

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of )	Docket Nos. 50-247-LR and
ENTERGY NUCLEAR OPERATIONS, INC. )	50-286-LR
(Indian Point Nuclear Generating Units 2 and 3) )	
	May 3, 2013

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**ENTERGY'S REPLY TO NEW YORK STATE FINDINGS OF FACT AND  
CONCLUSIONS OF LAW FOR CONTENTION NYS-17B (PROPERTY VALUES)**

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Pursuant to the Atomic Safety and Licensing Board’s (“Board”) February 28, 2013 Order,<sup>1</sup> Entergy Nuclear Operations, Inc. (“Entergy”) submits its Reply to the New York State (“New York”) Findings of Fact and Conclusions of Law on New York Contention 17B (“NYS-17B”). These Reply Findings and Conclusions are based on the evidentiary record in this proceeding, and are set out in numbered paragraphs, with corresponding citations to the record of this proceeding.

**I. INTRODUCTION**

1. On March 22, 2013, Entergy, the U.S. Nuclear Regulatory Commission (“NRC” or “Commission”) Staff, and New York filed proposed findings of fact and conclusions of law on NYS-17B.<sup>2</sup> NYS-17B raises a National Environmental Policy Act (“NEPA”) challenge to

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<sup>1</sup> Licensing Board Order (Granting Parties Joint Motion for Alteration of Filing Schedule) at 1 (Feb. 28, 2013) (unpublished).

<sup>2</sup> Entergy’s Proposed Findings of Fact and Conclusions of Law for Contention NYS-17B Property Values (Mar. 22, 2013) (“Entergy Proposed Findings”), *available at* ADAMS Accession No. ML13081A764; NRC Staff’s Proposed Findings of Fact and Conclusions of Law Part 7: New York State Contentions NYS-17B, NYS-17A and NYS-17B (Real Estate Values) (Mar. 22, 2013), *available at* ADAMS Accession No. ML13081A681; State of New York’s Proposed Findings of Fact and Conclusions of Law Regarding Contention NYS-17B (Mar. 22, 2013) (“New York Proposed Findings”), *available at* ADAMS Accession No. ML13081A753.

whether the NRC Staff Final Supplemental Environmental Impact Statement (“FSEIS”)<sup>3</sup> adequately examines and discloses the potential for substantial, positive offsite land-use and property value impacts that New York claims would result under the “no-action alternative.”

2. In its Proposed Findings, and as described further in Section II below, New York makes broad assertions that lack evidentiary support, inaccurately describes the record, frequently fails to acknowledge contrary testimony or evidence, and advocates for analysis directly contrary to New York’s own practice under the state-equivalent of NEPA. As a threshold matter, NEPA only requires analysis of impacts that directly result from an actual impact to the physical environment.<sup>4</sup> New York, however, never makes the required connection between any physical impacts and the alleged property value changes. Instead, New York simply juxtaposes a list of purported physical impacts (*e.g.*, noise, aesthetic, traffic, and radiological leaks to groundwater) with its property value impact claim.<sup>5</sup> But New York never establishes the environmental significance of these physical impacts or that these physical impacts actually caused the historic property value impacts allegedly found by its expert, Dr. Stephen C. Sheppard. Therefore, as a matter of law, NEPA does not require any further consideration of property value impacts.

3. Assuming, however, that it were necessary to address property value impacts associated with license renewal, the Commission’s Generic Environmental Impact Statement

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<sup>3</sup> NUREG-1437, Supp. 38, Generic Environmental Impact Statement of License Renewal of Nuclear Plants, Regarding Indian Point Nuclear Generating Units Nos. 2 and 3, Final Report (Dec. 2010) (“FSEIS”) (NYS00133A-J).

<sup>4</sup> *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 772-74 (1983). This standard was recently affirmed by the D.C. Circuit in a case involving New York and the NRC. *See New York v. NRC*, 681 F.3d 471, 482 (D.C. Cir. 2012) (noting that the NRC was not required to consider property value impacts because the petitioner (New York) failed to show whether and how those property value impacts are “related to a change in the physical environment”).

<sup>5</sup> *See* New York Proposed Findings at 40-42 (¶¶ 120-24).

(“GEIS”) already does so.<sup>6</sup> New York incorrectly dismisses the GEIS analysis as irrelevant even though the GEIS analyzes Indian Point Energy Center’s (“Indian Point” or “IPEC”) property value impacts.<sup>7</sup> New York also incorrectly claims that the GEIS is consistent with its position that Indian Point has significant property value impacts,<sup>8</sup> distorting the broadly-founded overall conclusion in the GEIS that Indian Point has had no such impact.<sup>9</sup> Consistent with the GEIS conclusion, the NRC Staff’s environmental standard review plan, NUREG-1555, Supplement 1, directs the Staff to focus on issues it could not generically resolve in the GEIS—namely, population-driven and tax-driven land-use impacts.<sup>10</sup> New York has not specifically and substantially supported its challenge to the FSEIS by explaining why or how the FSEIS evaluation is materially inconsistent with the Staff’s well-established guidance, which is accorded special weight.<sup>11</sup>

4. Even if New York were not required to overcome the special weight accorded to NRC Staff guidance, based on this proceeding’s entire record, there is insufficient evidence to conclude that the no-action alternative would cause a substantial increase in property values. On this issue, New York misconstrues the widely-differing expert opinions about the validity and conclusions of competing methodologies for estimating property value impacts, and fallaciously claims that it is “*undisputed* that Indian Point’s impact on housing is LARGE.”<sup>12</sup> Saying a fact is

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<sup>6</sup> See NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants at 4-101 to 4-103 (May 1996) (“GEIS”) (NYS00131B); *id.* at C-84 to -85 (NYS00131G).

<sup>7</sup> See New York Proposed Findings at 32 (¶ 99).

<sup>8</sup> See *id.* at 35-37 (¶¶ 103-08).

<sup>9</sup> GEIS at 4-103 (NYS00131B); *id.* at C-84 to -85 (NYS00131G) (summarizing the GEIS Indian Point-specific case study).

<sup>10</sup> NUREG-1555, Supp. 1, Standard Review Plans for Environmental Reviews for Nuclear Power Plants: Operating License Renewal at 4.4.3-4 (Oct. 1999) (“NUREG-1555, Supp. 1”) (ENT00019B).

<sup>11</sup> See, e.g., *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-05, 75 NRC \_\_\_, slip op. at 16 n.78 (Mar. 8, 2012).

<sup>12</sup> New York Proposed Findings at 37 (¶ 109) (emphasis added).

“undisputed” does not make it so. New York only reaches this conclusion by dismissing testimony from Entergy’s expert, Dr. George S. Tolley, that made clear that Dr. Sheppard’s \$1.07 billion property value gain was based on a repeat-sale analysis with flawed assumptions and that contravened generally-accepted economic methods.<sup>13</sup>

5. New York also ignores that Dr. Tolley performed *two* Indian Point-specific property value assessments using the widely-accepted hedonic economic modeling approach—one that used the Multiple Listing Service (“MLS”) data set he assembled, and a second that used the same Assessor data set that Dr. Sheppard assembled.<sup>14</sup> Notably, New York does not mention—let alone challenge—Dr. Tolley’s hedonic analysis using Dr. Sheppard’s Assessor data, even though that analysis does not show that Indian Point operations adversely impact property values.<sup>15</sup> New York also mischaracterizes Dr. Tolley’s MLS hedonic analysis, which also provides no support for New York’s theory that Indian Point operations adversely impact property values.<sup>16</sup>

6. Additionally, the record also shows that even if one assumed Dr. Sheppard’s billion-dollar property value impact was correct—which it clearly is not—the no-action alternative would result in a net negative property value impact compared to license renewal because the near-term loss of Entergy’s payments-in-lieu-of-taxes (“PILOT”) outweighs Dr. Sheppard’s alleged property value impacts that would occur many decades later.<sup>17</sup>

7. Finally, even assuming the no-action alternative would lead to increases in surrounding property values, New York points to no evidence that such increases would drive

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<sup>13</sup> See Section II.E.1 *infra*.

<sup>14</sup> See Section II.E.2 *infra*.

<sup>15</sup> See Section II.E.2.a *infra*.

<sup>16</sup> See Section II.E.2.b-f *infra*.

<sup>17</sup> See Section II.E.3 *infra*.

any reasonably foreseeable offsite land-use impacts requiring consideration under NEPA. Again, New York inaccurately claims that it is “*undisputed* that property values determine land use.”<sup>18</sup> To the contrary, Entergy and NRC Staff testimony directly contradicts New York’s claim that it is appropriate to automatically equate property value and land-use impacts.<sup>19</sup> This testimony, along with the Indian Point-specific study included in the GEIS and more recent, uncontested information in local land-use plans, fundamentally undermines New York’s claim that there are unexamined, non-speculative, and significant land-use impacts under the no-action alternative. For significant land-use changes to occur, numerous uncertain future steps by unknown third parties would have to take place many decades in the future, including zoning changes, shutting down other nearby industrial facilities, and then developing surrounding properties. Because such long-term, significant future land-use changes are both contrary to historic development patterns and current local land-use plans, such possible changes are remote and speculative and thus need not be considered under NEPA.<sup>20</sup>

8. For the reasons fully set forth below, and for those expressed in the NRC Staff’s and Entergy’s Proposed Findings, the NRC Staff and Entergy carried their respective burdens of proof. Based on the entire evidentiary record of this proceeding, the NRC has satisfied its NEPA obligations under 10 C.F.R. Part 51 with respect to NYS-17B. Nothing in New York’s Proposed Findings alters these fundamental conclusions. The Board should therefore resolve NYS-17B in favor of the NRC Staff and Entergy.

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<sup>18</sup> New York Proposed Findings at 24 (¶ 79) (emphasis added).

<sup>19</sup> See Section II.F *infra*.

