (ii) any failure of any representation of Seller in Section 3.02(f) of the Reimbursement Agreement to be true, (iii) any Transfer Taxes attributable to the sale or transfer of the Facility and the Transferred Assets that arise in connection with any restructuring involving Seller or any intermediate holding company thereof prior to Closing, including any restructuring pursuant to Section 5.14, or (iv) any interest or penalties attributable to Seller's failure to timely remit Taxes collected from Buyer.

Section 10.03 Straddle Period. For purposes of determining the amount of Taxes that relate to a Pre-Closing Tax Period (or portion of any Straddle Period ending on or prior to the Closing Date), the Parties agree as follows:

(a) in the case of real property Taxes, personal property Taxes, any payments made under the Payment in Lieu of Taxes Agreement for the Facility with the Town of Scriba, Mexico Academy & Central School District and County of Oswego, ad valorem Taxes, and other similar Taxes levied on a periodic basis, whether imposed or assessed before or after the Closing Date, the amount of Taxes that are attributable to the portion of the Straddle Period ending on (or in the case of employment Taxes, the day before) the Closing Date shall be determined by multiplying the Taxes for the entire Straddle Period by a fraction, the numerator of which is the number of calendar days in the portion of the period ending on the Closing Date and the denominator of which is the number of calendar days in the entire Straddle Period; and

(b) in the case of all other Taxes (including income Taxes, employment Taxes, and sales and use Taxes), whether imposed or assessed before or after the Closing Date, the amount of Taxes that are attributable to the portion of the Straddle Period ending on (or in the case of employment Taxes, the day before) the Closing Date shall be determined as if Seller filed a separate Tax Return with respect to such Taxes for the portion of the Straddle Period ending on (or in the case of employment Taxes, the day before) the Closing

Date using a "closing of the books methodology." For purposes of this clause (b), any item determined on an annual or periodic basis (including amortization and depreciation deductions) shall be allocated to the portion of the Straddle Period ending on (or in the case of employment Taxes, the day before) the Closing Date based on the mechanics set forth on clause (a) for periodic Taxes.

Section 10.04 Reimbursements. Seller and Buyer, as the case may be, shall provide reimbursement for any Tax paid by one Party all or a portion of which is the responsibility of the other Party in accordance with the terms of this Article X without regard to the aggregate indemnification limitations set forth in Article VIII. Within a reasonable time prior to the payment of any such Tax, the Party paying such Tax shall give notice to the other Party of the Tax payable and the portion which is the liability of each Party, although failure to do so will not relieve the other Party from its liability hereunder.

Section 10.05 Tax Claims. Each Party shall promptly notify the other Party in writing of the commencement of any examination, proceeding or audit of any Tax Return of the Facility or the Transferred Assets and any other proposed change or adjustment, Claim, dispute, arbitration or litigation that would reasonably be expected to give rise to a liability of the other Party in respect of Taxes under this Article X (a "Tax Claim"). Such notice shall describe the asserted Tax Claim in reasonable detail and shall include copies of any notices and other documents received from any Taxing Authority in respect of any such asserted Tax Claim. Buyer shall control the defense of any Tax Claim; provided that (i) Seller shall have the opportunity to participate, at its own expense, in any Tax Claim that would reasonably be expected to give rise to a liability of the Seller pursuant to this Article X, and (ii) Buyer shall not settle any Tax Claim relating to Taxes for which Seller is liable pursuant to this Article X without first obtaining Seller's written consent.

Section 10.06 Cooperation. Buyer and Seller agree to furnish or cause to be furnished to each other, upon request, as promptly as practicable, such information and assistance relating to the Facility, the Transferred Assets and the Assumed Liabilities as is reasonably necessary for the filing of all Tax Returns, the making of any election relating to Taxes, the preparation for any audit by any Taxing Authority, and the prosecution or defense of any Claim relating to any Tax.

Section 10.07 Tax Ownership. Notwithstanding anything to the contrary in this Agreement, the Parties intend that Buyer will become the owner of the Facility and the Transferred Assets for U.S. federal and applicable state and local Tax purposes immediately after the Closing and each Party shall file, and shall cause each of its Affiliates to file, all Tax Returns consistent with such intent.

ARTICLE XI

MISCELLANEOUS

Section 11.01 Expenses. Except as otherwise provided in this Agreement (including Section 5.04(b)) or any Related Agreement, whether or not the Closing takes place, all costs and expenses incurred in connection with this Agreement and the Transaction shall be paid

Enclosure 4 (Page 73 of 98)

by the Party incurring such costs and expenses, including any fees, expenses or other payments incurred or owed by a Party to any brokers, Representatives, financial or legal advisors or comparable other Persons retained or employed by such Party in connection with the Transaction.

Section 11.02 Notices. All notices, requests, consents, Claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given (a) when delivered by hand (with written confirmation of receipt), (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested), (c) on the date sent by facsimile or e-mail of a .pdf document (with confirmation of transmission) if sent prior to 6:00 p.m. Central Time on a Business Day and on the next Business Day if sent after 6:00 p.m. Central Time on a Business Day or at any time on a date that is not a Business Day or (d) on the third (3rd) day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective Parties at the following addresses (or at such other address for a Party as shall be specified in a notice given in accordance with this Section 11.02).

(a) if to Buyer, to:

Exelon Generation Company, LLC
10 South Dearborn Street, 49th Floor
Chicago, IL 60603
Attention: Carter Culver, Vice President & Deputy General Counsel
Email: carter.culver@exeloncorp.com

with a copy to (which shall not constitute notice):

Sidley Austin LLP
One South Dearborn
Chicago, IL 60603
Attention: Richard W. Astle
Email: rastle@sidley.com

(b) if to Seller, to:

Entergy Nuclear FitzPatrick, LLC
c/o Entergy Services, Inc.
2001 Timberloch Place
2nd Floor South
The Woodlands, TX 77380
Attention: Barrett E. Green
Email: bgreen2@entergy.com

Enclosure 4 (Page 74 of 98)

with a copy to (which shall not constitute notice):

Entergy Services, Inc.
L-ENT-26B
639 Loyola Avenue
New Orleans, LA 70113
Facsimile: (504) 576-4150
Attention: General Counsel

and

Skadden, Arps, Slate, Meagher & Flom LLP
1440 New York Avenue, NW
Washington, DC 20005
Attention: Pankaj K. Sinha, Esq.
Email: pankaj.sinha@skadden.com

Section 11.03 Severability. Any term or provision of this Agreement that is determined by a court of competent jurisdiction to be invalid or unenforceable for any reason shall, as to that jurisdiction, be ineffective solely to the extent of such invalidity or unenforceability without rendering invalid or unenforceable the remaining terms and provisions of this Agreement or affecting the validity or enforceability of any of the terms or provisions of this Agreement in any other jurisdiction, so long as the economic or legal substance of the Transaction is not affected in any manner adverse to any Party. Upon such determination that any term or provision is invalid or unenforceable, the Parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the Parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated by this Agreement be consummated as originally contemplated to the greatest extent possible. If any provision of this Agreement is determined by a court of competent jurisdiction to be so broad as to be unenforceable, that provision shall be interpreted to be only so broad as is enforceable. Each of Buyer and Seller acknowledges that the Pre-Refueling Conditions and the agreements contained in Section 5.06 with respect to the Refueling are an integral part of this Agreement and the Transaction and that, without these conditions and agreements, the Purchaser would not have entered into this Agreement or any Related Agreement.

Section 11.04 Amendments and Waivers. This Agreement may not be amended except by an instrument in writing signed by Buyer and Seller. Each Party may, by an instrument in writing signed on behalf of such Party, waive compliance by any other Party with any term or provision of this Agreement that such other Party was or is obligated to comply with or perform. No failure or delay by any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. Except as otherwise provided herein, the rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by Law.

Section 11.05 Entire Agreement; No Third Party Beneficiaries. This Agreement

Enclosure 4 (Page 75 of 98)

(together with the written agreements (including the Assignment and Assumption Agreements and the Bills of Sale), Schedules and certificates referred to herein or delivered pursuant hereto and the Related Agreements) and the Confidentiality Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among the Parties with respect to the subject matter hereof. Except as provided in Section 7.02(a) with respect to the Persons specified therein, or Article VIII with respect to any Indemnified Entity, this Agreement is for the sole benefit of the Parties and their permitted assigns and is not intended to confer upon any other Person any rights or remedies hereunder.

Section 11.06 Governing Law. This Agreement, the Employee Matters Agreement, and all Claims or causes of action of the Parties (whether in contract or in tort or otherwise, or whether at law (including at common law or by statute) or in equity) that may be based on, arise out of or relate to this Agreement, the Employee Matters Agreement or the negotiation, execution, performance or subject matter hereof or thereof, shall be governed by and construed in accordance with the domestic Laws of the State of Delaware without giving effect to any choice or conflict of law provision or rule that would cause the application of the Laws of any jurisdiction other than the State of Delaware; provided that all Claims or causes of action of the Parties with respect to the Real Property or other real estate matters shall be governed by and construed in accordance with the domestic Laws of the State of New York without giving effect to any choice or conflict of law provision or rule that would cause the application of the Laws of any jurisdiction other than the State of New York.

Section 11.07 Specific Performance.

