UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.; ENTERGY NUCLEAR INDIAN POINT 2, LLC; ENTERGY NUCLEAR INDIAN POINT 3, LLC; HOLTEC INTERNATIONAL; and HOLTEC DECOMMISSIONING INTERNATIONAL, LLC; APPLICATION FOR ORDER CONSENTING TO TRANSFERS OF CONTROL OF LICENSES AND APPROVING CONFORMING LICENSE AMENDMENTS	Docket Nos.: 50-3 50-247 50-286 72-051

(Indian Point Nuclear Generating Station)

REPLY IN SUPPORT OF THE STATE OF NEW YORK'S PETITION FOR LEAVE TO INTERVENE AND FOR A HEARING

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INTRODUCTION

The Applicants[1] propose to shift responsibility for radiological decommissioning, site restoration, and spent fuel management at historically troubled Indian Point to a group of single-asset limited liability companies with no prior decommissioning experience and no demonstrated ability to absorb cost overruns during the remediation process. In three well-pleaded contentions, the State challenges the Holtec LLCs' insufficient showing of financial qualification, decommissioning funding assurance, and the availability of funds for spent fuel management. The Applicants' response argues the State's contentions are unsupported, speculative, irrelevant, immaterial, beyond the scope of the proceeding, and/or somehow a collateral attack on the Commission's rules. These criticisms are unfounded.

As the Commission has long recognized, financial qualification and decommissioning funding issues "lie at the core of the NRC's license transfer inquiry."[2] The State's topical contentions directly address the Holtec LLCs' lack of financial qualification to hold the Indian Point licenses and the LLCs' failure to establish adequate funding assurance for license termination and spent fuel management activities. The State's contentions are well within the scope of these proceedings, identify material disputes of fact and law, and are supported with reference to documentary evidence, NRC regulations, and six detailed declarations from knowledgeable experts. As the

[1] Capitalized terms and abbreviations in this brief shall have the meanings ascribed to them in New York State's Petition for Leave to Intervene and for a Hearing (Petition) (Feb. 12, 2020) (ML20043E118).

[2] North Atlantic Energy Serv. Corp. (Seabrook Station, Unit 1) (Seabrook), 49 N.R.C. 201, 219 (1999).

Applicants well know, the State need not prove its case at the contention filing stage; it need only advance reasonable, fact-based claims about the Holtec LLCs' inability to meet the NRC's financial qualification, decommissioning funding assurance, and spent fuel management requirements.[3] The State's contentions meet that introductory threshold, and the issues raised are ripe for exploration at an adjudicatory hearing.

ARGUMENT

I. Contention NY-1 Is Admissible

In Contention NY-1, the State argues that the Holtec LLCs impermissibly take a two-percent annual earnings credit on the monies in the Indian Point decommissioning trusts despite their decision to proceed under a DECON model, in violation of 10 C.F.R. § 50.75(e)(1)(i).[4] In their Answer, the Applicants—ignoring the regulatory requirement that prepaid decommissioning funds be "sufficient to pay decommissioning costs *at the time permanent termination of operations is expected*"[5]—claim the two-percent earnings credit is available in effect to the owners of *all* decommissioning plants, whether they elect to decommission promptly under a DECON model or delay decommissioning for an extended time period under a SAFSTOR model.[6]

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[3] *See* Seabrook, 49 N.R.C. at 219–20.

[4] *See* Petition, Contention NY-1, ¶3. As a corollary, because HDI's own cost estimate exceeds the amount of money allegedly existing in the Indian Point trusts as of October 2019, the State further argues that the Applicants fail to establish adequate decommissioning funding assurance and that the license transfer application is unapprovable as submitted.

[5] 10 C.F.R. § 50.75(e)(1)(i) (emphasis added).

[6] *See* Answer at 19.

The Applicants' argument in opposition misconstrues the applicable regulation and highlights the existence of a material dispute on a question of law.

Under 10 C.F.R. § 50.75(e)(1)(i), "[a] licensee that has prepaid funds based on a site-specific estimate"—as is the case here—"may take credit for projected earnings on the prepaid decommissioning trust funds, using up to a [two] percent annual real rate of return from the time of future funds' collection through the projected decommissioning period, *provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate*" (emphasis added). In arguing that even rapid decommissioning under DECON includes a period of safe storage however brief, the Applicants' argument reads the "provided" clause out of the rule: if both DECON and SAFSTOR (and, presumably, even ENTOMB) qualify for the two-percent earnings credit because they include even a de minimis period of safe storage, the "provided" clause in the rule becomes meaningless. Giving effect, as it must, to every clause of the regulation,[7] the Commission should reject the Applicants' proposed reading. In any case, the Applicants fail to establish that Contention NY-1 lacks a basis in fact or law,[8] and the State has presented a genuine dispute on a material issue of law appropriate for resolution at a hearing.[9]

The State's position finds additional support in the preamble to the NRC's 2002 decommissioning rule, where the Commission notes that "a [two]-percent credit can

[7] *See, e.g.*, Williams v. Taylor, 529 U.S. 362, 364 (2000).
[8] *See* Answer at 18.
[9] *See* 10 C.F.R. § 2.309(f)(1)(vi).

be used when a site-specific estimate *is explicitly based on deferred dismantlement*."[10] The Holtec LLCs' decommissioning cost estimate is a site-specific estimate, but it surely is not "explicitly based on deferred dismantlement."[11] To the contrary, the Applicants describe their approach as "desirable and of considerable benefit" precisely because it "will result in the *prompt* decommissioning of [Indian Point]."[12] The Holtec LLCs' decommissioning approach is based on *prompt* dismantlement, not deferred dismantlement.[13]