<sup>20</sup> See *Soc’y Hill Towers Ass’n v. Rendell*, 210 F.3d 168, 182 (3d Cir. 2000); *USEC Inc. (Am. Centrifuge Plant)*, CLI-06-10, 63 NRC 451, 466-69 (2006).

## II. REPLY TO NEW YORK'S PROPOSED FINDINGS

### A. New York Incorrectly Claims That the Board's Decision Cannot Supplement or Amend the FSEIS

9. As a threshold legal issue, New York incorrectly claims that the Board's decision cannot supplement or amend the FSEIS based on the hearing record.<sup>21</sup> According to New York, supplementing or amending the FSEIS through the Board's initial decision is contrary to NEPA and NRC's NEPA regulations.<sup>22</sup> As discussed below, this argument ignores binding precedent and, if adopted, would likely establish an indefinite cycle of litigation over the FSEIS's adequacy.

10. New York's assertion that the FSEIS cannot be supplemented or revised based on the hearing record ignores binding Commission precedent.<sup>23</sup> This precedent clearly mandates that if the entire record of this proceeding (including the hearing record) contains sufficient information to allow for an adequate environmental analysis of the issues raised in a contention, then the FSEIS, as supplemented and/or modified by Board's decision, will constitute the NRC's NEPA record of decision.<sup>24</sup> As such, there is no need or basis for the Board to remand any and all FSEIS deficiencies or modifications to the NRC Staff so that it may prepare an FSEIS supplement that is circulated for public comment and that is subject to challenge in new or amended contentions.<sup>25</sup>

11. New York argues that the Commission's deliberate elimination of an earlier regulation, 10 C.F.R. § 51.52 (1983), "that permitted licensing boards to 'modify the content' of

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<sup>21</sup> See New York Proposed Findings at 82-92 (¶¶ 222-240).

<sup>22</sup> See *id.*

<sup>23</sup> See Entergy Proposed Findings at 46-53 (¶¶ 83-97).

<sup>24</sup> See *id.*

<sup>25</sup> See, e.g., *Hydro Res., Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 53 (2001) (explaining that "the hearing process itself 'allows for additional and . . . more rigorous public scrutiny of the [FSEIS] than does the usual 'circulation for comment'").

an [FSEIS] precludes any suggestion that post hoc supplementation by the Board might be available to cure deficiencies in the challenged FSEIS.”<sup>26</sup> The *Limerick* Appeal Board rejected this argument in ALAB-819.<sup>27</sup> In that case, an intervenor argued, like New York does here, that the Commission’s decision to not readopt the “deemed modified” language in 10 C.F.R. § 51.52 (1983) when it promulgated a new regulation, 10 C.F.R. § 51.102, as part of a 1984 rulemaking, means that any NEPA deficiency can only be cured by recirculating the FSEIS for public comment.<sup>28</sup> The Appeal Board held that “section 51.102 serves the same purpose as its differently worded predecessor, section 51.52(b)(3)” and, “[o]n its face, 10 C.F.R. § 51.102 thus merges the [FSEIS] with any relevant licensing board decision to form the complete environmental record of decision—just as former 51.52(b)(3) did.”<sup>29</sup> Further, the Appeal Board noted that nothing in current 10 C.F.R. § 51.102 “precludes modification of an [FSEIS] by licensing board decision.”<sup>30</sup>

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<sup>26</sup> New York Proposed Findings at 82 (¶ 222), 84 (¶ 225).

<sup>27</sup> *Phila. Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 705-07 (1985), *aff’d in part and review otherwise declined*, CLI-86-5, 23 NRC 125 (1986), *remanded in part on other grounds sub nom. Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719 (3d Cir. 1989). Appeal Board precedent is binding on the Board. *See Entergy Nuclear Operations, Inc. (James L. FitzPatrick Nuclear Power Plant)*, CLI-08-19, 68 NRC 251, 260 n.23 (2008) (citing *Sequoyah Fuels Corp. (Gore, OK, Site)*, CLI-94-11, 40 NRC 55, 59 n.2 (1994)).

<sup>28</sup> *See Limerick*, ALAB-819, 22 NRC at 705-06.

<sup>29</sup> *Id.* at 706. In addition to the lack of support for New York’s argument in the case law, nothing in the regulatory history of 10 C.F.R. § 51.102 or its predecessor suggests that the NRC “lacks the power” to follow its longstanding practice of using adjudicatory decisions to modify the Staff’s NEPA analyses. New York Proposed Findings at 84 (¶ 225).

<sup>30</sup> *Limerick*, ALAB-819, 22 NRC at 706. Contrary to this holding, New York also argues that 10 C.F.R. § 51.103(c) does not explicitly authorize the Board to incorporate by reference material in the hearing record and thus precludes supplementation because the Board’s decision will not “include” testimony or exhibits. New York points to nothing in NEPA (or any general administrative law principle) requiring that an agency decision actually “include” all underlying documents. To the contrary, agencies are encouraged to summarize relevant materials in their NEPA documents rather than simply wholesale include voluminous materials. *See* 10 C.F.R. Part 51, App. A, § (b); 40 C.F.R. § 1502.21. Nor does anything in 10 C.F.R. § 51.103(c) (or in any other regulation) preclude the Board’s decision from including, as appropriate, relevant material from the hearing record in its decision. In fact, the parties proposed findings all request that the Board do just that and integrate relevant evidence into an initial decision.

12. Although New York cites ALAB-819, it does so only to claim that it, and later Commission decisions, are “inconsistent” with 10 C.F.R. § 51.102(c) and NEPA.<sup>31</sup> ALAB-819, however, sets forth a contrary interpretation of both 10 C.F.R. § 51.102(c) and NEPA that is binding on this Board.<sup>32</sup> Moreover, even aside from ALAB-819, New York ignores the numerous more recent decisions that continue to endorse the holding that it is entirely proper for an adjudicatory decision to supplement or amend an FSEIS.<sup>33</sup> Thus, the governing case law is clear that the Commission’s NEPA regulations allow an adjudicatory decision to supplement or amend an FSEIS. And although New York attempts to narrowly distinguish the D.C. Circuit decision in *Nuclear Info. & Res. Serv. v. NRC* as not interpreting NRC’s NEPA regulations, it ignores the court’s holding that the administrative record in that case, including the hearing record, showed that the NRC “plainly met its NEPA obligation to take a ‘hard look’ at the environmental consequences.”<sup>34</sup>

13. Rather than fully acknowledge the considerable precedent that is directly adverse to its position, New York cites to general federal NEPA principles and non-binding cases

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<sup>31</sup> New York Proposed Findings at 89 (¶ 235).

<sup>32</sup> See *FitzPatrick*, CLI-08-19, 68 NRC at 260 n.23; *Sequoyah Fuels*, CLI-94-11, 40 NRC at 59 n.2.

<sup>33</sup> See Entergy Proposed Findings at 48-49 (¶¶ 87-89) (citing *Nuclear Innovation North America LLC* (South Texas Project, Units 3 & 4), CLI-11-6, 74 NRC \_\_\_, slip op. at 8 n.33 (2011); *Pac. Gas & Elec. Co.* (Diablo Canyon Power Plant Indep. Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526-27 n.87 (2008); *Dominion Nuclear N. Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 230 n.79 (2007); *Hydro Res.*, CLI-01-04, 53 NRC at 53; *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-12-01, 75 NRC \_\_\_, slip op. at 30 (Feb. 9, 2012); *La. Energy Servs. L.P.* (Nat’l Enrichment Facility), CLI-06-15, 63 NRC 687, 707 n.91 (2006); *La. Energy Servs., L.P.* (Nat’l Enrichment Facility), CLI-05-28, 62 NRC 721, 731 (2005); *La. Energy Servs., L.P.* (Claiborne Enrichment Ctr.), CLI-98-3, 47 NRC 77, 87-89 (1998); *S. Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613 (2009)). New York attempts, unsuccessfully, to distinguish two of these nine decisions: CLI-98-3 and CLI-06-15. See New York Proposed Findings at 88-89 (¶¶ 233-35 & n.14). All of these cases show that an adjudicatory decision may modify or supplement an FEIS in all types of NRC proceedings regardless of the whether the NRC ultimately regulates the environmental impact at issue. Indeed, in this case, as in CLI-06-15, the Commission does not regulate the environmental concern at issue, offsite land use. See *id.* at 88 (¶ 233) (noting that CLI-06-15 involved the environmental impacts of an issue not regulated by the Commission—depleted uranium disposal). Nor is there any significant difference between the procedural posture of this proceeding and the purportedly “highly specific” circumstances in CLI-98-3. See *id.* at 89 (¶ 235 n.14).

<sup>34</sup> *Nuclear Info. & Res. Serv. v. NRC*, 509 F.3d 562, 569 (D.C. Cir. 2007).

involving other agencies.<sup>35</sup> But the U.S. Courts of Appeals, across multiple circuits, have consistently upheld the NRC's practice as consistent with the Atomic Energy Act<sup>36</sup> and NEPA.<sup>37</sup> New York attempts to dismiss some of these cases as inapplicable because they were decided under a superseded version of 10 C.F.R. § 51.52.<sup>38</sup> However, as the *Limerick* Appeal Board held, "[t]here is no reason to believe that the courts would not be just as approving of the same procedure today, either as embodied in section 51.102 or, indeed, in the absence of any regulation, as a matter of board practice."<sup>39</sup>

14. New York argues that the Commission's practice of supplementing the NEPA record with its adjudicatory decisions is akin to impermissible *post hoc* rationalizations that courts have rejected,<sup>40</sup> but these cases are readily distinguished. This hearing is part of the NRC's decisionmaking process, not a judicial review of the NRC's decision. The NRC has not yet issued renewed licenses for Indian Point and the hearing record is an element of the overall record of the NRC's decision. In contrast, in *Pennaco Energy v. U.S. Dep't of Interior*, the

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<sup>35</sup> Appeals Boards have readily distinguished these cases, holding that they are inapplicable to the NRC hearing process. See *Entergy Proposed Findings* at 52-53 (¶¶ 94-96). Similarly, the potential supplementation of the record through the Board's decision does not violate the general NEPA principles recited in New York's new cases. See *Brodsky v. NRC*, 704 F.3d 113, 119 (2d Cir. 2013); *Sierra Club v. Watkins*, 808 F. Supp. 852, 858 (D.D.C. 1991); *South Fork Band Council of W. Shoshone v. U.S. Dep't of Interior*, 588 F.3d 718, 726 (9th Cir. 2009).

