

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
ENTERGY NUCLEAR OPERATIONS, INC.) Docket Nos. 50-247-LR/ 50-286-LR
)
(Indian Point Nuclear Generating)
Units 2 and 3))

NRC STAFF'S PROPOSED FINDINGS OF FACT
AND CONCLUSIONS OF LAW PART 8:
NEW YORK STATE CONTENTIONS 9, 33, AND 37 (NO-ACTION ALTERNATIVE)

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March 22, 2013

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In accordance with 10 C.F.R. § 2.1209 and the Atomic Safety and Licensing Board's Orders,¹ the NRC Staff ("Staff") hereby submits its proposed findings of fact and conclusions of law ("Proposed Findings" or "PFF") regarding the nine contested "Track I" contentions in this proceeding. The Staff's Proposed Findings are set forth in ten separate filings, as follows:

- Part 1: Overview and Regulatory Standards;
- Part 2: Contention NYS-5 (Buried Piping and Tanks);
- Part 3: Contention NYS-6/7 (Inaccessible Non-EQ Medium and Low Voltage Cables);
- Part 4: Contention NYS-8 (Transformers);
- Part 5: Contention NYS-12C (Severe Accident Mitigation Alternatives ("SAMA") Analysis Decontamination and Cleanup Costs);
- Part 6: Contention NYS-16B (SAMA Analysis Population Estimates);

¹ See (1) Scheduling Order (July 1, 2010), at 19; and (2) Order (Scheduling Post-Hearing Matters and Ruling on Motions to File Additional Exhibits) (Jan. 15, 2013) at 1.

Part 7: Contention NYS-17B (Real Estate Values);

Part 8: Contention NYS-37 (No-Action Alternative);

Part 9: Contention RK-TC-2 (Flow Accelerated Corrosion); and

Part 10: Contention CW-EC-3A (Environmental Justice).²

In Part 8 of the Staff's Proposed Findings, set forth below, the Staff addresses the issues raised in Contentions NYS-9, NYS-33 and NYS-37 (Alternatives). For the reasons set forth herein, the Staff submits that the contentions should be resolved in favor of license renewal for Indian Point Nuclear Generating Units 2 and 3.

I. BACKGROUND AND INTRODUCTION

8.1 These findings and rulings address all outstanding issues with respect to the Contentions NYS-9, NYS-33, and NYS-37, filed by the State of New York ("New York"), challenging the analysis of alternatives to license renewal in the Environmental Report ("ER") filed by Entergy Nuclear Operations, Inc. ("Entergy" or the "Applicant") in its license renewal application ("LRA") for Indian Point Nuclear Generating Units 2 and 3 ("Indian Point"), the Draft Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 ("Draft SEIS" or "DSEIS"), and the Final Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3 ("Final SEIS" or "FSEIS"). An overview of this proceeding and the regulatory standards that govern consideration of the Indian Point LRA and the Staff's Draft and Final SEISs are set forth in Part 1 of the Staff's Proposed Findings, submitted simultaneously herewith. To avoid unnecessary duplication, the Staff hereby incorporates Part 1 of its Proposed Findings by reference herein.

² The Staff utilized a unique number designator for each separate Part of the Proposed Findings, whereby all paragraphs in Part 1 are consecutively numbered "1.____"; all paragraphs in Part 2 are consecutively numbered "2.____", etc. Accordingly, all paragraph numbers in this Part commence with the number 8.

A. Contention NYS-9

8.2 On November 30, 2007, NYS filed Contention NYS-9 alleging that the Applicant's Environmental Report ("ER") failed to evaluate energy conservation as an alternative that could displace the energy production of one or both of Indian Point Units 2 and 3 ("IP2" and "IP3") and thus that the Applicant failed to carry out its obligations under 10 C.F.R. § 51.53(c)(2).³

8.3 On July 31, 2008, in its Memorandum and Order ruling on the petitioners' standing to intervene and the admissibility of their contentions,⁴ the Board found, *inter alia*, that the portion of Contention NYS-9 related to the alternatives analysis was inadmissible, but the portion relating to the "no-action" alternative was admissible.⁵ As admitted, Contention NYS-9 reads: "Entergy in its ER has not evaluated energy conservation as part of its 'no action' alternative analysis."⁶

8.4 In Contention NYS-9, New York argued that the Applicant, in its ER, unreasonably limited the alternatives discussion to alternatives that were able to replace the full 2158 MW of base-load produced by Indian Point.⁷ The Board explicitly rejected this argument. The Board stated that Commission precedent was clear on the point: that an applicant's environmental report "need only consider the range of possibilities that are capable of achieving the goals of the proposed action", which in this instance is the generation of 2158 MW of baseload power for an additional 20 years.⁸

³ See "New York State Notice of Intention to Participate and Petition to Intervene" ("2007 New York Petition" or "2007 Petition"), filed November 30, 2007 at 106.

⁴ *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), LBP-08-13, 68 NRC 43 (2008).

⁵ *Indian Point*, LBP-08-13, 68 NRC at 92.

⁶ *Id.* at 218.

⁷ 2007 New York Petition at 106.

⁸ *Id.* at 92.

B. Contention NYS-33

8.5 On December 22, 2008, the NRC issued its Draft SEIS concerning the Indian Point LRA.⁹

8.6 On February 27, 2009, New York filed new and amended contentions, including new Contention 33, in which the State presented numerous arguments raising issues with respect to the DSEIS's discussion of energy conservation and efficiency, renewable energy resources, energy transmission capacity and possible combinations of different energy sources in the "no action alternative."¹⁰

8.7 On June 16, 2009, the Board admitted Contention NYS-33 based on its determination that the data and conclusions in the Draft SEIS differed from those in the ER.¹¹ The Board consolidated Contention NYS-9 with Contention NYS-33 based upon the similarities of issues dealing with the "no-action" alternative.¹² NYS-33 asserts:

The DSEIS discussion of energy alternatives (Chapter 8) violated NEPA because it ignores significant new information and fails to provide a rigorous analysis of the costs, benefits, and feasibility of energy conservation and other measures under the "No-Action" alternative in violation of 10 C.F.R. §§ 51.53(c)(3)(iv), 51.71 (a) and (d), and 51.95, 10 C.F.R. Part 51, Subpart A, Appendix B; and 40 C.F.R. §§ 1502.14 and 1502.9.¹³

⁹ "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Draft Report for Comment," NUREG-1437, Supplement 38 (Dec. 2008) (Ex. NYS000132A-D).

¹⁰ State of New York Contentions Concerning NRC Staff's Draft Supplemental Environmental Impact Statement (Feb. 27, 2009) at 21-37.

¹¹ Order (Ruling on New York State's New and Amended Contentions), *Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), (June 16, 2009)(unpublished) at 11.

¹² *Id.* at 13.

¹³ State of New York Contentions Concerning NRC Staff's Draft Supplemental Environmental Impact Statement (Feb. 27, 2009) at 20.

C. Contention NYS-37

8.8 On December 3, 2010, the Staff issued the FSEIS for the Indian Point LRA.¹⁴

8.9 On February 3, 2011, New York filed its Motion and Petition for New Contention 37, which New York characterized as updating Contentions NYS-9 and NYS-33 to refer to the FSEIS. Contention NYS-37 asserts:

The FSEIS discussion of energy alternatives (Chapter 8) fails to provide a meaningful analysis of energy alternatives or responses to criticism of the DSEIS, in violation of the requirements of 42 U.S.C. §§ 4331 and 4332; 10 C.F.R. §§ 51.91(A)(1) and (c), 51.92(c)(4) and Part 51, Subpart A, Appendix A and Appendix B; 40 C.F.R. §§ 1052.1, 1052.2(G), 1502.9, and 1502.14; and 5 U.S.C. § 551 *et seq.*¹⁵

8.10 The Board admitted Contention NYS-37 to the extent that it updates and supersedes Contentions NYS-9 and NYS-33 and consolidated all three contentions.¹⁶ The Board pointed out that it was also admitting Contention NYS-37 to the extent that it alleged that the FSEIS was deficient for failing to address information published after the issuance of the DSEIS regarding the no-action alternative and for failing to address comments on the DSEIS.¹⁷ The Board cautioned, however, that “we are not authorizing a broad-ranging inquiry into alternative scenarios and the need for power, which would be precluded by Commission regulations, and which we have previously excluded” and that admission of the contention was still limited to the adequacy of the Staff’s evaluation of the no action alternative and that admission of Contention NYS-37 did not materially expand the scope of the contention.¹⁸

¹⁴ “Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38 Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Final Report,” NUREG-1437, Supplement 38 (Dec. 2010) (Ex. NYS000133A-J).

¹⁵ State of New York Contention Concerning NRC Staff’s Final Supplemental Environmental Impact Statement (Feb. 3, 2011) at 2.

¹⁶ Order (Ruling on Pending Motions for Leave to File New and Amended Contentions) at 34, 71 (July 6, 2011) (unpublished) at 34. Henceforth all references to Contention NYS-37 include Contentions NYS-9 and NYS-33.

¹⁷ *Id.*

¹⁸ *Id.* at 35 (internal footnote omitted).

