

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)	
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EXELON GENERATION COMPANY, LLC; EXELON CORPORATION; EXELON FITZPATRICK, LLC; NINE MILE POINT NUCLEAR STATION, LLC; R.E. GINNA NUCLEAR POWER PLANT, LLC; and CALVERT CLIFFS NUCLEAR POWER PLANT, LLC)	Docket Nos.:
(Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 1, 2, and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 1, 2, and 3; Quad Cities Nuclear Power Station, Units 1 and 2; R. E. Ginna Nuclear Power Plant; Salem Nuclear Generating Station, Unit Nos. 1 and 2; Three Mile Island Nuclear Station, Unit 1; Zion Nuclear Power Station, Units 1 and 2; and Associated Independent Spent Fuel Storage Installations))	STN 50-456, STN 50-457, 72-73, STN 50-454, STN 50-455, 72-68, 50-317, 50-318, 72-8, 50-461, 72-1046, 50-10, 50-237, 50-249, 72-37, 50-333, 72-12, 50-373, 50-374, 72-70, 50-352, 50-353, 72-65, 50-220, 50-410, 72-1036, 50-171, 50-277, 50-278, 72-29, 50-254, 50-265, 72-53, 50-244, 72-67, 50-272, 50-311, 72-48, 50-289, 72-77, 50-295, 50-304, and 72-1037 -LT
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**ENVIRONMENTAL LAW & POLICY CENTER’S
PETITION TO INTERVENE AND HEARING REQUEST**

On February 25, 2021, Licensee Exelon Generation Company, LLC (“Exelon Generation”) filed on behalf of itself and Exelon Corporation; Exelon FitzPatrick, LLC (“FitzPatrick”); Nine Mile Point Nuclear Station, LLC (“NMP”); R. E. Ginna Nuclear Power Plant (“Ginna”); and Calvert Cliffs Nuclear Power Plant, LLC (“Calvert Cliffs”) (collectively, “Applicants”) an application with the U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) for an

indirect transfer of numerous operating and facility licenses.¹ The Applicants propose these transfers as part of their plan to shift Exelon Corporation’s 100 percent ownership of Exelon Generation to a newly-created subsidiary. Application, Enclosure 1 at 2. This new company will ultimately become Exelon Generation’s parent company, separate from and unable to access the support of Exelon Corporation’s rate-regulated business. *See id.* at 4. The Application asks the Commission to approve replacing the existing nuclear operating services agreements and financial support agreements related to the ownership and operation of the Calvert Cliffs, NMP, Ginna, and FitzPatrick facilities. The Application also requests the Commission’s approval for the transfer of the qualified and non-qualified nuclear decommissioning trusts for FitzPatrick, and for amendments to the Calvert Cliffs, NMP, and Ginna licenses to reflect the proposed internal reorganization of Exelon Generation. *Id.* at 3–4.

Exelon seeks to transfer all of its ownership interests in these nuclear power plants to a currently non-existent holding company. The proposed series of transactions that would create “SpinCo”—the new corporate entity—is complicated and opaque. The financing structure is largely unknown at this time. Yet the eventual outcome appears straightforward: Exelon Corporation will shed any and all financial responsibilities, liabilities and decommissioning obligations for its nuclear fleet by parking them with a new legal entity for which Exelon Corporation bears no future responsibility. The NRC’s Staff recognizes that:

Specifically, the application, as supplemented, requests that the NRC consent to the indirect transfer of control of the licenses to support a proposed transaction in which Exelon Corporation will transfer its 100 percent ownership of EGC to a newly-created subsidiary that will then be spun off to Exelon Corporation shareholders, becoming EGC’s new ultimate parent company. **Once the spin transaction is**

¹ Application for Order Approving License Transfers and Proposed Conforming License Amendments [hereinafter “Application”], Dkt. Nos. 50-456, 50-457, 72-73, 50-454, 50-455, 72-68, 50-317, 50-318, 72-08, 50-461, 72-1046, 50-10, 50-237, 50-249, 72-37, 50-333, 72-012, 50-373, 50-374, 72-70, 50-352, 50-353, 72-65, 50-220, 50-410, 72-1036, 50-171, 50-277, 50-278, 72-29, 50-254, 50-265, 72-53, 50-244, 72-67, 50-272, 50-311, 72-48, 50-289, 72-77, 50-295, 50-304, 72-1037, Accession No. ML21057A273 (Feb. 25, 2021).

completed, the new ultimate parent company, EGC, and its subsidiaries will no longer be affiliated with Exelon Corporation.

Notice of Consideration of Approval of Transfer of Licenses and Conforming Amendments and Opportunity for a Hearing, Dkt. Nos. 50-456 et al., ML21102A65 (Apr. 28, 2021) (emphasis added). Exelon is thus requesting the NRC’s approval *now* to transfer the operating licenses for the largest fleet of nuclear plants in the United States—more than 18,000 MW of capacity from reactors in multiple states²—to a newly formed entity that, after the “Spin Transaction” takes place, will no longer be affiliated with the Exelon Corporation. Application, Enclosure 1 at 4.

The scale and scope of Exelon’s multiple requests are unprecedented. If approved without conditions to protect the public’s interests, they would have significant adverse impacts on communities and the environment in Illinois as well as in other states and regions where the nuclear power plants are located.

The Exelon Generation nuclear power stations will no longer have the resources of Exelon Corporation as a backstop in the event of any financial difficulty. Exelon Corporation’s request to cut loose its financial obligations, responsibilities and liabilities for its nation’s-largest nuclear fleet comes at a time that Exelon itself is publicly stating that many of its nuclear plants are “showing increased signs of economic distress” and may not continue to operate going forward. Exelon Corp. et al., SEC Quarterly Report [hereinafter “Exelon 10-Q”] (Form 10-Q) at 76 (Mar. 31, 2021), <https://www.sec.gov/ix?doc=/Archives/edgar/data/1109357/000110935721000050/exc-20210331.htm>. These transfers will leave Exelon Generation with no parental guarantees or backstop, much less the financial resources necessary to address radiological and non-radiological decommissioning, insurance and spent fuel obligations, should some or many of its nuclear power

² See Exelon Corp. et al., SEC Annual Report (Form 10-K) at 9 (for the fiscal year ending Dec. 31, 2020), <https://www.exeloncorp.com/company/Documents/Exelon%20Form%2010-K%20-%20FY2020.pdf>.

plants shut down soon or before the expiration of their current operating licenses. Given Exelon Corporation's ambitious attempt to extricate itself from all future obligations related to its nuclear fleet, it is unsurprising that the Application fails to comply with federal law and NRC regulations.

The Commission must deny Exelon's Application for at least two reasons. First, the Applicants fail to demonstrate that SpinCo (the renamed Exelon Generation), *see, e.g.*, Application, Enclosure 1 at 2, now without the support of Exelon Corporation and its affiliates, is "qualified to be the holder of the license[s]" and that the license transfers are "consistent with applicable provisions of law, regulations, and orders issued by the Commission." 10 C.F.R. § 50.80(c)(1), (2). These financial qualification requirements for original applicants seeking an operating license are also applicable in this license transfer proceeding. *See Pac. Gas & Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 & 2), 55 N.R.C. 317, 340 (2002). Financial qualifications are particularly important here, where the proposed transaction seeks to separate Exelon Corporation's unregulated, merchant nuclear fleet so that the regulated portion of the business will no longer share the liabilities and risks of the nuclear plants. The Applicants have not accounted for significant liabilities, creating a material dispute as to whether the proposed licensees are financially qualified.

Second, the Application fails to demonstrate that licensees have reasonable financial assurances for decommissioning as NRC regulations require. 10 C.F.R. § 50.75(e)(1). Exelon Corporation has admitted in recent SEC filings that it may need to retire several nuclear plants early and that at least two nuclear generating units are likely to have decommissioning shortfalls based on their current retirement dates. *See Exelon 10-Q* at 76. The proposed restructuring removes Exelon Corporation as a potential source of parental guarantees permitted under 10 C.F.R. § 50.75(e)(1), and the Application leaves unanswered key questions about how the new companies

could provide the required financial assurances. Moreover, the Application fails to show specifically for Byron Units 1 & 2 that the new entities will have adequate decommissioning funds necessary to comply with NRC regulations.

The Environmental Law & Policy Center (“ELPC”), a public interest environmental organization, headquartered in Chicago and working for many years in Illinois and throughout the Midwest, is deeply concerned with licensees meeting their decommissioning and other financial obligations. ELPC does not believe that the Applicants have shown the necessary financial qualifications for the Commission to approve the requested transfers and conforming amendments or offered the necessary financial assurances for decommissioning. ELPC and its impacted members are concerned that deficiencies will mean that that SpinCo and the proposed new parent company (“HoldCo”) will lead to an ultimately underfunded and insufficient decommissioning process.

ELPC supports its request for a hearing with the Declaration of Peter A. Bradford. *See* Declaration of Peter A. Bradford (attached). Mr. Bradford is a former NRC Commissioner who is an expert in nuclear power plant regulation and economics. *Id.* ¶ 4. Mr. Bradford served on the Maine Public Utilities Commission and the New York Public Service Commission, where he gained experience with ratepayer payments supporting financial assurances for nuclear power plant decommissioning. *Id.* ¶¶ 5, 6. He is currently a commissioner on the Texas/Vermont Low Level Radioactive Waste Compact Commission and has participated in myriad commissions, committees and panels addressing the construction and decommissioning of nuclear power plants. *Id.* ¶ 7. Mr. Bradford concludes that Exelon’s request requires careful consideration by the NRC and should be structured such that Exelon Corporation continue to guarantee the financial obligations described in the contentions below. *Id.* ¶¶ 39–43.

ELPC timely files this Petition to Intervene and Request for a Hearing under Subpart M, 10 C.F.R. § 2.1300 *et seq.* The Licensing Board should grant ELPC’s Petition and Request because ELPC has standing and has proposed two admissible contentions that meet the requirements of 10 CFR § 2.309(f). On May 20, 2021, ELPC requested an extension in this complicated and important case, and the NRC extended the deadline to request a hearing to June 14, 2021. Order Granting Motion to Extend Hearing Requests Deadline, ML21144A125 (May 24, 2021). On June 14, 2021, the NRC approved an agreed extension of time for ELPC and the People of the State of Illinois to request a hearing, so that those parties could review confidential financial information yet to be provided by Exelon. Order Granting Extension of Time for the Environmental Law & Policy Center and the State of Illinois, ML21165A124 (June 14, 2021). ELPC timely files this Petition for Leave to Intervene and Request for a Hearing pursuant to that agreed extension to June 23, 2021. ELPC reserves the right to amend, modify, or add to any of the contentions brought in this petition.

A. ELPC Has Standing to Intervene in This License Transfer Proceeding

Under the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2011 *et seq.*, the Commission must allow individuals “whose interest may be affected by the proceeding” to intervene in NRC licensing proceedings. 42 U.S.C. § 2239(a)(1)(A). Petitioners may demonstrate that they have met standing requirements through traditional standing, representational standing based on standing of one or more members, or under the Commission’s “proximity presumptions” for those within a “geographic zone of potential harm.” *In re Interim Storage Partners LLC* (WCS Consol. Interim Storage Facility), 90 N.R.C. 31, 47–48 (Aug. 23, 2019). A petitioner relying on traditional standing “must (1) allege an injury in fact that is (2) fairly traceable to the challenged action, and (3) is likely to be redressed by a favorable decision.” *In re Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 & 4), 82 N.R.C. 389, 394 (Dec. 17, 2015). With

respect to injury in fact, the petitioner need show only that “the chain of causation is plausible.” *Sequoyah Fuels Corp. & Gen. Atomics* (Gore, Okla. Site), 40 N.R.C. 64, 75 (Aug. 23, 1994) (citing *Nat’l Wildlife Fed. v. Hodel*, 839 F.2d 694, 705 (D.C. Cir. 1992)). A petitioner relying on representational standing must demonstrate (1) that the interests it seeks to protect are germane to its own purpose, (2) that one or more of its members qualify for standing in their own right, (3) those members have authorized the petitioner to request a hearing on their behalf, and (4) that no member’s participation is necessary to the claim or requested relief. *In re Interim Storage Partners LLC*, 90 N.R.C at 48 (citing *In re Consumers Energy Co. (Palisades Nuclear Plant)*, 65 N.R.C. 399, 409 (Apr. 26, 2007)). The Commission construes the petition in favor of finding that the petitioner has standing. *In re Ga. Inst. of Tech. (Ga. Tech Research Reactor)*, 42 N.R.C. 111, 115 (Oct. 12, 1995) (citing *Kelley v. Selin*, 42 F.3d 1501, 1508 (6th Cir. 1995)).