To the extent the Applicants claim—notwithstanding their focus on rapid decommissioning—that they are actually putting Indian Point in SAFSTOR for some period of time while HDI moves spent fuel to the ISFISI,[14] this claim is contradicted by the license transfer application itself. For example, HDI's "project milestones" chart clearly indicates that decommissioning activities—in the form of reactor internals and pressure vessel segmentation at Unit 3—will begin immediately after license transfer.[15] And spent fuel will be removed from the Unit 2 spent fuel pool while that unit's reactor internals and pressure vessel are being segmented and while Unit

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[10] 67 Fed. Reg. 78332, 78338 (Dec. 24, 2002). The Applicants argue that the preamble to the rule contains no limitation on licensees that use the DECON approach and certify to a site-specific decommissioning cost. *See* Answer at 20. But the preamble plainly states that a two-percent credit can be taken where the licensee elects SAFSTOR and certifies to a site-specific cost.

[11] *Id.*

[12] Letter from A. Christopher Bakken III to NRC Document Control Desk at 3 (Nov. 21, 2019) (ML19326B953) (emphasis added); *see* LTA at 3.

[13] The Applicants observe that a licensee certifying to the generic formula amount in 10 C.F.R. § 50.75(c) can take a pro-rata credit into the dismantlement period. *See* Answer at 20. This observation is irrelevant: the Holtec LLCs are prepaying based on a site-specific estimate, not the generic formula amount.

[14] *See* Answer at 20–21.

[15] *See* LTA, attach. D, at unnumb. p. 14.

3 is being dismantled.[16] In other words, the license transfer application shows, if anything, that it is *not* "explicitly based on [a period of] deferred dismantlement," and so the Holtec LLCs are not entitled to take a two-percent annual earnings credit on the monies in the decommissioning trusts.[17] And of course the Applicants make no effort to argue that the Holtec LLCs can make the requisite showing of financial qualification or provide adequate decommissioning or spent fuel management funding assurance without the benefit of the two-percent annual credit—which, with no assets beyond the trusts, they cannot do.

In sum, with respect to Contention NY-1, the State has set forth a legal (and, apparently, factual) issue that is well within the scope of the proceeding and "material to the findings necessary to a grant of the license transfer application."[18] And the Applicants' vigorous opposition merely demonstrates the existence of a genuine dispute of both law and fact on this highly relevant issue. At the contention filing stage, nothing more is required.[19]

II. Contention NY-2 Is Admissible

In Contention NY-2, the State argues that the Holtec LLCs fail to demonstrate adequate decommissioning and spent fuel management funding assurance because HDI's site-specific cost estimate for radiological decommissioning, site restoration, and spent fuel management is plagued by omissions and unreasonable assumptions.

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[16] *See id.*

[17] 67 Fed. Reg. at 78338; *see* 10 C.F.R. § 50.75(e)(1)(i).

[18] Seabrook, 49 N.R.C. at 215.

[19] *See* Gulf States Utils. Co. (River Bend Station, Unit 1) (River Bend), 40 N.R.C. 43, 51 (1994).

The State particularizes the general argument advanced in Contention NY-2 in nine specific subparts, each in turn supported by reference to documentary and expert evidence as required by NRC rule.[20]

The Applicants attempt to sidestep the State's arguments by erecting an entirely unsupported, overly restrictive pleading standard. The Applicants mistakenly rely on the Commission's *Seabrook* decision to argue that the State's petition is generally unsupported, speculative, and immaterial.[21] But in *Seabrook*, the Commission *admitted* a contention arguing that a proposed licensee was not financially qualified because it failed to demonstrate adequate funding for plant operations.[22] Noting that the petition relied—as is the case here—on extensive documentary and expert evidence, the Commission rejected the applicants' claim that the contention was unsupported.[23] And noting that "'[s]peculation' of some sort is unavoidable when the issue at stake concerns predictive judgments about an applicant's future financial capabilities," the Commission rejected the applicants' further claim that the contention was

[20] For the avoidance of doubt, the State argues in Contention NY-2 that the Holtec LLCs have failed to demonstrate adequate decommissioning and/or spent fuel management funding assurance for each of the reasons set forth in Contention NY-2.A through NY-2.I. *See* Petition, Contention NY-2, ¶3. The admissibility of Contention NY-2 does not depend on a finding that all subparts are independently admissible.

[21] *See, e.g.*, Answer at 22–23.

[22] Seabrook, 49 N.R.C. at 219 (holding that the petitioner's "petition and reply clearly set out the claim that [the proposed licensee] will lack sufficient financial resources to fulfill its obligations for operating expenses"). While the Commission rejected the petitioner's decommissioning funding contention, that holding was based on the proposed licensee's compliance with 10 C.F.R. § 50.75(c). Here, because the Applicants rely on a site-specific estimate to show decommissioning financial assurance and not on the generic formula amount, *Seabrook*'s rejection of the decommissioning financial assurance contention is neither relevant nor determinative.