(a) The Parties agree that irreparable damage would occur in the event that any provision of this Agreement was not performed in accordance with its specific terms or was otherwise breached. Accordingly, each of the Parties agrees that any other Party shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof, in addition to any other remedy to which such Party is entitled at law or in equity. The Parties hereby waive, in any action for specific performance, the defense of adequacy of a remedy at law and the posting of any bond or other undertaking or security in connection therewith. Each of the Parties agrees that it will not oppose the granting of an injunction, specific performance and other equitable relief on the basis that there is adequate remedy at law or an award of specific performance is not an appropriate remedy for any reason at law or equity. Each Party further agrees that (i) by seeking any remedy provided in this Article XI, a Party shall not in any respect waive its right to seek any other form of relief that may be available to a Party under this Agreement and (ii) nothing contained in this Section 11.07 shall require any Party to institute any action for (or limit any Party's right to institute any action for) specific performance under this Section 11.07 before exercising any other right under this Agreement.

(b) If any Party brings any legal proceeding in court to enforce specifically the performance of the terms and provisions when expressly available to such Party pursuant to the terms of this Agreement, the Outside Date shall automatically be extended by the time period between the commencement of such legal proceeding is no longer actively pending before a court with jurisdiction pursuant to Section 11.08.

Section 11.08 Consent to Jurisdiction; Waiver of Jury Trial. Each of the Parties irrevocably submits to the exclusive jurisdiction of the Delaware Court of Chancery or, if such court disclaims jurisdiction, any state or federal court located in the State of Delaware, for the purposes of any suit, action or other proceeding arising out of this Agreement, the Employee Matters Agreement or any transaction contemplated hereby or thereby. Each of the Parties further agrees that service of any process, summons, notice or document by U.S. certified mail to such Party's respective address set forth on Section 11.02 shall be effective service of process for any action, suit or proceeding in the State of Delaware with respect to any matters to which it has submitted to jurisdiction as set forth above in the immediately preceding sentence. Each of the Parties irrevocably and unconditionally waives any objection to the laying of venue of any action, suit or proceeding arising out of this Agreement, the Employee Matters Agreement or the Transaction in (a) the Delaware Court of Chancery or (b) any state or federal court located in the State of Delaware, and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE PARTIES HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT, THE EMPLOYEE MATTERS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.**

Section 11.09 EXCLUSIVITY OF REPRESENTATIONS AND WARRANTIES.

(a) BUYER ACKNOWLEDGES AND AGREES THAT, EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN ARTICLE III (AS MODIFIED BY THE SELLER DISCLOSURE SCHEDULE) AND THE RELATED AGREEMENTS, THE TRANSFERRED ASSETS ARE SOLD "AS-IS, WHERE-IS," AND SELLER EXPRESSLY DISCLAIMS (AND DISCLAIMS ANY LIABILITY FOR OR RESPONSIBILITY OF) ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, AT COMMON LAW OR STATUTE, MADE BY SELLER OR ITS AFFILIATES, OR BY ANY REPRESENTATIVE THEREOF, WITH RESPECT TO THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT AND THE RELATED AGREEMENTS, INCLUDING AS TO (I) ANY ASSETS OR LIABILITIES (INCLUDING THE TRANSFERRED ASSETS AND THE ASSUMED LIABILITIES) OR BUSINESS OR OPERATIONS OF ANY SELLER ENTITY OR ITS AFFILIATES, THE OPERATIONS OF THE FACILITY, (II) THE TITLE, CONDITION, VALUE, OR QUALITY OF THE TRANSFERRED ASSETS, (III) THE MERCHANTABILITY, USAGE, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHETHER LATENT OR PATENT, OR AS TO THE CONDITION OF THE TRANSFERRED ASSETS, OR (IV) THE ACCURACY OR COMPLETENESS (OR LACK THEREOF) OF ANY MATERIALS OR OTHER INFORMATION (INCLUDING ANY PROJECTION, FORECAST, ADVICE OR OPINION) PROVIDED BY OR COMMUNICATIONS MADE BY SELLER OR ANY OF ITS AFFILIATES, OR BY ANY REPRESENTATIVE THEREOF, WHETHER BY USE OF A DATA ROOM OR ANY OTHER METHOD OF COMMUNICATION. BUYER ACKNOWLEDGES AND AGREES THAT NO EXHIBIT TO THIS AGREEMENT, NOR ANY MATERIALS OR OTHER INFORMATION REFERENCED IN CLAUSE (IV) OR

OTHERWISE WILL CAUSE OR CREATE ANY REPRESENTATION OR WARRANTY OF ANY KIND OF NATURE, EXPRESS OR IMPLIED, AT COMMON LAW OR STATUTE. BUYER FURTHER ACKNOWLEDGES THAT BUYER, EITHER ALONE OR TOGETHER WITH ITS AFFILIATES AND ITS AND THEIR REPRESENTATIVES, HAS KNOWLEDGE AND EXPERIENCE IN TRANSACTIONS OF THIS TYPE AND IN THE OWNERSHIP AND OPERATION OF NUCLEAR POWER PLANTS AND IS THEREFORE CAPABLE OF EVALUATING THE RISKS AND MERITS OF ACQUIRING THE TRANSFERRED ASSETS AND ASSUMING THE ASSUMED LIABILITIES AND CONSUMMATING THE TRANSACTION AND THE TRANSACTIONS CONTEMPLATED UNDER THIS AGREEMENT AND THE RELATED AGREEMENTS. BUYER FURTHER ACKNOWLEDGES THAT IT HAS RELIED ON ITS OWN INDEPENDENT INVESTIGATION, AND HAS NOT RELIED ON ANY MATERIALS OR OTHER INFORMATION PROVIDED BY OR COMMUNICATION MADE BY SELLER OR ANY OF ITS AFFILIATES, OR BY ANY REPRESENTATIVE THEREOF, OR ANY OTHER REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESSED OR IMPLIED, AT COMMON LAW OR STATUTE, (EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH ON ARTICLE III (AS MODIFIED BY THE SELLER DISCLOSURE SCHEDULE)), IN DETERMINING TO ENTER INTO THIS AGREEMENT AND THE RELATED AGREEMENTS OR THE PROBABLE SUCCESS OF PROFITABILITY OF THE FACILITY.

(b) SELLER ACKNOWLEDGES AND AGREES THAT, EXCEPT FOR THE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN ARTICLE IV (AS MODIFIED BY THE BUYER DISCLOSURE SCHEDULE) AND THE RELATED AGREEMENTS, BUYER EXPRESSLY DISCLAIMS (AND DISCLAIMS ANY LIABILITY FOR OR RESPONSIBILITY OF) ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, AT COMMON LAW OR STATUTE, MADE BY BUYER OR ITS AFFILIATES, OR BY ANY REPRESENTATIVE THEREOF, WITH RESPECT TO THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT AND THE RELATED AGREEMENTS.

(c) EACH PARTY ACKNOWLEDGES AND AGREES THAT THE PROVISIONS OF THIS SECTION HAVE BEEN NEGOTIATED BY THE PARTIES AFTER DUE CONSIDERATION AND ARE INTENDED TO BE A COMPLETE EXCLUSION AND NEGATION AND NONRELIANCE OF ANY REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AT COMMON LAW OR STATUTE, OTHER THAN THOSE REPRESENTATIONS AND WARRANTIES EXPRESSLY SET FORTH IN THIS AGREEMENT OR IN ANY OTHER RELATED AGREEMENT, PROVIDED, HOWEVER, THAT, NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS SECTION 11.09, NEITHER BUYER OR SELLER IS WAIVING ANY RIGHT TO MAKE ANY CLAIMS FOR ACTUAL AND INTENTIONAL FRAUD IN CONNECTION WITH THIS AGREEMENT OR ANY RELATED AGREEMENT AND THE ABOVE WAIVERS, AGREEMENTS AND ACKNOWLEDGEMENTS DO NOT APPLY WITH RESPECT TO ANY MATTERS INVOLVING SUCH FRAUD.

Section 11.10 Assignment. Neither this Agreement nor any of the rights or obligations hereunder shall be assigned by any of the Parties without the prior written consent of

each of the other Parties. Subject to the preceding sentence, this Agreement will be binding upon, inure to the benefit of and be enforceable by the Parties and their respective successors and permitted assigns.

Section 11.11 Schedules, Annexes and Exhibits. Except as otherwise provided in this Agreement, all Schedules, Annexes and Exhibits referred to herein are intended to be and hereby are made a part of this Agreement. Any disclosure in the Schedules corresponding to and qualifying a specific section or subsection hereof shall be deemed to correspond to and qualify any other section or subsection hereof relating to Seller (in the case of the Seller Disclosure Schedule) or Buyer (in the case of the Buyer Disclosure Schedule), in each case, to the extent that it is reasonably apparent on the face thereof that such fact or item relates to another Schedule. Certain information set forth on the Schedules is included solely for informational purposes, is not an admission of Liability with respect to the matters covered by the information, and may not be required to be disclosed pursuant to this Agreement. The specification of any dollar amount contained in this Agreement or the inclusion of any specific item in the Schedules is not intended to imply that such amounts (or higher or lower amounts) are or are not material, and no Party shall use the fact of the setting of such amounts or the fact of the inclusion of any such item in the Schedules in any dispute or controversy between the Parties as to whether any obligation, item or matter not described herein or included in a Schedule is or is not material for purposes of this Agreement. In no event will the listing of any matter in the Schedules be deemed or interpreted to broaden or otherwise amplify the representations, warranties, covenants or agreements contained in this Agreement.

Section 11.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which shall, taken together, be considered one and the same agreement. Delivery of an executed signature page of this Agreement by facsimile or other electronic image scan transmission shall be effective as delivery of a manually executed counterpart of this Agreement.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the date first above written.