ELPC is a non-profit, public interest environmental legal advocacy and eco-business innovation organization working in Illinois and the Midwest to improve environmental quality and protect natural resources on behalf of the organization, its members, and clients. ELPC works to avoid risks and injuries to public health, clean water, clean air, and landscapes in ways that are good for both the environment and the economy. ELPC has been engaged in both nuclear power plant safety and nuclear plant economic issues in many cases over the past 25 years. ELPC works to ensure that nuclear power plant decommissioning is fully funded, done relatively sooner, and carried out with sufficient protection of human and ecological health. ELPC advocates for strong enforcement of financial qualifications and financial assurances to ensure that licensees are able to meet their financial obligations under federal law. Specifically, ELPC has worked on Illinois decommissioning trust fund legislation, nuclear power plant cases in state and federal courts, and

nuclear power issues before the Illinois Commerce Commission. ELPC was also involved in the Zion nuclear power plant shutdown and decommissioning since the mid-1990s.

Since 1975, ELPC member Robert Vogl has lived in Oregon, Illinois—so close to the Byron Generating Station that there is an alarm posted near the corner of his property line. Vogl Declaration at ¶¶ 1–2. Mr. Vogl received a PhD from the School of Natural Resources at the University of Michigan in 1973 and held a tenured position at Northern Illinois University. *Id.* ¶ 3. Mr. Vogl has taught classes on Environmental Quality and Alternative Energy, and his wife, Dr. Sonia Vogl, has taught courses in Field Science and Ecology. *Id.* ¶ 3. Mr. and Mrs. Vogl have been active in their community, especially with respect to environmental protection and clean energy. Mr. Vogl has been concerned about the economics of the Byron Generating Station since it was first constructed, when he correctly anticipated that there would be significant cost overruns. *Id.* ¶ 4. Mr. Vogl is now concerned that the proposed license transfer is not accounting for the financial impacts on decommissioning. *Id.* ¶¶ 6–7. Mr. Vogl and his community will be adversely impacted if there is insufficient funding to carry out safe and timely decommissioning. Without Exelon Corp. as a backstop for SpinCo, there may not be sufficient funding to fully and safely decommission the nearby Byron nuclear power plant and others. *Id.* ¶¶ 6–8.

Mr. Vogl’s decommissioning concerns are specific. He recognizes that the type of rock in the region, including near the Byron nuclear power plant, can allow contaminants to leech through into the water table. *Id.* ¶ 11. Mr. Vogl remembers a farm close to the Byron nuclear power plant that accepted toxic chemicals from Rockford, and the chemicals there contaminated some wells in the area by seeping in through the rock. *Id.* Mr. Vogl is concerned that the same thing could happen with the Byron nuclear power plant if the decommissioning is not adequately funded. *Id.*

ELPC and its members, like Mr. Vogl, will suffer injury as a result of the proposed transfer because it creates significant risks that the Applicants will be unable to meet their decommissioning obligations without Exelon Corporation as a backstop for decommissioning funding, insurance premiums, and spent fuel obligations. Exelon in its Application to the NRC has not compellingly demonstrated that SpinCo and HoldCo have sufficient financial strength and access to capital necessary to cover decommissioning shortfalls or operate the nuclear facilities safely. Should decommissioning start earlier than anticipated by the current operating licenses and NRC rules—a likelihood that Exelon Corporation and its subsidiaries have acknowledged in their recent SEC filings—the chances of underfunded decommissioning projects increase significantly. Not only will these likely shortfalls put ELPC members and the public’s interests at risk, but they also will require ELPC to devote its time and resources to protecting its members, organizational interests and the overall public interests through new legal proceedings and advocacy. This substantial risk of such future harms is sufficient to show injury-in-fact. *See, e.g., Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1549 (2016); *Clapper v. Amnesty, Int’l USA*, 568 U.S. 398, 414 n.5 (2013); *Kanuszewski v. Mich. Dep’t of Health & Human Servs.*, 927 F.3d 396, 405 (6th Cir. 2019).

The significant risk of this shortfall and inadequate decommissioning is fairly traceable to the proposed transfers and conforming amendments. As Exelon Corporation recently acknowledged in an SEC filing, the likely early retirements of nuclear plants may require parental guarantees for Exelon Generation to satisfy the Commission’s financial assurance regulations. *See* Exelon 10-Q at 154. Without a parent company like Exelon Corporation, however, with the resources to provide such parental guarantees, there is a significant risk of inadequate financial assurances and insufficient decommissioning funds. The Applicants also do not explain how SpinCo and HoldCo will provide the guarantee for retroactive premiums and spent fuel

obligations, respectively, that are currently guaranteed by the parent Exelon Corporation from which the Applicants seek to separate. **“Once the spin transaction is completed, the new ultimate parent company, EGC, and its subsidiaries will no longer be affiliated with Exelon Corporation.”** Notice of Consideration of Approval of Transfer of Licenses and Conforming Amendments and Opportunity for a Hearing, ML21102A65 (emphasis added).

Finally, the injury is redressable. A rejection of the transfer of licenses and conforming amendments, or the imposition of appropriate and effective public interest conditions, would prevent Exelon Generation from evading the need for a parent company with sufficient financial resources necessary to cover decommissioning shortfalls. The Commission must fulfill its commitment to ensuring adequate decommissioning funds by refusing to allow Exelon Corporation to abandon Exelon Generation and its nuclear plants just as those assets are likely to need financial assistance in meeting their financial and decommissioning requirements.

ELPC has representational standing, demonstrated by the attached declaration of its member Robert L. Vogl, who lives within ten miles of the Byron nuclear power plant and will suffer an injury in fact in the form of increased radiological risk as a result of the proposed licensees’ failure to establish appropriate financial assurances. Mr. Vogl’s proximity to the Byron nuclear plant, alone, creates a presumption of injury-in-fact. *In re Entergy Nuclear Generation Co. & Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), 64 N.R.C. 257, 270 (Oct. 16, 2006); *see In re Hous. Lighting & Power Co.* (S. Tex. Project, Units 1 & 2), 9 N.R.C. 439, 443 (Apr. 3, 1979). Should the Commission approve the Application without a thorough review of and hearing on the Applicants’ financial qualifications and reasonable financial assurances, there is a significant risk that there will not be adequate funds for decommissioning, endangering Mr. Vogl and the overall public. This injury is traceable to the challenged action, because the indirect license

transfers will remove Exelon Corporation as a financial backstop and place the nuclear power plants under the ultimate control of a new entity without a currently known credit rating or liquidity. *See* Application, Enclosure 1 at 5 (providing only that the Applicants anticipate that SpinCo will have “investment grade credit ratings and continued access to ample liquidity following separation”). Mr. Vogl’s injury is redressable in that the Commission has the authority to require the Applicants to provide the necessary financial assurances for an adequately funded decommissioning process.

The interests ELPC seeks to protect are germane to its own purpose. ELPC has at least one member who qualifies for standing in their own right. ELPC’s membership expects that the organization will request hearings on important nuclear safety and funding issues, and neither the claims asserted nor the relief requested requires an individual member’s participation in the legal action. Central to ELPC’s organizational purpose are efforts to reduce risk to the environment and to public health. Insufficient decommissioning as a result of inadequate financial assurances, and nuclear power plant operations with increased safety risks as a result of inadequate financial qualifications present risks to the environment that ELPC regularly acts to protect. The proposed license transfer raises significant health, safety, environmental, and financial concerns for ELPC and its members that ELPC seeks to mitigate through participation in a public hearing.

In the alternative, ELPC should be granted standing to intervene because its participation may reasonably be expected to assist in developing a sound record. 10 C.F.R. § 2.309(e) (allowing for discretionary intervention). ELPC’s participation will assist in developing a sound record because ELPC has experience in nuclear decommissioning regulatory proceedings and cases related to the financial issues surrounding site restoration and reclamation at nuclear power plants. As discussed above, ELPC and its members have significant property and health interests in the

proceeding. If the requested license transfer is granted, ELPC and its members' interests in the proceeding will be adversely impacted because there will be increased risk of radiological harm. There are no other means by which ELPC and its members' interests will be protected, and no other party in the proceeding will represent ELPC's interests. Further, ELPC's participation will not unduly delay or inappropriately broaden the issues in the proceeding.

B. ELPC Presents Two Admissible Contentions

The Commission's regulations require that a petitioner "[p]rovide a specific statement of the issues of law or fact to be raised or controverted." 10 C.F.R. § 2.309(f)(1)(i). The petitioner must offer an explanation and basis for their contention, show how that contention is in the proceeding's scope and that the issue is material, give "a concise statement of the alleged facts" supporting that position, and offer enough information to support the conclusion that there is a genuine dispute of law or fact. *Id.* § 2.309(f)(1)(ii–vi). ELPC's contentions meet this standard.

CONTENTION NO. 1

Failure to Meet Financial Qualification Requirements

The Application does not provide sufficient information to meet financial qualification requirements under 10 C.F.R. § 50.33. Under that section, a non-electric utility applicant or transferee must offer a "reasonable assurance" of obtaining the funds necessary to cover the plant's estimated operating costs. 10 C.F.R. § 50.33(f)(2). The Commission has broad discretion to request "additional or more detailed information respecting [the proposed licensee's] financial arrangements and status of funds," including "information regarding a licensee's ability to continue the conduct of the activities authorized by the license and to decommission the facility." *Id.* § 50.33(f)(5). Here, the Application offers no showing that the opaque new SpinCo will be able to meet the NRC's financial qualifications standards. *See id.* § 50.33(f) (requiring information sufficient to show "financial qualification of the applicant to carry out . . . the activities for which

the permit or license is sought”). The Atomic Energy Act requires applicants to provide the Commission with “such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant.” 42 U.S.C. § 2232(a). Commission regulations specify the information necessary for applicants—including applicants for a direct or indirect license transfer—to demonstrate financial qualification, meaning that they “possess[] or ha[ve] reasonable assurance of obtaining the funds necessary to cover estimated operation costs for the period of the license.” 10 C.F.R. § 50.33(f)(2); *see id.* § 50.80(b)(1)(i).

Applicants do not meet financial qualification requirements under 10 CFR § 50.33(f)(2) because they fail to demonstrate that they possess or have reasonable assurance of obtaining the funds necessary to cover estimated operating costs for the period of the license. Applicants do not account for key future liabilities when presenting their financial qualifications. These future liabilities include: (1) the cumulative impact early retirement of the majority of the nuclear plants in their fleet will have on their operating costs, (2) the obligation to refund pre-1983 funds collected from ratepayers for spent-fuel storage, (3) the potential for “tier-two” payments to the NEIL, and (4) the impact of non-radiological decommissioning costs on the new entities’ financial viability. Each of these liabilities must be measured against the Applicants’ ability to absorb a significant financial shock in future years. The Applicants have failed to demonstrate that they are financially qualified to meet these expected future liabilities.

1) The Applicant’s Failure to Address Key Potential Liabilities Prohibits the License Transfer as a Matter of Law and, at Minimum, Raises Disputed Issues of Fact

The Application provides insufficient support for its assumption that HoldCo or SpinCo will achieve and maintain an investment grade credit rating once the transaction has closed. In its review, the Commission considers data including, but not limited to, projected financial

obligations market projections, long-term power purchase contracts, corporate revenue from other sources, and credit ratings from financial ratings services such as Moody's, S&P, and Value Line. See Final Financial Qualifications for Nuclear Reactor Licensing Rulemaking, Regulatory Basis Document, Dkt. No. NRC-2014-0161, ML15322A185 at 6 (Oct. 14, 2016). The Commission can find an adequate financial assurance if the data is supported with "plausible assumptions and forecasts." *In re N. Atl. Energy Serv. Corp., et al.* (Seabrook Station, Unit 1), 49 N.R.C. 201, 222 (Mar. 5, 1999).

Mr. Bradford explains that the Application is the step in the overall efforts of the owners and operators of nuclear power plants to divest themselves from their long term financial obligations and potentially significant liabilities. Mr. Bradford states:

This would complete the decades-long transition from the full protection afforded by the vertically integrated monopoly structure to a lesser degree of protection provided when nuclear power plants were transferred to single asset subsidiaries of holding companies containing a mix of utility assets that could provide meaningful assurance that the contingent liabilities could be met. Now the next step is the elimination of any credible financial guarantee or assurance at all through an ownership structure (HoldCo and SpinCo) that provides insufficient diversity of assets or financial backing to meet significant and growing liabilities.

Bradford Declaration ¶ 19. The NCR must carefully scrutinize and hold a hearing on the Application to establish that the future licensees are financially qualified to operate and decommission what amounts to 25% of the U.S. Nuclear Power Fleet.