[23] *See id.*

speculative.[24] Here, the Applicants' references to the Commission's comments on the scope of the eventual evidentiary hearing[25] confuse the applicable standard: those comments describe the petitioner's burden of proof *to prevail on its contention at the hearing*, not the proof necessary to support an admissible contention.[26]

As the Commission has held, the State need not "prove its case" at the contention filing stage, and the proof adduced "need not be in formal evidentiary form, nor be as strong as that necessary to withstand a summary disposition motion."[27] "What *is* required is a minimal showing that material facts are in dispute, thereby demonstrating that an inquiry in depth is appropriate."[28] And the *Seabrook* decision stands for the further proposition that a contention addressing financial concerns in a license transfer proceeding may rely on reasonable predictions with regard to future events, so long as those predictions "rest . . . on factual assertions."[29] The well-supported allegations in the State's petition—viewed, as they must be, in a light most favorable to the State[30]—satisfy the Commission's contention admissibility standards, and the State is entitled to an adjudicatory hearing "to substantiate its concerns."[31]

The Applicants further claim that no decommissioning financial assurance-related contention is material unless it "defeat[s] *all*" of what they call "the Layers of

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[24] *See id.* 219–20 (noting that the petitioner "rest[ed] its speculation on factual assertions."

[25] *See, e.g.*, Answer at 22–23.

[26] *See* Seabrook, 49 N.R.C. at 221–22.

[27] River Bend, 40 N.R.C. at 51.

[28] *Id.* (internal quotation marks and citation omitted) (emphasis added).

[29] *Id.* at 219.

[30] *See* River Bend, 40 N.R.C. at 53.

[31] Seabrook, 49 N.R.C. at 222.

NDT Protection."[32] This argument should be rejected for several reasons.

First, the Applicants argue (fallaciously) that the NRC reporting rules and the rule requiring a licensee to provide additional financial assurance in the event of a decommissioning cost overrun effectively lessen their burden of proof to show financial qualification and decommissioning funding assurance at the application stage.[33] But the regulations require that any would-be licensee demonstrate adequate decommissioning and spent fuel management funding assurance *as part of the license transfer application*,[34] and the Applicants never explain *how* the single-asset entities Holtec IP2 and Holtec IP3—entities with no source of revenue other than the trusts—would provide additional funding assurance if needed.[35] In fact, as the State asserts (with expert support) in Contention NY-3, it is highly unlikely that Holtec IP2 and Holtec IP3 would be able to procure additional financial assurance once it becomes clear that their cleanup liabilities exceed the assets in the trust funds.[36] The mere existence of 10 C.F.R. § 50.82(a)(8)(vi) does not absolve the Applicants of their obligation to show adequate decommissioning funding assurance *now*—if it did, the multitude of regulations requiring such a showing as a condition of license transfer would be meaningless. And if the Applicants' suggestion is that parent company Holtec International will intercede to backstop its cash-strapped subsidiaries, the license

[32] Answer at 23–24.

[33] *Id.* at 24.

[34] *See* 10 C.F.R. §§ 50.33(f), 50.33(k)(1), 50.54(bb), 50.75(b)(1), 50.80(b)(1)(i), 72.30(b).

[35] The Applicants point to language in the HDI cost estimate indicating that "an alternate funding mechanism . . . *will be put in place*" in the event of a cost overrun (as would be required by NRC rule). But *how* such additional assurance would be provided, or *by whom*, this notably passive statement fails to explain.

[36] *See* Petition, Contention NY-3, ¶7; Trabucchi decl. ¶¶28–29; *see also* Point III *infra.*

transfer application and supporting materials conspicuously make no such commitment.[37]

Next, the Applicants contend the State must overcome the contingency factor included in HDI's cost estimate, which the Applicants assume somehow inoculates them against claims of probable cost overruns.[38] But the State's petition, relying on HDI's PSDAR and on the declaration of the State's expert decommissioning planning engineer, explains precisely why the contingency factor in the HDI cost estimate is deficient.[39] In an attempt to dispute the State's position, the Applicants claim—however implausibly—that a significant increase in the kind or amount of on-site radiological contamination would not be outside the current project scope, and would be included in the cost estimate's contingency factor as part of its uncertainty allowance.[40] This claim is in direct conflict with Entergy's own approach to decommissioning cost estimating.[41] And even assuming the HDI contingency factor includes the risk of additional on-site radiological and non-radiological contamination, the Applicants never explain why their contingency factor is virtually identical to the contingency factors Entergy's consultant employed in the preliminary decommissioning cost

[37] The Applicants likewise rely on 10 C.F.R. § 50.82(a)(8)(vi) to support their claim that New York taxpayers will not be left to pay the bill at Indian Point in the event of a Holtec bankruptcy. *See* Answer at 33. But this argument is circular: the Applicants never address the State's allegation that the Holtec LLCs lack the financial wherewithal to provide additional funding assurance as needed. *See* Point III *infra*.

[38] *See* Answer at 24, 41–43.

[39] *See* Petition, Contention NY-2, ¶¶ 26–30.

[40] *See* Answer at 42.

[41] *See, e.g.*, Preliminary Decommissioning Cost Analysis for the Indian Point Energy Center, Unit 3, at 7 (defining changes in "project work scope" as including the "discovery of unexpected levels of contaminants [and] contamination in places not previously expected").

estimates for Indian Point—which factors *expressly excluded* out-of-scope risk from unforeseen levels or kinds of on-site contamination. And to the extent HDI plans to fully consume the funds allocated to contingency,[42] the contingency factor cannot possibly take into account truly unforeseen or out-of-scope developments. In sum, the Applicants' unsupported position on the question of contingency undermines the reasonableness of the cost estimate and underscores the existence of a material dispute of fact to be resolved at a hearing.