8.11 Subsequently, Entergy filed a Motion in Limine to exclude portions of New York’s pre-filed testimony and exhibits on Contention NYS-37 on the grounds that they pertained to need for power and the related issue of the need for reactive power to support grid stability and reliability.¹⁹ The Board denied the motion but again cautioned that an inquiry into need for power was prohibited by the regulations and again pointed out that New York could “dispute the accuracy and adequacy of the NRC Staff’s evaluation of the no-action alternative.”²⁰ The Board closed the matter, stating that it would “give all evidence its appropriate weight at evidentiary hearing in the context of evaluating the specific issue before us.”²¹

D. Statutory and Regulatory Background

8.12 Contention NYS-37 arises under the National Environmental Policy Act of 1969, as amended (“NEPA”), and the NRC’s regulations that implement this statute. 42 U.S.C. §§ 4321 *et seq*; 10 C.F.R. Part 51. Under NEPA, the NRC is required to take a “hard look” at the environmental impacts of a proposed action, as well as reasonable alternatives to that action. *See Louisiana Energy Servs., L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This “hard look” is tempered by a “rule of reason” that requires agencies to address only impacts that are reasonably foreseeable – not remote and speculative. *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-156, 6 AEC 831, 836 (1973). “NEPA does not call for certainty or precision, but an *estimate* of anticipated (not unduly speculative) impacts.” *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005) (emphasis in original). Neither does it call for the impossible. The Supreme Court observed that where it is not possible for an agency to analyze environmental

¹⁹ Entergy’s Motion in Limine to Exclude Portions of Pre-Filed Testimony and Exhibits for Contention NYS-37 (Energy Alternatives) (January 30, 2012).

²⁰ Order (Granting in Part and Denying in Part Applicant’s Motions in Limine) (March 6, 2012) (unpublished) at 19.

²¹ *Id.* at 20.

consequences for a proposed action or alternatives to it, requiring such analysis would have “no factual predicate” and held that under those circumstances an EIS was not required. *Kleppe v. Sierra Club*, 427 U.S. 390, 401-02 (1976).

8.13 Further, “NEPA gives agencies broad discretion to keep their inquiries within appropriate and manageable boundaries.” *Louisiana Energy Servs., L.P.*, CLI-98-3, 47 NRC at 103 (citation omitted). As the Commission recently observed, “NEPA requires consideration of ‘reasonable’ alternatives, not all conceivable ones.” *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-05, ___ NRC ___ (March 8, 2012) slip op at 48. Specifically, the Commission stated:

We also have held that our Staff EISs “need only discuss those alternatives that . . . ‘will bring about the ends’ of the proposed action” – a principle equally applicable to Environmental Reports. We give “substantial weight to the preferences of the applicant and/or sponsor.” NextEra’s stated purpose for the Seabrook license renewal, as reflected in its application, is baseload power generation. Thus, although NextEra in its Environmental Report briefly examines wind energy as a potential alternative to a license renewal, NextEra rejected that option on the ground that wind power, at least in its current state, is incapable of producing baseload power.

Id. at 49-50.

8.14 Ultimately, the test is whether an EIS “contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences . . . and a rational connection between the facts found and the choice made[.]” *Save the Peaks Coalition v. U.S. Forest Service*, 669 F.3d 1025, 1035 (9th Cir. 2012) (internal citations and quotation marks omitted). Further, where a brief statement of the issue will suffice to address an issue, no more is required. “The agency may limit its discussion of environmental impact to a brief statement, when that is the case, that the alternative course involves no effect on the environment, or that their effect, briefly described, is simply not significant.” *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 834 (D.C. Cir. 1972). Similarly, “[w]hen alternatives are rejected from

consideration in an EIS, there is no duty to perform in-depth analyses of these alternatives.... Appellees had no duty to conduct an in-depth analysis of those rejected alternatives in the FEIS.” *Citizens for Smart Growth v. Secretary of Department of Transportation*, 669 F.3d 1203, 1213 (11th Cir. 2012).

8.15 The regulation in 10 C.F.R. § 51.95(c)(2) states that the Staff is not required to discuss need for power or the economic costs and benefits of license renewal or license renewal alternatives in its supplemental environmental impact statements for license renewal.

8.16 The history of the regulation in 10 C.F.R. § 51.95 governing the NRC’s environmental review for license renewal reveals, ironically, that the regulation was drafted to accommodate New York. When the regulation was being crafted, New York argued that the Staff should not address need for power but should, instead, defer to State determinations of need for power.²² New York asserted that to allow the Staff to address need for power in its environmental impact statements would “intrude adversely on traditional State regulatory authority over these matters.”²³ It was because of New York’s opposition that the NRC removed the analysis of need for power from its license renewal environmental review.²⁴

8.17 In 1991, when the NRC proposed to amend its regulations governing the environmental review for license renewal, it proposed to address need for power as a Category 1 generic impact.²⁵ Category 1 impacts were defined as impacts “that apply] to all affected plants.”²⁶

²² Environmental Review for Renewal of Operating Licenses, Supplemental Proposed Rulemaking, 59 Fed. Reg. 37724, 37725 (July 25, 1994).

²³ *Id.* at 37724.

²⁴ Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, Final Rule, 61 Fed. Reg. 28467, 28468 (June 5, 1996).

²⁵ Environmental Review for Renewal of Operating Licenses, Proposed Rule, 56 Fed. Reg. 47016, 47020 (September 17, 1991).

²⁶ *Id.* at 47019.

8.18 In its discussion on the proposed rule, the Commission noted that projections of the demand for electric power from 1991 to 2030 in each of the 11 Department of Energy regions indicated that a need will exist for the generating capacity represented by license renewal of plants in all 11 regions. The projection included demands for both individual and utility service areas, which showed that the generating capacity of each nuclear power plant would be needed to meet the nation's electric power demand.²⁷

8.19 In response to an advance notice for this proposed rulemaking, the Wisconsin Public Service Commission ("WPSC") suggested that the NRC should defer to the States regarding need for power. The WPSC asked, "Regarding the need for generating capacity, whether the NRC should defer to the relevant State agency's determination of need for generating capacity."²⁸ In light of the WPSC's suggestion that the NRC defer to State determinations of need for power, the NRC "encourage[d] State agencies to review analyses in the FEIS for consistency with their own analyses and to comment on any significant disagreement between them."²⁹

8.20 New York submitted a proposal, responding to the proposed rule. New York proposed that the regulation include a statement that the NRC's need for power and alternative energy source findings were "only intended to assist the NRC in meeting its NEPA obligations and do not preclude the States from making their own determinations[.]" that the determinations should be approached on a site-specific, rather than a generic basis, and that the NRC's environmental impact statements should refer "to State determinations on the issues of need for

²⁷ *Id.* at 47022.

²⁸ *Id.* at 47024.

²⁹ *Id.*

generating capacity and alternative energy sources, and should defer to and be guided by those State determinations to the maximum degree possible pursuant to NEPA.”³⁰

8.21 The NRC proposed to address New York’s concerns by removing need for power from the license renewal review. The NRC proposed to do this by redefining the purpose and need for the license renewal “as preserving continued operation of a nuclear power plant as a safe option that State regulators and utility officials may consider in their future energy planning decisions.”³¹ The NRC explained:

In formulating this proposed purpose and need statement, the NRC staff has attempted to consider the perspective of State regulators, the needs of license renewal applicants, the nature of the applications at issue, and the function that the NRC plays in the decisional process. This proposed definition does not indicate an endorsement by the NRC of nuclear power operation as a preferred energy source. Instead, the proposed definition is intended to convey that, absent findings in the Atomic Energy Act safety review or in the NEPA environmental analysis that would lead the NRC to reject a license renewal application, the NRC will not interfere with the energy planning decisions of state regulators and utility officials.³²

8.22 In 1996, when it published an amendment of its license renewal regulations, the Commission stated that it was clarifying the purpose and need of the proposed action (license renewal) as follows:

to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs, as such needs may be determined by State, utility, and where authorized Federal (other than NRC) decisionmakers.³³

The Commission explained that it clarified the purpose and need in order to allay the concerns raised by the various States (including New York State) and assure them that “the NRC will

³⁰ Environmental Review for Renewal of Operating Licenses, Supplemental Proposed Rulemaking, 59 Fed. Reg. 37724, 37725 (July 25, 1994).

³¹ *Id.*

³² *Id.*

³³ Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, Final Rule, 61 Fed. Reg. 28467, 28472 (June 5, 1996).

neither perform analyses of the need for power nor draw any conclusions about the need for generating capacity in a license renewal review.” *Id.*

8.23 Thus, the final rule provides that the Staff’s environmental impact statement “is not required to include discussion of need for power[.]” 10 C.F.R. § 51.95(c)(2).

8.24 When it issued the final rule, the NRC explained that it removed need for power from the license renewal environmental review because New York and other states had argued that NRC involvement was inappropriate and intruded into areas of energy planning covered by state regulation.

With respect to the States’ concerns regarding need for generating capacity analysis, the NRC will neither perform analyses of the need for power nor draw any conclusions about the need for generating capacity in a license renewal review. This definition of purpose and need reflects the Commission’s recognition that . . . the NRC has no role in the energy planning decisions of State regulators and utility officials.³⁴

8.25 The Commission also accommodated New York when the Commission issued the rules governing the structure of Staff environmental impact statements. In 1994, in a supplemental proposed rulemaking, the Commission proposed to address alternatives solely as consequences of the no-action alternative.³⁵ The Commission reasoned that “[t]he only alternative to the proposed action would be the ‘no action’ alternative, and the environmental consequences of this alternative are the impacts of a range of energy sources that might be used if a nuclear power plant operating license were not renewed. . . .”³⁶ CEQ, EPA, and several states (including New York) objected.³⁷ “CEQ supported the approach proposed by the

³⁴ Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, Final Rule (Ex. NYS00127), 61 Fed. Reg. 28467, 28472 (June 5, 1996).