As it stands, the Application does not include plausible assumptions or forecasts and fails to address how SpinCo will attain and maintain liquidity and stability after it is separated from rate-regulated Exelon Corporation. The Application "anticipates investment grade credit ratings and continued access to ample liquidity following separation," but does not address the risks raised by ratings agencies. Application, Enclosure 1 at 5. Tellingly, S&P Global Ratings downgraded

Exelon Generation to BBB- following the spin-off announcement. S&P stated: “We believe [Exelon Generation’s] business risk profile has weakened because we see its competitive advantage eroding from pressures of declining costs for renewable power that is also becoming firmer as storage technologies advance.” See *S&P Downgrades Exelon Generation to BBB- Following Spinoff Announcement*, S&P Global (Feb. 25, 2021), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/s-p-downgrades-exelon-generation-to-bbb-following-spinoff-announcement-62859923>. The prospects for SpinCo’s corporate revenues are bleak. Three of Exelon Generation’s nuclear plants in Illinois failed to clear the PJM Interconnection’s capacity auction in early June, losing out to other power plants and energy resources. *Fate of Illinois Nuclear Plants in Balance After 3 Fail to Clear PJM Auction and Subsidy Plan Stalls*, Utility Dive (June 7, 2021), <https://www.utilitydive.com/news/fate-of-illinois-nuclear-plants-in-balance-after-pjm-auction-fail-and-stall/601324/>. The nuclear power plants SpinCo will own cannot clear a capacity auction in Illinois, much less secure long-term contracts or support long-term forecasts showing the availability of corporate revenue.

Nor does the Application explain how support services provided under existing Nuclear Operating Services Agreements will impact SpinCo’s financials. Application, Enclosure 1 at 4. More to the point, the Applicants appear to base their assertions regarding SpinCo’s financial strength exclusively on their own projections regarding the financial conditions of the generating assets. Exelon Corporation’s projections of financial strength ring hollow, given the company’s contemporaneous assertion that it will be forced to shut down its Illinois plants without subsidies from the state legislature. *Exelon Subsidy Could Hit \$1 Billion in Illinois Energy Bill*, Bloomberg Law (June 4, 2021), <https://news.bloomberglaw.com/environment-and-energy/exelon-subsidies-could-hit-1-billion-in-illinois-energy-bill>. Currently, Exelon’s regulated utility divisions provide

reliable financial support to the nuclear fleet. The ability of SpinCo, which will consist of merchant generation and retail competitive supply businesses, to provide this reliable financial support is unknown and poorly described in the Application

EDF Inc., which holds significant portions of Exelon Corporation's New York nuclear facilities, including Constellation Energy Nuclear Group ("CENG") raised similar arguments in front of the State of New York Public Service Commission. Comments and Request for Hearing of EDF Inc. [hereinafter, "EDF Request"], Case No. 21-E-0130, N.Y. Pub. Serv. Comm'n (June 8, 2021). EDF Inc. requested a hearing on the proposed transaction, arguing that

EDF Inc., like New York's captive ratepayers, will shoulder significantly increased risk if the Joint Petition is granted unconditionally. Key financial support for the Facilities would be transferred from Exelon to a new, yet-to-be-created holding company with an indeterminate financial condition.

EDF Request at 1. From a business perspective, EDF, Inc. recognizes that the proposed transaction will eliminate an essential financial backstop for Exelon Corporation's nuclear fleet, with potentially catastrophic results:

The Spin Transaction would separate these two businesses such that liabilities and risks of SpinCo, including the CENG-owned nuclear plants, would not be shared by Exelon and its regulated business. Post-Spin Transaction, if CENG and its subsidiaries have insufficient funds to maintain the Facilities safely and reliably and to protect public health and safety and meet Nuclear Regulatory Commission ("NRC") requirements, Exelon would have no obligation to provide financial support to enable CENG to do so. If the proposed Spin Transaction is consummated, in those circumstances CENG could look only to ExGen for financial support. And ExGen's ability to stand behind such financial support obligations would be diminished if ExGen's other businesses incur significant losses. If the proposed Spin Transaction is consummated, Exelon's other businesses would not devote funds to or cover any losses incurred by ExGen.

EDF Request at 5 (footnotes omitted). EDF's concerns apply here and are not limited to potential financial impacts to shareholders. Individuals like ELPC members Mr. and Mrs. Vogl, who live within 10 miles of the Byron nuclear plant, will see the risk of unsafe safe operation and decommissioning shifted to them. With no history of financial statements or credit ratings, a lack

of assurances from Exelon Corporation itself, and no objective forecast of the financial strength of SpinCo, the Application fails to establish that the proposed licensees are financially qualified.

2) The Application Fails to Address the Cumulative Impact Early Retirement of the Majority of the Nuclear Plants in the Fleet Will Have on Operating Costs.

The Application does not address how the early decommissioning of significant portions of Exelon Generation's nuclear fleet will impact SpinCo's financial stability. Nuclear plants in the United States are facing significant risks of early retirement. S&P Global Analysts recently concluded that "[c]urrently, just more than 8 GW of nuclear capacity is slated for retirement, with S&P Global Platts Analytics assessing roughly 5 GW of nuclear capacity at high risk of retirement before license expiration." *US Nuclear Power Plant Retirement Risk Fluctuates with Policy, Power Prices*, S&P Global (May 3, 2021), <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/050321-feature-us-nuclear-power-plant-retirement-risk-fluctuates-with-policy-power-prices>.

Exelon Corporation itself recognizes that early retirements create risks of shortfalls in funding requirements for decommissioning. Exelon Corporation recently explained in an SEC filing that "[i]f a nuclear plant were to early retire there is a risk that it will no longer meet the NRC minimum funding requirements due to the earlier commencement of decommissioning activities and a shorter time period over which the NDT funds could appreciate in value." Exelon 10-Q at 154. The licensee would then be required to "address the shortfall by providing additional financial assurances such as letters of credit or *parent company guarantees* for Generation's share of the funding assurance." *Id.* (emphasis added). The Application does not explain where those additional financial resources would come from or whether SpinCo's financial condition is projected to be such that it would have access to meaningful credit or third-party guarantees.

The risk of early retirements is magnified by data demonstrating that decommissioning costs are increasing by a higher margin than the growth rate allowed for in NRC regulations. Mr. Bradford explains that: “Decommissioning cost estimates have increased at a compound annual rate of about 6% in recent years, rising from a low of \$50.8 billion in 2008 for investor-owned utilities to \$82.8 billion in 2018. Bradford Declaration ¶ 31. This rate of escalation is higher than that assumed in NRC regulations.” The Application does not address how the combination of early retirement of many plants, coupled with higher than anticipated costs of decommissioning, will be addressed by the newly formed SpinCo.

The Application assumes—but does not provide any concrete evidentiary support for the assumption—that SpinCo (the new Exelon Generation) will have the necessary access to credit, that the credit will be so used, and that there will be sufficient financial resources available to provide the full financial assurances required under the NRC’s standards. And the Application provides no evidence that ill-defined HoldCo would or could provide sufficient parental guarantees necessary to address any shortfalls. The Applicants cannot establish financial qualifications without explaining how SpinCo will be able to weather the financial strain of multiple early retirements in the nuclear generating fleet.

3) The Application Does Not Address Exelon’s Obligation to the U.S. Department of Energy (“DOE”) or Illinois Utility Ratepayers for at Least \$1.208 Billion in Nuclear Spent Fuel Fees that Were Collected from Ratepayers but Not Transferred to DOE.

Exelon records a pre-April 1983 Nuclear Spent Fuel Fee Liability to the U.S. Department of Energy, or a refund back to utility ratepayers, of \$1.208 billion in its most recent 10-K Report to the SEC. *See* Exelon Corp. et al., SEC Annual Report [hereinafter “Exelon 10-K”] (Form 10-K) at 182, 342 42–43 (for the fiscal year ending Dec. 31, 2020). The Nuclear Waste Policy Act of 1982 (“NWPA”) made disposal of spent nuclear fuel a federal responsibility. Pub. L. 97-425 §§ 112, 113. However, before the NWPA became effective in 1983, Commonwealth Edison

(“ComEd”) charged ratepayers for nuclear spent fuel fees, collecting \$277 million from Illinois utility ratepayers that the company kept and did not ever transfer to the U.S. Department of Energy. The money collected was to be paid to the Department of Energy for spent nuclear fuel disposal costs when a spent nuclear fuel facility became available, which is now 2035, or later. ComEd elected to defer payment of the \$277 million one-time fee to the Department of Energy, even though it had charged to and collected that money from Illinois utility ratepayers. Exelon 10-K at 342.

ComEd transferred the unfunded liabilities for nuclear spent fuel costs—including that \$277 million one-time fee—to Exelon Generation as part of Exelon’s 2001 corporate restructuring. *Id.* Exelon Generation also has liability for a one-time fee of \$34 million for the FitzPatrick unit, which it acquired in 2017. *Id.* Together, these fees, including accrued interest, constitute an obligation of at least \$1.208 billion for Exelon Generation. Mr. Bradford explains that until SpinCo meets its obligation for the one-time fee, “the SpinCo reactors may well be unable to move some or all of their fuel rods from the sites of closed plants, which cannot be fully decommissioned until this is done.” Bradford Declaration ¶ 35. The Application does not address these obligations or what may happen if they are not met.

The Application does not address how SpinCo or HoldCo will meet these unfunded liabilities. The Commission should hold a hearing to determine whether the Applicants intend for the liabilities for pre-1983 spent fuel management to be transferred to SpinCo and/or HoldCo, and whether those entities have sufficient financial strength to meet those payment obligations. The Commission could require Applicants to retain these liabilities.

4) The Application Does Not Contain Sufficient Information Regarding Nuclear Electric Insurance Limited (“NEIL”) Liability, Especially Because Exelon’s Units Constitute the Largest Nuclear Power Plant Fleet in the United States.

Consistent with the Price-Anderson Act, the owners of all nuclear power plants pay an annual premium for \$450 million in private insurance per reactor site for offsite liability coverage.³ In the event a nuclear power plant accident causes damages in excess of \$450 million, each licensee would be assessed a prorated share of the excess, referred to as a “retrospective premium” or “retrospective assessment.”⁴ The Application does not address this potential retrospective NEIL liability, which Exelon estimates could be as much as \$252 million for its nuclear fleet. Exelon identifies and quantifies this risk in its SEC filings:

Premiums paid to NEIL by its members are also subject to a potential assessment for adverse loss experience in the form of a retrospective premium obligation. NEIL has never assessed this retrospective premium since its formation in 1973, and Generation cannot predict the level of future assessments, if any. The current maximum aggregate annual retrospective premium obligation for Generation is approximately \$252 million. NEIL requires its members to maintain an investment grade credit rating or to ensure collectability of their annual retrospective premium obligation by providing a financial guarantee, letter of credit, deposit premium, or some other means of assurance.

Exelon 10-K at 340. Mr. Bradford raises the very real concern that “[i]n the event of a major U.S. nuclear accident, the sudden claim of the retrospective premium obligation on the SpinCo and HoldCo finances would potentially go unfulfilled. Eighteen reactors having to come up with \$137 million apiece over six or seven years would be about \$2.5 billion.” Bradford Declaration ¶ 38.

The Application does not specify which entity will take on this potential retrospective premium obligation if the nuclear fleet is transferred to SpinCo. The Commission should hold a hearing to determine whether SpinCo or HoldCo will be assuming this premium obligation and, if

³ See *Backgrounder on Nuclear Insurance & Disaster Relief*, U.S. Nuclear Regul. Comm’n, <https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/nuclear-insurance.html>

⁴ *Id.*

so, whether either entity has the financial capacity to provide the required financial guarantee, letter of credit, deposit premium, or other means of assurance.

5) The Application Does Not Quantify or Discuss the Ability of HoldCo or SpinCo to Meet Non-Radiological Shutdown Obligations

The Application does not address the significant non-radiological costs of decommissioning SpinCo’s nuclear fleet. While the NRC does not require financial assurances for non-radiological decommissioning—which is indeed out of the NRC’s purview—the Applicant’s non-radiological cleanup obligations go directly to SpinCo and HoldCo’s financial qualifications to hold the operating licenses. The proposed Nuclear Operating Services Agreement is clear that SpinCo will have obligations not just for radiological decommissioning sufficient to secure a complete release from the NRC, but also for “any other environmental remediation and Site restoration of or relating to the Site or the Facilities as required by Applicable Law.” Application, Enclosure 2 at 2 (defining “Decommission” and “Decommissioning”); *id.*, Enclosure 2 at 5 (Article III, Scope of Relationship).