SELLER

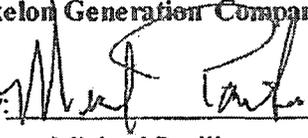
Entergy Nuclear FitzPatrick, LLC

By: 
Name: A.C. Bakken III
Title: SUP-CNO, President CEO

[Signature Page to Asset Purchase Agreement]

BUYER

Exelon Generation Company, LLC

By:  _____

Name: Michael Pacilio

**Title: Executive Vice President and
Chief Operating Officer**

[Signature Page to Asset Purchase Agreement]

Exhibit A

Defined Terms

Section 1 Defined Terms. As used in this Agreement, each of the following terms has the meaning specified in this Section 1 of Exhibit A.

"Active Employees" has the meaning specified in the Employee Matters Agreement.

"Affiliate," with respect to any Person, means any other Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with such first Person.

"ANI" means American Nuclear Insurers.

"Assignment and Assumption Agreements" means the respective assignment and assumption agreements, each in the form attached hereto as Exhibit C, by and between each Seller Entity, as applicable, and Buyer.

"Atomic Energy Act" means the Atomic Energy Act of 1954, as amended.

"Bills of Sale" means respective bills of sale by which the title to personal property shall be conveyed to Buyer by each applicable Seller Entity, substantially in the form attached hereto as Exhibit D.

"Business Day" means any day other than a Saturday or Sunday or any day banks in the State of New York are authorized or required to be closed.

"Business Employee" means any employee of Seller or any Other Seller Entity whose job duties relate principally to the operation of the Facility or any former employee of Seller or any Other Seller Entity whose job duties immediately before termination of employment related principally to the operation of the Facility. Business Employees shall not include individuals who render services to Seller or any Other Seller Entity solely on a consultant or independent contractor basis.

"Buyer Long-Term Agreement" means the long-term agreement by and among Buyer and/or one or more of its Affiliates and NYSERDA for each of Buyer's and Constellation Energy Nuclear Group, LLC's nuclear facilities in the State of New York to be entered into during the Interim Period.

"CBA" means all agreements with the collective bargaining representatives of Active Employees that set forth the terms and conditions of employment of Active Employees, and all modifications of, or amendments to, such agreements and any rules, procedures, awards or decisions of competent jurisdiction interpreting or applying such agreements.

"CES" means the clean energy standard adopted by the NYPSC in the CES Order.

"CES Order" means the Order Adopting a Clean Energy Standard by the NYPSC issued

and effective as of August 1, 2016, with respect to Cases 15-E-0302 & 16-E-0270.

"Claim" means any demand, claim, counter-claim, action, legal proceeding (whether at law or in equity), or arbitration.

"COBRA" means Section 4980B(f) of the Code, Part 6 of Subtitle B of Title I of ERISA or any analogous state Law.

"Code" means the U.S. Internal Revenue Code of 1986, as amended.

"Commercially Reasonable Efforts" means, as further expanded, limited, clarified or otherwise modified by any specific provision of this Agreement, the commercially reasonable efforts, time and, if any, costs (or other Liabilities) a reasonable Person desirous of achieving the contemplated result would use, expend or incur in similar circumstances to attempt to ensure that such result is achieved as expeditiously as reasonably practicable.

"Confidentiality Agreement" means the Confidentiality Agreement, dated as of May 24, 2016, by and between Entergy Services, Inc. and Exelon Corporation, as amended by that certain letter agreement dated August 8, 2016.

"Contract" means any written or oral contract, lease, license, evidence of indebtedness, mortgage, indenture purchase order, binding bid, letter of credit, memorandum of understanding, security agreement, undertaking or other agreement that is legally binding.

"control" (including its correlative meanings "controlled by" and "under common control with") means possession, directly or indirectly, of the power to direct or cause the direction of management or policies of a Person (whether through ownership of securities or partnership or other ownership interests, by Contract or otherwise).

"Decommissioning" means the complete retirement and removal of the Facility from service and the restoration of the Site to a status that permits the Site and spent fuel storage installation to be released for unrestricted use in accordance with the NRC regulations, as well as any planning and administrative activities incidental thereto, including, (a) reducing residual radioactivity at the Site and spent fuel storage installation to levels meeting the NRC radiological release criteria and any other actions necessary to obtain termination of the NRC Licenses and (b) all other activities necessary for the retirement, dismantlement, and decontamination of the Facility to comply with all applicable requirements of the Atomic Energy Act, the NRC's rules, regulations, orders and pronouncements thereunder and any related decommissioning plan, Environmental Laws and other Laws.

"DOE" means the U.S. Department of Energy or any successor thereto.

"DOE Consent" means the unrestricted consent of DOE for the assignment to Buyer at Closing of the rights and obligations relating to the Facility (and exclusive of any Seller rights and obligations relating to Indian Point Nuclear Generating Unit No. 3 or any other facility) under the DOE Standard Contract.

"DOE Standard Contract" means the Contract for Disposal of Spent Nuclear Fuel and/or

Enclosure 4 (Page 83 of 98)

High-Level Radioactive Waste, No. DE-CR01-83NE-44407, dated as of June 20, 1983, between the United States of America, represented by the United States DOE, and NYPA, as amended from time to time, and assigned by NYPA to Seller on or around November 21, 2000, but only to the extent that such contract applies to the Facility (and exclusive of any rights and obligations relating to Indian Point Nuclear Generating Unit No. 3 or any other facility).

"DOJ" means the U.S. Department of Justice.

"Eligible Contract" means (i) any Material Contract of the type set forth in clause (i) of the definition of Material Contract in Section 3.07 or Contract of the type set forth in clause (i) of the definition of Material Contract in Section 3.07 that would constitute a Material Contract if entered into prior to the date of this Agreement (but excluding any such Material Contract that also is or would be a Material Contract under any other clause of the definition of Material Contract) and (ii) any Contract related to the Facility that (a) is not an Emergency Preparedness Agreement, Material Contract or Seller Entity Plan, (b) was made available to Buyer prior to the date of this Agreement and (c) can be terminated by Seller (or its applicable Affiliate party thereto) without penalty upon not more than ninety (90) days' notice.

"Employee Matters Agreement" means the employee matters agreement, dated the date of this Agreement, by and between Buyer and Seller.

"Energy Reorganization Act" means the Energy Reorganization Act of 1974, as amended.

"ENOI" means Entergy Nuclear Operations, Inc.

"Environmental Law" means any and all Laws and judicial interpretations thereof that relate to the prevention, abatement, remediation, or elimination of pollution, Hazardous Substances or protection, preservation or restoration of the environment (including air, surface water, groundwater, drinking water supply, surface land, plant and animal life or any other natural resources), protection of human health or safety in respect of exposure to Hazardous Substances, or the release or disposal of Hazardous Substances, including the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. § 9601 et seq., the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6901 et seq., the Clean Water Act, 33 U.S.C. § 1251 et seq., the Clean Air Act, 42 U.S.C. § 7401 et seq., the Emergency Planning and Community Right to Know Act of 1986, 42 U.S.C. § 11001 et seq., the Safe Drinking Water Act, 42 U.S.C. § 300f et seq., the Toxic Substances Control Act, 42 U.S.C. § 2601 et seq., the Hazardous Materials Transportation Act, 49 U.S.C. § 5101 et seq., the Endangered Species Act, 16 U.S.C. § 1531 et seq., the Migratory Bird Treaty Act, 16 U.S.C. § 703 et seq., the Bald and Golden Eagle Protection Act, 16 U.S.C. § 668 et seq., and state laws analogous to any of the above, as any or all may be amended, changed or supplemented.

"Environmental Liabilities" means any Liability under or related to Environmental Laws or the common law, whether such liability or obligation or responsibility is known or unknown, contingent or accrued, arising as a result of or in connection with (a) any violation or alleged violation of Environmental Law, prior to, on or after the Closing Date, with respect to the

ownership, operation or use of the Transferred Assets or the Facility, including fines, penalties and the costs of correcting any such violations but excluding fines and penalties to the extent arising out of violations or alleged violations occurring prior to the Closing Date; (b) loss of life, injury to Persons, property or business or damage to natural resources (whether or not such loss, injury or damage arose or was made manifest before the Closing Date or arises or becomes manifest after the Closing Date), caused (or allegedly caused) by the presence or release of Hazardous Substances at, on, in, under, above or migrating from the Transferred Assets or the Facility prior to, on or after the Closing Date, including Hazardous Substances contained in building materials at the Transferred Assets or the Facility or in the atmosphere, soil, surface water, sediments, groundwater, landfill cells, or in other environmental media at or on the Transferred Assets or the Facility; (c) the Remediation (whether or not such Remediation commenced before the Closing Date or commences after the Closing Date) of Hazardous Substances that are present or have been released prior to, on or after the Closing Date at, on, in, under, above or migrating from the Transferred Assets or the Facility, including Hazardous Substances contained in building materials at the Transferred Assets or the Facility or in the atmosphere, soil, surface water, sediments, groundwater, landfill cells, or in other environmental media at or on the Transferred Assets or the Facility; (d) except as provided in clause (a) above, compliance with Environmental Laws prior to, on or after the Closing Date with respect to the ownership or operation or use of the Transferred Assets or the Facility; (e) loss of life, injury to Persons, property or business or damage to natural resources caused (or allegedly caused) by the offsite disposal, storage, transportation, discharge, release or recycling, or the arrangement for such activities, of Hazardous Substances, prior to, on or after the Closing Date, in connection with the ownership or operation of the Transferred Assets or the Facility; and (f) the Remediation of Hazardous Substances that are disposed, stored, transported, discharged, released, recycled, or the arrangement of such activities, prior to, on or after the Closing Date, in connection with the ownership or operation of the Transferred Assets or the Facility.