<sup>36</sup> *Nuclear Info. & Res. Serv.*, 509 F.3d at 562 (holding that supplementing an EIS through the hearing record does not violate the Atomic Energy Act).

<sup>37</sup> See *id.* at 568-69; *Citizens for Safe Power, Inc. v. NRC*, 524 F.2d 1291, 1294 n.5 (D.C. Cir. 1975) (holding that the "deemed modified" principle did not depart "from either the letter or the spirit" of NEPA); *Ecology Action v. AEC*, 492 F.2d 998, 1001-02 (2nd Cir. 1974) (omissions from an FEIS can be cured by subsequent consideration of the issue in an agency hearing); *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 94 (1st Cir. 1978) (having "no trouble finding" that the NRC's supplementation process satisfies NEPA); see also *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 & 2), CLI-78-1, 7 NRC 1 (1978).

<sup>38</sup> See New York Proposed Findings at 90 (¶ 237 n.15-16).

<sup>39</sup> *Limerick*, ALAB-819, 22 NRC at 706-07.

<sup>40</sup> See, e.g., New York Proposed Findings at 85-86 (¶ 229).

affidavit at issue in that case was prepared and submitted to the Interior Board of Land Appeals (“IBLA”) *after* the agency had acted by completing the disputed lease sale.<sup>41</sup>

15. Furthermore, there is no merit to New York’s specter of harm that would ostensibly result from allowing supplementation or amendment of the FSEIS in this case.<sup>42</sup> First, in arguing that it would be unclear which part of the record the Board decision was relying upon to cure any NEPA deficiency,<sup>43</sup> New York overlooks that the Board is more than capable of writing a clear decision with citations to the record. Second, New York’s claim that any supplemental information would not necessarily have been meaningfully analyzed by the NRC Staff<sup>44</sup> ignores that Commission regulations authorize the Board—not the NRC Staff—to resolve NEPA disputes through the hearing process and that the Staff fully participated in that process as a party.<sup>45</sup> Third, the Commission has already rejected the argument that supplementation is inconsistent with NEPA’s public participation process because the hearing process allows for

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<sup>41</sup> See *Pennaco Energy v. U.S. Dep’t of Interior*, 377 F.3d 1147, 1152 (10th Cir. 2004). The *Pennaco* decision and the other IBLA cases cited by New York are inapplicable for a variety of additional reasons: (1) the 10th Circuit’s decisions are not binding outside of that circuit; (2) nothing in the IBLA jurisprudence undermines the validity of the NRC’s processes under NEPA; and (3) New York’s interpretations of the IBLA decisions are oversimplified and gloss over significant internal disputes over the interpretation of IBLA’s precedent. See, e.g., *Wyoming Outdoor Council*, 158 IBLA 155, 171 (IBLA 2003) (“While the Board may look to post-EA [environmental assessment] generated materials in search of BLM’s ‘hard look,’ those materials, *in this case*, present unresolved water quality issues.”) (emphasis added); see also *id.* at 177 (Admin. J. Grant, dissenting) (“In evaluating whether BLM has taken a hard look at environmental impacts necessary to support a FONSI, this Board has found it proper to consider the entire record including comments, responses, and analysis generated before and after the EA was prepared”); see also *id.* at 180 (“while on appeal the appellants have made many assertions . . . these concerns have been addressed in the record, and when viewed in its entirety, the record supports the FONSI . . .”).

<sup>42</sup> See New York Proposed Findings at 90-91 (¶ 238) (arguing that supplementation would be “fraught with problems”).

<sup>43</sup> See *id.*

<sup>44</sup> See *id.*

<sup>45</sup> See 10 C.F.R. §§ 2.1202(b)(2)-(3), 51.104(a)(2)-(3). Contrary to New York’s focus on the NRC Staff, NEPA “is addressed to agencies as a whole, not only to their professional staffs.” *Calvert Cliffs’ Coordinating Comm. v. AEC*, 449 F.2d 1109, 1118 (D.C. Cir. 1971).

*greater* public participation than NEPA otherwise requires.<sup>46</sup> Fourth, contrary to New York’s argument, NEPA does not preclude supplementation because it would mean that “all the pertinent environmental information would no longer appear in one document.”<sup>47</sup>

16. Finally, New York’s proposal would elevate form over substance and would likely undermine the efficient resolution of this adjudicatory proceeding. Surely, any change in the FSEIS—particularly one that is fully documented in the hearing record—does not require the publication of an FSEIS supplement for comment and subsequent hearing opportunity. If it did, then the result could be an endless series of challenges, hearings, and FSEIS supplements. Drawing out the NEPA review in such an indefinite fashion would undermine the Commission’s goals of an efficient, stable, and predictable regulatory process for license renewal.<sup>48</sup> It would also undermine NEPA’s ultimate purpose, which is not better documents but better decisions.<sup>49</sup>

17. In summary, this adjudicatory proceeding is not isolated from the requisite “hard look” required of the NRC by NEPA; it is a key part of it. The Board must follow binding NRC precedent and reject New York’s claim that “no ‘adjudicatory findings’ could cure” the defects New York purports to identify.<sup>50</sup> As discussed below and detailed in Entergy’s and NRC Staff’s

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<sup>46</sup> *Hydro Res.*, CLI-01-04, 53 NRC at 53. For this same reason, New York incorrectly relies on the Board’s decision granting New York summary disposition on NYS-35/36 as support for its claim that a remand to the NRC Staff is the appropriate remedy for any NEPA deficiency. *See* New York Proposed Findings at 91 (¶ 239). That decision is distinguishable because resolution of that contention did not involve an evidentiary hearing (*i.e.*, there was no public airing of the issues). Entergy also respectfully notes that it believes that Board erred in that decision.

<sup>47</sup> To the contrary, NEPA allows agencies to rely on environmental analyses in multiple documents. *See, e.g.*, 10 C.F.R. Part 51, App. A, § (b) (authorizing tiering and incorporation by reference).

<sup>48</sup> *See* Final Rule, Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,461 (May 8, 1995); Proposed Rule, Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 74 Fed. Reg. 38,117, 38,118 (July 31, 2009).

<sup>49</sup> 40 C.F.R. § 1500.1(c) (“Ultimately, of course, it is not better documents but better decisions that count. NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.”).

<sup>50</sup> *See* New York Proposed Findings at 88 (¶ 233).

Proposed Findings, to the extent any further NEPA analysis is required beyond the FSEIS for this contention, there is ample information in the record from which Board can draw to supplement the FSEIS.

**B. Issues Not Disputed By New York**

18. As an initial matter, it is important to note that there are several relevant conclusions and findings on which Entergy and New York agree, or that New York does not challenge. Importantly, New York does not challenge that Entergy's witnesses, Mr. Donald P. Cleary, Mr. C. William Reamer, and Dr. Tolley are qualified to testify as experts on the issues raised in NYS-17B.<sup>51</sup> In particular, New York does not dispute that Dr. Tolley has been a highly-respected practicing economist for more than fifty years, is well-versed in the economic techniques used to perform hedonic and repeat-sales analyses, and authored or co-authored some of the seminal economic publications in this area.<sup>52</sup> Nor does New York dispute that NRC Staff's witnesses, Mr. Jeffrey J. Rikhoff, Mr. Andrew L. Stuyvenberg, and Mr. John P. Boska, are qualified to testify as experts on the issues raised in NYS-17B.<sup>53</sup>

19. New York also does not dispute key facts relating to two fundamental issues. The first concerns whether there is a direct relationship between any changes to the physical environment resulting from the no-action alternative and New York's alleged property value impact.<sup>54</sup> New York claims that Indian Point has physical impacts on the environment that adversely affect property values (including noise, aesthetic, traffic, and spent fuel pool leak

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<sup>51</sup> See Entergy Proposed Findings at 54-56 (¶¶ 98-102).

<sup>52</sup> See Supplemental Testimony of Entergy Witness George S. Tolley Regarding Contentions NYS-17B (Property Values) at 1-2 (A3) (Nov. 21, 2012) ("Entergy Supplemental Testimony") (ENT000592).

<sup>53</sup> See Entergy Proposed Findings at 56-57 (¶¶103-07).

<sup>54</sup> As the Board previously recognized, NEPA is concerned with actual physical impacts to the environment. See Licensing Board Memorandum and Order (Denying Entergy's Motion for the Summary Disposition of NYS Contention 17/17A) at 11-13 (Apr. 22, 2010) (unpublished) ("Apr. 22, 2010 Order").

impacts).<sup>55</sup> Importantly, however, New York does not dispute the GEIS and FSEIS conclusions that impacts from noise, aesthetics, traffic, and leaks are all SMALL (*i.e.*, environmentally insignificant).<sup>56</sup> These issues are discussed further in Section II.C below.