ELPC’s expert Mr. Peter Bradford points out that host states and localities may impose their own nonradiological standards of decommissioning, which can be controlled neither by the Applicant nor by the NRC. Bradford Declaration ¶ 28. Mr. Bradford explains that “the states retain power over land use, economics and aesthetics among other aspects of decommissioning. Depending on the standards imposed as to such concerns as suitability for future uses, these costs can be substantial.” *Id.* ¶ 31. Mr. Bradford shares his experience with Vermont Yankee, which is “required to maintain a \$60 million site restoration fund in addition to its decommissioning trust fund.” *Id.*

Exelon Corporation has not provided site-specific decommissioning cost estimate. Instead it has used the 10 CFR § 50.75(c) to calculate only estimated decommissioning costs. As a result,

the Application provides no information regarding the magnitude of site restoration costs, which are typically provided in site-specific decommissioning cost estimates, even where they are outside of the purview of NRC authority under the Atomic Energy Act. *See* Exelon Generation Co. LLC Report on Status of Decommissioning Funding for Reactors and Independent Fuel Storage Installations, ML21055A776 (Feb. 24, 2021).

CONTENTION NO. 2

Failure to Provide Reasonable Assurances of Adequate Decommissioning Funds

A related, though separate issue, is that the Application does not show that the Applicants have the requisite reasonable assurance of sufficient funds for decommissioning. 10 C.F.R. § 50.33(k)(1). Commission regulations explain that to “decommission” is “to remove a facility or site safely from service and reduce residual radioactivity to a level” allowing for the “[r]elease of the property” either under restricted conditions or for unrestricted use and the “termination of the [NRC] license.” 10 C.F.R. § 50.2. Proposed licensees “must provide reasonable assurance that sufficient funds will be available to decommission the facility,” *In re Exelon Generation Co., LLC* (Oyster Creek Nuclear Generating Station), 89 N.R.C. 465, 471 (June 18, 2019) (citing 10 C.F.R. §§ 50.33(f), 50.33(k)(1), 50.75, 50.80(b)(1)(i), 50.82(a), 72.30(b)–(c)).

The Commission has a statutory obligation to protect public health, safety, and the environment through careful review and ensuring that the Applicants’ financial assurances on decommissioning are sufficient and well-grounded by facts and evidence.⁵ Otherwise, taxpayers face the undesirable prospect of being left holding the financial bag and being saddled with both

⁵ Under both the Atomic Energy Act and the Energy Reorganization Act, “the NRC has determined that there is a significant radiation hazard associated with nondecommissioned nuclear reactors.” *General Requirements for Decommissioning Nuclear Facilities*, 53 Fed. Reg. 24018, 24019 (June 27, 1988). Based on those statutes, the Commission has promulgated its decommissioning regulations.

the Applicants' financial responsibilities for decommissioning and the corresponding public health, safety and environmental risks and harms.

Here, the Applicants lack the required reasonable assurance of adequate decommissioning funds in light of significant projected early retirements. This failure applies both to the decommissioning funds generally and reasonable assurance of adequate decommissioning funds required for Byron Units 1 & 2.

1) The Application Fails to Meet the Financial Assurance Requirements for Nuclear Decommissioning.

The Applicants have not met their burden of proof. 10 C.F.R. § 2.325. The Application does not address and fails to show in any manner how the opaque and ill-defined SpinCo and HoldCo have or can provide reasonable assurances of adequate decommissioning of the full Exelon nuclear power plant fleet. The Application fails to address the significant likelihood that the nuclear plants in addition to the Byron nuclear plant in Illinois will face early retirement and, in any event, fail to operate for the full remaining term of their licenses. Exelon Corporation recently explained in an SEC filing that “[i]f a nuclear plant were to early retire there is a risk that it will no longer meet the NRC minimum funding requirements due to the earlier commencement of decommissioning activities and a shorter time period over which the NDT funds could appreciate in value.” Exelon 10-Q at 154. Exelon Corporation explained that Exelon Generation would have to “address the shortfall by providing additional financial assurances such as letters of credit or *parent company guarantees* for Generation’s share of the funding assurance.” *Id.* (emphasis added).

That same SEC filing states that “Generation’s Dresden, Byron, and Braidwood nuclear plants in Illinois are also showing increased signs of economic distress.” *Id.* at 76. Specifically, Exelon Generation plans to “permanently cease generation operations” at Dresden and Byron

before their licenses expire. *Id.* In other words, multiple nuclear plants face early retirement, and each such early retirement—depending on the circumstances of the balance of the nuclear decommissioning trust for that particular nuclear plant—creates a significant and independent risk of a nuclear decommissioning trust shortfall. The Application assumes—but does not provide any concrete evidentiary support for the assumption—that SpinCo (the new Exelon Generation) will have the necessary access to credit, that the credit will be so used, and that there will be sufficient financial resources available to provide the full financial assurances required under the NRC’s standards. And the Application provides no evidence that ill-defined HoldCo would or could provide sufficient parental guarantees necessary to address any shortfalls.

The Commission issued its decommissioning assurance requirements based on the knowledge that “[i]nadequate or untimely consideration of decommissioning, specifically in the areas of planning and financial assurance, could result in significant adverse health, safety and environmental impacts.” *General Requirements for Decommissioning Nuclear Facilities*, 53 Fed. Reg. 24018, 24033 (June 27, 1988). Although not complete protection, the existing NRC regulations address some of these concerns by mandating that licensees “use methods which provide reasonable assurance that, at the time of termination of operations, adequate funds are available so that decommissioning can be carried out in a safe and timely manner and that lack of funds does not result in delays that may cause potential health and safety problems.” *Id.* The Commission has described decommissioning assurances as “provid[ing] a second line of defense” against the possibility that “the financial operations of the licensee are insufficient, by themselves, to ensure that sufficient funds are available to carry out decommissioning.” *Financial Assurance Requirements for Decommissioning Nuclear Power Reactors*, 63 Fed. Reg. 50465, 50473 (Sept. 22, 1998). In sum, “[a]ssuring adequate funds for a reactor owner to meet its decommissioning

obligations is part of the bedrock on which NRC has built its judgment of reasonable assurance of adequate protection for the public health and safety and protection of the environment.” *In re Entergy Nuclear Vermont Yankee, LLC*, Dkt. No. 50-271-LA-3, LBP15-24, at 22 (Aug. 31, 2015) (citation omitted) (quoting State of Vermont’s Petition for Leave to Intervene and Hearing Request at 1 (Apr. 20, 2015)) (alteration in original), *vacated as moot*, 83 N.R.C. 463 (June 2, 2016).

Commission regulations provide several methods that the licensee must choose from to demonstrate reasonable assurance of funds available for decommissioning. 10 CFR § 50.75(e)(1). These methods include, but are not limited to: prepayment, an external sinking fund, or a surety method or other guarantee method. *Id.* The current NRC regulations specifically contemplate parent companies guaranteeing funds for decommissioning: “A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained appendix A to 10 CFR part 30.” *Id.* § 50.75(e)(1)(iii)(B). So far, Exelon Generation has relied on external decommissioning trust funds for all units, but it has indicated that parental guarantees are a possible and, perhaps, necessary means for addressing shortfalls. *See* Exelon 10-Q at 154.

Because the Application is devoid of any reasoned explanation for how SpinCo (the proposed licensee) and HoldCo (the proposed parent company) could make up for these likely shortfalls in compliance with 10 C.F.R. § 50.75, and because Exelon Corporation’s recent statements to the SEC reveal the current concerns with achieving these financial assurance requirements, a hearing is necessary on the Application. The Applicants should be required to provide evidence that compellingly demonstrates their proposed SpinCo’s ability to meet the financial assurances standards for decommissioning and the financial qualifications requirements. Should that evidence or evidence of HoldCo’s ability to provide parental guarantees prove too

speculative, the Commission should reject the Application and require Exelon Generation to provide additional financial assurances.

The magnitude of these shortfalls may become clearer after the Illinois legislature reconvenes to consider a bail-out for Exelon's Illinois nuclear plants. Exelon has made several public statements in Illinois asserting a need for subsidies to continue operating the Braidwood 1 & 2 and the LaSalle 1 & 2 nuclear plants, in addition to the Byron 1 & 2 and the Dresden 2 & 3 nuclear plants, among others.⁶ Exelon's fleet in New York, Maryland, and Pennsylvania also face potential early closure, as many already rely on subsidies to continue operating.⁷ The Commission should hold a hearing to evaluate which and how many of Exelon's nuclear plants are slated for early retirement, and require a full financial analysis of the impact of those early retirements on decommissioning trust fund balances, before issuing a decision on the Applicants' license transfer request. The Commission should not approve the proposed transfer of Exelon's entire nuclear power plant fleet to entirely opaque and ill-defined new entities, which lack a financial history and have very little diversification of assets.

2) Failure to Show Reasonable Assurances of Adequate Decommissioning Funds for Byron Units 1 & 2

Applicants do not provide sufficient information about how they will comply with financial assurance requirements for the Byron Units. The Applicants concede that financial assurance for decommissioning has *not* been provided for Byron 1 & 2, which Exelon states that it intends to prematurely retire by September 30, 2021. Report on Status of Decommissioning Funding for Reactors and Independent Spent Fuel Storage Installations, ML21055A77 at 3 (Feb. 24, 2021).

⁶ *A Look at Exelon's 4 Economically Challenged Nuclear Plants in Illinois*, S&P Global (Sept. 21, 2020), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/a-look-at-exelon-s-4-economically-challenged-nuclear-plants-in-illinois-60342724>.

⁷ *US Nuclear Power Plant Retirement Risk Fluctuates with Policy, Power Prices*, S&P Global (May 3, 2021), <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/050321-feature-us-nuclear-power-plant-retirement-risk-fluctuates-with-policy-power-prices>.

Byron 1 & 2 do not meet the minimum funding assurance criteria under 10 CFR §§ 50.75, 50.82, and 72.30 as of December 31, 2020. *Id.* According to the Applicants, Byron 1 and 2 had \$475,341,000 and \$458,906,000, respectively in their decommissioning trust funds as of December 31, 2020. *Id.*, Attachments 3 & 4. However, the cost amount per 10 C.F.R. § 50.75(c) is \$523,785,000 and \$523,785,000, respectively. This adds up to a current radiological decommissioning shortfall of \$113,323,000 for both units. *See id.*

The Applicants state that they intend to provide an update with respect to the Byron 1 & 2 shortfalls by July 1, 2021. Exelon 10-Q at 78. The Commission should allow Petitioners to correspondingly amend and update this contention when that additional decommissioning issue is provided.

While Applicants state that they are in the process of preparing a site-specific decommissioning estimate and a post-shutdown decommissioning activities report, the Commission should hold a hearing to evaluate Applicants' proposed remedy for this shortfall. A hearing is particularly important here, where Applicants have stated that "[i]f additional sources of funds are required, EGC will evaluate the alternate funding mechanisms allowed by 10 CFR 50.75(e) and guidance provided in Regulatory Guide 1.159." Report on Status of Decommissioning Funding, ML21055A776 at 3. The Exelon companies have indicated that these alternate funding mechanisms may include "parent company guarantees," Exelon 10-Q at 154, which would be a particularly risky option where the parent company is a newly-formed entity with no financial history or known assets aside from the transferred nuclear fleet.

Exelon Corporation estimated that the Byron nuclear plant would require additional financial assurance "of up to \$55 million." Exelon 10-Q at 154. Exelon Corporation further estimated that the full costs of decommissioning "may require supplemental cash from Generation

of up to \$180 million, net of taxes, over a period of 10 years after permanent shutdown” of the Byron nuclear plant. *Id.* at 155. Exelon explicitly recognizes that:

If the investments held by Generation’s NDT funds are not sufficient to fund the decommissioning of Generation’s nuclear units, Generation could be required to take steps, such as providing financial guarantees through letters of credit or parent company guarantees or making additional contributions to the trusts, which could be significant, to ensure that the trusts are adequately funded and that current and future NRC minimum funding requirements are met.

Exelon 10-K at 42–43. NRC regulations place the burden of proof on applicants. 10 C.F.R. § 2.325. The Application, however, does not address and fails to demonstrate in any manner how SpinCo and HoldCo plan to make up for the shortfall, including whether HoldCo would or could provide sufficient parent company guarantees necessary for financial assurance.

Conclusion

ELPC has standing to intervene and participate in a hearing, has timely filed its petition, and has presented an admissible contention. The Commission should hold a hearing to consider each of ELPC’s admissible contentions. First, the Application does not explain how fails to demonstrate that HoldCo and SpinCo are financially qualified to hold the licenses and that the transfers are consistent with applicable law and regulations. The Application contains insufficient information regarding the pre-1983 nuclear spent fuel liabilities transferred from ComEd, and the Application does not address whether SpinCo or HoldCo will be able to meet any NEIA retroactive premiums. Second, the Applicants have not shown that the new entities will have the necessary funds to safely decommission and restore the nuclear sites. Nor does the Application explain how Applicants will meet the existing shortfall for the Byron units. Before approving any license transfer, the Commission should require the Applicants to provide additional financial assurances that address each of these issues, or Exelon Corporation must remain as a financial backstop.