The Applicants' argument that the State must overcome the Holtec LLCs' projected surplus is likewise unconvincing, particularly given the lack of detail in the cost estimate.[43] As discussed at great length and in detail in the State's petition, there are myriad ways in which HDI's cost estimate omits key information and/or relies on unsupportable assumptions, all of which undermine the accuracy of the estimate. Where hard data are available, the State calculates the projected cost of HDI's errors or omissions. For example, the State's expert calculates that delay associated with HDI's unreasonable reactor pressure vessel and internals segmentation schedule could cost up to $330 million, far more than the approximately $260 million surplus HDI now projects.[44] And with respect to HDI's unreasonable spent fuel management assumptions, the State contends (with expert support) that management costs, repackaging costs, and/or the obligation to disgorge previously recovered packaging costs—none of which is accounted for in HDI's estimate—could total hundreds

[42] *See* PSDAR at 95.
[43] *See* Answer at 23–24.
[44] *See* Petition, Contention NY-2, ¶136; Brewer decl. ¶19.

of millions of dollars.[45] To the extent the Applicants dispute these calculations, they succeed only in demonstrating the existence of a material issue of fact to be resolved at a hearing. And in any case, even if the State identified *no* costs flowing from errors or omissions in HDI's cost estimate, recent, staggering market declines have likely significantly reduced (and possibly eliminated) any projected surplus.[46]

The Applicants' specific arguments against contention admissibility fare no better. Almost without exception, the Applicants claim the State's arguments in Contention NY-2 are unsupported, speculative, immaterial, irrelevant, outside the scope of the proceeding, and/or somehow a veiled collateral attack on NRC rules.[47] The Applicants are mistaken.

The Holtec LLCs bear the burden of establishing that they possess adequate funding assurance for license termination and spent fuel management.[48] Questions concerning the accuracy of the PSDAR and accompanying cost estimate (and the Holtec LLCs' ability to absorb likely additional costs) are both relevant and material to—

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[45] *See* Petition, Contention NY-2, ¶¶86–111.

[46] *See* Simon Moore, *What to Expect from This Bear Market*, Forbes (Mar. 14, 2020), *available at* https://www.forbes.com/sites/simonmoore/2020/03/14/what-to-expect-from-this-bear-market/#67012ecd61ff (noting that bear markets are often typified by high levels of index volatility).

[47] With respect to the latter, the State does not collaterally attack duly promulgated regulations, which it agrees is impermissible absent a waiver. The Applicants' refrain that any request for information that might exceed minimum filing requirements is a collateral attack on the rules is specious. As the Commission has clearly held, the State is entitled to argue in this proceeding that the Holtec LLCs' cost figures are flawed and, thus, that their showing of financial qualification and/or adequate decommissioning funding assurance is inadequate. *See* Seabrook, 49 N.R.C. at 220, 222 ("[F]unding plans that rely on assumptions seriously at odds with governing realities will not be deemed acceptable simply because their form matches plans described in the regulations"). In other words, the State does not attack the regulations merely by arguing that the Holtec LLCs' application is deficient.

[48] *See, e.g.*, 10 C.F.R. §§ 50.33(k)(1), 50.54(bb), 50.75(b)(1) and (e)(1)(i).

indeed, "go to the very heart" of—the question of adequate funding assurance.[49] And because the Holtec LLCs' application is based on the receipt of an exemption to use nuclear decommissioning trust funds for spent fuel management and site restoration purposes,[50] the Holtec LLCs' faulty site restoration assumptions are highly relevant to the financial assurance issues at the core of this proceeding.

In Contention NY-2, the State raises a series of deficiencies in the Holtec LLCs' cost estimate. The State buttresses its claims with six detailed expert declarations, none of which is speculative or conclusory and all of which contain detail sufficient to allow for the "necessary, reflective assessment of the opinion[s]" expressed.[51] For instance, in response to Contention NY-2.B, the Applicants accuse the State of failing to support its claim that HDI underestimates likely radiological and non-radiological contamination at Indian Point.[52] But the State in fact supports its claim with declarations from two DEC engineers with detailed knowledge of the site, both of whom believe the full extent of on-site contamination has yet to be determined.[53] Contamination at the site is likely not limited to the tritium and strontium plumes identified

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[49] *See* Seabrook, 49 N.R.C. at 219.

[50] *See* LTA at 17–18; Request for Exemptions from 10 C.F.R. §§ 50.75(h)(1)(iv) and 50.82(a)(8)(i)(A) (Feb. 12, 2020) (ML20043C539).

[51] South Carolina Elec. & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), 71 N.R.C. 350, 360–361 (2010) (internal quotation marks and citations omitted). The Commission has repeatedly held that an expert declaration is speculative or conclusory when it baldly asserts that an application is "deficient," "inadequate," or "wrong." *Id.* at 360. The detailed declarations by the State's experts suffer from no such defect.

[52] *See* Answer at 33.

[53] *See* Heitzman decl. ¶¶10, 12, 14–15; Rice decl. ¶¶4, 12, 17, 19, 22, 24. While the Applicants riposte that the site is extremely well characterized, *see* Answer at 32, they fail to explain, for example, how contractors working at such a well-studied site could have accidentally unearthed several large and leaking oil storage tanks while building the plant's ISFSI. *See* Heitzman decl. ¶16.

in the GZA reports.[54] As noted in the Rice declaration, decades of radioactive releases have contaminated structures and substructures, storm and process drains, surrounding soil and fill, preconstruction concrete mud mats and, notably, fractured bedrock around and beneath the plant. And the Brewer declaration explains how the discovery of additional, unexpected contamination at other power plant sites led to significant cost increases[55]—increases for which, as discussed above, HDI's contingency factor fails to adequately account.