20. The second issue concerns New York’s claim of significant property value impacts. On this issue, New York does not dispute Dr. Tolley’s testimony indicating that there have been a number of peer-reviewed site-specific hedonic property value studies of nuclear power facilities and that studies focused on the local area around specific nuclear plants are the most relevant for assessing the likelihood for property value impacts from Indian Point.<sup>57</sup> Nor does New York dispute Dr. Tolley’s testimony indicating that these studies provide no reliable basis for concluding that proximity to nuclear power plants causes lower property values.<sup>58</sup>

21. In addition, New York does not dispute that Dr. Tolley performed *two* hedonic regressions analysis—one that used the MLS data set he assembled, and a second that used the same Assessor data set that Dr. Sheppard assembled.<sup>59</sup> Notably, New York does not challenge the conclusions of Dr. Tolley’s hedonic analysis using Dr. Sheppard’s Assessor data. For example, New York does not dispute Dr. Tolley’s hedonic analysis using Dr. Sheppard’s Assessor data, even though that analysis does not show that Indian Point operations adversely impact property values.<sup>60</sup> Nor does New York dispute that Dr. Tolley’s hedonic analysis using

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<sup>55</sup> New York Proposed Findings at 40-42 (¶¶ 119-24).

<sup>56</sup> See GEIS at 4-3 to 4-6 (NYS00131B); FSEIS at 4-6, 4-43, 4-47, 4-69 (NYS00133B).

<sup>57</sup> See Testimony of Entergy Witnesses Donald P. Cleary, C. William Reamer, and George S. Tolley Regarding Contention NYS-17B (Property Values) at 63-67 (A93-95) (Mar. 28, 2012) (“Entergy Testimony”) (ENT000132).

<sup>58</sup> See *id.*

<sup>59</sup> Entergy Supplemental Testimony at 3 (A6) (ENT000592); George Tolley, Property Value Effects of Indian Point License Renewal at 15-22, 48-50 (Mar. 2012) (“Tolley Report”) (ENT000144); Entergy Testimony at 70-78 (A99-107), 129-131 (A159-62) (ENT000132).

<sup>60</sup> Entergy Testimony at 130-131 (A162) (ENT000132); Tolley Report at 49-50 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8), 15 (A19) (ENT000592).

Dr. Sheppard's Assessor data demonstrates that Entergy's PILOT distributions have a statistically-significant positive impact on property values.<sup>61</sup> These issues are discussed further in Section II.E below.

**C. New York's Postulated Changes in Property Values Are Not Directly Related to Significant Physical Environmental Impacts**

22. While citing to the Board's ruling on Entergy's summary disposition motion several times,<sup>62</sup> New York fails to cite to one of the Board's key legal findings in that decision; *i.e.*, that a question of fact exists on whether there is a direct relationship between any changes to the physical environment resulting from the no-action alternative and New York's alleged property value impact.<sup>63</sup> As that ruling established, New York was required to put forth evidence demonstrating that its alleged property value changes are the direct result of physical impacts to the environment actually caused by license renewal or the no-action alternative. As discussed below, New York has not met its burden of going forward and establishing a *prima facie* case on this issue.<sup>64</sup>

23. In its Proposed Findings, New York lists several physical impacts discussed in FSEIS (*e.g.*, noise, aesthetic, traffic, and radiological leaks to groundwater), and simply claims that, because of these impacts, Indian Point is a "disamenity" and "nuisance" that adversely impacts property values by approximately \$1.07 billion.<sup>65</sup> New York, however, simply

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<sup>61</sup> Tolley Report at 49 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8) (ENT000592).

<sup>62</sup> New York Proposed Findings at 3-5 (¶¶ 7-9), 20-21 (¶ 62), 21 (¶ 64).

<sup>63</sup> *See* Apr. 22, 2010 Order at 12.

<sup>64</sup> *See AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 269 (2009), *aff'd sub nom. N.J. Env'tl. Fed'n v. NRC*, 645 F.3d 220 (2011); *see also Vt. Yankee Nuclear Power Corp. v. Aeschliman*, 435 U.S. 519, 554 (1978) (upholding this threshold test for intervenor participation in licensing proceedings); *Phila. Elec. Co.* (Limerick Generating Station, Units 1 & 2), ALAB-262, 1 NRC 163, 191 (1975) (holding that the intervenors had the burden of introducing evidence to demonstrate that the basis for their contention was more than theoretical).

<sup>65</sup> *See* New York Proposed Findings at 40-42 (¶¶ 120-24).

juxtaposes its list of physical impacts with its property value claim, but never demonstrates the required connection between those physical impacts and the alleged substantial property value change. Importantly, New York never shows how noise, aesthetics, traffic, and leaks from Indian Point caused the historic (1974 to 1976) property value impacts allegedly found in Dr. Sheppard's study.

24. As an initial matter, pursuant to the GEIS and Table B-1, Appendix B to Subpart A of 10 C.F.R. Part 51 ("Table B-1"), noise and aesthetic impacts are resolved generically as Category 1 issues with SMALL impacts for all plants, including Indian Point.<sup>66</sup> Absent a waiver, which New York has not sought, New York may not challenge those conclusions by claiming that noise and aesthetic impacts are greater than SMALL, as they relate to Indian Point.<sup>67</sup> New York also does not refute the FSEIS findings that traffic and radiological leaks would have only SMALL impacts.<sup>68</sup> By definition, SMALL impacts "are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource."<sup>69</sup> Logically, physical impacts that are already SMALL (*i.e.*, undetectable or negligible) cannot be reduced under the no-action alternative in a manner that would significantly increase property values, and certainly New York provided no basis on which the Board could conclude that these SMALL impacts could generate LARGE (\$1.07 billion) property value impacts.

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<sup>66</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1.

<sup>67</sup> See *Entergy Nuclear Vt. Yankee LLC* (Vt. Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 19-21 (2007); *Fla. Power & Light Co.* (Turkey Point Nuclear Plant, Units 3 & 4), CLI-01-17, 54 NRC 3, 22-23 (2001).

<sup>68</sup> See GEIS at 4-50, 4-83, 4-119 (NYS00131B); FSEIS at 4-6, 4-43, 4-69 (NYS00133B).

<sup>69</sup> 10 C.F.R. Pt. 51, Subpt. A, App. B, Tbl. B-1.

25. As an example, New York indicates that “[n]oise from IP2 and IP3 is detectable offsite”<sup>70</sup> and that Indian Point has a number of visible structures (*e.g.*, fences, transmission lines, the IP1 superheater stack).<sup>71</sup> These statements do not, however, establish that Indian Point causes significant noise and aesthetic impacts, much less impacts that could somehow influence property values by \$1.07 billion within 3.1 miles from the Indian Point site (*i.e.*, the range of Dr. Sheppard’s study).<sup>72</sup> Nor has New York linked noise or aesthetic impacts to Dr. Sheppard’s key argument that the adverse impacts actually occurred when IP2 and IP3 commenced full power operations between 1974 and 1976. In particular, New York presented no evidence indicating that the noise or aesthetic impacts from Indian Point somehow increased *after* 1976, compared to *before* 1974. Based on common sense and undisputed evidence provided in this proceeding, such impacts actually would have decreased after construction was completed and operations began.<sup>73</sup>

26. New York’s traffic-related impact claim fares no better. New York indicates that “more than 3,500 vehicles traverse the stretch of Broadway immediately outside the complex

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<sup>70</sup> New York Proposed Findings at 40 (¶ 120).

<sup>71</sup> *Id.* at 40-41 (¶¶ 120-22).

<sup>72</sup> *See id.* at 1 (¶ 3), 49 (¶ 141). New York does not, for example, dispute that IP2 and IP3 meet the Village of Buchanan’s sound ordinance and that, with the exception of Broadway, IP2 and IP3 are shielded from view in the Village of Buchanan. *See* FSEIS at 2-123 (NYS00133B).

<sup>73</sup> Indian Point, Unit 1 (“IP1”) construction began in 1956 and IP1 operations began before plans for Indian Point, Unit 2 (“IP2”) and Indian Point, Unit 3 (“IP3”) were announced. GEIS at C-89 (NYS00131G); Gene Smith, Con Edison Atomic Power Plant in Westchester Goes “Critical,” *N.Y. Times*, Aug. 3, 1962 (ENT000151). With regard to aesthetics, IP1 structures and operations, and IP2 and IP3 construction would have affected the local landscape for years before the 1974 to 1976 period. *See, e.g.*, FSEIS at 2-2 (NYS00133A) (indicating that the IP1 superheater stack was the tallest structure on the Indian Point site). Likewise, there would have been noise associated with IP1 operation, and IP2 and IP3 construction through the 1960s and early 1970s. *See* GEIS at C-80 (NYS00131G) (indicating that there would have been as many as 2400 workers onsite during the early 1970s when both IP2 and IP3 were under construction); ConEd Pouring Half Block-Long Base for Atom Plant, *N.Y. Times*, Dec. 16, 1966 (ENT000173) (“Every three minutes today a big truck with a rotating drum filled with concrete from nearby Verplanck arrived at the waterfront to empty its load onto endless belts that feed the concrete into a hopper . . .”).

daily,”<sup>74</sup> but this figure is misleading—it merely represents the total number of vehicles using Broadway.<sup>75</sup> It is not indicative of Indian Point’s impact, much less an adverse impact that could somehow impact property values within 3.1 miles of the site. To the contrary, the Environmental Report (“ER”) and FSEIS demonstrate that traffic impacts during the period of extended operation would be SMALL and New York offered no evidence contradicting these conclusions.<sup>76</sup> Nor has New York linked traffic impacts to Dr. Sheppard’s study associated with IP2 and IP3 commencing full power operations between 1974 and 1976. Indeed, the record suggests that traffic impacts actually would have decreased after construction was completed and operations began.<sup>77</sup>

27. That leaves only New York’s alleged groundwater impacts from radiological leaks, which New York’s own independent assessment confirmed have only *minimal* impacts.<sup>78</sup> Similarly, the FSEIS concludes that impacts from leaks to groundwater during the period of extended operation would be SMALL and again, New York offered no evidence to undermine that conclusion.<sup>79</sup> Moreover, groundwater impacts from leaks could not have caused the property value impacts allegedly found in Dr. Sheppard’s study (*i.e.*, impacts associated with operations commencing) because those leaks were identified decades later.<sup>80</sup>

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<sup>74</sup> New York Proposed Findings at 40-41 (¶ 120) (citing Indian Point Energy Center License Renewal Application, App. E, Applicant’s Environmental Report, Operating License Renewal Stage at 4-43 to -44 (Apr. 2007) (“ER”) (ENT00015B)).