DATED: June 23, 2021

Respectfully submitted,

/Signed (electronically) by/

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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)	
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EXELON GENERATION COMPANY, LLC; EXELON CORPORATION; EXELON FITZPATRICK, LLC; NINE MILE POINT NUCLEAR STATION, LLC; R.E. GINNA NUCLEAR POWER PLANT, LLC; and CALVERT CLIFFS NUCLEAR POWER PLANT, LLC (Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 1, 2, and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 1, 2, and 3; Quad Cities Nuclear Power Station, Units 1 and 2; R. E. Ginna Nuclear Power Plant; Salem Nuclear Generating Station, Unit Nos. 1 and 2; Three Mile Island Nuclear Station, Unit 1; Zion Nuclear Power Station, Units 1 and 2; and Associated Independent Spent Fuel Storage Installations))	Docket Nos.: STN 50-456, STN 50-457, 72-73, STN 50-454, STN 50-455, 72-68, 50-317, 50-318, 72-8, 50-461, 72-1046, 50-10, 50-237, 50-249, 72-37, 50-333, 72-12, 50-373, 50-374, 72-70, 50-352, 50-353, 72-65, 50-220, 50-410, 72-1036, 50-171, 50-277, 50-278, 72-29, 50-254, 50-265, 72-53, 50-244, 72-67, 50-272, 50-311, 72-48, 50-289, 72-77, 50-295, 50-304, and 72-1037 -LT
)	May 24, 2021
)	
)	

STANDING DECLARATION OF ROBERT L. VOGL

I, Robert L. Vogl, declare as follows:

1. My name is Robert L. Vogl. My permanent residence is 1230 E Honey Creek Road, Oregon, IL. I have lived at this address with my wife since around 1975.
2. Our home is close to the Byron Nuclear Generating Station, one of Exelon's nuclear power plants. We live close enough to the plant that there's an alarm mounted on the southwest corner of the road that our property touches, close to the end of our property line. In other words, if something happened at the plant, we need the alarm to be warned about it. That puts us within 10 miles or less of the plant.
3. I earned my PhD from the School of Natural Resources at the University in Michigan in 1973 and held a tenured position at Northern Illinois University. While at Northern Illinois, I taught courses in Environmental Quality and Alternative Energy. Since my retirement, I have taught solar and wind energy classes for four community colleges – Rockford, Freeport, Sauk Valley and Illinois Valley. My wife, Dr. Sonia Vogl, was also a faculty member at Northern Illinois and taught courses in Field Science and Ecology.

4. My wife and I both retired in 1998, but we have continued our work on energy and environmental concerns. We co-created two organizations related to those concerns. One is named Friends of the Rock River, which hosts the Rock River Trails Initiative recognized by the National Park Service. The second is the Illinois Renewable Energy Association, which held its first annual Renewable Energy and Sustainability Fair in 2012. My wife and I have both made numerous presentations on environmental and clean energy topics for television stations, public radio, and civic organizations in the area where we live. My wife and I both serve on the Board of the Prairie Preservation Society of Ogle County and play a major role in restoring a prairie on an 82-acre parcel of land in Ogle County that is less than 10 miles from Byron Generating Station.
5. I understand that Exelon Corporation is asking the Nuclear Regulatory Commission to approve the transfer of its stake in Exelon Generation to a totally new company. This means that the license holder for Byron Nuclear Generating Station and the other nuclear plants will no longer have Exelon Corporation as a parent company.
6. This proposed “indirect” transfer of permits is concerning because it means that Exelon Corporation can no longer provide a backstop for decommissioning funding. I’ve been concerned about the economic situation of the Byron Nuclear Generating Station for a long time; I remember worrying about the cost overruns when the plant was first built in the area. I’m now concerned that the transfer is not taking sufficiently into account the financial impacts to decommissioning.
7. I worry about decommissioning because of its potential to impact my community. I am certainly concerned that decommissioning is done safely for workers and the community. I also want Exelon to ensure that decommissioning is done in a timely fashion to avoid contamination and that the licensee can afford to do it. I want the Exelon companies to make sure that there is enough financing to do the job in a reasonable amount of time.
8. There are many risks if there is not adequate funding after the transfer. Decommissioning could drag on for an indefinite period that risks radiological exposure to those of us who live in the vicinity of the plant. I also worry that if there isn’t adequate funding, the decommissioning won’t be done well. That only increases the risk of radiological exposure or exposure from other hazardous materials at the plant.
9. In my opinion, given that decommissioning is a future event, there is inherently a lot of uncertainty about whether the funding will be adequate. The transfer will only make that uncertainty worse because Exelon Corporation will no longer be a backstop. If the work is going to proceed, Exelon Generation will have to find some other source of funding, and there’s no way to predict that those kinds of funds would be available when they are needed from the government or private sources.
10. I understand that decommissioning also includes a whole lot of work other than radiological decommissioning, such as dealing with asbestos and other contaminants. Safely cleaning up those contaminants would have to be included in the scope of work.

11. My concern about the clean up comes, in part, from my knowledge of past contamination in the area. My understanding of the type of rock in this region, including near the Byron Nuclear Generating Station, is that contaminants can leech through into the water table. There used to be a farm close to the Byron Nuclear Generating Station that accepted toxic chemicals from Rockford, and the chemicals there contaminated some wells in the area by seeping in through the rock. I worry that the same could happen with the Byron Nuclear Generating Station. If the decommissioning is not adequately funded and done improperly or cheaply, contaminants from Byron could find their way into the water table through the same bedrock.
12. I want to know that whatever company that takes these licenses pays for all the other clean-up costs and that there are assurances that it can handle those costs, such as through a parent company as a backstop.
13. Another reason that I'm concern is that my daughter lives in the area. She intends to live on the property as long as the area is safe to live on. A transfer that makes it harder for the plant to fully fund its clean-up makes it less likely for my daughter to fulfill her plan.
14. I am a member of the Environmental Law & Policy Center.
15. Accordingly, I have authorized the Environmental Law & Policy Center to represent me in this license transfer in order to seek conditions on the license transfer that will ensure full transparency and accountability by Exelon Generation, LLC and Exelon Corporation.
16. I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 24, 2021



Robert L. Vogl

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE COMMISSION

In the Matter of)	
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EXELON GENERATION COMPANY, LLC; EXELON CORPORATION; EXELON FITZPATRICK, LLC; NINE MILE POINT NUCLEAR STATION, LLC; R.E. GINNA NUCLEAR POWER PLANT, LLC; and CALVERT CLIFFS NUCLEAR POWER PLANT, LLC)	Docket Nos.:
(Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 1, 2, and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 1, 2, and 3; Quad Cities Nuclear Power Station, Units 1 and 2; R. E. Ginna Nuclear Power Plant; Salem Nuclear Generating Station, Unit Nos. 1 and 2; Three Mile Island Nuclear Station, Unit 1; Zion Nuclear Power Station, Units 1 and 2; and Associated Independent Spent Fuel Storage Installations))	STN 50-456, STN 50-457, 72-73, STN 50-454, STN 50-455, 72-68, 50-317, 50-318, 72-8, 50-461, 72-1046, 50-10, 50-237, 50-249, 72-37, 50-333, 72-12, 50-373, 50-374, 72-70, 50-352, 50-353, 72-65, 50-220, 50-410, 72-1036, 50-171, 50-277, 50-278, 72-29, 50-254, 50-265, 72-53, 50-244, 72-67, 50-272, 50-311, 72-48, 50-289, 72-77, 50-295, 50-304, and 72-1037 -LT
)	June 23, 2021
)	

DECLARATION OF PETER A. BRADFORD

I, Peter A. Bradford, pursuant to the provisions of 28 U.S.C. § 1746 do hereby declare as follows:

1. My name is Peter Amory Bradford. I live in Peru, Vermont. My resume is attached to this report as Attachment 1.
2. I am President of Bradford Brook Associates, a firm advising on utility regulation and energy policy.
3. I have been an expert witness on aspects of nuclear power plant regulation and nuclear plant economics in state legislative and regulatory proceedings as well as in federal court

proceedings and before the U.S. Nuclear Regulatory Commission. I have written and advised on nuclear power costs including decommissioning in many U.S. states and abroad.

4. I served as a commissioner on the U.S. Nuclear Regulatory Commission (“NRC”) from 1977 to 1982. During my term, the NRC considered aspects of licensee financial qualification to own and operate nuclear power plants. It also dealt on occasion with the structure of the liability limitation in the Price-Anderson Act. We also commenced work on the policies that led eventually to regulation of decommissioning funding. This work was driven in part by experience with defense nuclear sites and with early civilian facilities at which very substantial unfunded decommissioning costs had been incurred.

5. I served on the Maine Public Utilities Commission from 1971 to 1977 and from 1982 to 1987 and was Chairman in 1974-1975 and 1982-87. During my 1982-87 term, Maine electric rates included payments into the now decommissioned Maine Yankee plant decommissioning trust fund.

6. I chaired the New York Public Service Commission from 1987 to 1995. During that time, the NYPSC set rates to cover the costs, including decommissioning, of eight nuclear power units, including the now decommissioned Shoreham plant as well as the recently closed three-unit Indian Point site.

7. I am a commissioner on the Texas/Vermont Low Level Radioactive Waste Compact Commission, whose responsibilities include licensing the receipt at a facility in Texas of the decommissioning waste from the closed Vermont Yankee nuclear power plant as well as other decommissioning sites in the U.S.

8. I have taught a course entitled “Nuclear Power and Public Policy” at Vermont Law School (2008-2013). I have been a member of the Keystone Center “Nuclear Power Joint Fact

Finding” (June 2007) and the National Research Council of the National Academy of Science’s Committee on “Alternatives to the Indian Point Energy Center for Meeting New York Electric Power Needs” (June 2006). I was also a member of the International Expert Panel advising the European Bank for Reconstruction and Development assessing the economic case for completing Khmelnitsky 2 and Rovno 4 (K2/R4) – two partly built, Russian designed 1,000 MW VVER nuclear units in Ukraine – to replace the two units still operating at Chernobyl after the 1986 accident (February 1997).

9. I was a member and sometime chair of Vermont’s Public Oversight Panel on the reliability of the Vermont Yankee nuclear power plant. I advised the Vermont Legislature and the Town of Wiscasset, Maine on issues related to spent nuclear fuel storage. I am also on the Board of the Regulatory Assistance Project, which provides assistance to state and federal energy regulatory commissions regarding economic regulatory policy and environmental protection.

The Matter at Issue

10. Exelon has asked that the NRC approve its spinning off and transferring the licenses for all (or almost all) of its nuclear plants to a new subsidiary which appears to have no assets other than the transferred nuclear plants. NRC would thus consent to the transfer of control of licenses that cover 25% or so of the nation’s nuclear generating capacity¹ and all 11 of its Illinois nuclear plants, to support a proposed transaction in which Exelon Corporation will transfer its 100 percent ownership of EGC (renamed SpinCo for now) to a newly-created subsidiary (HoldCo for now) that will then be spun off to Exelon Corporation shareholders and become SpinCo’s new ultimate

¹ “Generation has ownership interests in thirteen nuclear generating stations currently in service, consisting of 23 units with an aggregate of 18,880 MW of capacity”, Exelon SEC 10-K Report (Feb. 24, 2021), p.9.

parent company. Once the spin transaction is completed, the new parent company and its subsidiaries will no longer be affiliated with Exelon Corporation.

11. Neither Exelon Generation nor SpinCo nor HoldCo are electric utilities within the meaning of 10 CFR 50.33, meaning that they are not franchised monopolies assured by state regulatory commissions of a reasonable opportunity to recover their operating expenses plus a fair rate of return on their assets.

12. Exelon's justification for its request as set forth in its petition to the NRC is that:

Due to regulatory and market developments, the electric utility industry has generally moved away from integrating competitive power generation with regulated utility transmission and distribution (a so-called "hybrid" approach). To achieve greater fit and focus for both its competitive power generation and regulated utility transmission and distribution businesses, Exelon Corporation plans to separate these businesses.... Following the Spin Transaction, Exelon Generation, as SpinCo, will be poised to engage in innovative business initiatives consistent with its focus on the competitive merchant generation business and the opportunities arising thereunder.²

Of course, the record of electric generating companies engaging in "innovative business initiatives" is distinctly mixed. There is no assurance that such pursuits will not end in the bankruptcy court or otherwise cause the licensees to lack the creditworthiness to cover the contingent liabilities discussed herein. The likelihood of business failures will also increase the risk that HoldCo will seek to pull funds out of its reactor-owning subsidiaries.