On the question of site characterization, the State alleges—again with expert support—that HDI's avowed plan to characterize on-site contamination as decommissioning progresses only increases the risk that unexpected contamination will increase project costs.[56] The Applicants attempt to minimize the risk associated with HDI's failure to fully characterize the site by pointing to HDI's review of a consultant's report allegedly compiling historic site information.[57] The document the Applicants rely on is not a part of or appended to the application or the PSDAR; the State welcomes the opportunity to test its thoroughness at a hearing.[58]

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[54] While the Applicants argue ongoing groundwater monitoring shows the tritium and strontium plumes are slowly shrinking, *see* Answer at 35–36, the Rice declaration indicates, with reference to the 2008 GZA study, that monitoring results in fact indicate broad dispersion of radiological contamination "across much of the Indian Point site." Rice decl. ¶19.

[55] *See, e.g.*, Brewer decl. ¶¶24–26; *see also* Petition, Contention NY-2, ¶¶50–51 (describing significant cost increases during the Connecticut Yankee decommissioning process due, among other things, to the discovery of unforeseen radiological contamination in bedrock beneath the plant); Rice decl. ¶¶26–27.

[56] *See* Petition, Contention NY-2, ¶25

[57] *See* Answer at 37.

[58] To the extent the Applicants' historic site assessment is a review of historical documents current and former licensees were required to keep under 10 C.F.R. § 50.75(g), the State notes that the document retention requirement in that rule dates only to 1988. *See* 53 Fed. Reg. 24018, 24026 (June 27, 1988) ("Experience has shown that incomplete knowledge

The Applicants fail to engage with the State's arguments on the issue of state-law site restoration standards. The State does not, as the Applicants claim, "ask[ ] the NRC to take action on state administrative and regulatory matters."[59] Rather, the State simply points out that the Holtec LLCs have failed—admittedly—to consider state-law site restoration obligations, and that such failure materially undermines the reasonableness of the cost estimate. Because the Holtec LLCs are seeking an exemption to use decommissioning trust monies for site restoration purposes, questions relating to the accuracy of HDI's site restoration cost estimate are well within the scope of this proceeding. The Applicants concede that HDI estimated site restoration costs based on "current and/or *assumed*" requirements, and that the Holtec LLCs plan to remediate the Indian Point site to the 25-millirem NRC license termination standard only.[60] The State, however, explains in detail how state-law decommissioning requirements (flowing, among other things, from the New York State Public Service Commission orders approving the circa-2000 Consolidated Edison-to-Entergy license transfer and from DEC radiological remediation guidance) are stricter than the 25-millirem NRC standard.[61] The Applicants claim they have no regulatory obligation to consider the cost impacts associated with stricter state-law

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of facility design and history can result in significant difficulties and greatly underestimated costs at the time of decommissioning").

[59] *See* Answer at 45, 48.

[60] Answer at 45–46 (internal quotation marks and citation omitted).

[61] *See* Petition, Contention NY-2, ¶¶55–66. The Applicants' observation that the state 10-millirem remedial standard is "plainly inconsistent" with the NRC's 25-millirem license termination standard is true, at least insofar as 10 and 25 are different numbers. But as the Applicants well know, site remediation is governed by state law, not by NRC rules.

site restoration requirements,[62] but this argument misses the point: trust dollars the Holtec LLCs spend on site restoration are dollars that are unavailable to fund license termination or spent fuel management activities. The Holtec LLCs must accurately account for site restoration costs in order to show adequate radiological decommissioning and spent fuel management funding assurance. As the State notes, stricter state-law site restoration standards have significantly increased decommissioning costs at other plants.[63] The State's argument is thus neither (as the Applicants would have it) immaterial nor an impermissible collateral attack on the regulations. As the Commission has noted in a slightly different context: "Always in question . . . is whether the [a]pplicant's cost and revenue estimates are reasonable."[64]

The Applicants' attacks on the State's spent fuel management-related claims are likewise unconvincing. In Contention NY-2.E, the State argues that the Holtec LLCs unreasonably assume DOE will begin taking title to Indian Point's spent nuclear fuel by 2030.[65] And in Contention NY-2.F, the State argues that the HDI cost estimate excludes significant costs flowing from the need to either repackage spent fuel for transport by DOE or the converse need to reimburse DOE for packaging costs previously recouped in standard contract litigation.[66] The Holtec LLCs' assumptions in these areas are "seriously at odds with governing realities" and their cost estimate is thus unreasonable.[67]

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[62] *See* Answer at 46.
[63] *See* Petition, Contention NY-2, ¶69.
[64] Seabrook, 49 N.R.C. at 221.
[65] *See* Petition, Contention NY-2, ¶¶86–94.
[66] *See id.* ¶¶ 95–108.
[67] Seabrook, 49 N.R.C. at 222.