<sup>75</sup> ER at 4-44 (ENT00015B). Indian Point employs 1,255 workers during normal operations and staggers shift starting and quitting times to account for local traffic flows. *Id.* at 4-44.

<sup>76</sup> *See id.*; FSEIS at 3-12, 4-47, 4-69 (NYS00133B); GEIS at C-87 (NYS00131G) (noting that local officials reported no major transportation impacts from IP2 and IP3 construction and operation).

<sup>77</sup> *See supra* note 72.

<sup>78</sup> *See* FSEIS at 2-111 to 2-112 (NYS00133A).

<sup>79</sup> *See id.* at 2-104 to 2-114; *id.* at 4-41 to 4-42, 4-56, 4-61, 4-67 to 4-69 (NYS00133B).

<sup>80</sup> New York Proposed Findings at 42 (¶ 123). Nor is New York’s observation that the ER refers to the Indian Point site as a “brownfield” site relevant to this issue. New York Proposed Findings 42 (¶ 124 & n.4). New York suggests that Entergy used this term as it is defined in the Comprehensive Environmental Response,

28. The only remaining explanation for any property value impacts, if they exist, is perceived risk and fear of nuclear power. As Dr. Tolley pointed out, published, peer-reviewed journal articles (including those relied on by Dr. Sheppard) frequently cite public perception of risk and fear as the potential cause for nuclear power plant property value impacts.<sup>81</sup> New York did not dispute or distinguish these studies. To the contrary, Dr. Sheppard conceded he made *no attempt* to disaggregate property value impacts associated with fear or public perception.<sup>82</sup> Based on this evidence, any such property value impacts are likely the result of public perceptions of nuclear power. Under binding case law, NEPA does not require analysis of impacts that arise from fear rather than directly from an actual impact to the physical environment.<sup>83</sup> Accordingly, as a matter of law, NEPA requires no further analysis of potential property value impacts.

29. Notwithstanding this directly applicable case law, New York cites three other cases and argues that the NRC must nonetheless consider Dr. Sheppard's property value

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Compensation, and Liability Act ("CERCLA"); *i.e.*, "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant." 42 U.S.C. § 9601(39)(A). Nothing in the ER indicates that Entergy intended to adopt this CERCLA definition. To the contrary, the ER uses the term "brownfield" in the energy alternatives analysis to distinguish Indian Point (and other sites with existing generation facilities) from "greenfield" sites (*i.e.*, previously undeveloped sites). *See* ER §§ 7.3, 8.2 (ENT00015B); *see also* NUREG-1555, Standard Review Plans for Environmental Reviews for Nuclear Power Plants at 4-5, A.1 (Oct. 1999) (ENT00019A); NUREG-1555, Supp. 1 at 5-6 (ENT00019B). As noted above, even if that CERCLA definition were somehow relevant, New York has failed to show that "the presence or potential presence of a hazardous substance, pollutant, or contaminant" on site caused the historic property value impacts allegedly found in Dr. Sheppard's study.

<sup>81</sup> Entergy Testimony at 64 (A94), 83-84 (A111) (ENT000132) (documenting Dr. Sheppard's reliance on studies that have attributed potential relationships between the presence of nuclear power plants and property values to public perceptions and preferences).

<sup>82</sup> Pre-filed Rebuttal Testimony of Stephen C. Sheppard Regarding Contention NYS-17B at 13:3-5 (June 28, 2012) ("New York Rebuttal Testimony") (NYS000434); *see also* Official Transcript of Proceedings, Indian Point Nuclear Generating Units 2 & 3 at 2706:15-21 (Sheppard) (Oct. 22, 2012) ("Oct. 22, 2012 Tr.").

<sup>83</sup> *Metro. Edison*, 460 U.S. at 772-74; *see also Olmstead Citizens for a Better Cmty. v. United States*, 793 F.2d 201, 204-06 (8th Cir. 1986) (finding the impact on nearby property values need not be considered absent "any significant impacts on the physical environment") (emphasis added); Final Rule, Changes to Requirements for Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 64 Fed. Reg. 48,496, 48,502 (Sept. 3, 1999) (finding that the GEIS did not have to consider property value impacts from spent fuel shipments because those impacts would arise from the public's perception of risk rather than from an impact to the physical environment).

analysis.<sup>84</sup> First, New York cites *Lee v. U.S. Air Force*, which upheld an agency decision to rely on existing scientific studies in concluding that the increased noise from additional training flights would have no measurable impact on property values.<sup>85</sup> Second, New York cites *Norfolk v. Reilly*, which also upheld an agency decision to rely on existing scientific studies and to not quantify the adverse property value impact that could result from the construction and operation of a new landfill for sewage grit.<sup>86</sup> Third, New York cites *Britt v. U.S. Army Corps of Engineers*, which, in passing, observed that an FEIS concerning the removal of a bridge discussed property value impacts, and then held that the FEIS was sufficient notwithstanding its failure to quantify the dollar value of traffic impacts because NEPA does not require that an FEIS discuss all impacts in “exhaustive detail.”<sup>87</sup>

30. As an initial matter, all three cases refute New York’s claim that the Indian Point FSEIS is required to quantify property value impacts in a site-specific analysis because NEPA allows agencies to rely on existing studies and does not require that all impacts be discussed in “exhaustive detail.”<sup>88</sup> Further, none of these cases supports New York’s assertion that property value impacts that are not directly related to a project’s physical impacts must be considered under NEPA because, in these cases, the connection between physical impacts was either established or not in dispute. For example, in *Lee*, the plaintiff clearly alleged that increased noise from additional training flights caused any property value impact.<sup>89</sup> In contrast, the Board has already ruled that a question of fact exists on whether there is a direct connection between

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<sup>84</sup> See New York Proposed Finding at 43 (¶ 126).

<sup>85</sup> *Lee v. U.S. Air Force*, 354 F.3d 1229, 1241-42 (10th Cir. 2004).

<sup>86</sup> *Norfolk v. Reilly*, 761 F. Supp. 867, 887-88 (D. Mass. 1991), *aff’d per curiam without opinion*, 960 F.2d 143 (1st Cir. 1992).

<sup>87</sup> *Britt v. U.S. Army Corps of Engineers*, 769 F.2d 84, 91 (2d Cir. 1985).

<sup>88</sup> *Id.*

<sup>89</sup> See *Lee*, 354 F.3d at 1241-42.

any physical impacts and New York's alleged property value impact, and, at hearing, New York failed establish such a connection.<sup>90</sup> As such, New York has not met its burden to establish a *prima facie* case on this element of NYS-17B.<sup>91</sup> Having not done so, NEPA does not require any further consideration of New York's property value impacts or any resulting offsite land-use impacts in this proceeding.

**D. The FSEIS Offsite Land-Use Evaluation Is Consistent with NRC Guidance**

31. New York argues that the FSEIS fails to properly analyze property values impacts and that the NRC Staff "made no effort" to investigate this issue.<sup>92</sup> As discussed below, New York fails to acknowledge the context in which the FSEIS was prepared, including the analysis in the earlier adopted GEIS, which it incorrectly dismisses as "irrelevant."<sup>93</sup>

32. As an initial matter, contrary to New York's claim,<sup>94</sup> the GEIS Appendix C evaluation is not limited to "refurbishment-related impacts," but also analyzes the impacts from IP2's and IP3's construction, operation, and license renewal.<sup>95</sup> New York bases its argument on a statement in GEIS § 3.7.1 indicating that the Appendix C evaluation was "used to forecast refurbishment-related impacts" at seven nuclear power reactor case study sites, including Indian Point.<sup>96</sup> But that does not mean that it evaluates *only* those impacts. Rather the GEIS makes

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<sup>90</sup> See Apr. 22, 2010 Order at 12.

<sup>91</sup> See *id.*; see also *New York*, 681 F.3d at 482 (noting that the NRC was not required to consider property value impacts because the petitioner (New York) failed to show whether and how those property value impacts are "related to a change in the physical environment").

<sup>92</sup> New York Proposed Findings at 1-2 (¶ 4).

<sup>93</sup> *Id.* at 32 (¶ 99).

<sup>94</sup> *Id.*

<sup>95</sup> See GEIS § 4.7.1 (Environmental Impacts of Operation; Socioeconomic Impacts; Housing) (NYS00131B), § C.4.4.2 (Description of Case Study Sites; Indian Point; Housing) (NYS00131F). The GEIS methodology involves first identifying housing impacts from construction and operation, and then using this information to project future housing impacts during the license renewal period. See *id.* at C-24 (NYS00131F); see generally *id.* at C-24 to -25, C-82 (NYS00131F-G).

<sup>96</sup> New York Proposed Findings at 32 (¶ 99).

abundantly clear that Appendix C evaluates “socioeconomic impacts during refurbishment *and the license renewal term.*”<sup>97</sup>

33. Furthermore, New York incorrectly claims that because offsite land use and housing are Category 2 issues, as a matter of law, the Board is precluded from considering the GEIS evaluation.<sup>98</sup> The GEIS considers land-use impacts, but does not generically resolve that issue for reasons having nothing to do with property values.<sup>99</sup> In fact, the GEIS specifically considers property value impacts and generically finds that such impacts, if they exist, are SMALL.<sup>100</sup> As such, the GEIS contains directly relevant information, which the Board can and should use to resolve this contention and satisfy NRC’s NEPA obligations.<sup>101</sup>

34. In addition, New York mistakenly asserts that the GEIS is consistent with its position that Indian Point has significant property value impacts.<sup>102</sup> New York, however, focuses on a few isolated observations reported in the GEIS, which the NRC found were not indicative of

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<sup>97</sup> GEIS at C-1 (NYS00131F) (emphasis added); *see also id.* at 4-99 (NYS00131B).