Background

13. The financial capabilities necessary for safe ownership and operation of nuclear power plants have been a topic of concern for many years. NRC regulations require that applicants for operating licenses provide "information sufficient to demonstrate to the Commission the financial qualification of the applicant to carry out, in accordance with regulations in this chapter,

² Application for Order Approving License Transfers, February 25, 2021, Enclosure 1, page 4.

the activities for which the permit or license is sought”, 10 CFR 50.33(f). This requirement applies also to requests for approvals to transfer licenses.

14. Monopoly electric utility nuclear power plant owners and builders did occasionally go bankrupt or nearly so during this period, but even in bankruptcy the funds necessary for safe operation and construction were obtained. Residents living close to new nuclear plants in Illinois and elsewhere were repeatedly assured that the costs of spent fuel management, plant decommissioning and accident costs up to the legal limits set forth in the Atomic Energy Act were being provided for in law and in regulation by the NRC and the state regulatory commissions.

15. During this period in the 1980s and 1990s, many power reactors, including those now owned by Exelon Generation, were conveyed to nonutility owners who had no other assets and who sold the energy and capacity from their plants into power markets rather than to end-use customers. As Exelon vice-president Harlan Dellsy put it in a 1996 speech, “my point is that we never worked out how we would deal with these kinds of problems because, in assuming a quick and fairly painless transition to a market environment, we have not squarely considered what would happen if our nuclear capacity really could not compete”.³

16. Many power reactors, including those now owned by Exelon Generation, were conveyed to nonutility owners who had no other assets and who sold the energy and capacity from their plants into power markets rather than to end-use customers. With the ending of the protection of regulated monopoly pricing with its assurance of an opportunity for full nuclear plant cost recovery, many of these reactors were faced with a likelihood of operating at a loss. Also, they lost the ability to pass decommissioning fund contributions and other nuclear operating expenses on to monopoly customers through regulated rates. The plant owners often ceased making

³ Speech by Harlan Dellsy, Vice-President, Commonwealth Edison, "Nuclear Competition," Harvard Energy Policy Group, New Orleans, 1/27/95

contributions to the decommissioning funds and represented to the NRC that growth in the value of the funds coupled with guarantees from parent companies would assure that decommissioning costs would be fully covered.

17. No nuclear units shut down in the U.S. between 1999 and 2013, but since 2014 eleven of 104 U.S. reactors have closed, almost entirely for economic reasons. Some could not compete in power markets; others were unable to justify the capital additions necessary for continued operation. Among Exelon's units, Byron 1 and 2 and Dresden 1 and 2 are scheduled to close later in 2021.⁴ Exelon has also said that Braidwood and LaSalle will have to close before long unless they are bailed out by state-imposed subsidies like those sustaining their Quad Cities, Ginna, Nine Mile Point and Fitzpatrick plants.

18. The evolution of markets for electric power generation has already raised the concern that nuclear safety would be compromised by economic pressure. When a reactor shut down under traditional cost-of-service regulation, it continued to cover its costs plus a rate of return through rates charged to customers. However, the shutdown of a reactor in a competitive power market means that the plant earns no revenue, a powerful incentive to operate a plant in situations where the threat to safety seems remote or ambiguous.

19. The pending Exelon request would transfer the ownership of the nuclear plants and their very large contingent liabilities to a holding company lacking any ability to guarantee the payments necessary to discharge these liabilities. This would complete the decades-long transition from the full protection afforded by the vertically integrated monopoly structure to a lesser degree of protection provided when nuclear power plants were transferred to single asset subsidiaries of

⁴ "On August 27, 2020, Generation announced that it intends to permanently cease generation operations at Byron in September 2021 and at Dresden in November 2021. The current NRC licenses for Byron Units 1 and 2 expire in 2044 and 2046, respectively, and the licenses for Dresden Units 2 and 3 expire in 2029 and 2031, respectively", Exelon SEC 10-Q Report (Nov. 3, 2020), p. 89.

holding companies containing a mix of utility assets that could provide meaningful assurance that the contingent liabilities could be met. Now the next step is the elimination of any credible financial guarantee or assurance at all through an ownership structure (HoldCo and SpinCo) that provides insufficient diversity of assets or financial backing to meet significant and growing liabilities.⁵

20. The extent of the financial stress faced by the Exelon Generation nuclear units is clear from the company's own disclosures. For example,

On June 2, 2021, Exelon Corporation (Exelon) learned the results of the first PJM capacity auction held since 2018 for the 2022-2023 planning year. Exelon Generation Company, LLC's (Generation's) Byron, Dresden and Quad Cities nuclear plants did not clear in the auction. The Byron Generating Station, located just outside Byron, Illinois, and Dresden Generating Station, located in Morris, Illinois, are currently scheduled to retire prematurely this fall. The Braidwood and LaSalle nuclear plants cleared in the auction for the upcoming year but, like Byron and Dresden, they face premature retirement due to unfavorable market rules that favor emitting generation. Committing Braidwood and LaSalle to operate through May 2023 will provide time for the significant logistical and technical planning necessary to ensure a safe and orderly retirement in the event policy changes are not enacted. Despite also not clearing in the auction, Generation's Quad Cities plant will continue to operate with support provided under the Illinois Future Energy Jobs Act, a clean energy law that took effect in 2017. The Minimum Offer Price Rule (MOPR) recently implemented by PJM Interconnection, L.L.C. prevented Quad Cities from clearing in the capacity auction.⁶

21. The nuclear plants now owned by Exelon Generation and its subsidiaries have at least four types of large contingent liabilities. First, they must be financially qualified to pay for safe operation of the plants even when power markets do not provide adequate revenues and even if they experience prolonged shutdowns during which they earn no revenues. Second, they are obligated to assure that the plants are decommissioned. Third, they must pay into the federal nuclear waste fund to cover spent fuel costs associated with nuclear energy generated before 1982.

⁵ For a critique of the vulnerabilities of these arrangements, see Synapse Energy, "FINANCIAL INSECURITY: The Increasing Use of Limited Liability Companies and MultiTiered Holding Companies to Own Nuclear Power Plants", <https://www.nrc.gov/docs/ML0803/ML080380500.pdf>.

⁶ Exelon Form 8-K, June 2, 2021

Fourth, they are exposed to the retrospective premium provision of the Price-Anderson Act, which assigns potential accident liability costs up to a limit of some \$137 million per reactor to all nuclear licensees owning operating reactors larger than 100MW. I will address each of these obligations in turn.

Financial Qualifications to Pay for Safe Operation

22. The NRC approaches the financial qualifications of a licensee as an indirect method of assuring safety, i.e., as a supplement to the NRCs safety oversight processes such as inspection and enforcement. While the NRC has never officially found a correlation between the financial conditions of a licensee and its safety performance, events compromising the safety of operating reactors have arisen at least in part from financial pressures on the plant owners. During the era in which electric industry restructuring led to the creation of merchant nuclear generators, NRC Chair Shirley Jackson testified to the Congress that “The NRC is concerned that cost cutting pressures on its licensees may lead to unsafe practices”⁷ Within the NRC similar concerns were voiced with greater specificity. For example

When the NRC issued its Final Policy Statement on the Restructuring and Economic Deregulation of the Electric Utility Industry (62 Fed. Reg. 44071; August 19, 1997), specific safety concerns with respect to rate deregulation and restructuring were identified. For example, the final policy statement discussed such safety concerns as reductions in expenditures for manpower and training and other reductions in operations and maintenance (O&M) and capital additions budgets. The issues of on-line maintenance and increased fuel burnup were also addressed.

In addition, with respect to specific plants such as Maine Yankee, Millstone,

⁷, Energy and Water Development Appropriations for 1998. Hearings before the United States Congress House Committee on Appropriations, Subcommittee on Energy and Water Development, p. 1021, https://books.google.com/books?id=pGodnYk_ONoC&pg=RA8-PA1021&lpg=RA8-PA1021&dq=NRC,+FERC,+%22financial+stress%22&source=bl&ots=mkjROdMAXu&sig=ACfU3U3MkSBaPV_CdEiZ06cEbcM07uHdO-Q&hl=en&sa=X&ved=2ahUKEwjMosqoupxAhXqm-AKHW5iBOsQ6AEwCXoECBIOAw#v=onepage&q=NRC%2C%20FERC%2C%20%22financial%20stress%22&f=false

and others, the inspection process has identified several manifestations of inappropriate responses to competitive pressures. These include: increased need for corrective actions; maintenance operator work-arounds; temporary modification and procedure revision backlogs; decreased performance in operator licensing and requalification programs; increased frequency of significant operational and occupational safety events; decreased plant and system reliability; increased volume and acrimony of allegations; and increased frequency of regulatory violations and resulting penalties.

...other impacts in addition to those previously identified may occur as a result of deregulation. For example a merchant plant with no assets other than the nuclear plant itself could be unable to make necessary safety expenditures after an extended outage if it did not have an adequate financial cushion to pay costs incurred during the outage. In such a situation, it is not clear that a transition from indefinite shutdown to permanent shutdown and decommissioning would be sufficiently smooth to prevent funding shortages from causing safety problems during the shutdown transition period.⁸

23. The decision to operate the Three Mile Island plant with a valve leak rather than shut down for repair as required by the technical specifications contributed to the TMI accident.⁹ Successful licensee lobbying to postpone an NRC-required safety shutdown at Davis-Besse in Ohio to inspect the reactor pressure vessel exacerbated the preconditions for another serious accident.¹⁰

24. The pending application raises unique financial qualifications issues that should motivate the commission to expand its normal secondary emphasis on the financial qualifications of its licensees. The application proposes to transfer nearly 25% of U.S. nuclear power generation to something now called HoldCo, an entity without any assets of its own. More than three months after the submission of the application, we still do not know the management and boards of directors of SpinCo or HoldCo or the amount of debt of each. Indeed, we have no useful measure

⁸ Synapse, note 6 supra, p. 14.

⁹ Report of The President's Commission on the Accident at Three Mile Island, p. 46.
<http://large.stanford.edu/courses/2012/ph241/tran1/docs/188.pdf>

¹⁰ Victor Gilinsky, "Heard About the Near Accident at the Ohio Nuclear Plant? I'm Not Surprised", Washington Post, April 21, 2002, [plant-im-not-surprised/9d015883-8bc8-44a8-bc2b-d1ff0aea0915/](http://www.washingtonpost.com/archive/local/2002/04/21/local-015883-8bc8-44a8-bc2b-d1ff0aea0915/)

of their future creditworthiness. A number of these plants have periodically threatened to close in the near future. Two Exelon Generation units (Three Mile Island and Oyster Creek) have done so.

25. Standard and Poors is unimpressed by the credit quality of Exelon Generation resulting from the requested transaction. S&P stated: “We believe [Exelon Generation’s] business risk profile has weakened because we see its competitive advantage eroding from pressures of declining costs for renewable power that is also becoming firmer as storage technologies advance,” *See, S&P Downgrades Exelon Generation to BBB- following Spinoff Announcement, S&P Global* (Feb. 25, 2021). S&P is one of the top-tier U.S. credit rating agencies. Its judgements will be crucial to the viability (and the price) of SpinCo and HoldCo’s ability to borrow money or extend guarantees in the future.

26. Even Exelon’s co-owner of some of the affected plants is alarmed by the financial risks created by the proposed transaction. In a filing before the New York Public Service Commission, EDF Inc. wrote “The proposed spin-off transaction would transfer risks to EDF Inc. and to captive New York taxpayers,”... “The (Exelon) petition does not adequately address this transfer of risk. As such, the commission should conduct a full review of the proposed spin transaction.” EDF also wrote that the public interest demands a full review “given that (Exelon) is proposing an unincorporated entity with undetermined financial standing to be the new parent owner of the facilities.”¹¹

¹¹ <https://neumann-inter.com/exelons-business-partner-seeks-to-slow-down-derivative-train/>

Adequate Funding for Decommissioning

27. The Atomic Energy Act 42 U.S.C.A. § 2201(x)(1), and NRC regulations 10 CFR § 50.75, contain provisions outlining nuclear plant licensees' responsibilities with respect to assurances that funds will be available to decommission their nuclear facilities.

28. Future decommissioning costs are subject to many large uncertainties, including shutdown date of the reactors, the pace and nonradiological standards of decommissioning that may be required by the host states and localities, the pace at which the federal government is able to carry out its obligation to remove the spent fuel from the reactor sites and the costs of transporting and disposing of radioactive waste other than spent fuel¹². Neither the licensees nor the Nuclear Regulatory Commission control these costs.