"Environmental Permits" means any permits, certificates, licenses, franchises, writs, variances, exemptions, orders and other authorizations of any Governmental Authorities issued under any Environmental Law.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

"ERISA Affiliate" means any trade or business (whether or not incorporated) that, together with a Person, is treated as a single employer under Section 4001(b) of ERISA or under Section 414 of the Code.

"EUP Procurement Agreement" has the meaning specified in the Reimbursement Agreement.

"Excluded Disqualifying Conduct" means any Disqualifying Conduct (as defined in the Reimbursement Agreement).

"Excluded DOE Claims" means any Claims (a) arising from DOE's partial breach of the DOE Standard Contract with respect to the Facility accrued as of Closing and (b) arising from any future breach by DOE of the DOE Standard Contract with respect to the Facility and related or pertaining to any fees paid prior to Closing pursuant to Article VIII of the DOE Standard

Enclosure 4 (Page 85 of 98)

Contract.

"Facility Long-Term Agreement" means the long-term agreement by and between Seller and NYSERDA for the Facility to be entered into during the Interim Period.

"FCC" means the Federal Communications Commission or any successor agency.

"Federal Power Act" means the Federal Power Act of 1935, as amended and the rules and regulations promulgated thereunder.

"FERC" means the Federal Energy Regulatory Commission or any successor agency.

"FERC Approval" means the final order of FERC granting approval pursuant to the Federal Power Act necessary to consummate the Transaction.

"Final Orders" means action by the relevant Governmental Authority that has not been reversed, stayed, enjoined, set aside, annulled or suspended, with respect to which any mandatory waiting period or mandatory appeal period prescribed by Law before the Transaction may be consummated has expired and as to which all conditions to the consummation of the Transaction prescribed by Law or Order required to be satisfied at or prior to the Closing have been satisfied.

"FIRPTA Affidavit" means the affidavit of non-foreign status to be delivered by Seller at Closing in accordance with Treas. Reg. § 1.1445-2(b), in form and substance reasonably satisfactory to Buyer, and with respect to which Buyer shall not have actual knowledge that such certification is false and shall not have received a notice that such certification is false pursuant to Treas. Reg. § 1.1445-4.

"FTC" means the U.S. Federal Trade Commission.

"Fund Assets" means (i) prior to the Fund Transfer, all of the assets of the FitzPatrick Unit Fund of the Power Authority of the State of New York Master Decommissioning Trust and (ii) after the Fund Transfer, all of the assets of the JAF NDT whether held in the Qualified Decommissioning Fund or the Non-Qualified Decommissioning Fund.

"Fund Assets Market Value" means the market value (as determined by the trustee in accordance with its customary valuation procedures) of the Fund Assets as set forth in the trustee valuation report as of the dates specified in such report.

"Fund Assets Market Value Documentation" means (i) each month-end trustee valuation report of the Fund Assets Market Value received by Seller prior to the Closing Date after the date the JAF NDT is transferred to ENOI and (ii) a mid-month trustee valuation report of the Fund Assets Market Value as of a date within four (4) Business Days of the Closing Date, in each case of (i) and (ii), substantially in the form of the documentation attached hereto as Exhibit E.

"Fund Transfer" means the transfer of the Fund Assets by ENOI to the JAF NDT to be created by Seller.

Enclosure 4 (Page 86 of 98)

"Fund Transfer Date" means the date ENOI transferred the Fund Assets to the JAF NDT created by Seller pursuant to Section 5.08.

"GAAP" means U.S. generally accepted accounting principles in effect from time to time.

"Governmental Authority" means any U.S. or foreign federal, state, provincial or local governmental authority, court, government or self-regulatory organization, commission, tribunal or organization or any arbitral body or any regulatory, administrative or other agency, or any political or other subdivision, department or branch of any of the foregoing, including any governmental, quasi-governmental or nongovernmental body administering, regulating, or having general oversight over gas, electricity, power or other energy-related markets, including NERC and any Persons to whom NERC has delegated authority.

"Hazardous Substance" means any substance, pollutant, toxic substance, hazardous waste, hazardous material, or petroleum product now or hereafter classified, regulated, defined in, denoted or listed by or designated pursuant to any Environmental Law, including petroleum, petroleum products, volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, and friable asbestos and asbestos-containing materials; provided, however, that Hazardous Substance shall not include any Radioactive Materials.

"HSR Act" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

"HSR Approval" means the expiration of the applicable waiting period under the HSR Act or any other approval pursuant to the HSR Act necessary to consummate the Transaction.

"Improvements" means all buildings, structures (including all fuel handling and storage facilities or installations), machinery and equipment, security equipment and barriers, fixtures, construction in progress, including all piping, cables and similar equipment forming part of the mechanical, electrical, plumbing or heating venting and cooling infrastructure of any building, structure or equipment, located on and affixed to the Real Property, or used in or for the operation of the Real Property.

"Indebtedness" means, with respect to any Person at any date, without duplication: (i) all obligations of such Person for borrowed money or in respect of loans or advances, (ii) all obligations of such Person evidenced by bonds, debentures, notes or other similar instruments or debt securities, (iii) all obligations arising from cash/book overdrafts, (iv) all indebtedness for the deferred purchase price of property or services with respect to which a Person is liable as obligor (other than trade payables incurred in the ordinary course of business), (v) all obligations in respect of capital leases in respect of which such Person is liable, contingent or otherwise, as obligor, guarantor or otherwise, or in respect of which obligations such Person assures a creditor against loss, (vi) indebtedness guaranteed in any manner by such Person, including a guarantee in the form of an agreement to repurchase or reimburse, (vii) obligations in respect of banker's acceptances or letters of credit issued or created for the account of such Person; (E) any payment obligation in respect of interest under any interest rate, currency or other hedging swap or other Contract to which such Person is a party or by which it is bound, and (viii) all interest, prepayment penalties, premiums, fees and expenses payable with respect to any of the foregoing.

Enclosure 4 (Page 87 of 98)

"Indemnifiable Losses" means, subject to Section 7.02, any and all Claims, injuries, lawsuits, Liabilities, losses, damages, judgments, fines, penalties, settlement payments, documented out-of-pocket costs and expenses, including the reasonable expenses of investigation, enforcement and collection and reasonable documented fees and disbursements of counsel, accountants and similar professionals.

"Indemnification Period" means the period from and after the Closing until the date that is the fourth anniversary of the Closing Date; provided, however, that the Indemnification Period shall be extended with respect to any Claim that is the subject of a Claim Notice submitted by an Indemnified Buyer Entity to Seller in accordance with this Agreement prior to the earlier of such anniversary date and the applicable survival period in Section 7.01 until all such Claims are finally resolved and, if applicable, satisfied in accordance with the terms and conditions of this Agreement.

"Intellectual Property" means all intellectual property rights, including patents and patent rights, software, specifications, designs, drawings, trade secrets, technology, technical information and other confidential and proprietary information, including know-how and materials subject to copyright Laws and other works of authorship and registrations, renewals, extensions, divisions, reissues of, and applications for, any of the foregoing.

"Interconnection Agreement" means that certain Interconnection Agreement and Operation Agreement, dated March 28, 2000, by and between NYPA and Seller.

"Interim Period" means that period of time commencing on the date of this Agreement and ending on the earlier to occur of (a) the Closing and (b) the termination of this Agreement.

"Inventory" or "Inventories" means all materials and supplies, including fuel inventories (excluding Nuclear Fuel or Spent Nuclear Fuel), materials, spare parts, consumable supplies and chemical and gas inventories located at the Site, in transit to the Site or identified in any Schedule.

"IRS" means the U.S. Internal Revenue Service.

"JAF NDT" means the decommissioning trust that will be created by Seller prior to Closing in connection with the Fund Transfer, maintained with respect to the Facility, and which will have both the Qualified Decommissioning Fund and the Non-Qualified Decommissioning Fund.

"JAF NDT Agreement" means the decommissioning trust agreement to be entered into between Seller and The Bank of New York Mellon in connection with the Fund Transfer with respect to the Facility.

"Joint IRS Ruling" means a ruling from the IRS which provides that (a) the transfer by Seller to Buyer of the Qualified Decommissioning Fund does not disqualify the fund as a qualified fund under Section 468A(a) of the Code; (b) the Qualified Decommissioning Fund will continue to be treated as satisfying the requirements of Section 468A of the Code and Treas. Reg. §1.468A-5 following the transfer of the fund by Seller to Buyer; (c) the Qualified Decommissioning Fund will not recognize any gain or loss or otherwise take any income or

deduction into account as a result of the transfer of the fund by Seller to Buyer; (d) Buyer and Seller will not recognize any gain or loss under Section 468A of the Code or otherwise take any income or deduction into account under Section 468A of the Code as a result of the transfer of the fund by Seller to Buyer; (e) the tax basis of the assets of the Qualified Decommissioning Fund will not be changed as a result of the transfer of the Qualified Decommissioning Fund by Seller to Buyer; (f) the amount realized by Seller from the transfer of the Facility will include the nuclear decommissioning liability associated with the facility, but will not include the portion of the nuclear decommissioning liability funded by the Qualified Decommissioning Fund on the date of the transfer; and (g) Seller will be entitled to treat the nuclear decommissioning liability, to the extent it is included in the amount realized, as satisfying economic performance under Treas. Reg. §1.461-4(d)(5).

"Knowledge" means (a) in the case of Seller, the actual knowledge of the individuals listed in Schedule A after reasonable due inquiry of the Persons who would reasonably be expected to have actual knowledge of such facts or other matters and (b) in the case of Buyer, the actual knowledge of the individuals listed in Schedule B after reasonable due inquiry of the Persons who would reasonably be expected to have actual knowledge of such facts or other matters.