Taking the 2030 DOE recovery date first, the Applicants argue that they are entitled to rely on a 2013 DOE policy document predicting that a federal interim storage facility would be available by 2025.[68] The Applicants' reliance on this seven-year-old DOE policy document is not reasonable. As the State explained in its petition (and as DOE itself admits), DOE currently *lacks legal authority* under the Nuclear Waste Policy Act to construct and operate an interim storage facility.[69] The Holtec LLCs may attempt to assume this prohibition away, but no assumption is reasonable when the thing assumed is plainly contrary to law. Rather than dispute the State's claim, the Applicants argue that the State has not proved that "DOE *cannot* achieve its policy as a legal or technical matter."[70] Setting aside DOE's own claim to the contrary,[71] it is the *Applicants'* burden to base their cost estimates on reasonable assumptions, and an assumption that relies on illegal action by a federal agency is quite literally "at odds with governing realities."[72]

Just as they are wrong to assume DOE will begin taking title to spent fuel in 2030, the Applicants are wrong that the State's claims regarding spent fuel-related cost overruns are speculative.[73] The Brewer declaration explains, *using HDI's own cost estimate*, that spent fuel management costs across all three units will total

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[68] *See* Answer at 61–62.

[69] *See* Petition, Contention NY-2, ¶¶88, 93

[70] Answer at 64.

[71] *See* DOE, Report to Congress on the Demonstration of the Interim Storage of Spent Nuclear Fuel at 6–8 (2008), *available at* https://www.energy.gov/sites/prod/files/edg/media/ES_Interim_Storage_Report_120108.pdf.

[72] Seabrook, 49 N.R.C. at 222.

[73] *See* Answer at 64–65.

approximately $12 million annually beginning in 2034.[74] The Applicants do not meaningfully dispute this estimate. And taking the Applicants at their word that their spent fuel assumptions "generally align[ ]" with the 60-year storage period the NRC itself has found "most likely,"[75] spent fuel is likely to remain at Indian Point up to twenty years longer than HDI currently estimates.[76] Based on HDI's own calculations, additional unexpected costs could total some $240 million. In other words, this single faulty assumption could consume nearly the entirety of HDI's projected surplus.

Turning to the standard contract issue, the Applicants claim that HDI's cost estimate "fully accounts for all relevant costs related to transferring [spent nuclear fuel] to DOE *that are consistent with reasonable assumptions regarding future DOE performance*."[77] The State disputes that the Applicants' assumptions are reasonable. The Holtec LLCs assume they will be able to transfer Indian Point spent nuclear fuel to DOE as loaded in existing canisters,[78] but this assumption flies in the face of current DOE regulations. As the Court of Appeals for the Federal Circuit recently noted (in a case in which an Entergy affiliate was a party), under the existing standard contract DOE "*cannot accept*" existing canistered fuel as is, and utilities will thus

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[74] *See* Brewer decl. ¶32.

[75] *See* Answer at 63; NRC, Generic Environmental Impact for Continued Storage of Spent Nuclear Fuel, NUREG-2157 at xxx (Sept. 2014).

[76] Indeed, Entergy claimed in recent standard contract litigation that DOE was likely to *begin* performance in 2048, nearly twenty years later than the Applicants now claim and in line with what the NRC identified as the most likely scenario in the continued storage rule GEIS. *See* System Fuels, Inc. v. United States (System Fuels), 818 F.3d 1302, 1304 n.2 (Fed. Cir. 2016).

[77] Answer at 67 (emphasis added).

[78] *See* Answer at 69–70.

"incur costs to unload this fuel from the storage casks *and canisters* and to reload it into transportation casks if and when the DOE performs."[79] In other words, plant operators—including Entergy—have successfully recovered millions of dollars in contract damages from DOE on the theory that they will be forced to remove spent fuel from existing casks *and canisters* and reload it into new, DOE-approved transportation casks before DOE will take title to the fuel. As discussed above, the Applicants' convenient, contrary assumption is "seriously at odds with governing reality" for the simple reason that it is counter to existing law.[80] And as for cost, the State alleges, with expert and other documentary support, that the need to remove spent fuel from current storage canisters could cost hundreds of millions of dollars.[81]

Finally, the Applicants' arguments to the contrary notwithstanding, the State raises a genuine dispute of material fact regarding HDI's timeline for reactor pressure vessel and internals segmentation. The State alleges that HDI's one-year-per-reactor allotment for segmentation is unreasonably short.[82] The State supports its allegation with expert opinion from a nuclear engineer with extensive decommissioning experience.[83] The State's expert bases his conclusions, among other things, on his personal involvement in the Zion decommissioning project.[84] While the Applicants accuse the State of failing to provide specific technical comparisons between

[79] System Fuels, 818 F.3d at 1306 (emphasis added).
[80] Seabrook, 49 N.R.C. at 222.
[81] *See* Brewer decl. ¶30.
[82] *See* Petition, Contention NY-2, ¶124.
[83] *See* Brewer decl. ¶¶1–2.
[84] *See id.* ¶¶ 21–22.

Indian Point and other plants,[85] they fail to explain why the twin-PWR Zion plant is not an apt comparison. As the State notes, the Zion segmentation process took over two years *per unit*, or twice as long as originally anticipated.[86] The State's expert also notes that HDI itself recently announced a significant delay in the segmentation process at its recently acquired Pilgrim plant.[87]

As for the cost of such delay, the State, through its expert, makes a reasonable showing that delay of the sort likely to accrue at the segmentation phase could have a significant impact on overall project timeline and, therefore, cost.[88] Using the limited scheduling data available in HDI's cost estimate, the State's expert concluded that delay at the segmentation phase could increase costs by up to $110 million per year.[89] A multi-year delay of the sort experience at Zion and Connecticut Yankee (and, now, projected for Pilgrim) could thus add hundreds of millions of dollars to the cost to decommission Indian Point. The State having carried its burden, the Applicants' divergent opinion regarding the reasonableness of HDI's segmentation schedule and/or the cost impacts of any delay is now ripe for exploration at a hearing.