³⁵ Environmental Review for Renewal of Operating Licenses, Supplemental Proposed Rulemaking (Ex. NRC000138), 59 Fed. Reg. 37724, 37725 (July 25, 1994).

³⁶ Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, Final Rule (Ex. NYS000127), 61 Fed. Reg. 28467, 28471 (June 5, 1996).

³⁷ *Id.* at 28472.

State of New York. . . CEQ wanted the NRC to address other energy sources as separate alternatives, rather than as consequences of the no-action alternative.”³⁸ In response to the concerns raised by these entities, the Commission changed its approach and in the final rule decided that alternatives should be analyzed in their own right and not as mere consequences of the no-action alternative. The approach the Commission settled on in the final rule—and applied in the Indian Point DSEIS and FSEIS—provides that “the environmental review will include a characterization of alternative energy sources as being the alternatives to license renewal and not merely the consequences of the no-action alternative. . . .”³⁹

E. Legal Standard

8.26 The legal standard for determining the sufficiency of the Final SEIS is whether it constitutes a reasonable analysis of the no-action alternative to license renewal and whether the Staff in the Final SEIS addressed all of the comments submitted with respect to the Draft SEIS.

II. FINDINGS OF FACT

A. Witnesses Presented

8.27 Evidentiary hearings on this contention were held on October 24, 2012 and November 28, 2012. A total of seven witnesses appeared on behalf of Entergy, New York, and the Staff, as set forth below. Prefiled testimony and exhibits were submitted by each of the witnesses. In addition, New York filed rebuttal testimony and exhibits. All of the witnesses provided oral testimony in response to questioning by the Board and the parties.

8.28 The Applicant presented a panel of three witnesses in support of its license renewal application: Donald Cleary, David Harrison, Jr., and Eugene Meehan.

8.29 Applicant witness Donald Cleary is an Environmental Safety Consultant with Talisman International, LLC. Mr. Cleary has 38 years of experience in the nuclear regulation

³⁸ *Id.*

³⁹ *Id.*

industry. Since 2001, he has provided consulting services in the areas of environmental impacts, power and alternate energy sources, and regional socioeconomic impacts. Prior to joining Talisman, he was member of the U.S. Nuclear Regulatory Commission regulatory staff from 1973 to 2001. During his tenure at the NRC, he developed and applied methodologies to assess various topics covered in environmental impact statements for nuclear power plant construction and operation, including such topics as the need for power (electrical generating capacity), alternative energy sources, and regional socioeconomic impacts. Furthermore, as Task Manager for the GEIS (Ex. NYS00131A-I), and the license renewal rulemaking, he was directly involved in license renewal environmental impact studies addressing socioeconomic impacts and energy alternatives. In addition to his work on the GEIS, Mr. Cleary worked on the following major documents articulating the NRC's requirements and guidance: the Commission's environmental protection regulations in 10 C.F.R. Part 51; Regulatory Guide 4.2, Supplement 1, Preparation of Supplemental Environmental Reports for Application to Renew Nuclear Power Plant Operating Licenses (Sept. 2000) ("Regulatory Guide 4.2, Supp. 1") (excerpts attached as Ex. ENT000136); and NUREG-1555, Supplement 1, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants: Environmental Standard Review Plan for Operating License Renewal" (Mar. 2000) ("NUREG-1555, Supp. 1") (Ex. ENT00019B). Mr. Cleary holds a Bachelor of Arts degree in Economics from the University of Massachusetts, Amherst and a Master of Arts degree in Economics from the University of Florida. Donald Cleary Curriculum Vitae (Ex. ENT000133).

8.30 Entergy witness David Harrison, Jr. is a Senior Vice President at NERA Economic Consulting. He has more than 35 years of experience analyzing the benefits, costs and other impacts of energy and environmental policy, including analyses for the U.S. Environmental Protection Agency and the President's Council of Economic Advisors. Before joining NERA, he was an Associate Professor at the John F. Kennedy School of Government at Harvard University, where he taught economics, energy and environmental economics and

policy, benefit-cost analysis, and regional economic development. In 2002, he co-directed an analysis in conjunction with electricity market modelers at General Electric to assess the electricity market impacts of permanent shutdown of Indian Point and other potential scenarios. The project included an analysis of the potential economic and environmental impacts of shutdown of these nuclear power plants using the GE-MAPS model and NERA's volatility model analysis. Updated results for this analysis were released in 2003. In 2009, he co-directed efforts to prepare comments to the NRC related to the Draft SEIS for Indian Point. As a result of these activities, he is familiar with New York State's electricity market and economic methodologies used to determine the reasonable alternatives for nuclear power plant license renewal projects, as well as the methods to assess the environmental benefits and costs of energy projects and their alternatives. With Mr. Meehan, he led the NERA team that independently assessed the energy and environmental impacts of the no-action alternative, which is documented in their report, "Potential Energy and Environmental Impacts of Denying Indian Point's License Renewal Applications" (Mar. 2012) (Ex. ENT000481). Dr. Harrison holds a Ph.D. in Economics from Harvard University, a Master of Science degree in Economics from the London School of Economics, and a Bachelor of Arts from Harvard College. David Harrison Curriculum Vitae (Ex. ENT000480).

8.31 Entergy witness Eugene Meehan is a Senior Vice President at NERA. He has over thirty years of experience advising electric and gas utility clients in the areas of strategic planning, regulatory strategy, and financial and economic analysis. He also has extensive experience evaluating economic issues associated with electric power markets in the United States, including the New York Independent System Operator region. He is familiar with the New York State electricity market and familiar with economic methodologies used to determine the reasonable alternatives for nuclear power plant license renewal projects, as well as the methods used to assess the environmental benefits and costs of energy projects and their alternatives. With Dr. Harrison, he led the NERA team that independently assessed the energy

and environmental impacts of the no-action alternative, which is documented in their report, “Potential Energy and Environmental Impacts of Denying Indian Point’s License Renewal Applications” (Mar. 2012) (Ex. ENT000481). Mr. Meehan holds a Bachelor of Arts degree from Boston College in Economics and graduated *cum laude*. Eugene Meehan Curriculum Vitae (Ex. ENT000482). Based on their demonstrated knowledge, skill, experience, and education, we find that Applicant’s witnesses, Mr. Cleary, Mr. Harrison, and Mr. Meehan, are qualified to provide expert opinion on the matters addressed in their testimony.

8.32 The Staff presented one witness, Andrew Stuyvenberg, concerning this contention. From February of 2008 through October of 2011, Staff witness Andrew Stuyvenberg managed the environmental review for the proposed license renewal of Indian Point Nuclear Generating Unit Nos. 2 and 3. He coordinated the preparation and publication of both the Draft and Final SEISs for Indian Point. From April 2007 until the Final SEIS was published in December of 2010, he was also responsible for the alternatives analysis, including the No-Action alternatives analysis. At the NRC, Mr. Stuyvenberg has provided analyses of potential alternatives to license renewal for NRC environmental impact statements. He has performed, overseen, or reviewed alternatives analyses in 19 NRC staff environmental impact statements that either have been published or are currently in progress. He also provided environmental expertise to agency processes, including the update of the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, issues identified by the Fukushima Site Team, and proposed actions by the Japan Lessons-Learned Directorate. Recently, he has worked with other NRC staff members to develop guidance on how to address greenhouse gas impacts in agency environmental impact statements, how to consider terrorism in reviews of projects located in the 9th Circuit, and how to address Severe Accident Mitigation Alternatives (SAMA) reviews at the license-renewal stage for facilities that have completed a design-stage SAMA review. He has also overseen the need-for-power analysis for the proposed operation of Watts Bar Unit 2. Finally, he is a credentialed agency meeting facilitator,

in which capacity he assists agency staff with planning and facilitating public and internal meetings. Mr. Stuyvenberg has a Bachelor of Science Degree from Marquette University and a Masters Degree in Environmental Management in Environmental Economics and Policy from Duke University's Nicholas School of the Environmental and Earth Studies. He is currently a Juris Doctor candidate at the Georgetown University Law Center. Andrew L. Stuyvenberg Curriculum Vitae (Ex. NRC000134).

8.33 Based on his demonstrated knowledge, skill, experience, and education, we find that the Staff's witness, Mr. Stuyvenberg, is qualified to provide expert opinion on the areas addressed in his testimony.

8.34 New York presented three witnesses: David Schlissel, Peter Lanzalotta, and Peter Bradford.

8.35 New York witness, David Schlissel is President of Schlissel Technical Consulting, Inc. Since 1973, he has served as a consultant, expert witness, and attorney on management, engineering, and economic issues, primarily in the fields of energy and the environment. He has been retained by regulatory commissions, consumer advocates, publicly-owned utilities, non-utility generators, governmental agencies and private organizations to prepare analyses on issues related to electric, natural gas, and telephone utilities and has presented testimony in numerous cases before regulatory boards and commissions and in state and federal court proceedings. His recent work has involved evaluation of utility resource planning analyses, the economics of proposed and existing power plants, electric system reliability, and power plant operations and outages. He has also addressed the economics of, and alternatives to, the extension of service lives of operating nuclear power plants. He received Bachelor of Science and Master of Science degrees in Astronautical Engineering from the Massachusetts Institute of Technology and Stanford University, respectively. He holds a Juris Doctor degree from Stanford University School of Law. David Schlissel Curriculum Vitae (Ex. NYS000050).