"Law" means, with respect to any Person, any domestic or foreign, federal, state, provincial or local statute, law, common law ordinance, rule, binding administrative interpretation, regulation or regulatory order, or other similar requirement of any Governmental Authority directly applicable to, or binding on, such Person or any of its respective properties or assets.

"Liability" or "Liabilities" means any liability or obligation (whether known or unknown, whether asserted or unasserted, whether absolute or contingent, whether accrued or unaccrued, whether liquidated or unliquidated, whether incurred or consequential and whether due or to become due), including any liability for Taxes.

"Lien" means any mortgage, pledge, assessment, security interest, lien, adverse claim, levy, encroachment or other similar encumbrance or restriction.

"Long-Term Agreements" means, collectively, the Facility Long Term Agreement and the Buyer Long-Term Agreement.

"made available" means, (i) with respect to a particular document, inclusion of a complete copy thereof in the virtual data room hosted by Merrill Corporation in connection with the Transaction on or prior to 11:59 p.m. Eastern Time on August 6, 2016 (unless another date is expressly stated) or (ii) with respect to in the operating logs of Seller for the months of February 2016 through July 16, reviewed by Buyer at the Facility on August 6, 2016 (it being understood and agreed that as soon as practicable Seller shall deliver to Buyer in optical media or USB drive format a complete and accurate copy of the contents of said virtual data room as of such date).

"Multiparty Contracts" means any Contract with a Third Party in which Seller and another Affiliate of Seller is a party to such Contact.

"NEIL" means Nuclear Electric Insurance Limited.

"NERC" means North American Electric Reliability Corporation.

"Nine Mile Nuclear Power Station" means the Nine Mile Point Nuclear Station, a nuclear power plant with two nuclear reactors located in the town of Scriba, approximately five miles northeast of Oswego, New York.

"Non-Qualified Decommissioning Fund" means the trust fund to be formed by Seller prior to Closing in connection with the Fund Transfer and that does not meet the requirements of Code §468A and Treas. Reg. §1.468A-5. The Non-Qualified Decommissioning Fund will be construed as a state law trust that is a sub-trust of the JAF NDT and is maintained by Seller with respect to the Facility after the Fund Transfer Date through the Closing.

"NRC" is the United States Nuclear Regulatory Commission, as established by Section 201 of the Energy Reorganization Act, or any successor commission, agency or officer.

"NRC Approval" means all approvals from the NRC necessary to authorize the transfer of the Facility to Buyer and Buyer's operation of the Facility after the Closing including without limitation approval under Section 184 of the Atomic Energy Act.

"NRC Licenses" means Renewed Facility Operating License No. DPR-59, Docket No. 50-333, and any amendments thereto on the basis of which Seller and ENOI are authorized to possess and use the Facility and ENOI is authorized to operate the Facility prior to the Closing Date, and on the basis of which Buyer, subject to the approval contemplated under Section 5.04(b), will be authorized to possess, use and operate the Facility on and after the Closing Date and the General License, Docket No. 72-012, for the Independent Spent Fuel Storage Installation.

"Nuclear Fuel" means all fuel assemblies in the Facility's reactors on the Closing Date and any irradiated fuel assemblies that have been temporarily removed from the Facility's reactors as of that date and all unirradiated fuel assemblies awaiting insertion into the Facility's reactors as well as all fuel constituents in any stage of the fuel cycle which are in the process of fabrication for use in the Facility's reactors, which are owned by Seller on the Closing Date.

"NYISO" means the New York Independent System Operator.

"NYPA" means the Power Authority of the State of New York

"NYPSC" means the Public Service Commission of the State of New York.

"NYPSC Approval" means the approvals by and other Orders of the NYSPC contemplated in Section 5 of Exhibit B.

"NYSERDA" means the Energy Research and Development Authority of the State of New York.

"Off-Site Location" means any location other than: (i) the Sites; and (ii) any real property that is adjacent to or downgradient of the Sites and which has been impacted by a release of Hazardous Substances migrating from the Sites (unless such adjacent or downgradient property

was also an intended location for the disposal, storage, transportation, discharge, release or recycling of Hazardous Substances generated by the Sites or the Facility).

"Order" means any order, writ, judgment, injunction, decree, stipulation, determination, settlement agreement or similar written agreement, or assessment or arbitration award entered by or with any Governmental Authority.

"Organizational Documents" means, with respect to any Person, the articles or certificate of incorporation or organization and by-laws, the limited partnership agreement, the partnership agreement or the limited liability company agreement, operating agreement or such other similar organizational documents of such Person.

"Other Seller Entity" means any Seller Entity other than Seller.

"Owner's Affidavit and Gap Undertaking" means the owner's affidavit and gap undertaking substantially in the form set forth on Exhibit F.

"Permits" means all certificates, licenses, permits, approvals, authorizations, consents, orders, exemptions, decisions and other actions of a Governmental Authority pertaining to the ownership, operation or use of the Facility or a particular Transferred Asset.

"Permitted Liens" means and includes: (a) Liens for Taxes or other charges or assessments by any Governmental Authority to the extent that the payment thereof is not in arrears or otherwise due or is being contested in good faith pursuant to appropriate procedures and which are identified on Section A-1 of the Seller Disclosure Schedule, (b) Liens (i) in the nature of zoning ordinances and restrictions, building and land use Laws, special designations, environmental, ordinances, orders, decrees, restrictions or any other conditions imposed by or pursuant to any agreement with any Governmental Authority now or hereafter enacted, made or issued by any such Governmental Authority affecting the Real Property and (ii) with respect to any Real Property, any matters of record, observable upon inspection or would be revealed by a survey or any other Lien, imperfections in or failure of title or defect therein; provided that in each of (i) or (ii), the same do not materially adversely affect the use and operation of the Real Property as currently conducted and excluding such Liens that secure indebtedness unless such Liens will be repaid and released as of Closing; (c) easements granted by an instrument executed in connection with this Agreement or the Related Agreements or the transactions contemplated hereby or thereby, but excluding such Liens that secure indebtedness; (d) deposits or pledges made in connection with, or to secure payment of, worker's compensation, unemployment insurance, pension programs mandated under Laws or other social security regulations; (e) statutory or common law liens in favor of carriers, warehousemen, mechanics and materialmen, statutory or common law liens to secure claims for labor, materials or supplies and other like liens, which secure obligations to the extent that payment thereof is not in arrears or otherwise due; (f) all rights with respect to the ownership, mining, extraction and removal of minerals of whatever kind and character (including all coal, iron ore, oil, gas, sulfur, methane gas in coal seams, aggregate, limestone and other minerals, metals and ores) that have been granted, leased, excepted or reserved prior to the date of this Agreement; and (g) any Lien or title imperfection with respect to the Transferred Assets created by or resulting from any act or omission of Buyer, its Affiliates or Representatives.

Enclosure 4 (Page 91 of 98)

"Person" means any individual, corporation, partnership, joint venture, trust, association, organization, Governmental Authority or other entity.

"Power Authority of the State of New York Master Decommissioning Trust" means the decommissioning trust maintained by NYPA, which contains two sub-trusts; one sub-trust maintained with respect to the Indian Point 3 Nuclear Power Plant, and a second sub-trust maintained with respect to the Facility.

"Pre-1983 Spent Nuclear Fuel" means any Spent Nuclear Fuel assemblies or portions thereof and in-core burned fuel used by the Facility to generate electricity prior to April 7, 1983.

"Pre-Closing Tax Period" means any Tax period ending on or before the Closing Date.

"Pre-Refueling Conditions" means the conditions to be satisfied in order to commence the Refueling set forth on Exhibit B hereto.

"Pre-Refueling Period" the period commencing on the date of this Agreement and ending immediately before the Procured Nuclear Fuel (as defined in the Reimbursement Agreement) is used in Critical Operation (as defined in the Reimbursement Agreement) in the Facility's reactor.

"Price-Anderson Act" means the Price-Anderson Nuclear Industries Indemnity Act of 1957, as amended.

"Prior Acquisition Agreement" means the Purchase and Sale Agreement, dated March 28, 2000, between Seller, Entergy Nuclear Indian Point 3, LLC and NYPA, and any agreement entered into in connection therewith (as amended or modified consistent with Section 5.18(a)).

"PUHCA" means the Public Utility Holding Company Act of 2005, enacted as part of the Energy Policy Act of 2005, Pub. L. No. 109-58, as codified at §1261 et seq., and the rules and regulations promulgated thereunder.

"Qualified Decommissioning Fund" means the trust fund to be formed by Seller prior to Closing in connection with the Seller IRS Ruling that meets the requirements of Code §468A and Treas. Reg. §1.468A-5 and maintained in accordance with Treas. Reg. §§1.468A-1 through 1.468A-9. The Qualified Decommissioning Fund will be construed as a state law trust that is a sub-trust of the JAF NDT and is maintained by Seller with respect to the Facility after the Seller transfers funds from the Non-Qualified Decommissioning fund to the Qualified Decommissioning fund pursuant to the Seller IRS Ruling.

"Radioactive Material" means any material (including high-level radioactive waste) that is radioactive or contaminated with radioactivity.

"Refueling" means the refueling outage of the Facility and the refueling of the Facility that will need to occur as a result of the Transaction; provided, that the commencement of the Refueling shall be deemed to occur when the Refueling Disconnect Notice has been delivered in accordance with this Agreement.

"Refueling Disconnect Notice" means written notice received by Buyer from Seller that

the Facility breakers have been opened and the Facility has been disconnected from the transmission grid for the purposes of commencing the Refueling.

"Reimbursement Agreement" means the Reimbursement Agreement, dated as of the date of this Agreement, by and between Seller and Buyer.

"Related Agreements" means, collectively, (a) the Signing Related Agreements, (b) the Long-Term Agreements and (c) the Transition Services Agreement.