29. The adequacy of decommissioning trust funds to meet these uncertain decommissioning obligations is likewise subject to considerable uncertainty beyond the control of the NRC and the nuclear licensees. These include the economic viability of the units in the face of competitive market conditions driven by the oft-declining costs of rival generating technologies as well as energy efficiency and energy storage, the occurrence of extended nuclear unit shutdowns, the enactment and renewal of subsidies based on political factors¹³.

30. The NRC regulates and provides oversight only over the radiological health and safety aspects of the decommissioning process until it agrees to terminate the license. For example,

¹² One example of these uncertainties with which I am quite familiar is the financial peril which caused the nation's only licensed repository for class B and class C nuclear waste, an unavoidable product of nuclear plant decommissioning, to describe itself as a "failing company" in court filings in 2015 and 2016. Though the facility has since changed hands, its long-term economic viability is not assured.

¹³ In Exelon's case, uncertainty over past and future subsidy laws is exacerbated by political backlash over the company's having last year paid \$200 million to resolve a bribery investigation into the favors it lavished on the Speaker of the Illinois house over a period of several years to assure, inter alia, passage of the last round of nuclear bailout legislation. Ohio recently repealed nuclear bailout legislation whose passage appears to have been facilitated by large-scale bribery.

the states retain power over land use, economics and aesthetics among other aspects of decommissioning. Depending on the standards imposed as to such concerns as suitability for future uses, these costs can be substantial. To assure that these nonradiological costs are met, Vermont Yankee is required to maintain a \$60 million site restoration fund in addition to its decommissioning trust fund. Vermont Yankee is one medium-sized reactor at a relatively rural site. If Illinois, New York, Pennsylvania, Maryland and New Jersey nonradiological restoration funds are similar, the total obligation on the SpinCo reactors could approach \$1 billion. The application contains no showing that such an obligation can be met. Failure to do so would produce environmental impacts never discussed in the environmental impact statements issued by the NRC at the time of plant licensing.

31. Decommissioning cost estimates have increased at a compound annual rate of about 6% in recent years, rising from a low of \$50.8 billion in 2008 for investor-owned utilities to \$82.8 billion in 2018.¹⁴ This rate of escalation is higher than that assumed in NRC regulations. Furthermore, calculations and critiques by credible independent entities indicate that there may be decommissioning-related costs beyond those calculated according to NRC regulations¹⁵ and that NRC formulae may omit some significant cost elements.¹⁶

32. Exelon's acknowledgement that market results may close a number of its plants earlier than planned unless they are saved by political or regulatory intervention that are becoming harder to achieve creates a possibility of a domino effect undermining the already dubious credit quality of HoldCo and SpinCo. Underestimating decommissioning costs is one possible trigger of

¹⁴ See CALLAN INSTITUTE, 2019 Nuclear Decommissioning Study 9 (2019), <https://decommissioningcollaborative.org/wp-content/uploads/2020/07/Callan-2019-NDT-Study.pdf>.

¹⁵ Callan Institute

¹⁶ "NRC's Oversight of Nuclear Power Reactors Could Be Further Strengthened", General Accounting Office, April 2012, <https://www.gao.gov/assets/590/589923.pdf>.

this effect, but there are others. If, for example, Illinois does not enact the subsidies demanded by Exelon, which are far in excess of those recommended by a respected consultant to the governor's office, several units could close early and relatively quickly, resulting in nine figure shortfalls in the decommissioning funds large enough to violate NRC regulations. New York's subsidies to four Exelon reactors were controversial when Exelon has provided no information proving that the new companies could provide necessary letters of credit or guarantees on short notice to cover these shortfalls. It is the sum of these shortfalls spread across the unprecedented size of the Exelon transfer request that makes the financial peril of relying on the slight information provided by SpinCo and HoldCo so unique in NRC history.

33. As recently as 30 years ago, all the reactors that are the subject of this petition were owned by vertically integrated utilities. A goal of the regulatory commission rate decisions with which I am familiar was to assign the costs of accumulating decommissioning trust funds as nearly as possible to the customers who were using the electricity from the nuclear power plants, considering growth in the value of the decommissioning trust funds. Future electric customers who do not use the electricity from today's nuclear plants should not, to the extent possible, have any of the costs of these nuclear plants reflected in their electric bills. Assigning costs to customers who do not cause them or to taxpayers is both unfair and contrary to fundamental principles of economically efficient utility pricing that has been the driving force behind U.S. electric market reforms of the last 25 years.

34. At present, Exelon acknowledges that its two Byron units face a decommissioning trust fund shortfall. As the following disclosure makes clear, shortfalls in the funds for radiological or nonradiological reasons from across Exelon Generation's near 25% of the U.S. fleet would fall on the HoldCo entity that has demonstrated no capacity to provide assurances for even the Byron plants, to say nothing of the entire Exelon Generation fleet (Exelon Form 10k, pp. 109-110):

Upon early retirement, Dresden will have adequate funding assurance, however, due to the earlier commencement of decommissioning activities and a shorter time period over which the NDT fund investments could appreciate in value, Byron may no longer meet the NRC minimum funding requirements and, as a result, additional financial assurance may be required. Considering the different approaches to decommissioning available to Generation, the most likely estimates currently anticipated could require financial assurance for radiological decommissioning at Byron of up to \$55 million. Upon issuance of any required financial guarantees, each site would be able to utilize the respective NDT funds for radiological decommissioning costs, which represent the majority of the total expected decommissioning costs. However, under the regulations, the NRC must approve an exemption in order for Generation to utilize the 154 Table of Contents NDT funds to pay for non-radiological decommissioning costs (i.e. spent fuel management and site restoration costs, if applicable). If a unit does not receive this exemption, those costs would be borne by Generation without reimbursement from or access to the NDT funds.

Obligation to Pay into the Nuclear Waste Fund for Nuclear Energy Generated Before 1983

35. Commencing in 1983, nuclear power plant licensees were required by the Nuclear Waste Policy Act to pay a fee of one-tenth of a cent per kWh into the Nuclear Waste Fund to dispose of the highly radioactive spent fuel. As to electricity generated before that date, a one-time payment covering all kWh is required. For nuclear licensees that are no longer assured of cost recovery, the source of these funds is not obvious, but the amounts are substantial and subject to interest charges. The one-time payment due from Illinois nuclear plants, all of which are owned by Exelon Generation, as of May 2019 was just over \$1 billion.¹⁷ Reactors in other states are

¹⁷ Nuclear Energy Institute fact sheet - <https://www.nei.org/resources/statistics/nuclear-waste-fund-payment-information-by-state>. Licensees in New York, New Jersey and Pennsylvania also owe one-time payments, but the table does not indicate whether these are Exelon Generation plants.

almost certain to drive this exposure higher. Until it is met, the SpinCo reactors may well be unable to move some or all of their fuel rods from the sites of closed plants, which cannot be fully decommissioned until this is done.

36. As long ago as 1991, the General Accounting Office raised concerns about the ability of nuclear power plant licensees to pay their deferred waste disposal obligation. GAO noted “Uncertainty also exists about whether DOE will be able to collect moneys owed by some utilities. Although DOE, in determining fee adequacy, assumes that it will collect all moneys the utilities owe, a March 1990 report by DOE's Inspector General indicates that this may not be a valid assumption. In the report, the Inspector General said that, because of the uncertain financial condition of 11 of 17 utilities that chose to defer one-time payments, \$2 billion of the \$3 billion in fees at risk. and interest payments due is at risk”.¹⁸

Retrospective Liability for Nuclear Accidents Anywhere in the US

37. The Atomic Energy Act establishes three tiers of liability in the event of a nuclear accident in the United States. The first tier consists of the insurance available to the licensee where the accident occurs. The second tier consists of all licensees owning reactors larger than 100MW unless exempted by the NRC. It is currently \$137 million per reactor, not to exceed \$20 million in any one year.¹⁹ The sum of the first two tiers (currently about \$13.7 billion but adjusted upward annually for inflation) is the total nuclear industry liability for an accident. The third tier is the amount above the sum of the first two. No explicit provision is made for those damages. The second tier has never been called upon to pay, but estimated damages in Japan from the Fukushima accident are now well over \$1 trillion, so the exposure is not theoretical.

¹⁸ <https://www.gao.gov/assets/t-rced-91-52.pdf>, p. 9

¹⁹ Congressional Research Service, “The Price Anderson Act”, February 2018, <https://www.everycrsreport.com/reports/IF10821.html>

38. In the event of a major U.S. nuclear accident, the sudden claim of the retrospective premium obligation on the SpinCo and HoldCo finances would potentially go unfulfilled. Eighteen reactors having to come up with \$137 million apiece over six or seven years would be about \$2.5 billion. To make matters worse, this demand would be almost certain to interact with others. More reactors would close early as subsidy policies would be politically impossible, so decommissioning fund shortfalls would increase. Reactor modifications to assure safe operation in light of lessons from the accident would require access to large amounts of capital in the face of heightened rating agency skepticism. The backlash from having to tell accident victims that they could not be compensated because the legally required funds were unavailable due to license transfers approved by the NRC would make a mockery of the Atomic Energy Act and would destroy the NRC's standing as a credible regulator.

Conclusions and Recommendations

39. In reviewing applications for approval of transfers of ownership of nuclear power plants, the NRC needs to articulate a more proactive set of principles to guide potential applicants. The transition to competitive power pricing from the vertically integrated monopoly utility structure of the 1980s that set its own rates or was regulated under prudent cost recovery principles has diminished licensee financial robustness, in most cases. As this transition continues and nuclear plant owners seek to separate their more attractive transmission and distribution assets by moving merchant nuclear plants into entities “engaging in innovative business initiatives consistent with its focus on the competitive merchant generation business and the opportunities arising thereunder”, the assurance of being able to meet large and potentially sudden contingent liabilities will inevitably shrink. A first principle for the NRC to articulate as a precondition to

approving such transfers should be that the level of financial assurance provided by present ownership and related arrangements must not diminish further.

40. The NRC can and should deny the requested approval until this standard is met. The request for approval cites no public good offsetting the substantial increase in risk described above. The applicant has made no showing that either Holdco or Spinco have the financial qualifications and capabilities to assure that the above-described requirements for safe operation will be met.

41. 10 CFR 50.33(f)(5) (made applicable to license transfers by 10 CFR 50.80) states that “The Commission may request an established entity or newly-formed entity to submit additional or more detailed information respecting its financial arrangements and status of funds if the Commission considers this information appropriate. This may include information regarding a licensee’s ability to continue the conduct of the activities authorized by the license and to decommission the facility.” To this end, The NRC should at a minimum hold hearings to investigate both the highly uncertain economic futures of the reactors covered by the Exelon petition and how the new corporate owners will be able to provide letters of credit or guarantees that their financial liabilities will be discharged with a high degree of certainty. The Commission should also require a full financial analysis of the impact of those early retirements on decommissioning trust fund balances, before issuing a decision on the Applicants’ license transfer request. The Commission should not approve the proposed transfer of Exelon’s entire nuclear power plant fleet to entirely opaque and ill-defined new entities, which lack a financial history, have very little diversification of assets and have no demonstrated capability of an ability to compete successfully in the merchant generation business markets that the application whose attraction the application highlights.

42. The NRC should condition any approval of the requested transfers on the provision of all guarantees of other credit enhancing measures by Exelon even after the corporate ties are broken. Only such a provision would keep faith with regulatory requirements and the longtime reliance on this credit quality by the host communities and host states.

43. The NRC should require prior approval of all transfers of substantial funds from the operating companies to their parent organizations at least until such time as the holding companies have an established track record of responsible and successful operation.

I declare under penalty of perjury that the foregoing is true and correct.

Respectfully submitted,

Executed in Accord with 10 C.F.R. § 2.304(d)

Peter A. Bradford
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Executed on this 23rd day of June 2021.

PETER A. BRADFORD

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PROFESSIONAL EXPERIENCE:

Peter Bradford was until 2018 an adjunct professor at Vermont Law School, where he taught “Nuclear Power and Public Policy” and “The Law of Electric Utility Restructuring”. He also advises and teaches on utility regulation, restructuring, nuclear power and energy policy in the U.S. and abroad. He was a member and chair of the Public Oversight Panel for the Comprehensive Vertical Assessment of Vermont Yankee Nuclear Power Plant and has served as an expert witness on investment in new nuclear power plants in several states. He is one of Vermont’s two representatives on the Texas/Vermont Low Level Radioactive Waste Disposal Compact Commission and served on the advisory panel for the Bipartisan Policy Center project on nuclear waste. He has been a visiting lecturer in energy policy and environmental protection at Yale University and served on New York State’s 2012-13 Moreland Commission on Utility Storm Response

One prominent regulatory scholar termed him “generally regarded as the nation’s brightest and most thoughtful regulator” (Irwin Stelzer, New York Post, 07/14/1994). Another called him a “regulatory legend” (<https://www.scotthemplinglaw.com/essays/the-decisive-regulator>).