8.36 Based on his demonstrated knowledge, skill, experience, training, and education, we find that Mr. Schlissel is qualified to provide expert opinion testimony on the economics of proposed and existing power plants, electric system reliability, and power plant operations and outages.

8.37 New York witness Peter Lanzalotta has more than thirty-five years experience in electric utility system planning, bulk power operations, distribution operations, electric service reliability, load and price forecasting, and market analysis and development. He has appeared as an expert witness on utility reliability, planning, operation, and rate matters in more than 100 proceedings in 22 states, the District of Columbia, the Provinces of Alberta and Ontario, and before the Federal Energy Regulatory Commission and U. S District Court. He has developed evaluations of electric utility system cost, value, reliability, and condition. He has participated in negotiations or other interactions between utilities and customers or regulators in more than ten states regarding transmission access, the need for facilities, electric rates, electric service reliability, the value of electric system components, and system operator structure under wholesale competition. Mr. Lanzalotta is registered as a professional engineer in Connecticut and Maryland and he holds a Bachelor of Science degree in Electric Power Engineering from Rensselaer Polytechnic Institute and a Masters in Business Administration with a concentration in Finance from Loyola College of Baltimore. Peter Lanzalotta Curriculum Vitae (Ex. NYS000097).

8.38 Based on his demonstrated knowledge, skill, experience, training, and education, we find that Mr. Lanzalotta is qualified to provide expert opinion testimony on electric utility system planning, bulk power operations, distribution operations, electric service reliability, load and price forecasting, and market analysis and development.

8.39 New York witness Peter Bradford is an adjunct professor at Vermont Law School and CEO of Bradford Brook Associates, a firm advising on utility regulation, power supply planning and procurement, and energy policy. He has been involved in the regulation of utilities

and of power supply procurement since 1971 and in energy policy making since 1968. He was a member and chair of the Maine Public Utilities Commission twice, between 1971 and 1977 and between 1982 and 1987. He chaired the New York Public Service Commission between 1987 and 1995. He served as a member of the U.S. Nuclear Regulatory Commission between 1977 and 1982. He served on the New York State Energy Planning Board, the Board of the New York State Energy Research and Development Administration, the New York Environmental Board and as chair of the New York State Energy Facilities Siting Board. He teaches a course entitled “Nuclear Power and Public Policy” at Vermont Law School and has taught “Energy Policy and Environmental Protection” at the Yale School of Forestry and Environmental Studies. He has been a member of the Keystone Center “Nuclear Power Joint Fact Finding” (June, 2007) and the National Research Council of the National Academy of Sciences’ Committee on “Alternatives to the Indian Point Energy Center for Meeting New York Electric Power Needs”. He is a graduate of Yale University and Yale Law School. Peter Bradford Curriculum Vitae (Ex. NYS000104).

8.40 Based on his demonstrated knowledge, skill, experience, training, and education, we find that Mr. Bradford is qualified to provide expert opinion testimony on utility regulation, power supply planning and procurement, and energy policy.

8.1 However, we afford little weight to the testimony of Mr. Schlissel, Mr. Lanzalotta and Mr. Bradford. While Mr. Schlissel and Mr. Lanzalotta have experience in the analysis of the need for power and transmission capacity, such experience is irrelevant here where need for power is not at issue and where the Staff has assumed sufficient transmission capacity for all alternatives and has not cited a lack of transmission capacity as a grounds for dismissing any alternative. While Mr. Bradford brings to the table the benefit of his experience as an NRC Commissioner, his experience is of limited utility given that he left the Commission before it had an opportunity to address environmental issues in the license renewal context. Parties bear the burden of demonstrating the expert qualifications of their witnesses, which they do by pointing to

relevant “knowledge, skill, experience, training, or education.” *Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2)*, CLI-04-21, 60 NRC 21, 27-28 (2004). Mr. Schlissel, Mr. Lanzalotta, and Mr. Bradford do not have demonstrated experience in addressing the analysis of alternatives to license renewal environmental impact statements. Therefore, we give little weight to their testimony on the analysis of alternatives in the environmental impact statements at issue in this matter.

B. The Environmental Report

8.2 In its Environmental Report, Entergy dismissed energy conservation and efficiency from consideration as an alternative to license renewal on the grounds that conservation and efficiency do not constitute a single, discrete electric generation source. ER (Ex. ENT00015B) at 7-4. Further, Entergy pointed out that it had no control over conservation and efficiency programs and did not own or operate the transmission lines utilized to distribute electricity generated by Indian Point. *Id.*

C. The Draft Supplemental Environmental Impact Statement

8.3 In the Draft SEIS, the Staff addressed the environmental impacts of the proposed action, a closed-cycle cooling alternative, the no-action alternative, and alternative electricity generation technologies, including new nuclear production, coal, natural gas, and renewable alternatives (hydroelectric, geothermal, wind, biomass, municipal solid waste, refuse-derived fuel and landfill gas, solar-thermal, solar photovoltaic, and ocean wave and current). DSEIS (Ex. NYS000132B) Chapters 4 and 8.

8.4 The Staff stated that the power not generated by a nuclear plant during the license renewal period would likely be replaced by (1) generating alternatives other than the nuclear plant, (2) demand-side management, (3) power purchased from other electricity providers, or (4) some combination of these options. *Id.* at 8-27. The Staff emphasized that its consideration of the no-action alternative did not involve any determination whether any power

was needed or whether it should be generated. *Id.* at 8-78. . The Staff also pointed out that “[d]ecisions about which alternative to implement, regardless of whether or not the NRC renews the IP2 and P3 operating licenses, are outside the NRC’s authority and are subject to consideration by Entergy, other power producers, and State-level decisionmakers (or non-NRC Federal-level decisionmakers where applicable).” *Id.*

D. The Final Supplemental Environmental Impact Statement

8.5 In the Final SEIS, the Staff recommended that the Commission determine that the adverse environmental impacts of license renewal for IP2 and IP3 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable. FSEIS (Ex. NYS000133C) at 9-8.

8.6 The Staff supported its recommendation with analyses of the impacts of license renewal and compared them to its analyses of the impacts of alternatives to license renewal. The alternatives to license renewal that the Staff discussed in the FSEIS include a closed-cycle cooling system alternative to replace Indian Point’s existing once-through cooling-water system; a no-action alternative (positing denial of license renewal); natural gas combined-cycle generation at either the Indian Point site or at an alternate site, which included both new facilities and repowering; the use of purchased or imported electric power from other sources; an alternative comprised of energy conservation and efficiency; a combination alternative comprised of generation that included the continued operation of one Indian Point unit and production from renewable energy sources and conservation; and a combination alternative that involved repowering an existing fossil-powered plant with a combined-cycle plant, power from renewable sources, and conservation. FSEIS (Ex. NYS000133C) at 8-1 through 8-73; NRC Staff’s Testimony of Andrew L. Stuyvenberg Concerning Contention NYS-9, NYS-33, and NYS-37 (Alternatives, Consolidated) (Ex. NRC000133) (“Staff Testimony on NYS-37”) at 18-20.

8.7 The Staff explained that alternatives constitute potential consequences of the no-action alternative:

Plant shutdown will result in a net loss of power generating capacity. The power not generated by IP2 and IP3 during the license renewal term would likely be replaced by (1) power supplied by other producers (either existing or new units) using generating technologies that may differ from that employed at IP2 and IP3, (2) demand-side management and energy conservation, or (3) some combination of these options. The environmental impacts of these options are discussed in Section 8.3 of this SEIS. While these options can be alternatives to license renewal (given sufficient resource availability), they also constitute potential consequences of the no-action alternative. Impacts from these options will be addressed in their respective portions of this Section.

FSEIS (Ex. NYS000133C) at 8-22.

8.8 The FSEIS does not discuss whether there is a need for the power that Indian Point produces or the economic costs and benefits of license renewal or its alternatives. The Staff explained that it defined the purpose and need for the proposed action in order to avoid infringing on state regulatory agencies and utility officials' power to make energy-planning decisions.

Once an operating license is renewed, State regulatory agencies and the owners of the plant will ultimately decide whether the plant will continue to operate based on factors such as the need for power or matters within the State's jurisdiction . . . the NRC does not have a role in the energy-planning decisions of State regulators and utility officials as to whether a particular nuclear power plant should continue to operate.

FSEIS (Ex. NYS000133A) at 1-7; *see also* FSEIS (Ex. NYS000133C) at 9-1.

8.9 The Staff prefaced its discussion of alternatives with the statement that none of the alternatives discussed were "intended to supplant State or utility level policy decisions about how to generate electricity, reduce or add to load, set prices, or promote different approaches to generating electricity or managing loads." *Id.* at 8-28, 8-60.