<sup>98</sup> *See* New York Proposed Findings at 33 (¶ 100).

<sup>99</sup> GEIS at 4-108 to -109 (NYS00131B) (indicating that the NRC was unable to generically classify offsite land-use impacts during the license renewal term as a Category 1 issue because tax-driven land use changes could range from small to large depending on the site).

<sup>100</sup> *Id.* at 4-103; *see also* Entergy Testimony at 30-31 (A43) (ENT000132); NRC Staff Testimony of Jeffrey J. Rikhoff, Andrew L. Stuyvenberg and John P. Boska Concerning Contentions NYS-17, 17A and 17B (Land Use) at 14-15 (A17) (Mar. 30, 2012) (revised Oct. 9, 2012) (“NRC Staff Testimony”) (NRCR00081).

<sup>101</sup> *See* Final Rule, Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. at 28,474 (NYS000127) (explaining that “[t]he review of a Category 2 issue may focus on the particular aspect of the issue that causes the Category 1 criteria not to be met” in the GEIS).

<sup>102</sup> New York Proposed Findings at 34-37 (¶¶ 102-08). At the same time New York claims that the GEIS supports its position, New York discounts the GEIS as “fourteen-year old anecdotal evidence.” *Id.* at 35 (¶103). This argument lacks merit. First, the GEIS case study was comprehensive, and New York offered no evidence indicating that the GEIS departs from well-accepted methodologies in the social sciences or that insights gleaned from those knowledgeable in a local market, such as realtors, ought to be discounted as “anecdotal.” *See* Entergy Proposed Findings at 42 (¶ 123). Second, Entergy and NRC Staff considered the GEIS case study in conjunction with more recent information in local land-use plans to provide a complete, up-to-date picture on the potential for property value and land-use impacts. *See id.* at 68-69 (¶ 128), 120-21 (¶ 229). Third, to the extent that New York implies that the GEIS is outdated, Dr. Sheppard’s opinion is based on events that happened nearly forty years ago and, therefore, New York has no basis to allege staleness. *See* New York Proposed Findings at 45 (¶ 132).

most realtors’ and local planners’ experiences.<sup>103</sup> For example, New York highlights that the GEIS reports that one local realtor claimed that more development in nearby communities would have occurred but for Indian Point.<sup>104</sup> Notwithstanding this one local realtor’s statement about local development, the GEIS clearly states: “Local realtors agree that housing values in communities neighboring the plant have not been deflated because of the presence of Indian Point.”<sup>105</sup> Thus, New York distorts the more broadly-founded overall conclusion in the GEIS—Indian Point has not depressed property values in neighboring communities.

35. New York also erroneously argues that the NRC Staff’s environmental standard review plan, NUREG-1555, Supplement 1, supports its claim that property values require further analysis.<sup>106</sup> That guidance incorporates the lessons learned from the GEIS property value evaluation and states that “[a]t all case study sites, only small impacts on housing value and marketability are projected to continue.”<sup>107</sup> Given this, NUREG-1555, Supplement 1 directs the Staff to focus on issues it could not generically resolve in the GEIS—namely, population-driven and tax-driven land-use impacts.<sup>108</sup> The FSEIS addresses those issues consistent with this guidance and New York does not dispute those population-driven and tax-driven land-use impact evaluations.<sup>109</sup> As such, NUREG-1555, Supplement 1 does not support New York’s broad argument that the FSEIS must consider potential property value changes as part of the “*inclusive*” approach set forth in NRC guidance.<sup>110</sup> Accordingly, because New York has not

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<sup>103</sup> See Entergy Proposed Findings at 66 (¶ 122).

<sup>104</sup> New York Proposed Findings at 35-36 (¶ 105).

<sup>105</sup> GEIS at C-83 (NYS00131G).

<sup>106</sup> New York Proposed Findings at 39-40 (¶ 117).

<sup>107</sup> NUREG-1555, Supp. 1 at 4.4.1-3 (ENT00019B).

<sup>108</sup> *Id.* at 4.4.3-4.

<sup>109</sup> See FSEIS at 4-46 to -47 (NYS00133B).

<sup>110</sup> See New York Proposed Findings at 39-40 (¶ 117).

identified any material way in which the FSEIS evaluation of offsite land-use impacts is inconsistent with NRC Staff guidance, New York must specifically and substantially support its challenge to the FSEIS.<sup>111</sup> As discussed below, New York has failed to do so.

**E. The Record Demonstrates That Property Value Impacts Would Be SMALL Under the Proposed Action and MODERATE Under the No-Action Alternative**

36. New York claims that it is “*undisputed* that Indian Point’s impact on housing is LARGE.”<sup>112</sup> Saying a fact is “undisputed” does not make it so. As discussed below, New York largely ignores Dr. Tolley’s expert testimony that Dr. Sheppard’s repeat-sale analysis included numerous incorrect assumptions and did not adhere to well-established economic methodologies. New York fails to acknowledge that Dr. Tolley performed *two* hedonic regressions analysis—one that used the MLS data set he assembled, and a second that used the same Assessor data set that Dr. Sheppard assembled and used for his repeat-sales analysis.<sup>113</sup> Notably, New York does not challenge Dr. Tolley’s hedonic analysis using Dr. Sheppard’s Assessor data, even though that analysis does not show that Indian Point operations adversely impact property values.<sup>114</sup> New York also misconstrues Dr. Tolley’s MLS hedonic analysis, which also provides no support for New York’s theory that Indian Point operations adversely impact property values. The conclusions from these two hedonic analyses are fully consistent with peer-reviewed studies involving other nuclear power plants, which also provide no scientific basis for concluding that

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<sup>111</sup> See *Seabrook*, CLI-12-05, slip op. at 16 n.78; *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-05-15, 61 NRC 365, 375 n.26 (2005) (“We recognize, of course, that guidance documents do not have the force and effect of law. Nonetheless, guidance is at least implicitly endorsed by the Commission and therefore is entitled to correspondingly special weight.”) (citations and internal quotation marks omitted).

<sup>112</sup> New York Proposed Findings at 37 (¶ 109) (emphasis added). This is one of several examples where New York claims that a fact is “undisputed” notwithstanding clear evidence to the contrary. See also *id.* at 24-25 (¶ 79), 43 (¶ 127).

<sup>113</sup> Entergy Supplemental Testimony at 3 (A6) (ENT000592); Tolley Report at 15-22, 48-50 (ENT000144); Entergy Testimony at 70-78, 129-131 (ENT000132).

<sup>114</sup> Entergy Testimony at 130-131 (A162) (ENT000132); Tolley Report at 49-50 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8), 15 (A19) (ENT000592).

nuclear plants adversely impact property values.<sup>115</sup> Finally, the record also shows that even if one assumed Dr. Sheppard’s billion-dollar property value impact was correct—which it clearly is not—the no-action alternative would result in a net negative property value impact compared to license renewal because the near-term loss of PILOT payments outweighs Dr. Sheppard’s alleged property value impacts that would occur many decades later.

**1. Dr. Sheppard’s Property Value Impact Evaluation Relied on Questionable Assumptions and Departed from Standard Economic Methods**

***a. Dr. Sheppard’s Analysis Is Premised on Flawed Assumptions***

37. The centerpiece of New York’s Proposed Findings—Dr. Sheppard’s repeat-sales analysis—relies on two fundamentally-flawed assumptions. First, New York relies on Dr. Sheppard’s unsupported claim that his repeat-sales analysis “*directly addresses exactly the question posed* when we asked about the impact of the No Action Alternative.”<sup>116</sup> Dr. Sheppard made clear that his \$1.07 billion calculation is actually an impact estimate associated with IP2 and IP3 commencing operations nearly forty years ago, in 1974 to 1976, and that he *assumed* that “when IPEC is gone and the site is restored these changes will be undone.”<sup>117</sup> In other words, Dr. Sheppard did not “zero” in on the relevant issue (*i.e.*, property value impacts under the no-action alternative), but instead attempted to estimate whether initial operations caused an impact in the 1970s and simply extrapolated those conclusions forty years into the future. Dr. Sheppard, however, did not offer a persuasive justification for his assumption that any initial operational impact would equally reverse itself once operations cease.<sup>118</sup> As such, the record

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<sup>115</sup> See Entergy Testimony at 63-67 (A93-95) (ENT000132).

<sup>116</sup> New York Proposed Findings at 46 (¶ 135), 63-64 (¶¶ 175-76) (emphasis added).

<sup>117</sup> Pre-filed Direct Testimony of Stephen C. Sheppard, Ph.D. Regarding Contention 17B at 39:3-16 (Dec. 16, 2011) (revised Jan. 30, 2012) (“New York Direct Testimony”) (NYSR00224); *see also* Oct. 22, 2012 Tr. 2585:8-20 (indicating that Dr. Sheppard was “assuming” property values would “rebound the same amount” so “that the effect will undo itself”).

<sup>118</sup> See Oct. 22, 2012 Tr. at 2585:8-20 (Sheppard).

contains no valid basis to conclude that any such effects, to the extent they even exist, will simply reverse themselves when IP2 and IP3 shut down. Because Dr. Sheppard failed to provide sufficient grounds to link events forty years ago to his projected no-action outcome in the future, Dr. Sheppard's \$1.07 billion calculation is unreasonable and unsupported.<sup>119</sup>

38. Second, New York relies on Dr. Sheppard's speculation that the full \$1.07 billion gain would be realized within about ten years after operations end.<sup>120</sup> New York, however, inexplicably ignores that Dr. Sheppard's 10-year recovery timeframe, which appears to have been invented at the hearing,<sup>121</sup> was a significant departure from positions he took in three written reports previously filed with the Board.<sup>122</sup> Those reports identified the completion of site reclamation and decommissioning as the trigger for any property value increase, not some set number of years after shutdown.<sup>123</sup> Dr. Sheppard's unexplained and substantial change in position undermines his oral testimony on this issue. As it stands, Dr. Sheppard pointed to no data connecting any physical changes at Indian Point to his 10-year timeframe, but attempted to justify it by pointing to the average homeownership period in his data set.<sup>124</sup> The Board should

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<sup>119</sup> *Cf. New York*, 681 F.3d at 482 (noting that the NRC was not required to consider property value impacts because the petitioner (New York) relied on a study that simply "assumes a diminution in values caused by current plant operation and simply extends it mathematically" but "in no way asserts whether or how any harm to property values might occur nor how that harm is related to a change in the physical environment").