"Remediation" or "Remediations" means any or all of the following activities to the extent they relate to or arise from the presence of Hazardous Substances at a Site: (a) monitoring, investigation, assessment, treatment, cleanup, containment, removal, mitigation, response or restoration work; (b) obtaining any permits, consents, approvals or authorizations of any Governmental Authority necessary to conduct any such activity; (c) preparing and implementing any plans or studies for any such activity; (d) obtaining a written notice from a Governmental Authority with jurisdiction over the Sites under Environmental Laws that no material additional work is required by such Governmental Authority; (e) obtaining a written opinion of a qualified professional, as contemplated by the relevant Environmental Laws and in lieu of a written notice from a Governmental Authority, that no material additional work is required to address Hazardous Substances at the Sites in compliance with Environmental Laws; and (f) any other activities reasonably determined by a Party to be necessary or appropriate or required under Environmental Laws to address the release or presence of Hazardous Substances at the Sites.

"Representative" or "Representatives" means, as to any Person, the officers, directors, managers, employees, counsel, accountants, financial advisors and consultants of such Person.

"Schedules" means, unless otherwise expressly indicated in the Agreement, collectively, the Seller Disclosure Schedule and the Buyer Disclosure Schedule, and each is referred to as a "Schedule."

"Seller Benefit Plan" means each Seller Entity Plan that is maintained, sponsored or contributed to by any Seller Entity or any of their respective ERISA Affiliates for the benefit of any Business Employee or any spouse, child, dependent, alternate payee or beneficiary of such employee.

"Seller Entity Employee" means each individual who is or is deemed to be a full-time, part-time or other director, officer or employee of Entergy or any of its Subsidiaries under applicable federal, state or local Laws, including Tax and employment Laws. References to Seller Entity Employees include present, former and future employees. Seller Entity Employees shall not include individuals who render services to Entergy or any of its Subsidiaries solely on a consultant or independent contractor basis.

"Seller Entity Plan" means each "employee benefit plan" as defined in Section 3(3) of ERISA, and each other plan, Contract, program, fund, policy, agreement or other arrangement, whether or not subject to ERISA and whether written or oral, qualified or non-qualified, funded or unfunded, foreign or domestic, providing for compensation or employee benefits, including (i) severance pay or other severance benefits, retention, stay pay, salary continuation, change in control payments or benefits, termination pay or benefits, bonuses, commissions, profit-sharing,

equity options, employee stock ownership or other forms of cash or equity-based compensation or incentives; (ii) vacation or vacation pay, holiday or holiday pay, paid or unpaid sick leave or other paid or unpaid time-off; (iii) health, welfare, medical, dental, vision, disability, life, accidental death and dismemberment, employee assistance, wellness, educational assistance, relocation or fringe benefits or perquisites, including post-employment benefits; or (iv) compensation, deferred compensation, defined benefit or defined contribution, thrift savings, retirement, supplemental retirement, early retirement or pension benefits, or equity grants, in each case that (A) covers any Seller Entity Employee or any spouse, child, dependent, alternate payee or beneficiary of such employee, or (B) that is maintained, administered, sponsored or made available by, or with respect to which contributions are made or required to be made by Entergy or any of its Subsidiaries or (C) with respect to which Entergy, any of its Subsidiaries or any of their respective ERISA Affiliates has any Liability whatsoever.

“Seller Guarantee” means a guarantee, substantially in the form attached hereto as Exhibit G, issued by Seller Guarantor in favor of Buyer with respect to the post-Closing obligations of Seller arising under, or in connection with, this Agreement and the Related Agreements.

“Seller Guarantor” means Entergy Corporation, a Delaware corporation and an Affiliate of Seller.

“Seller IRS Ruling” means a ruling from the IRS permitting Seller to transfer all or substantially all of its assets in the JAF NDT to a Qualified Decommissioning Fund as described in Section 468A of the Code and Treas. Reg. §1.468A-5.

“Seller Material Adverse Effect” means the occurrence of any change, event or effect that is, individually or in the aggregate, materially adverse to (a) the business, condition (financial or otherwise), results of operations or assets of the business operated by Seller using the Transferred Assets (including the Facility) taken as a whole; or (b) Seller's ability to perform its obligations hereunder or consummate the Transaction; provided that none of the following, and no change, event or effect arising out of or resulting from the following, shall constitute or be deemed to contribute to a Seller Material Adverse Effect, or shall otherwise be taken into account in determining whether a Seller Material Adverse Effect has occurred, in each case, for purposes of the foregoing: (i) any changes generally affecting the industries in which the Facility operates, whether international, national, regional, state, provincial or local; (ii) changes in international, national, regional, state, provincial or local wholesale or retail markets for nuclear power or other fuel supply or transportation or related products and operations, including those due to actions by competitors and regulators; (iii) changes in general regulatory or political conditions (including, the outbreak or escalation of war, military action, sabotage or acts of terrorism); (iv) changes in international, national, regional, state or local electric transmission, nuclear power or distribution systems generally; (v) changes in the markets for or costs of commodities or supplies, including Nuclear Fuel and fuel other than Nuclear Fuel, generally; (vi) changes in the markets for or costs of nuclear power, generally; (vii) effects of weather, meteorological events or other natural disasters or natural occurrences beyond the control of Seller; (viii) any change of Law or regulatory policy generally applicable to similarly situated Persons, including any rate or tariff generally applicable to similarly situated Persons, unless such change unless such change is a Legal Restraint; (ix) changes or adverse conditions in the

financial, banking or securities markets, including those relating to debt financing and, in each case, including any disruption thereof and any decline in the price of any security or any market index; (x) the announcement, execution, delivery or performance of this Agreement or any Related Agreement or the consummation of the Transaction or the other transactions contemplated hereby or thereby; provided, however, that this clause (x) shall not apply to the representations and warranties in Section 3.04 or the closing conditions in Article VI related to such section; (xi) any change in accounting requirements or principles; (xii) any labor strike, request for representation, organizing campaign, work stoppage, slowdown or other labor dispute; (xiii) any change in GAAP; (xiv) any new generating facilities and their effect on pricing and transmission; (xv) any failure by the Facility to meet any revenue, earnings or other financial projections or forecasts (but not the underlying causes thereof); and (xvi) arising out of, or related to, the CES Order, including any effect of a Reversal Event with respect to the CES Order or any other Order or action by a Governmental Authority or Law having the effect of such a Reversal Event or the failure of any of the expected benefits to be provided by the CES Order to be achieved or realized; provided further, however, that any change, event or effect referred to in clauses (i) through (ix), (xi) and (xii) immediately above shall be taken into account in determining whether a Seller Material Adverse Effect has occurred or could reasonably be expected to occur to the extent that such event, occurrence, fact, condition or change has a disproportionate effect (in which case, only the incremental disproportionate effect may be taken into account in determining whether there has been, or would be, a Seller Material Adverse Effect, and to the extent such change is not otherwise excluded from being taken into account by clauses (i) through (xvi) above) on the Transferred Assets (including the Facility) compared to other participants in the industries in which the Facility operates.

"Shared Contracts" means any Contract between or among a Third Party and any Affiliate of Seller that relates to the ownership or use of the Facility and the other business functions or operations of any Affiliate of Seller.

"Signing Related Agreements" means (a) the Reimbursement Agreement; (b) the Transfer Agreement; (c) the Employee Matters Agreement; (d) the Available Funds Agreement and (e) the Procured Nuclear Fuel Agreements (as defined in the Reimbursement Agreement).

"Site" means the real property on which the Facility is located. "Sites" includes any other real property described in Schedule 2.01(a). Any reference to a Site shall include, by definition, the surface and subsurface elements, including the soils and groundwater present at such Site, and any reference to items "at the Site" shall include all items "at, on, in, upon, over, across, under and within" the Site.

"Site MOUs" means the memoranda of understanding and other agreements related to the Sites described on Schedule 3.07.

"Spent Nuclear Fuel" means fuel that has been withdrawn from a nuclear reactor following irradiation, and has not been chemically separated into its constituent elements by reprocessing.

"Straddle Period" means a Tax period beginning on or before, and ending after, the Closing Date.

Enclosure 4 (Page 95 of 98)

"Subsidiary" means any Person (i) of which fifty percent (50%) or more of the outstanding share capital, voting securities or other voting equity interests are owned, directly or indirectly, by Entergy or (ii) of which Entergy is entitled to elect, directly or indirectly, at least one-half of the board of directors or similar governing body of such Person.

"Tax" or "Taxes" means any U.S. federal, state, local or foreign income, gross receipts, windfall profits, franchise, withholding, ad valorem, real property, personal property (tangible and intangible), employment, payroll, sales and use, social security, disability, occupation, production, real property, severance, value added, transfer, stamp, environmental (including taxes under Section 59A of the Code), excise and other taxes, charges, levies or other similar assessments imposed by a Taxing Authority, including any interest, penalty or addition thereto and any payments to any state, local, provincial or foreign Taxing Authorities in lieu of any such taxes, levies or assessments, and any obligation to pay amounts in respect of the foregoing, whether by Law or as the result of any obligation under any Tax sharing arrangement, Tax indemnity agreement or Contract.

"Tax Returns" means any return, report or similar statement required to be filed with a Taxing Authority with respect to any Taxes (including any attached schedules), including any information return, Claim for refund, amended return and declaration of estimated Tax.

"Taxing Authority" means, with respect to any Tax, the governmental entity or political subdivision thereof that imposes such Tax, and the agency (if any) charged with the collection of such Tax for such entity or subdivision.

"Termination Fee" means either the Buyer Termination Fee or the Seller Termination Fee.