8.10 The Staff summarized its alternative discussion with yet another reminder that it was making no conclusions on the issue of need for power. "Decisions about which alternative to implement, regardless of whether or not the NRC renews the IP2 and IP3 operating license,

are outside the NRC's authority and are subject to consideration by Entergy, other power producers, and State-level decision makers (or non-NRC Federal level decision makers where applicable)." *Id.* at 8-73.

8.11 In the FSEIS, the Staff concluded that the environmental impacts associated with license renewal will be SMALL for all impact categories except aquatic ecology. FSEIS (Ex. NYS000133B) at 4-7. The Staff found that the impacts of plant operation on aquatic ecology from impingement and entrainment will be MODERATE and that the impacts from thermal shock could range from SMALL to LARGE. *Id.*

8.12 The Staff concluded that the environmental impacts of the no-action alternative had the smallest effect and that the impacts of the likely consequences of the no-action alternative would be similar to those of the energy alternatives that the Staff considered. FSEIS (Ex. NYS000133C) at 9-7.

8.13 With respect to the stand-alone energy conservation and efficiency alternative, the Staff found that that alternative would have SMALL impacts in all categories except in the area of Socioeconomics. *Id.* at 8-41 to 43 and Table 9-1 at 9-10. The Staff found that loss of tax and payments-in-lieu-of-taxes revenue paid to municipalities near Indian Point could result in SMALL to MODERATE impacts which would not be offset by conservation. *Id.* at 8-43.

8.14 The Staff found that all other alternative actions would have impacts in at least four resource areas that ranged from SMALL to MODERATE and that some impacts may be even higher. *Id.* at 9-7.

8.15 The Staff's conclusions regarding the environmental impacts of the proposed action and alternatives are summarized in Table 9-1 in the FSEIS. *Id.* at 9-9 to 10; Transcript ("Tr.") at 3245-50 (Stuyvenberg).

8.16 When New York witness Peter Bradford was asked to identify deficiencies in the Final SEIS, he was unable to identify specific deficiencies. Tr. at 3200-01, 3202-03, 3204-05, 3230-31. For example, when Mr. Bradford was asked what he thought the Staff should have

done in the FSEIS, he responded only that the discussion of conservation and renewable should have been expanded. *Id.* at 3198-99. He finally agreed that his criticisms were directed more to “the quality of the presentation of the material or the description of the various alternatives than in any particular quantity of megawatts that are in renewables or megawatts that are in wind.” *Id.* at 3260.

8.17 In his written testimony, Mr. Bradford cited a report, the Warburg Report (Ex. NYS000116) that was prepared for him during his tenure at the NRC as a Commissioner and that was critical of Staff environmental statements. Pre-Filed Written Testimony of Peter A. Bradford Regarding Contention NYS-9-33-37 (“NYS-37”) (Ex. NYS000048) (“New York Testimony on NYS-37 (Bradford)”) at 31-32.

8.18 But as Staff witness Andrew Stuyvenberg pointed out, that report is neither applicable nor relevant to the Staff’s current environmental reviews. Staff Testimony on NYS-37 (Ex. NRC000133) at 41-42. Mr. Stuyvenberg explained that the NRC license renewal program did not exist in 1979, when the Warburg Report was written; thus that report provides no insight into the Staff’s current performance. *Id.* at 42. He also testified that, since the report was written, the Staff has worked to address a broader range of alternatives than it did during Mr. Bradford’s tenure. *Id.*

8.19 Indeed, at the hearing, Mr. Bradford acknowledged the improvement in Staff EIS’s since he served as a Commissioner and testified that the Indian Point FSEIS was not of a “class with the environmental impact statements [he] reviewed in [his] 2007 declaration”. Tr. at 3259.

8.20 As more fully set forth below, having considered the testimony and other evidence presented by the parties, we find that the evidence supports a conclusion that the Staff’s Final SEIS provides a meaningful analysis of alternatives to the proposed action, including the no-action alternative, and meets the requirements of the National Environmental Policy Act.

E. Need for Power and Energy Planning Decision-Making

8.21 As the Final SEIS stated several times and in several ways, the purpose of its analysis was not to decide whether there is a need for the power that Indian Point produces. FSEIS (Ex. NYS000133) at 8-28, 8-60, 8-73, 9-1.

8.22 Staff witness Andrew Stuyvenberg emphasized this when he testified that “the Staff’s purpose here was not to say that Indian Point could not be replaced.” Tr. at 3255. He pointed out that the Staff’s consideration of alternatives to license renewal was “a way of saying there are options that could replace Indian Point.” *Id.*; Staff Testimony on NYS-37 (Ex. NRC000133) at 54-55.

8.23 The Staff’s approach was consistent with the regulation in 10 C.F.R. § 51.95(c)(2), which provides:

The supplemental environmental impact statement for license renewal is not required to include discussion of need for power or the economic costs and economic benefits of the proposed action or of alternatives to the proposed action except insofar as such benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation.

8.24 Nevertheless, New York witness David Schlissel asserted that the Final SEIS assumed a need for too much power and was deficient for not evaluating what he claimed is new and significant information regarding the current energy needs of the state. Prefiled Written Testimony of David A. Schlissel Regarding Contention NYS-37 (Ex. NYS000054) (“New York Testimony on NYS-37 (Schlissel)”) at 6-8. The new and significant information that he claimed that the FSEIS ignored consisted of forecasts of lower demand, *id.* at 10-17; increased energy efficiency, *id.* at 17-25, 34-35; increased renewable generation, *id.* at 25-35; increased purchased power and transmission enhancements, *id.* at 35-41; and an increase in new or repowered generating facilities, *id.* at 41-46. Based on this information, Mr. Schlissel argued that “the capacity and energy provided by Indian Point Units 2 and 3 can be replaced if the Units are not relicensed.” *Id.* at 8.

8.25 New York witness Peter Bradford also testified that the Final SEIS “overstate[s] the need for relicensing” of Indian Point. New York Testimony on NYS-37 (Bradford) (Ex. NYS000048) at 34. He asserted that “[a] fair need for power comparison would of course consider actual economic conditions.” *Id.* at 14. He complained that because the FSIES did not discuss the economics of Indian Point vis-à-vis alternatives, “it gives decision makers no sense of which among the alternatives are likely to be deployed in what quantities in the event that the no-action alternative is in fact pursued.” *Id.*

8.26 New York witness Peter Lanzalotta cited transmission developments and projects that support his view that “purchased electrical power could replace all of Indian Point’s generating capacity without the construction of an additional 2,100 MW of transmission line capacity. Pre-Filed Written Testimony of Peter J. Lanzalotta Regarding Contention NYS-9-33-37 (Ex. NYS000047) (“New York Testimony on NYS-37 (Lanzalotta)”) at 21. He also testified that “Indian Point units are not indispensable from the perspective of grid stability[.]” *Id.* at 19.

8.27 Entergy countered with the results of a study based on the National Energy Modeling System (“NEMS”). Testimony of Entergy Witnesses Donald P. Cleary, David Harrison Jr., and Eugene T. Meehan Regarding Contention NYS-37 (Energy Alternatives) (Ex. ENT000479) (“Entergy Testimony on NYS-37”) at 40. Entergy witnesses David Harrison and Eugene Meehan testified that their NEMS modeling showed that conservation and renewables “would play modest roles, and that the primary impact [of the no-action alternative] would be increased generation from fossil-fired sources.” *Id.*; *see also id.* at 71-81.

8.28 Mr. Schlissel responded that the way in which Entergy used the NEMS model was inappropriate. New York Rebuttal Testimony on NYS-37 (Ex. NYS000437).

8.29 All of these arguments are, at base, arguments over need for power. New York and Entergy both erred in focusing on whether or not New York needs Indian Point.

8.30 New York's arguments are based on the incorrect assumption that the Staff is required to determine what will replace Indian Point production and in what quantities and over what period of time.

8.31 However, as Staff witness Andrew Stuyvenberg explained, the Staff does not choose what will replace Indian Point. Tr. at 3254; Staff Testimony on NYS-37 (Ex. NRC000133) at 33-34. And the Staff does not opine regarding which alternative is most likely to replace Indian Point. Tr. at 3220 (Stuyvenberg). Instead, the Staff's job is to make a "recommendation about whether the potential impacts of preserving license renewal as an option for decision-makers, whoever those energy decision-makers may be, is unreasonable." *Id.* at 3252 (Stuyvenberg).

8.32 Mr. Stuyvenberg explained the Staff's decision standard:

The NRC's decision standard isn't to choose to proceed with the issue... the alternative with the lowest environmental impact. It is whether the environmental impact of license renewal is reasonable or not, as compared to the other alternatives. Because NRC doesn't ultimately decide which of these gets implemented."

Id. at 3254.

F. The Staff's Analysis of Alternatives as Potential Consequences of No-Action

8.33 New York asserted that the no-action alternative analysis in the Final SEIS contained no impact analysis of replacement generation that would take the place of Indian Point in the event the plant is not relicensed. New York Statement of Position (Ex. NYSR0045) at 11.