<sup>120</sup> New York Proposed Finding at 2 (¶ 5).

<sup>121</sup> See Oct. 22, 2012 Tr. at 2639:18-2640:19 (Sheppard).

<sup>122</sup> See Stephen Sheppard, Impacts of the Indian Point Energy Center on Property Values at 12 (Dec. 2011) (revised Jan. 30, 2012) ("Dec. 2011 Sheppard Report") (NYSR00231); Stephen Sheppard, Potential Impacts Related to Property Value Diminution in Communities Surround the IPEC at 2 (Jan. 24, 2011) (Jan. 2011 Sheppard Report") (NYS000230); Stephen Sheppard, Potential Impacts of Indian Point Relicensing with Delayed Site Reclamation at 2 (Feb. 26, 2009) ("2009 Sheppard Report") (NYS000227); see also New York Proposed Findings at 55 (¶ 153) (conceding that "decommissioning of IPEC and reclamation of the site" is what would generate Dr. Sheppard's billion property value increase); Entergy Proposed Findings at 78 (¶ 214), 79-80 (¶ 217).

<sup>123</sup> See Dec. 2011 Sheppard Report at 12 (NYSR00231); Jan. 2011 Sheppard Report at 2 (NYS000230); 2009 Sheppard Report at 2 (NYS000227).

<sup>124</sup> Oct. 22, 2012 Tr. at 2639:14-23 (Sheppard); see also December 2011 Sheppard Report at 8, Table 1 (NYSR00231) (indicating that the mean ownership period in Dr. Sheppard's sample is 8.19 years).

not accept this flimsy rationale. As Dr. Tolley reasonably pointed out, there is “no logical reason to believe there is any relationship between that data point and the property value recovery period.”<sup>125</sup> Dr. Sheppard posits that the changing tempo of activity and physical features at Indian Point impacts property values, but this 10-year estimate is not rationally related to any physical changes such as removing structures or reducing activities at Indian Point. Accordingly, New York has not substantiated Dr. Sheppard’s assumed 10-year recovery timeframe.

***b. Dr. Sheppard Failed to Apply Well-Established Economic Methods***

39. As discussed below, New York fails to rebut Entergy and NRC Staff criticisms that establish that Dr. Sheppard’s \$1.07 billion calculation is not a reasonable estimate for the amount property values might increase under the no-action alternative.<sup>126</sup>

40. First, the record demonstrates that Dr. Sheppard failed to appropriately define his so-called “event” that forms the basis for his most recent opinion (*i.e.*, IP2 and IP3 commencing commercial operations). As Dr. Tolley noted, Dr. Sheppard’s event does not account for “anticipatory” effects resulting from the fact that plans and construction for IP2 and IP3 were publicized well before Dr. Sheppard’s 1974 to 1976 “event” period.<sup>127</sup> Nor does Dr. Sheppard’s “event” account for the fact that IP1 had already begun operations before plans for IP2 and IP3 were even announced.<sup>128</sup> Dr. Sheppard himself acknowledged that property value changes occur

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<sup>125</sup> Entergy Supplemental Testimony at 21 (A25) (ENT000592).

<sup>126</sup> See New York Proposed Findings § V.G.

<sup>127</sup> Entergy Testimony at 124-125 (A152-53) (ENT000132).

<sup>128</sup> *Id.* at 51 (A77), 125 (A153); see also M. Folsom, 2d Atom Generator Planned by Con Ed, N.Y. Times, Oct. 30, 1965 (ENT000152) (“Buchanan later discovered [in the 1960s] that the plant was paying most of its taxes, so much so that the village could quadruple the one-man police force, build sewers and put in other improvements.”).

at the moment that buyers and sellers in the marketplace become aware of new information.<sup>129</sup> This means that if IP2 and IP3 operations were expected to have a disamenity effect, then buyers would have accounted for such an effect once Indian Point's expansion plans were first reported in the 1960s—many years before Dr. Sheppard's 1974 to 1976 event.<sup>130</sup> Similarly, any property value impact resulting from physical changes to the environment would have taken place years before Dr. Sheppard's event.<sup>131</sup>

41. Second, and just as problematic, Dr. Sheppard did not properly account for other socioeconomic factors unrelated to Indian Point's operations. As Dr. Tolley testified, any difference between the treatment and control group could reasonably be associated with numerous other confounding events and other socioeconomic factors unrelated to Indian Point's operations (*e.g.*, the oil embargo and the associated 1973 to 1975 recession).<sup>132</sup> New York's claim that Dr. Sheppard controlled such factors (*e.g.*, high interest rates)<sup>133</sup> is unsubstantiated and contradicted by Dr. Tolley's testimony.<sup>134</sup> On the one hand, Dr. Sheppard offered speculation that such factors might equally impact the treatment and control group.<sup>135</sup> On the other, Dr. Tolley offered data demonstrating that the characteristics of Dr. Sheppard's data make this implausible.<sup>136</sup>

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<sup>129</sup> Dec. 2011 Sheppard Report at 3 (NYSR00231).

<sup>130</sup> Entergy Testimony at 124-125 (A152-53) (ENT000132).

<sup>131</sup> *See* Section II.C *supra*.

<sup>132</sup> *See* Entergy Testimony at 128 (158) (ENT000132).

<sup>133</sup> *See* New York Proposed Findings at 46 (¶ 136).

<sup>134</sup> Entergy Testimony at 128 (158) (ENT000132); Tolley Report at 39 (ENT000144).

<sup>135</sup> Oct. 22, 2012 Tr. at 2563:11-2564:1 (Sheppard).

<sup>136</sup> *See* Tolley Report at 39 (ENT000144) (indicating that Dr. Sheppard's control group was much more heavily weighted toward the post-1999 period than the treatment group observations). Moreover, as Dr. Tolley testified, Dr. Sheppard's approach also introduced undefined measurement error. Oct. 22, 2012 Tr. at 2588:15-25 (Tolley).

42. Third, New York claims that Dr. Sheppard’s focus on the 1974 to 1976 period constituted a narrow sample period that eliminates other potential explanations for his results.<sup>137</sup> Contrary to Dr. Sheppard’s claimed focus on the 1974 to 1976 period, however, Dr. Sheppard’s sample contained sales from 1945 to 2009.<sup>138</sup> As Dr. Tolley made clear, during this period, vast changes occurred that affect property values.<sup>139</sup> As such, New York and Dr. Sheppard ask too much in claiming that the Board should accept that the rate of return difference in the control and treatment groups was due *only* to IP2 and IP3 commencing operations.<sup>140</sup>

43. Fourth, New York ignores Dr. Tolley’s testimony demonstrating that Dr. Sheppard’s “control group” unjustifiably biased his results.<sup>141</sup> The home price index New York included in its findings clearly shows that returns are not constant from year to year and would necessarily be higher in later years (when most of control group sales took place) due to the steep rise in home prices.<sup>142</sup> New York also concedes that the treatment group had longer holding periods.<sup>143</sup> Dr. Tolley’s testimony convincingly shows that these factors—which are unrelated to Indian Point—caused the difference between Dr. Sheppard’s treatment and control groups, and thus shows that Dr. Sheppard used an invalid control group.<sup>144</sup>

44. Finally, Dr. Tolley’s testimony demonstrates that Dr. Sheppard’s sample incorrectly included numerous non-residential and non-market transactions.<sup>145</sup> New York never

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<sup>137</sup> See New York Proposed Findings at 54-55 (¶ 150).

<sup>138</sup> New York Testimony at 27:5-6 (NYSR00224).

<sup>139</sup> Tolley Report at 38-42 (ENT000144).

<sup>140</sup> See New York Proposed Findings at 53-55 (¶¶ 148-50).

<sup>141</sup> See Entergy Proposed Findings at 55-58 (¶¶ 154-61).

<sup>142</sup> See New York Proposed Findings at 82-86 (¶ 148).

<sup>143</sup> See *id.* at 54 (¶ 148 n.6).

<sup>144</sup> Tolley Report at 38-42, 50-51 (ENT000144); Entergy Supplemental Testimony at 25-26 (A32) (ENT000592).

<sup>145</sup> See Entergy Proposed Findings at 86-89 (¶¶ 162-67).

mentions Dr. Tolley testimony on this issue and, as a result, New York incorrectly claims that Dr. Sheppard only included residential arm's length sales.<sup>146</sup> The record, however, does not support that claim. Dr. Sheppard's revised analysis prepared shortly before the hearing still contained a significant number of observations—roughly ten percent of the observations used in his final analysis—that should not have been included in his data set.<sup>147</sup> This high error rate provides the Board with yet another reason to conclude that Dr. Sheppard's analysis is unreliable.

45. In summary, New York's Proposed Findings fail to adequately refute the numerous reasonable criticisms of Dr. Sheppard's \$1.07 billion estimate, which individually and taken together, seriously undermine the validity of Dr. Sheppard's analysis. Based on the record as a whole, the Board should not credit Dr. Sheppard's \$1.07 billion estimate as a reliable or reasonable estimate of Indian Point's impact on nearby property values.<sup>148</sup>

## **2. Dr. Tolley's Property Value Impact Assessments Are Reasonable**

46. As discussed above, Dr. Tolley performed *two* hedonic regressions analysis—one that used the MLS data set he assembled, and a second that used the same Assessor data set that Dr. Sheppard assembled and used for his repeat-sales analysis.<sup>149</sup> New York does not challenge

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<sup>146</sup> New York Proposed Findings at 48-49 (¶¶ 139-40).