III. Contention NY-3 Is Admissible

Separately from the decommissioning and spent fuel management funding assurance questions addressed in Contentions NY-1 and NY-2, the State argues in Contention NY-3 that the Holtec LLCs fail to make the foundational showing that they

[85] *See* Answer at 73.
[86] *See* Brewer decl. ¶22.
[87] *See* Petition, Contention NY-2, ¶131; Brewer decl. ¶¶18–19.
[88] *See* Brewer decl. ¶
[89] *See id.* ¶¶19, 23.

are financially qualified to hold the Indian Point licenses.[90] Among other things, the Applicants fail to show that the newly formed, single-asset limited liability entities Holtec IP2 and Holtec IP3—entities with no revenue stream independent of the decommissioning trusts themselves—will have the independent financial ability to provide additional financial assurance as necessary (and stave off bankruptcy) in the event of a cost overrun.[91]

The Applicants disregard or mischaracterize the State's arguments in an attempt to deflect attention from the Holtec LLCs' obvious lack of financial qualification. For example, the State never claims that limited liability companies cannot hold NRC licenses,[92] nor does it challenge the adequacy of staff's review of the Indian Point license transfer application (which, as of this writing, is ongoing).[93] The State *does* challenge the Holtec LLCs' inadequate showing of financial qualification, particularly as it relates to their apparent inability to provide additional financial assurance. The State grounds its arguments in the detailed declaration of a finance and

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[90] *See, e.g.*, 10 C.F.R. §§ 50.33(f), 50.40(b).

[91] *See* Petition, Contention NY-3, ¶¶5–7, 11.

[92] While LLCs can hold NRC licenses, the NRC has long recognized that decommissioning planning for non-rate-regulated licensees "require[s] more direct NRC oversight over the decommissioning trust funds." NRC, Summary of Decommissioning Fund Status Reports, SECY-99-170 (July 1, 1999) (ML992800091). For this reason, the NRC has signaled its intent to review decommissioning-related issues in the license transfer context "on a case-by-case basis," imposing "appropriate conditions" as necessary. *See id.* When the Applicants argue that existing NRC rules obviate the need for a rigorous showing of financial qualification, they are seeking to avoid this case-specific review.

[93] *See* Answer at 84. The Applicants also accuse the State of "complaining that proprietary material has been withheld." *See id.* The State notes that it repeatedly requested access to an unredacted copy of the Applicants' membership interest sale and purchase agreement, as it was required to do under the terms of the NRC's notice of complete application. *See* 85 Fed. Reg. 3947, 3950 (Jan. 23, 2020). The Applicants rejected the State's proposed non-disclosure agreement and declined to provide access to the requested document.

economics expert with decades of experience managing environmental risk and designing financial assurance frameworks.[94] And the Applicants are simply wrong to claim that the financial qualifications issues raised in Contention NY-3 are beyond the scope of this proceeding: as the Commission has observed, "NRC review of license transfer applications 'consists largely of assuring that the ultimately licensed entity has the capability to meet financial qualification and decommissioning funding aspects of NRC regulations.'"[95] Contentions raising questions of financial qualification "go to the very heart" of the proceeding.[96]

The Applicants claim Holtec IP2 and Holtec IP3 are financially qualified because they will have access to the Indian Point decommissioning trust funds (which, they allege, are adequate to the task). The Applicants further claim the State collaterally attacks the NRC's decommissioning funding assurance rules by seeking financial assurance beyond what is required by the regulations.[97] But the Applicants conflate the requirement that the Holtec LLCs demonstrate adequate decommissioning funding assurance (by, for example, prepaying their decommissioning obligations under 10 C.F.R. § 50.75(e)(1)(i)) and the *separate* requirement that the LLCs establish their financial qualification to hold the Indian Point licenses. Even assuming the Holtec LLCs have established adequate decommissioning funding assurance (which they have not), the Commission has never held that an adequate showing of decommissioning funding assurance under 10 C.F.R. § 50.75 demonstrates a would-be

[94] *See* Trabucchi decl. ¶¶ 1–6; exhibit A.
[95] Seabrook, 49 N.R.C. at 219, quoting 63 Fed. Reg. 66721, 66724 (Dec. 3, 1998).
[96] *Id.*
[97] *See* Answer at 88.

licensee's financial qualification as a matter of law.[98]

Relying solely on the trusts, the Applicants ignore the State's argument—supported by its financial expert—that the consolidation of decommissioning-related liabilities in one corporate family compounds financial risk.[99] And though the Applicants discount the very real possibility of a funding shortfall by arguing that the Holtec LLCs would be required under NRC rules to provide additional financial assurance,[100] they never engage with the State's argument—again supported by its financial expert—that the trust-dependent Holtec LLCs have no ability to purchase additional financial assurance instruments in the event of a shortfall, or the State's further argument that an eventual Holtec LLC bankruptcy would shift decommissioning and site restoration costs to the State. Nor do the Applicants dispute that the NRC lacks authority to shift Indian Point-related obligations to corporate parents or—perhaps most glaringly—commit that Holtec International will backstop any (or even some) cost overruns. Instead, the Applicants point to dicta from the Commission's *Seabrook* decision for the proposition that they need not provide "absolute certainty" in their financial projections.[101] But the Applicants never claim that revenueless Holtec IP2 or Holtec IP3 will have access to the funds necessary to comply with the NRC's decommissioning rules in the likely event the Indian Point trusts are

[98] That NRC staff approved applications to transfer the Oyster Creek and Pilgrim licenses is irrelevant. The would-be intervenor in the Oyster Creek proceeding did not make the arguments New York makes now, and so the Commission's rejection of that petition is no precedential bar. And the Commission has yet to address the Commonwealth's petition to intervene in the Pilgrim proceeding.