8.34 The Staff witness explained that the impacts related to the no-action alternative are addressed in FSEIS Section 8.3 under the title "Alternative Energy Sources." Staff Testimony on NYS-37 (Ex. NRC000133) at 22-23. In the FSEIS, the Staff stated, "[w]hile these options can be alternatives to license renewal (given sufficient resource availability), they also constitute potential consequences of the no-action alternative. Impacts from these options will

be addressed in their respective portions of this Section.” FSEIS at 8-22; Staff Testimony on NYS-27 (Ex. NRC000133) at 33-34. Rather than analyze the environmental impacts of alternatives in Section 8.2 of the DSEIS and FSEIS under the heading “No-Action Alternative”, the Staff analyzed the environmental impacts of alternatives in Section 8.3 under the heading “Alternative Energy Sources.” Staff Testimony on NYS-37 (Ex. NRC000133) at 23; Tr. at 3050; (Stuyvenberg). At the hearing, Mr. Stuyvenberg explained this practice in the context of the Staff’s treatment of a natural gas combined-cycle facility. He testified, “We assessed the impacts of a natural gas combined-cycle facility both as a stand-alone alternative and indicated that as a stand-alone alternative it could also be a consequence of no action.” Tr. at 3034.

8.35 Mr. Stuyvenberg further testified that the analyses of the environmental impacts of alternatives would have been the same regardless whether they appeared in Section 8.2 (No-Action Alternative) or Section 8.3 (Alternative Energy Sources). Staff Testimony on NYS-37 (Ex. NRC000133) at 23.

8.36 He also stated that the Staff chose to put the analyses in the Alternative Energy Sources Section in response to rulemaking comments provided, in large part, by New York State, by the Council for Environmental Quality (“CEQ”), and by the Environmental Protection Agency (“EPA”) during the rulemaking process that established NRC regulations for license-renewal environmental reviews. *Id.* at 24-25.

8.37 Mr. Stuyvenberg testified that the regulatory history reveals that the Staff analyzes alternatives in the Alternatives Section of the Indian Point FSEIS (Section 8.3), rather than the No-Action Alternative Section of the FSEIS (Section 8.2) because New York State, CEQ, and EPA wanted the analysis in the Alternatives Section and did not want it in the No-Action Alternatives Section. Staff Testimony on NYS-37 (Ex. NRC000133) at 24-25; Tr. at 3103-06.

8.38 Based on the foregoing testimony and evidence, the Board finds that the Staff's analysis of the no-action alternative was reasonable and provided a meaningful analysis of the no-action alternative.

G. The Staff's Analysis of Energy Conservation and Efficiency

8.39 Staff witness Andrew Stuyvenberg testified that the Staff in its Final SEIS was not required to analyze conservation as an alternative to license renewal. Staff Testimony on NYS-37 (Ex. NRC000133) at 6-7. He observed that the GEIS § 8.1 (Ex. NYS000131D), at 8-1, states that "a reasonable set of alternatives should be limited to analysis of single, discrete electric generation sources and only electric generation sources that are technically feasible and commercially viable." Staff Testimony on NYS-37 (Ex. NRC000133) at 20. He testified that conservation does not constitute an electric generation source and does not directly produce any power and is not a single discrete electric generation source. *Id.* at 6-7; *see also* Tr. at 3117 (Meehan). Accordingly, conservation and energy efficiency are not included within the reasonable set of alternatives that the Staff is required to discuss. Staff Testimony on NYS-37 (Ex. NRC000133) at 6-7.

8.40 Mr. Stuyvenberg stated that because the purpose of the license renewal application is to assist the Staff in developing its own discussion of alternatives, and because the Staff is not required to discuss conservation, an applicant's environmental report is also not required to include a discussion of conservation. *Id.* at 6.

8.41 Entergy witness Donald Cleary, confirmed that the Entergy ER did not include conservation as a reasonable alternative because it did not meet the GEIS's criteria of a single discrete electric baseload generation source. Entergy Testimony on NYS-37 at 18, 25-27; Tr. at 3095-96.

8.42 Staff witness Andrew Stuyvenberg explained that this treatment is an outgrowth of the purpose and need for the proposed federal action, in this case, license renewal. Staff

Testimony on NYS-37 (Ex. NRC000133) at 7. He quoted the GEIS's definition of the purpose of license renewal: "to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license in order to meet future system generating needs." *Id.*, quoting GEIS (Ex. NYS000131C) at 8-1. He testified that an alternative to this option would, therefore, be an option that allows for an equal capacity for power generation. *Id.* He stated that, in order to provide for a meaningful comparison of the impacts of one option versus others, the option that must be considered include those that, like nuclear power plants, are electric generation sources. *Id.*

8.43 Mr. Stuyvenberg noted, however, that the GEIS acknowledges that conservation is a possible consequence of the no-action alternative and recognizes that while it is not a discrete power generation source, "states and utilities may use [it] to reduce their need for power generation capability." Staff Testimony on NYS-37 (Ex. NRC000133) at 6-7, quoting GEIS § 8.1 (Ex. NYS000131D) at 8-2; see also Tr. at 3096 (Stuyvenberg). He provided a summary of the GEIS's analysis of the environmental impacts from conservation. Staff Testimony on NYS-37 (Ex. NRC000133) at 8.

8.44 Mr. Stuyvenberg went on to state that, even though the Staff was not required to analyze conservation and energy efficiency in its EISs, the Staff nevertheless addressed conservation and energy efficiency as a stand-alone alternative to license renewal.⁴⁰ *Id.*; Tr. at

⁴⁰ Notably, when New York analyzed alternatives for a recent proposed project within its purview, it refused to consider demand side management or wind and solar production as alternatives. In the Findings Statement for the Cricket Valley Energy Center, a combined cycle natural gas powered electric generating facility, New York wrote: "While DSM [demand side management] has potential to reduce energy consumption and optimize patterns of electricity usage through efficiency improvements, it would not replace the baseload electrical generating capacity that the Project would supply." State Environmental Quality Review, Findings Statement, Cricket Valley Energy Center (Ex. NYS000444) at 29. "Because DSM does not meet the project's purpose and need, meeting growing base-load energy demands as summarized above and more fully discussed in Section 1.1., DSM was not considered a viable alternative to the project." Draft Environmental Impact Statement, Cricket Valley Energy Project, Section 7.3 Demand Side Management (Ex. NRC000166) at 7-3. Regarding wind and solar, New York wrote: "Wind and solar alternatives were not considered further as they did not meet the Project's purpose and need, to supply 1,000 MW of baseload electric power." State Environmental Quality Review,

3226, 3227. Mr. Stuyvenberg's testimony in this regard was confirmed by New York's witness, Dr. Schlissel. Dr. Schlissel testified that the Staff did analyze energy conservation and energy efficiency as a stand-alone alternative in the FSEIS. Tr. at 3139. The Staff's analysis of energy conservation and energy efficiency can be found in the FSEIS in Section 8.3.3 (Ex. NYS000133C) at pp. 8-41 to 8-43.

8.45 Mr. Stuyvenberg explained that the Staff analyzed conservation and efficiency because New York, in its comments on the DSEIS, presented substantial evidence to the Staff that supported energy conservation and energy efficiency as an alternative to license renewal. Staff Testimony on NYS-37 (Ex. NRC000133) at 8; Tr. at 3097-98. Based on that analysis, the Staff determined that the impacts of energy conservation were generally lower than those from other alternatives, including the proposed action. Staff Testimony on NYS-37 (Ex. NRC000133) at 8-9.

8.46 Mr. Stuyvenberg testified that, not only were New York State's 2009 comments on the DSEIS the primary drivers of Staff's inclusion of a conservation/energy efficiency stand-alone alternative to license renewal, New York's comments also strongly influenced the Staff's determination to analyze combination alternatives that included substantial quantities of energy efficiency and conservation. *Id.* at 9-10; Tr. at 3097.

8.47 The Staff witness explained that the Staff was moved to do this based, *inter alia*, on New York's comments on the DSEIS regarding the state-specific viability of conservation and energy efficiency. Staff Testimony on NYS-37 (Ex. NRC000133) at 10, 14. Mr. Stuyvenberg testified that in this regard the Staff relied on comments from the New York State Office of the Attorney General (Ex. NYS000134) on the DSEIS. *Id.* In addition, although the following documents were not submitted as scoping comments or comments on the DSEIS, the Staff

Findings Statement, Cricket Valley Energy Center (Ex. NYS000444) at 29; see also Final Environmental Impact Statement, Cricket Valley Energy Project, Section 7, Alternatives (Ex. NRC000165) at 1-99, 1-100, and 1-108.

found them to be supportive of a stand-alone conservation and efficiency alternative: the 2007 Declaration of Peter Bradford (Ex. NYS000105) and the 2007 Synapse Report (Ex. NYS000052). *Id.* at 10-11, 28-31. These documents, along with the comments New York did submit on the DSEIS, supported a conclusion by the Staff that New York could conceivably harness sufficient energy conservation and efficiency capacity by 2015 to offset the entire capacity of Indian Point Units 2 and 3. *Id.* at 10-11; Tr. at 3096-98. Accordingly, in the FSEIS, the Staff analyzed conservation and efficiency as a stand-alone alternative to license renewal. Staff Testimony on NYS-37 (Ex. NRC000133) at 10, 14; Tr. at 3004 (Stuyvenberg).

8.48 Entergy's witness Dr. Harrison disagreed with New York's assertion that the Staff's FSEIS was inadequate because it failed to consider renewables and energy efficiency as a replacement for Indian Point. Tr. (Harrison) at 3124-25 citing *Potential Energy and Environmental Impacts of Denying Indian Point's License Renewal Application*, NERA Consulting, Mar. 2012 (Ex. ENT000481) at 11-12. Dr. Harrison also testified that his analysis concluded that it was unlikely that Indian Point's production would be replaced by energy efficiency and conservation, and that the Staff's analysis, which did acknowledge that possibility, was probably conservative and presented a reasonable bounding scenario, and that the FSEIS thus presented a reasonable range of analyses. Tr. at 3125-26.