He served on the U.S. Nuclear Regulatory Commission from 1977 until 1982. During his term, the NRC undertook major upgrading of its regulatory and enforcement processes in the wake of the Three Mile Island accident.

He chaired the New York State Public Service Commission from 1987 until 1995 and the Maine Public Utilities Commission from 1982 until 1987. During these years, New York resolved its stalemate over the Shoreham nuclear power plant and Maine resolved its involvement in Seabrook, both on favorable economic terms. He was Maine's Public Advocate in 1982 and was President of the National Association of Regulatory Utility Commissioners during 1987.

Prior to becoming a member of the NRC, he had served on the Maine Public Utilities Commission (1971-1977) and was Chairman in 1974-1975.

He served on the 2007 Keystone Center fact finding collaboration on nuclear power and the 2006 National Academy of Sciences panel evaluating the alternatives to continued operation of the Indian Point Nuclear Power Plants in New York. He is also affiliated with the Regulatory Assistance Project, which provides assistance to state and federal energy regulatory commissions regarding economic regulatory policy and environmental protection.

He served on a panel advising the European Bank for Reconstruction and Development on how best to replace the remaining Chernobyl nuclear plants in Ukraine and also on an expert panel advising the Austrian Institute for Risk Reduction on regulatory agency issues associated with the opening of the Mochovce nuclear power plant in Slovakia. He advised the Vermont Legislature on issues relating to spent fuel storage at Vermont Yankee and the Town of Wiscasset, Maine, on issues related to the storage of spent nuclear fuel at the site of the former Maine Yankee nuclear power plant.

He has advised on electric restructuring issues and has testified on aspects of nuclear power, electricity and telecommunications restructuring in many U.S. states.

He has also advised on energy, telecommunications and water utility restructuring issues in China, Armenia, Azerbaijan, Canada, Georgia, India, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Samoa, South Africa and Trinidad and Tobago. He is a member of the Policy Advisory Committee of the China Sustainable Energy Program, a joint project of the David and Lucille Packard Foundation and the Energy Foundation.

Mr. Bradford was an advisor to Maine Governor Kenneth Curtis from 1968 to 1971, with responsibilities for oil, power and environmental matters. He assisted in preparing landmark Maine laws relating to oil pollution and industrial site selection and was Staff Director of the Governor's Task Force on Energy, Heavy Industry and the Coast of Maine.

Mr. Bradford is the author of Fragile Structures: A Story of Oil Refineries, National Security and the Coast of Maine, a book published by Harper's Magazine Press in 1975. ("In a number of respects a rare book...The presentation is a balanced one", New York Times, 11/30/1975; "If sanity is ever declared illegal, Peter Bradford ought to be one of the first people arrested...A work of political education that transcends partisanship", Kirkus Reviews, May 1975).

His articles on utility regulation and nuclear power have appeared in many publications, including The New York Times, The Washington Post, The Los Angeles Times, The Boston Globe, The Atlanta Journal Constitution, The Bulletin of the Atomic Scientists, and The Electricity Journal.

He is a 1964 graduate of Yale University and received his law degree from the Yale Law School in 1968.

He is married, has three children and nine grandchildren and lives in Peru, Vermont.

PROFESSIONAL AFFILIATIONS:

2011-present – Commissioner, Texas/Vermont Low Level Radioactive Waste Compact Commission

2020-present – Board of the Regulatory Assistance Project

2017-present - Board of Nonproliferation Education Center

2013-2015 – Member Bipartisan Policy Center panel on disposal of high-level nuclear waste.

1999-2015 - Member, Policy Advisory Committee, China Sustainable Energy Project (funded by the David and Lucille Packard Foundation and the Energy Foundation).

2012-13 – Commissioner, New York State Moreland Commission on Utility Storm Response

2007 – Member, Keystone Center project on the future of nuclear power

2006 – Member of the National Research Council Center on Alternatives to the Continued Operation of the Indian Point Nuclear Power Plants

1998-2002 - Member, Advisory Council, New England Independent System Operator

Nov. 1986-Nov. 1987 President, National Association of Regulatory Utility Commissioners

1977-1995 NARUC positions, Member, Executive Committee; Member, Electricity Committee (1977-1989); Member, Gas Committee (1989-1993); Member, Communications Committee (1975-1977); Board of Directors, National Regulatory Research Institute (1985-1987).

1975-1977, 1982-1986. Advisory Council, Electric Power Research Institute

1987-1995, Member of New York State Energy Planning Board

1987-1995, Member, Board of Directors, New York State Energy Research and Development Administration

1987-1995, Member, New York State Environmental Board;

1987-1995, Chair, New York State Energy Facilities Siting Board

1992-1994, State co-chair, New York State Task Force on Telecommunications Policy

Vice-chair, Board of Directors, Union of Concerned Scientists

EDUCATION:

1964 *B.A.* History, Yale University, New Haven, CT

1968 *L.L.B.*, Yale University School of Law, New Haven, CT

AWARDS:

Honorary Degree, Unity College, 1981.

Environmental Award, Natural Resources Council of Maine, 1979.

PUBLICATIONS

Books

Fragile Structures: A Story of Oil Refineries, National Security and the Coast of Maine, 1975, Harpers Magazine Press.

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In re: Petition for Determination of Need for Levy Units 1 and 2 Nuclear Power Plants, Docket No. 080148-EI, Florida Public Service Commission, April 2008;

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Did Nuclear Power Jump or Was It Pushed: Some Impacts of the Accident at Three Mile Island; Presentation at Dartmouth College symposium on 35th Anniversary of TMI, March 2014;
Nuclear Power and Market Reform: Some Lessons from the U.S. and Europe; Presentation to the Japan Renewable Energy Foundation, Tokyo, February 2014;
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Don't Try This at Home: Japanese Nuclear Power Dilemmas, Nonproliferation Education Center, November 28, 2012;

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Risks, Rewards, Resources, Reality; Briefing on the Loan Guarantee Provisions of the 2007 Energy Legislation; Environmental and Energy Study Institute; Washington, D.C., October 30, 2007

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Regulation, Reality and the Rule of Law: Issues for a Nuclear Renaissance: Washington and Lee University, June 23, 2007.

The Future of Nuclear Energy, Bulletin of the Atomic Scientists Conference; University of Chicago, November 1, 2006

Nuclear Power and Climate Change, Society of Environmental Journalists, Burlington, Vermont, October 27, 2006

Nuclear Power, Climate Change and Public Policy, National Conference of State Legislatures, April 2006.

Electric Restructuring after Ten Years: Surprises, Shocks and Lessons, State Legislative Leaders' Foundation, November 2005;

Nuclear Power's American Prospects, Presentation to the California Energy Commission Nuclear Issues Workshop, August 2005;

Decommissioning Financing: Alternatives and Policies, Conference on the Future of the Medzamor Nuclear Power Plant, Yerevan, Armenia, June 2005;

The Value of Sites Capable of Extended Storage of High-Level Nuclear Waste, report for the Town of Wiscasset, Maine, December 2004.

Nuclear Power's Prospects, NPEC/FRS/CAP/CEA Workshop, Paris, October 2004;

Did the Butler Really Do It? The Role of Nuclear Regulation in Raising the Cost of Nuclear Power, Cato Institute, Washington D.C. March 2004;

China's Energy Regulatory Framework China Development Forum, Beijing, November 17, 2003;

China's National Energy Plan (with Thomas Johansson) Background Reports to "China's National Energy Strategy and Reform", Development Research Center of the State Council, China Development Forum, November 2003;

Repeating History: Nuclear Power's Prospects in a Carbon-Conscious World Yale School of Forestry and Environmental Studies, Leadership Council Meeting, October 24, 2003;

What Nuclear Power Can Learn from Electric Restructuring, and Vice Versa, Aspen Institute, July 5, 2003;

Renewal of the Price Anderson Act Testimony before the United States Senate Committee on Environment and Public Works Subcommittee on Transportation, Infrastructure and Nuclear Safety, January 23, 2002;

Events Now Long Past: The 20-Year Road from Three Mile Island to Electric Utility Restructuring TMI 20th Anniversary Commemoration, National Press Club, Washington D.C., March 22, 1999;

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Call Me Ishmael: Reflections on the Role of Obsession in Nuclear Energy Policy, NARUC annual meeting, November 13, 1989;

Nuclear Power and Climate Change; Harvard Energy and Environmental Policy Center, January 13, 1989;

Somewhere between Ecstasy, Euphoria and the Shredder: Reflections on the Term Pro-Nuclear Symposium on Nuclear Radiation and Public Health Practices and Policies in the Post-Chernobyl World, Georgetown University, September 18, 1987;

Searching the Foreseeable Past: Nuclear Power, Investor Confidence and Reality Public Utilities Institute, East Lansing Michigan, July 30, 1987;

Where Ignorant Armies Clash by Night: Relationships Among Nuclear Regulators and Regulated NARUC/INPO Seminar on Nuclear Power Plant Safety and Reliability, January 22, 1987;

Why Do We Have a Nuclear Waste Problem Conference on Nuclear Waste, Naples, Maine, March 22, 1986;

With Friends Like These: Reflections on the Implications of Nuclear Regulation Institute of Public Utilities, Williamsburg, Virginia, December 13, 1982;

A Framework for Considering the Economic Regulatory Implications of the Accident at Three Mile Island Iowa State Regulatory Conference, May 20, 1982;

The Man/Machine Interface Public Citizen Forum, March 8, 1982;

A Perspective on Nuclear Power The Groton School, January 15, 1982;

Reasonable Assurance, Regulation and Reality ALI-ABA Course of Study on Atomic Energy Licensing and Regulation, September 24, 1980;

Misdefining the National Security in Energy Policy from Machiasport to Three Mile Island Environmental Law Institute, University of Maine, May 1, 1980

Condemned to Repeat It? Haste, Distraction, Rasmussen and Rogovin Risks of Generating Electricity, Seventh Annual National Engineers' Week Energy Conference, February 21, 1980;

Lightening the Nuclear Sled; Some Uses and Misuses of the Accident at Three Mile Island Seminar on the Problems of Energy Policy, New York University, November 21, 1979;

The Nuclear Option: Did It Jump or Was It Pushed? NARUC Regulatory Studies Program, August 2, 1979;

How a Regulatory View of Nuclear Waste Management is Like a Horse's Eye View of the Cart 90th NARUC Annual Convention, November 15, 1978;

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Some Observations on Recent and Proposed Changes in Nuclear Regulatory Commission Jurisdiction, Atomic Industrial Forum Workshop on Reactor Licensing and Safety, April 5, 1978;

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**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE SECRETARY**

In the Matter of:)	
)	
)	NRC-2021-0099
EXELON GENERATION COMPANY, LLC; EXELON CORPORATION; EXELON FITZPATRICK, LLC; NINE MILE POINT NUCLEAR STATION, LLC; R. E. GINNA NUCLEAR POWER PLANT, LLC; and CALVERT CLIFFS NUCLEAR POWER PLANT, LLC)	Docket Nos.: STN 50-456, STN 50-457, 72- 73, STN 50-454, STN 50-455, 72-68, 50-317, 50-318, 72-8, 50-461, 72-1046, 50-10, 50-237, 50-249, 72-37, 50-333, 72-12, 50-373, 50-374, 72-70, 50-352, 50-353, 72-65, 50-220, 50-410, 72-1036, 50-171, 50-277, 50-278, 72-29, 50- 254, 50-265, 72-53, 50-244, 72-67, 50-272, 50-311, 72-48, 50-289, 72-77, 50-295, 50-304, and 72-1037 -LT
(Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 1, 2, and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 1, 2, and 3; Quad Cities Nuclear Power Station, Units 1 and 2; R. E. Ginna Nuclear Power Plant; Salem Nuclear Generating Station, Unit Nos. 1 and 2; Three Mile Island Nuclear Station, Unit 1; Zion Nuclear Power Station, Units 1 and 2; and Associated Independent Spent Fuel Storage Installations))	June 23, 2021

CERTIFICATE OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I hereby certify that copies of the foregoing ENVIRONMENTAL LAW & POLICY CENTER'S PETITION TO INTERVENE AND HEARING REQUEST dated June 23, 2021 has been filed through the Electronic Information Exchange, the NRC's E-Filing System, in the above-captioned proceeding, this 23rd day of June, 2021.

Respectfully submitted,

/Signed (electronically) by/

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