"Third Party" means any Person that is not a Party or an Affiliate of a Party.

"Transfer Agreement" means the Transfer Agreement by and between Seller and Buyer, dated the date hereof.

"Transfer Taxes" means all personal property transfer, real property transfer, sales, use, goods and services, value added, documentary, stamp duty, excise and conveyance Taxes and other similar Taxes, duties, fees, or charges, together with any interest thereon, penalties, fines, charges, fees, additions to Tax or additional amounts with respect thereto.

"Trust Fund Transfer Agreement" means the trust transfer agreement by and between ENOI and NYPA dated as of the date of this Agreement and made available (or execution draft thereof) to Buyer prior to the execution thereof by ENOI and NYPA.

"U.S." or "United States" means United States of America or any political subdivision thereof.

"Willful Breach" means a voluntary, intentional and deliberate action or failure to act that results in, and such action is taken or such failure occurred with the actual knowledge, intention or reasonable expectation that it will or would reasonably be expected to result in, a material breach of this Agreement, but shall not require that such action or failure to act be malicious or

Enclosure 4 (Page 96 of 98)

done with bad motive or purpose.

Section 2 Other Defined Terms. In addition to the defined terms set forth on Section 2 of Exhibit A, each of the following capitalized terms has the meaning specified in the Section set forth opposite such term below:

Advance Termination Notice.....	5.13
Agreement.....	Preamble
Allocation.....	2.10(a)
Assumed Liabilities	2.03
Available Funds Agreement	Recitals
Available Funds L/C	Recitals
Bankruptcy and Equity Exceptions.....	3.02(a)
Beneficial Interest	5.08(c)
Books and Records	2.01(g)
Buyer.....	Preamble
Buyer Burdensome Condition.....	5.04(h)
Buyer Disclosure Schedule	Article IV
Buyer Fundamental Representations	7.01
Buyer Required Consents	4.03(a)
Buyer Termination Fee	9.02(a)
Cap	8.01(c)
Claim Notice	8.03(a)
Closing	2.08
Closing Date.....	2.08
Consent	3.03(a)
Consent Required-Warranties	2.12
Deductible	8.01(b)(i)
Direct Claim.....	8.03(c)
Emergency Preparedness Agreements.....	2.01(l)(ii)
Entergy	Recitals
Entergy Name and Marks	2.02(g)
Excluded Assets	2.02
Excluded Liabilities	2.04
Facility	Recitals
Filing.....	3.03(a)
Indemnified Buyer Entities	8.01(a)
Indemnified Entity	8.03(a)
Indemnified Seller Entities	8.02(a)
Indemnifying Entity	8.03(a)
Insurance Policies	3.20
IT Transition	5.09(b)
Legal Restraint.....	6.01(c)
Material Contracts.....	3.07(a)
Minimum Claim Amount.....	8.01(b)(ii)
Nine Mile Termination Notice.....	5.13
Non-Assigned Contracts	2.02(l)
Non-Transferred Asset.....	5.05

Non-Transferred Liability	5.05
NRC Financial Assurances	5.04(h)
Observers	5.03(a)
Outside Date.....	9.01(b)
Parties.....	Preamble
Party	Preamble
Pre-Closing Contractual Liabilities.....	2.03(b)
Pre-Refueling Buyer Burdensome Condition	5.06(d)
Pre-Refueling Seller Burdensome Condition.....	5.06(c)
Purchase Price	2.06(a)
Real Property	2.01(a)
Reports	3.14
Required Consents	4.03(a)
Reversal Event	5.06(e)
Reversal Notice.....	5.06(e)
Schedule of Ruling Amounts	3.19(b)
Schedule Update	5.07
Seller	Preamble
Seller Burdensome Condition.....	5.04(f)
Seller Disclosure Schedule	Article III
Seller Entities	Recitals
Seller Fundamental Representations.....	7.01
Seller Required Consents.....	3.03(a)
Seller Tax Representations	7.01
Seller Termination Fee.....	9.02(b)
Signing Fee	2.05
Specified Shared Contracts	2.01(m)
Tax Claim.....	10.05
Termination Event	9.01
Transaction.....	Recitals
Transferable Permits	2.01(d)
Transferee Party	5.05
Transferor Party	5.05
Transferred Assets	2.01
Transfer Tax Valuation	2.10(b)
Transition Committee	5.09(b)
Transition Services Agreement.....	5.09(a)

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

ENCLOSURE 5

**GENERAL CORPORATE INFORMATION REGARDING
EXELON CORPORATION AND
EXELON GENERATION COMPANY, LLC**

**INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A**

ENCLOSURE 5

GENERAL CORPORATE INFORMATION REGARDING
EXELON CORPORATION

NAME:	Exelon Corporation
STATE OF INCORPORATION & CORPORATE FORM:	Pennsylvania Corporation
BUSINESS ADDRESS:	10 South Dearborn Street, P.O. Box 805379, Chicago, IL 60680-5379
BOARD OF DIRECTORS: (Unless otherwise noted, these individuals are US citizens)	Mayo A. Shattuck III Christopher M. Crane Anthony K. Anderson Ann C. Berzin Yves C. de Balmann (US and France) Nicholas DeBenedictis Nancy L. Gioia Linda P. Jojo Paul Joskow, Ph.D. Robert J. Lawless (Canada) Richard W. Mies John W. Rogers Stephen D. Steinour
PARTIAL LIST OF EXECUTIVE PERSONNEL:	Christopher M. Crane – President and Chief Executive Officer Kenneth W. Cornew – Senior Executive Vice President and Chief Commercial Officer Denis P. O'Brien – Senior Executive Vice President William A. Von Hoene – Senior Executive Vice President and Chief Strategy Officer Jonathan W. Thayer – Senior Executive Vice President and Chief Financial Officer Paymon Aliabadi – Executive Vice President and Chief Enterprise Risk Officer Duane M. DesParte – Senior Vice President and Corporate Controller

ENCLOSURE 5

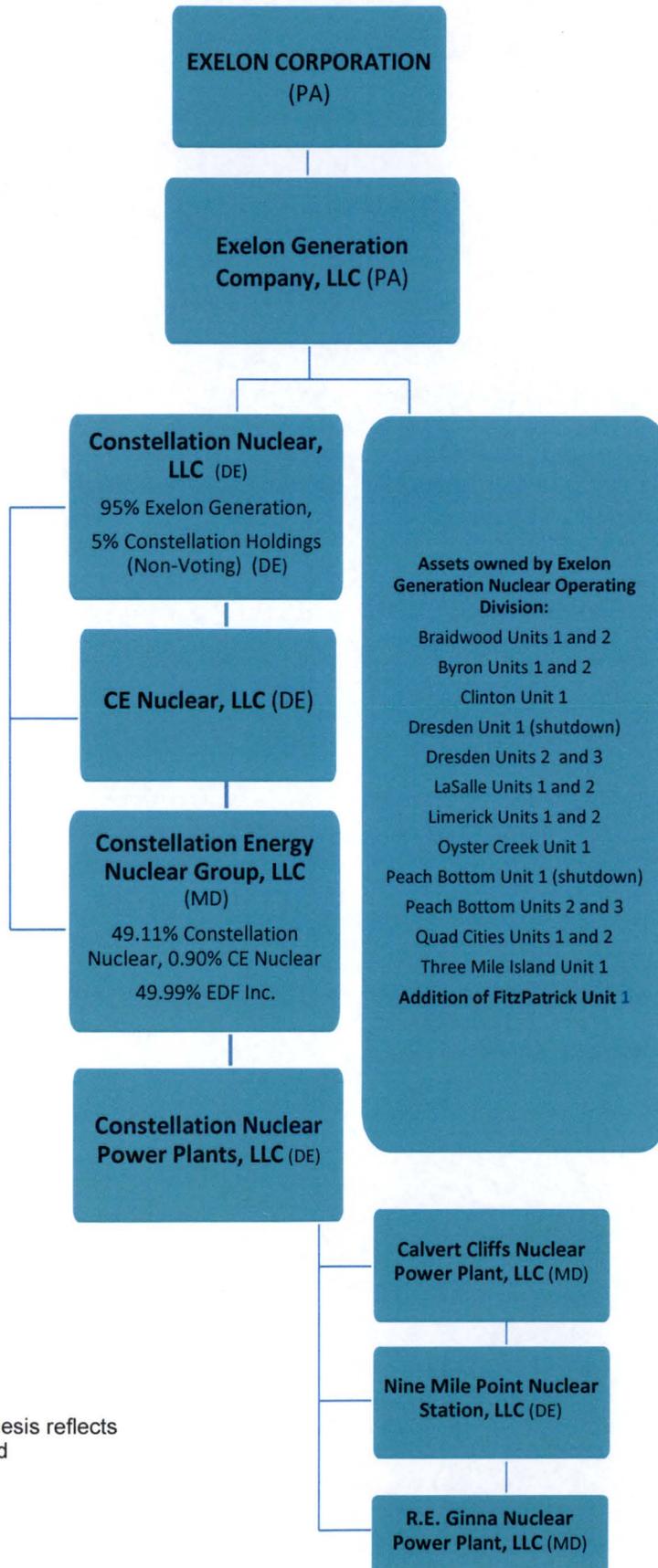
GENERAL CORPORATE INFORMATION REGARDING
EXELON GENERATION COMPANY, LLC

NAME:	Exelon Generation Company, LLC
STATE OF INCORPORATION & CORPORATE FORM:	Pennsylvania Limited Liability Company
BUSINESS ADDRESS:	300 Exelon Way Kennett Square, PA 19348-2473
BOARD OF DIRECTORS OR MANAGEMENT COMMITTEE:	None (member managed by Exelon Corporation)
PARTIAL LIST OF EXECUTIVE PERSONNEL:	Kenneth W. Cornew – President and Chief Executive Officer Michael J. Pacilio – Executive Vice President and Chief Operating Officer Ronald DeGregorio – Senior Vice President and President Exelon Power Bryan C. Hanson – Senior Vice President and President, and Chief Nuclear Officer, Exelon Nuclear Bryan P. Wright – Senior Vice President and Chief Financial Officer Matthew Bauer – Vice President and Controller Joseph Nigro – Chief Executive Officer, Constellation