8.49 Based on the foregoing testimony and evidence, the Board finds that the Staff's discussion of energy conservation and efficiency provided a meaningful analysis of the environmental impacts of this alternative to license renewal.

H. The Staff's Analysis of Combination Alternatives

8.50 In addition to analyzing energy conservation and energy efficiency as a stand-alone alternative to license renewal, the Staff elected to include two combinations of alternatives that also included energy conservation/energy efficiency. Staff Testimony on NYS-37 (Ex. NRC000133) at 12-14. The Staff did this in response to public comments on the DSEIS

(including comments from New York in Ex. NYS000134) that called for combinations of alternatives that included renewable energy, energy efficiency or energy conservation, and other power options. *Id.*

8.51 The first combination consisted of continued operation of IP2 or IP3 and conservation and energy from renewable sources (wind, hydropower, biomass, and landfill gas). FSEIS (Ex. NYS000133C) § 8.3.5.2, at 8-60. The second combination consisted of repowering an existing fossil fuel plant with a natural-gas combined-cycle power plant and conservation and renewables (wind, new hydropower, biomass, and landfill gas). *Id.*

8.52 Staff witness Andrew Stuyvenberg explained that, in response to New York State's scoping and DSEIS comments, the Staff fashioned and analyzed the first combination alternative. Staff Testimony on NYS-37 (Ex. NRC000133) at 13-14; Tr. at 3248-49. That combination included only one Indian Point unit, along with conservation and renewable power. *Id.* New York first formally raised this issue of the continued operation of only one Indian Point unit in its letter of July 13, 2007. "*Tendered*" *Application for Relicensure by Entergy Nuclear Indian Point LLCs for Operating Licenses Nos. DPR-26 and DPR-64* (Ex. NRC000136) at page 8. New York criticized the Applicant's ER, asserting that "The Environmental Report Improperly Limits the "No Action" Alternative to Consideration of Either Both Indian Point 2 and 3 or Neither of Them". *Id.* New York State also stated, in its comments on the DSEIS that "The DSEIS's no-action alternatives analysis fails under NEPA because it fails to consider: The no-action alternative as the relicensing of only one unit. . . ." FSEIS at A-1021 (Ex. NYS000133G). Mr. Stuyvenberg explained that in FSEIS § 8.3.5.1, the Staff considered an alternative that consisted of the continued operation of one unit (operating with a cooling tower), renewable energy, and energy conservation/energy efficiency. Staff Testimony on NYS-37 (Ex. NRC000133) at 13-14.

8.53 Mr. Stuyvenberg testified that the Staff's second combination alternative ("NRC Combination 2") at § 8.3.5.2 of the FSEIS, (Ex. NYS000133C) at 8-67 to 70, is based, in large

part, on a combination submitted by New York (“NYS Combination 4”) and re-printed at FSEIS (Ex. NYS000133G) at A-1021. Staff Testimony on NYS-37 (Ex. NRC000133) at 13; Tr. at 3238. Both NRC Combination 2 and NYS Combination 4 include 400-600 MW from repowering an existing fossil-fuel power plant in downstate New York with natural gas combined-cycle (NGCC) technology; the NRC Combination 2 includes 1000-1200 MW from efficiency or conservation, while the New York Combination 4 includes 1200-1500 MW from energy efficiency; and the NRC Combination 2 includes 600 MW from renewable generation, while the NYS Combination 4 includes 600-800 MW of renewable generation. Staff Testimony on NYS-37 (Ex. NRC000133) at 13.

8.54 Mr. Stuyvenberg explained that the Staff did not use the higher figures that New York proffered because the use of those higher figures would have resulted in production of more power than the 2158 MW that Indian Point produces and, accordingly, would have resulted in higher impacts for this combination alternative. Tr. at 3238. The figures that the Staff used result in power production ranging from 2000 to 2400 MW; while the figures that New York proffered result in power production ranging from 2200 to 2900 MW.

8.55 When asked what was deficient about the Staff’s combination analysis, New York’s witness, David Schlissel, admitted that it was “a good step in the right direction, that I would think that it would include perhaps some additional renewable generation, but it is a good step in the right direction.” Tr. at 3041.

8.56 Mr. Schlissel further acknowledged that the Staff was not required to look at all possible combinations of alternatives under NEPA. *Id.* at 3041-42. He also admitted that he had no reason to doubt Mr. Stuyvenberg’s testimony that NEPA only requires that the Staff address reasonable alternatives to the proposed action. *Id.* at 3042.

8.57 Mr. Stuyvenberg testified that the Staff did not analyze the combination alternative that New York proposed that was comprised of renewable, energy efficiency, and combined heat and power. Staff Testimony on NYS-37 (Ex. NRC000133) at 16. He explained

that this combination was rejected because the combined heat and power portion of the combination serves a purpose that Indian Point does not. *Id.*; Tr. at 2977. He pointed out that Indian Point produces power -- it does not produce heat -- thus, a combined heat and power plant does not serve the same needs as Indian Point. Staff Testimony on NYS-37 (Ex. NRC000133) at 16.

8.58 New York witnesses David Schlissel and Peter Bradford also asserted that the Staff's Final SEIS analysis ignored the "likely combination" of renewable generation and energy efficiency and conservation measures. Schlissel Testimony at 48 (NYS000046), Bradford Testimony at 28 (NYS000048).

8.59 However, Mr. Stuyvenberg (who coordinated the preparation and publication of the DSEIS and the FSEIS and who wrote the alternatives analysis) testified that neither Mr. Schlissel nor Mr. Bradford provided comments on the DSEIS that put forward any combination of alternatives that consisted solely of renewal generation and energy efficiency/conservation or demand-side management. Staff Testimony on NYS-37 (Ex. NRC000133) at 17-18. The FSEIS did not ignore a comment along these lines because no such comment was ever submitted. In any event, the Staff did analyze a combination of renewable generation and energy conservation and efficiency in the combination alternatives addressed in the FSEIS: those combination alternatives included renewable generation and conservation/efficiency. *Id.* at 12-14.

8.60 Based on the foregoing testimony and evidence, the Board finds that the Staff's discussion of combination alternatives provided a meaningful analysis of the environmental impacts of these alternatives to license renewal.

8.61 Furthermore, given the non-specific testimony proffered by New York's witness and in light of the un rebutted Staff determination that combined heat and power plants fulfill a need not met by Indian Point, the Board finds that the Staff justified its dismissal of combined heat and power as an alternative to license renewal.

I. Incorporation of Conservation Impact Analyses from Prior SEISs

8.62 New York asserted that the Staff erred when it incorporated, into the Indian Point FSEIS, conservation impact analyses from the Shearon Harris and Three Mile Island FSEISs. New York Statement of Position (Ex. NYSR00045) at 47-50.

8.63 Staff witness Andrew Stuyvenberg testified that rather than repeat the discussion of conservation impacts in the Shearon Harris and Three Mile Island FSEIS, the Staff incorporated them by reference. Tr. at 3002, 3006-08. Mr. Stuyvenberg pointed out that this practice, of incorporating material by reference, is a practice NEPA encourages. *Id.* at 3006.

8.64 In the FSEIS, the Staff observed that for the conservation alternative for Indian Point, there could be a “loss of tax and PILOT [payments in lieu of taxes] revenue paid to municipalities near Indian Point, as well as lost jobs, may result in SMALL to MODERATE socioeconomic impacts, which will not be offset by conservation.” FSEIS at 8-43; *see also* Tr. at 3002-03 (Stuyvenberg). Mr. Stuyvenberg explained that while the Staff generally adopted the impact discussion in the Shearon Harris and Three Mile Island FSEISs, it did not rely on those SEISs to establish the viability of the conservation alternative for Indian Point -- it relied on state-specific estimates of the viability of that alternative that were submitted by the New York State Office of the Attorney General in its comments on the DSEIS. Staff Testimony on NYS-37 (Ex. NRC000133) at 12; Tr. at 3001-03. The Staff concluded that, with the exception of site-specific socio-economic impacts that it determined could be SMALL to MODERATE, all of the environmental impacts of a conservation alternative to Indian Point relicensing would be SMALL. FSEIS (Ex. NYS000133C) at 8-43.

8.65 The Staff witness further testified that the Shearon Harris and Three Mile Island FSEISs identified positive benefits associated with the conservation and efficiency alternative and that because the Staff's EIS's conclude that impacts are either SMALL, MODERATE or LARGE, a Staff determination that impacts are SMALL describes impacts that are good,

positive, or confer a benefit. Tr. at 3005, 3009, 3243. Thus, the Staff's determination that impacts are SMALL encompasses positive or beneficial impacts.

J. The Staff's Treatment of Transmission Capacity

8.66 New York also asserted that the FSEIS's analysis of purchased power as an alternative to license renewal was flawed because it underestimated the transmission resources available for purchased power. New York Statement of Position (Ex. NYSR00045) at 51-55.