[99] *See* Petition, Contention NY-3, ¶¶7, 12–13, 15–16.

[100] *See* Answer at 87.

[101] Answer at 86.

inadequate. To the State's point, far from absolute certainty, the Applicants provide no certainty at all.

Rate-regulated utilities that experience decommissioning cost overruns can seek (and have sought) rate increases to cover additional costs. And merchant licensees at least have the revenue generated by the sale of electricity to help fund likely decommissioning obligations. But prospective decommissioning-only licensees like Holtec IP2 and Holtec IP3 have neither the ability to seek a rate increase nor the benefit of a reliable revenue stream. Instead, having no assets of their own, they rely solely and exclusively on the ratepayer monies set aside in the plant's nuclear decommissioning trusts. Even if the trust monies are adequate to the task—which, with regard to Indian Point, the State strongly disputes—decommissioning licensees like Holtec IP2 and Holtec IP3 must show that they are financially qualified to complete complex and uncertain decommissioning and site restoration processes and safely manage spent nuclear fuel for as long as necessary, *even if* they encounter unexpected cost overruns. The Holtec LLCs fail to rebut the State's well-supported, relevant, and material claim that their financial resources are insufficiently diversified to meet unexpected financial challenges, and this issue should be explored at a hearing.

To the extent the Applicants argue that Holtec IP2 and Holtec IP3's likely DOE recoveries for spent fuel management costs constitute an additional revenue stream and a conservatism in HDI's cost estimate,[102] the State notes that the Holtec LLCs make no commitment to use these future recoveries as a source of financial assurance.

[102] *See* Answer at 88–89.

Far more likely (and in the absence of a license condition requiring otherwise), the Holtec LLCs will treat these recoveries as corporate profit. Once the recoveries are disbursed to the Holtec LLCs' shareholders, they are no longer available to the LLCs and are therefore irrelevant for purposes of financial qualification. If the Holtec LLCs wish to rely on future DOE recoveries as a source of revenue for financial qualification purposes, they should commit to and/or be required to keep those recoveries, at least in part, in a supplemental trust or other instrument designed to ensure their availability if and when additional funds are needed.[103]

The Applicants disingenuously rely on staff's safety evaluation report in the Vermont Yankee (VY) license transfer proceeding for the proposition that NRC considers DOE recoveries to be a reliable revenue stream.[104] In the VY transaction, the prospective decommissioning licensee sought an exemption (as do the Holtec LLCs here) to use nuclear decommissioning trust monies to fund its spent fuel management obligations. Staff granted that exemption, but only on the conditions that the licensee withdraw limited amounts from the trust (up to $20 million on a revolving basis) and that it *reimburse the trust* with monies recovered from DOE.[105] Staff found that the DOE recoveries were a reasonable mechanism *for reimbursing the trust*. Here, to the contrary, the Holtec LLCs make no commitment to reimburse the trust using expected DOE recoveries, and so those recoveries cannot be treated as an additional

[103] Even if the Holtec LLCs were to make such a commitment now, it would not defeat admission of the State's contention at the filing stage. *See* Arizona Pub. Serv. Co. (Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3), 34 N.R.C. 149, 156 (1991).

[104] *See* Answer at 89–90.

[105] See VY License Transfer SER at 13 (ML18242A639).

revenue source for financial qualification or decommissioning funding assurance purposes.[106] In any event, far from showing Contention NY-3 is inadequately pleaded, the Applicants' engagement on the financial qualifications issue demonstrates the existence of factual and legal disputes appropriate for resolution at a hearing.

CONCLUSION

For the foregoing reasons, and for the reasons stated in the State's petition for leave to intervene, the Commission should grant the State's petition and associated request for hearing.

Respectfully submitted,

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[106] The Applicants likewise butcher the State's argument about commingling. The State does not argue that the Holtec LLCs will violate NRC rules by seeking to withdraw trust monies at one site for expenses incurred at another site. Rather, the State argues—again with expert support—that reimbursements for legitimate decommissioning expenses at different facilities may be commingled within HDI upon receipt, possibly presenting HDI with an opportunity to use those (legitimately obtained) reimbursements to offset costs at a different facility. Only robust HDI internal controls, not NRC rules, would prevent this eventuality. The State is not criticizing HDI or impugning its integrity; the State simply observes that the license transfer application fails to satisfactorily address this potential area of financial risk.

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

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC.; ENTERGY NUCLEAR INDIAN POINT 2, LLC; ENTERGY NUCLEAR INDIAN POINT 3, LLC; HOLTEC INTERNATIONAL; and HOLTEC DECOMMISSIONING INTERNATIONAL, LLC; APPLICATION FOR ORDER CONSENTING TO TRANSFERS OF CONTROL OF LICENSES AND APPROVING CONFORMING LICENSE AMENDMENTS	Docket Nos.: 50-3 50-247 50-286 72-051

(Indian Point Nuclear Generating Station)

CERTIFICATION OF SERVICE

Pursuant to 10 C.F.R. § 2.305, I certify that I served the foregoing Reply in Support of the State of New York's Petition for Leave to Intervene and for a Hearing in the above-captioned proceeding via the NRC's Electronic Information Exchange on this 23rd day of March, 2020.

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