ENCLOSURE 6

**ORGANIZATION CHART WITH FITZPATRICK INTEGRATED AS PART OF
EXELON GENERATION'S NUCLEAR FLEET**

Exelon Generation Company, LLC Organization Chart



Note: designation in parenthesis reflects state in which entity is formed

ENCLOSURE 7

**PROJECTED INCOME STATEMENTS FOR
EXELON GENERATION COMPANY, LLC (INCLUDING FITZPATRICK AS PART
OF THE OPERATING FLEET)**

(NON-PROPRIETARY VERSION)

Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 7

Projected Income Statements for Exelon Generation Company, LLC
(including FitzPatrick as part of the operating fleet) (Non-Proprietary Version)

Exelon Generation Consolidated
Projected Income Statement

(\$ in millions, rounded)

2017 2018 2019 2020 2021

Operating Revenues

Operating Revenues

Total Operating Revenues



Operating Expenses

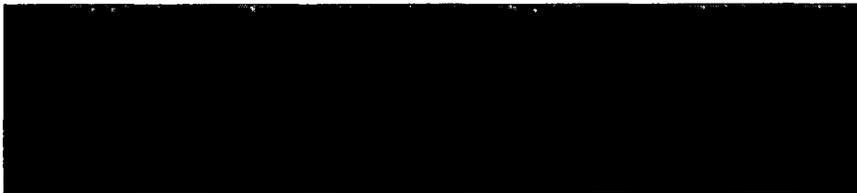
Purchased Power and Fuel and Cost of Sales

Operating and Maintenance

Depreciation and Amortization

Taxes other than Income

Total Operating Expenses



Operating (Loss) Income



Other Income and (Deductions)

Interest Expense

Other, Net

Total Other Income and (Deductions)



Income (Loss) Before Income Taxes

Income Taxes

Net Income (Loss)

Net Income (Loss) Attributable to Non-Controlling Interests

Net Income (Loss) on Membership Interest



Enclosure 7

**Projected Income Statements for Exelon Generation Company, LLC (including FitzPatrick
as part of the operating fleet) (Non-Proprietary Version)**

**Notes for Exelon Generation Consolidated
Projected Income Statement**

1. All financial projections reflect Exelon Generation Company's ownership percentages for owned and co-owned facilities and are based on Exelon Generation Company's 4+8 long-range plan update for the period 2017 – 2020, adjusted to reflect the impacts associated with the Clean Energy Standard Order issued by the New York Public Service Commission on 8/1/16 and the planned integration of the FitzPatrick nuclear plant into Exelon Generation Company's nuclear fleet on or around April 1, 2017. The Clean Energy Standard Order and Appendix E to the Order are included with the License Transfer Application at Enclosure 2.
2. Exelon Generation Company will adopt full consolidation of the FitzPatrick nuclear plant as of the effective date of the integration transaction; the financial projections assume Exelon Generation Company will begin consolidating the FitzPatrick Nuclear Plant on April 1, 2017.
3. Projections for 2021 were developed by applying a standard 3% escalation rate to the 2020 revenues and expenses.
4. Exelon Generation Company, through its subsidiaries, owns a 50.01% interest, and EDF Inc. owns a 49.99% interest, in Constellation Energy Nuclear Group, LLC (“CENG”). CENG, through its subsidiary, owns Nine Mile Point Nuclear Station (100% of Unit 1 and 82% of Unit 2, with the Long Island Power Authority owning the remaining 18% of Unit 2), R.E. Ginna Nuclear Power Plant, and Calvert Cliffs Nuclear Power Plant. EDF has an option to sell its 49.99% interest in CENG to Exelon Generation Company at fair market value from January 1, 2016 to June 30, 2022 (subject to an 18 month extension in limited circumstances); the financial projections assume that this put option is not exercised during the forecast period of 2017 – 2021.

INCLUDES ~~PROPRIETARY INFORMATION~~ - WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

ENCLOSURE 9

**FINANCIAL STATEMENT FOR FITZPATRICK
(NON-PROPRIETARY VERSION)**

INCLUDES ~~PROPRIETARY INFORMATION~~ - WITHHOLD UNDER 10 CFR 2.390(a)(4) AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 9

Financial Statement for FitzPatrick (Non-Proprietary Version)

FitzPatrick Nuclear Plant

Projected Income Statement

(\$ in millions, rounded)

2017 2018 2019 2020 2021

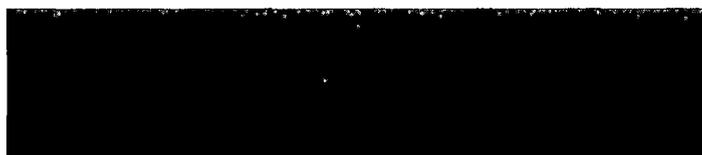
Revenue

PPA Revenue

Market Revenue

ZEC Revenue

Total Revenues



Operating Expenses

Purchased Fuel and Energy and Cost of Sales

O&M Non-Outage

O&M Outage

O&M Allocated Nuclear Corporate

Property Taxes

Depreciation and Amortization

Total Operating Expenses



Pretax Income (Loss)



Income Taxes



Net Income (Loss)



Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 9

Financial Statement for FitzPatrick (Non-Proprietary Version)

FitzPatrick Nuclear Plant

Projected Income Statement Assumes 10% Reduction in Market Revenue

(\$ in millions, rounded)

	2017	2018	2019	2020	2021
Revenue					
PPA Revenue					
Market Revenue					
ZEC Revenue					
Total Revenues					
Operating Expenses					
Purchased Fuel and Energy and Cost of Sales					
O&M Non-Outage					
O&M Outage					
O&M Allocated Nuclear Corporate					
Property Taxes					
Depreciation and Amortization					
Total Operating Expenses					
Pretax Income (Loss)					
Income Taxes					
Net Income (Loss)					

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

INCLUDES ~~PROPRIETARY INFORMATION~~ – WITHHOLD UNDER 10 CFR 2.390 AND 9.17(a)(4)
Unrestricted Upon Removal of Enclosures 7A and 9A

Enclosure 9
Financial Statement for FitzPatrick (Non-Proprietary Version)

Notes for FitzPatrick Nuclear Plant
Projected Income Statement

1. Site financial projections are based on Exelon Generation Company's internal projections based on due diligence for the period 2017 – 2020, adjusted to reflect the impacts associated with the Clean Energy Standard Order issued by the New York Public Service Commission on 8/1/16 and incorporate the planned integration of the FitzPatrick nuclear plant into Exelon Generation Company's nuclear fleet on or around April 1, 2017. The Clean Energy Standard Order and Appendix E to the Order are included with the License Transfer Application at Enclosure 2. No cost synergies are assumed in the estimated financial projections.
2. The 2017 site financial projections assume the effective date of the integration transaction is April 1, 2017 and as a result, reflect nine months of operation by Exelon Generation Company in calendar year 2017.
3. Projections for 2021 were developed by applying a standard 3% annual escalation rate to the 2019 revenues and expenses based on 2019 being a comparable year to 2021 as both years assume no refueling outage.
4. Market revenues were calculated using forward prices as of 4/30/16 and Exelon Generation Company's internal projections for expected generation at the FitzPatrick nuclear plant.
5. Zero-Emission Credit ("ZEC") revenues were calculated using Exelon Generation Company's internal projections for expected generation at the FitzPatrick nuclear plant and a ZEC price of:
 - a. \$17.48/MWh for Tranche 1 (April 1, 2017 – March 31, 2019) as set forth in the New York Public Service Commission Order.
 - b. For future tranches within the 5-year period (Tranche 2: April 1, 2019 through March 31, 2021 and Tranche 3: April 1, 2021 through March 31, 2023 (including only the period April 1, 2021 through December 31, 2021 in the projections)), the projections are based on Exelon Generation Company's internal calculations using the formula set forth in the New York Public Service Commission Order (Enclosure 2, App. E, p. 5). The forward prices included in the calculation are based on the market prices as of 4/30/16.
6. O&M Allocated Nuclear Corporate includes direct site costs that are managed by Exelon Generation Company's corporate functions (e.g. insurance) and corporate governance and oversight expenses. The allocation of governance and oversight expenses was estimated using Exelon Generation Company's projections for other single unit sites within the fleet that are forecasted to operate during the full 5-year period.

Enclosure 9
Financial Statement for FitzPatrick (Non-Proprietary Version)

Notes for FitzPatrick Nuclear Plant
Projected Income Statement

7. Property taxes are estimated based on:

a. [REDACTED]

b. [REDACTED]

ENCLOSURE 10

LIST OF REGULATORY COMMITMENTS

REGULATORY COMMITMENTS IN THIS CORRESPONDENCE

The following table identifies actions committed to in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

REGULATORY COMMITMENT	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
Notify the NRC when the license transfer transaction is scheduled to be consummated.	Upon the scheduling of the closing of the transaction.	Yes	No
Provide notice of the planned closing date for proposed transaction and transfer of operating authority at least two days prior to the date planned so that NRC can issue the license amendment.	At least two days before planned closing date.	Yes	No