8.67 The NRC Staff witness, Mr. Stuyvenberg, testified that the FSEIS discussed purchased power (analogous to "power imports") as a reasonable alternative to license renewal in Section 8.3.2 of the FSEIS. Staff Testimony on NYS-37 (Ex. NRC000133) at 14-15. He explained that the Staff indicated that "[g]iven New York State's power market, all alternatives considered here could supply purchased power." *Id.* at 15, quoting the FSEIS (Ex. NYS000133C) at 8-39. As part of this analysis, the FSEIS discussed two transmission projects and indicated that they were illustrative of potential transmission improvements that could occur to improve the availability of purchased power. *Id.* at 8-40. The Staff indicated that it would not separately evaluate the environmental impacts of any specific transmission project, but noted that proposed projects "serve as meaningful illustrations of projects that may improve the ability of power from other regions of the State or Canada to reach the same end-use markets currently served by IP2 and IP3." *Id.* The Staff explicitly stated that it assumed "that adequate transmission will exist." *Id.* at 8-27. Mr. Stuyvenberg explained that the Staff cited these transmission projects simply to support its assumption that there was transmission capacity sufficient to support the purchased power alternative and that no alternative was being dismissed from consideration based on a lack of transmission capacity. Staff Testimony on NYS-37 (Ex. NRC000133) at 15, 34, 36, 53. He testified at the hearing that the Staff "ultimately

didn't hold grid constraints against any alternatives. We didn't rule any alternatives out because of grid constraints." Tr. at 2973-74.⁴¹

8.68 We find that New York's complaints regarding the Staff's discussion of transmission capacity are unsupported by the facts.

K. Comments Filed by New York Were Addressed in Full

8.69 Contrary to repeated claims by New York that the Staff had failed to address its comments, the Staff witness testified that all of the comments New York submitted on the DSEIS were addressed by the Staff. Staff Testimony on NYS-37 (Ex. NYS000133) at 25-29. New York submitted over 100 pages of comments on the DSEIS. *Id.* at 25. The Staff received comments from the New York State Department of State, the New York State Department of Environmental Conservation, and the New York State Office of the Attorney General. *Id.* at 25-27. Mr. Stuyvenberg testified that, "[t]o the extent that New York State 'reiterated the substance of those reports [the 2007 Synapse Report, 2007 Bradford Declaration, and the 2009 Schlissel Declaration],' in its comments, as the State claims it did in its Statement of Position (at 29), the Staff has formally addressed the substance of those documents." *Id.* at 29.

8.70 Mr. Stuyvenberg testified that New York did not submit the 2007 Synapse (Ex. NYS000052) Report, the 2007 Bradford Declaration (Ex. NYS000105), or the 2009 Schlissel Declaration (Ex. NYS000053) as comments on the DSEIS. *Id.* at 11, 17, 28. He explained that the New York State Office of the Attorney General referred to the Synapse Report in its comments on the DSEIS, but it never submitted the Synapse Report as part of its comments. *Id.* at 28. He stated that, had New York State wished the Staff to formally consider the entirety of the Synapse Report, the Attorney General's Office could have submitted the report itself to the Staff as part of its comments. *Id.*

⁴¹ While the Staff stated in the Final SEIS that significant resource commitments would be required for development of transmission capacity, FSEIS at 9-6, Staff witness Andrew Stuyvenberg testified at the hearing that that statement was erroneous and should have been removed from the FSEIS. Tr. at 3216-17.

8.71 He also testified that New York did not submit the Synapse Report or the 2007 Bradford Declaration when it submitted its scoping comments in 2007. *Id.* at 11, 17, 29. The authors of those documents similarly did not submit them as scoping comments. *Id.* at 30. Mr. Stuyvenberg noted that the Staff considered even late-filed scoping comments from New York. *Id.* at 29-30. He explained that, as New York did not submit the Synapse Report or the 2007 Bradford Declaration as scoping comments, the Staff was not required to formally address either document. *Id.* at 30.

8.72 When he was asked to comment on whether the Staff had addressed most of his concern, the author of the Synapse Report, David Schlissel, testified, “I agree with a lot of what Mr. Stuyvenberg says.” Tr. at 3053. With respect to the submission of the Synapse Report as an official comment by New York, Mr. Schlissel stated, “As to whether my September 2007 Synapse Report was or was not submitted [as] a comment on the DSEIS, I’m sorry. I only wrote it. I believe it was either attached or quoted in the comments. That’s the state of my knowledge with regard to that.” *Id.* at 3055. Mr. Schlissel did not personally submit the Synapse Report as a comment on the DSEIS and he did not testify on the issue of whether it was submitted by New York or not.

8.73 Based on the foregoing, we find that the Staff addressed in the Final SEIS all of the comments New York formally submitted on the Draft SEIS.

L. Summary of Findings

8.74 Having considered the testimony and other evidence presented by the parties, we find that the evidence supports a conclusion that the Final SEIS constitutes a reasonably thorough discussion of the significant impacts associated with the issuance of renewed license for Indian Point Nuclear Generating Units 2 and 3. We find that the Staff’s Final SEIS includes a reasonable and appropriate analysis of alternatives to the proposed action (including energy conservation and efficiency), the no-action alternative, and combination alternatives. We further

find that the Staff articulated a sufficient rationale for dismissing from consideration a combination alternative that included combined heat and power. We find that that New York's assertions of error regarding the Staff's discussion of transmission capacity are unsupported by the facts. We also find that New York's claims that the Staff failed to address all of New York's comments on the Draft SEIS are unsupported by the facts.

III. CONCLUSIONS OF LAW

8.75 The Licensing Board has considered all of the evidence presented by the parties on Contentions NYS-9, NYS-33, and NYS-37. Based upon a review of the entire record in this proceeding and the proposed findings of fact and conclusions of law submitted by the parties, and based upon the findings of fact set forth above, which are supported by reliable, probative and substantial evidence in the record, the Board has decided all matters in controversy concerning this contention and reaches the following conclusions.

8.76 The Final SEIS constitutes a reasonably thorough discussion of the significant impacts associated with the issuance of renewed licenses for Indian Point Nuclear Generating Units 2 and 3 and meets the requirements of the National Environmental Policy Act. *Save the Peaks Coalition v. U.S. Forest Service*, 669 F.3d 1025, 1035 (9th Cir. 2012).

8.77 Consistent with our prior ruling in this proceeding, and 10 C.F.R. § 51.95(c)(2), we conclude that, in the Indian Point Environmental Report, and Draft and Final SEISs, the Applicant and the Staff were not required to discuss whether there is a need for the power that Indian Point produces. Order (Granting in Part and Denying in Part Applicant's Motion in Limine) (March 6, 2012) (unpublished) at 19. Nor was the Staff required to predict what generation sources would provide replacement power for Indian Point in the event that a renewed license does not issue.

8.78 Because need for power is not required to be addressed in these documents, New York's witnesses' testimony and its exhibits regarding the issue are immaterial.

8.79 We conclude that the Staff's analysis of the no-action alternative was reasonable and sufficiently detailed and that the placement of some portions of that analysis in the FSEIS in the "Alternative Energy Sources" section of the document, rather than in the "No-Action Alternative" section of the document is immaterial.

8.80 In the Indian Point FSEIS, the Staff was only required to analyze alternatives that constituted single, discrete, baseload power production facilities that produced an equivalent amount of power as Indian Point produces. The Staff was not required to discuss energy conservation and efficiency as an alternative to license renewal because they do not constitute production facilities. Nor was the Staff required to discuss combinations of electricity production made up of more than one single, discrete, baseload power production facility. Although the Staff analyzed alternatives consisting of conservation and efficiency as well as two combination alternatives, it was not required to do so.

8.81 We conclude that the Staff's incorporation of the discussion of the impacts of conservation from previously issued SEISs for other nuclear power plants comports with practices NEPA encourages and is acceptable.

8.82 While the Staff must, in its Final SEIS, respond to comments formally filed on the Draft SEIS, the Staff is not required to address statements or criticisms filed in or attached to pleadings submitted in a related adjudication. Even if pleadings address issues in the Draft SEIS, they do not constitute comments on the Draft SEIS and, unless they are filed as comments on the Draft SEIS, they do not trigger responses from the Staff.

8.83 After consideration of all relevant evidence in the record, the Board finds that, contrary to the claims in Contentions NYS-9, NYS-33, and NYS-37, the NRC Staff and the Applicant have met their burden of demonstrating that the Applicant's analysis of alternatives in the Environmental Report and the Staff's analysis of alternatives in the FSEIS are adequate under NEPA. We conclude, therefore, as a matter of law, that the Staff and the Applicant have complied with NEPA and the Commission's regulations in 10 C.F.R. Part 51, with respect to the matters raised in Contentions NYS-9, NYS-33, and NYS-37.

Respectfully submitted

/Signed Electronically by/

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Dated at Rockville, Maryland
this 22nd day of March 2013

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
ENTERGY NUCLEAR OPERATIONS, INC.) Docket Nos. 50-247-LR/ 50-286-LR
)
(Indian Point Nuclear Generating)
Units 2 and 3))

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R § 2.305 (as revised), I hereby certify that copies of the foregoing “NRC STAFF’S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW PART 8: NEW YORK STATE CONTENTIONS 9, 33, AND 37 (NO-ACTION ALTERNATIVE)” dated March 22, 2013, have been served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above- captioned proceeding, this 22nd day of March, 2013.

/Signed (electronically) by/
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