<sup>147</sup> See Oct. 22, 2012 Tr. at 2702:4-8 (Sheppard).

<sup>148</sup> New York incorrectly claims that Dr. Tolley criticized Dr. Sheppard's December 2011 analysis for not accounting for renters. New York Proposed Findings at 76-77 (¶¶ 208-09). Dr. Tolley's prefiled direct testimony makes clear that he was criticizing Dr. Sheppard's earlier reports, not the December 2011 report. See Entergy Testimony at 90-91 (A117) (ENT000132); Tolley Report at 30 (ENT000144) (located in "Section 4. Criticism of Dr. Sheppard's 2007 Report"). It did not become apparent until later that Dr. Sheppard abandoned his earlier reports, making it unnecessary for the Board to address these criticisms of Dr. Sheppard's earlier reports. See New York Rebuttal Testimony (NYS000434) (failing to address criticisms of Dr. Sheppard's earlier reports); Oct. 22, 2012 Tr. at 2571:17-21 (Sheppard) (agreeing with Judge Wardwell's statement that the Board "should focus only on the fifth analysis that [Dr. Sheppard] ran"). Nevertheless, the Board should take into account the unexplained changes in several of Dr. Sheppard's opinions and theories.

<sup>149</sup> Entergy Supplemental Testimony at 3 (A6) (ENT000592); Tolley Report at 15-22, 48-50 (ENT000144); Entergy Testimony at 70-78, 129-131 (ENT000132).

Dr. Tolley's hedonic analysis using Dr. Sheppard's Assessor data, even though that analysis provides no support for New York's theory that Indian Point operations adversely impact property values.<sup>150</sup> Instead, New York criticizes Dr. Tolley's MLS hedonic analysis because, according to New York, Dr. Tolley: (1) improperly dismissed findings suggesting that Indian Point is a disamenity; (2) used too small a sample; (3) used asking price rather than sales price; (4) treated the rail station variable improperly; and (5) did not use a control group and focused on too narrow a timeframe.<sup>151</sup> As discussed below, the complete record of the proceeding—including Dr. Tolley's Assessor hedonic analysis and his responses to New York's criticisms of the MLS hedonic analysis—refutes New York's property value claims.

***a. Dr. Tolley's Hedonic Analysis Using Dr. Sheppard's Assessor Data Does Not Support New York's Theory That Indian Point Adversely Impact Property Values***

47. As noted above, New York's Proposed Findings fail to address Dr. Tolley's hedonic analysis using Dr. Sheppard's own data. Dr. Tolley testified that the Assessor data set provided no statistically-significant evidence that Indian Point adversely impacted property values.<sup>152</sup> Dr. Tolley also indicated that the results for almost all of the other variables were highly statistically significant and reflected the expected statistical relationships (*e.g.*, sales prices were higher for newer homes than older homes and were higher for single family homes than condominiums or townhouses, etc.).<sup>153</sup> Importantly, Dr. Tolley also found that Entergy's

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<sup>150</sup> Entergy Testimony at 130-131 (A162) (ENT000132); Tolley Report at 49-50 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8), 15 (A19) (ENT000592).

<sup>151</sup> New York Proposed Findings at 59-62 (¶¶ 167-72).

<sup>152</sup> Entergy Testimony at 130-131 (A162) (ENT000132).

<sup>153</sup> *Id.* at 78 (A106).

PILOT distributions have a statistically-significant positive impact on property values.<sup>154</sup> New York fails to discuss—much less dispute—any of these conclusions.

48. New York’s only reference to the Assessor data hedonic analysis is to justify why Dr. Sheppard decided not to perform such an analysis.<sup>155</sup> New York concedes that hedonic analysis offers a relevant perspective, but overstates the difficulty in performing such an analysis with Dr. Sheppard’s data set.<sup>156</sup> New York offered only two reasons why Dr. Sheppard elected not to perform such an analysis: (1) it was not possible to obtain a sufficiently large sample—including sales from before Indian Point was built—to use the hedonic approach with a proper control group; and (2) there might be ambiguity about other nearby disamenities that could also impact property values.<sup>157</sup>

49. Both of these reasons ring hollow and do not undermine Dr. Tolley’s hedonic analysis using Dr. Sheppard’s own data. First, a hedonic analysis does not require either a control group or sales before Indian Point was built, and there was a sufficiently large sample size of Assessor data for Dr. Tolley to perform such an analysis.<sup>158</sup> Second, although Dr. Sheppard noted another nearby disamenity might cause the Assessor results to incorrectly identify an adverse Indian Point impact, he never established that such a problem actually existed with this data set.<sup>159</sup> To the contrary, using Dr. Sheppard’s Assessor data set, Dr. Tolley found that Indian Point was not a statistically-significant disamenity.<sup>160</sup> Thus, Dr. Tolley’s hedonic regression using Dr. Sheppard’s Assessor data set establishes that there is no reasonable basis to

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<sup>154</sup> Tolley Report at 49 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8) (ENT000592).

<sup>155</sup> New York Proposed Findings at 52 (¶ 146), 65 (¶ 178).

<sup>156</sup> *See id.* at 58-59 (¶ 163).

<sup>157</sup> *See id.* at 59 (¶¶ 165-66).

<sup>158</sup> *See* Entergy Proposed Findings at 90 (¶ 170), 92 (¶ 174), 105-06 (¶¶ 197-200).

<sup>159</sup> *See* Oct. 22, 2012 Tr. 2557:21-2558.2 (Sheppard).

<sup>160</sup> *See* Entergy Proposed Findings at 93-95 (¶¶ 176-77), 100 (¶ 187).

conclude that Indian Point depresses property values.

***b. Dr. Tolley’s MLS Hedonic Analysis Does Not Suggest That Indian Point Adversely Impacts Property Values***

50. New York erroneously argues that Dr. Tolley willingly dismissed and ignored that his MLS hedonic analysis shows that Indian Point adversely impacts property values.<sup>161</sup> According to New York, “Dr. Tolley *did not deny* that Dr. Sheppard correctly translated his concession that the facility depresses property values of all houses, near or far.”<sup>162</sup> Nothing could be further from the truth. As discussed below, New York inexplicably ignores Dr. Tolley’s oral and written supplemental testimony clearly and convincingly refuting Dr. Sheppard’s claim that the MLS hedonic analysis shows that Indian Point adversely impacts property values.<sup>163</sup>

51. Quadratic Functional Form. New York argues that Dr. Tolley misinterpreted the MLS quadratic functional form results, which Dr. Sheppard claims show that Indian Point becomes an increasingly-strong disamenity the farther one moves away from the facility.<sup>164</sup> As an initial matter, Dr. Tolley is one of the foremost experts in his field and there is no credible basis for asserting that he somehow “misinterpreted” his own data. To the contrary, Dr. Tolley refuted this claim.<sup>165</sup> Dr. Tolley convincingly demonstrated that an unobserved variable is likely the cause for this anomalous result and Dr. Sheppard himself conceded that this is a possibility.<sup>166</sup> In addition, Dr. Tolley also refuted New York’s claim about the MLS quadratic

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<sup>161</sup> See New York Proposed Findings at 62-63 (¶ 173), 66-74 (¶¶ 179-201).

<sup>162</sup> *Id.* at 68 (¶ 187) (emphasis added).

<sup>163</sup> See Entergy Proposed Findings at 96-104 (¶¶ 180-96).

<sup>164</sup> New York Proposed Findings at 66-68 (¶¶ 180-87), 69-70 (¶ 190), 70 (¶ 193).

<sup>165</sup> Entergy Proposed Findings at 98-100 (¶¶ 183-87).

<sup>166</sup> See Oct. 22, 2012 Tr. at 2595:20-2596:16 (Tolley); Entergy Supplemental Testimony at 12-13 (A16) (ENT000592); Entergy Testimony at 76 (A104) (ENT000132); Tolley Report at 75-76 (ENT000144); Oct. 22,

form through testimony indicating that the quadratic functional form is not statistically significant when applied to Dr. Sheppard's Assessor data.<sup>167</sup> Thus, the quadratic functional form does not support New York's claim.

52. Square Root of Distance Functional Form. New York claims that the square root of distance functional form is an alternative functional form that Dr. Tolley should have considered and that shows that property values increase as you move farther away from Indian Point.<sup>168</sup> Contrary to New York's argument, Dr. Tolley gave two reasons why the square root of distance results do not support New York's claim that Indian Point has an adverse property value impact.<sup>169</sup> First, as Dr. Tolley explained, and as Dr. Sheppard should understand, the square root of distance functional form is a highly-unusual functional form that is not part of a well-established, state-of-the-practice economic analysis.<sup>170</sup> Second, the MLS square root of distance results are inconsistent with the Assessor square root of distance results, which provide no evidence that Indian Point has significant negative impacts on property values.<sup>171</sup>

53. Square of Distance Functional Form. New York argues that the square of distance functional form is another alternative functional form that Dr. Tolley should have considered and that shows that property values increase as you move farther away from Indian Point.<sup>172</sup> Notwithstanding New York's one-sided recitation of the hearing record, Dr. Tolley demonstrated that it would be illogical and contrary to common sense and economic theory to

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2012 Tr. 2557:21-2558:2 (Sheppard); New York Proposed Findings at 59 (¶ 166) (noting that there are "other nearby disamenities").

<sup>167</sup> Entergy Supplemental Testimony at 13-14 (A17) (ENT000592); Entergy Testimony at 130-131 (A162) (ENT000132); Tolley Report at 49-50 (ENT000144).

<sup>168</sup> New York Proposed Findings at 69-70 (¶¶ 190-92), 72-73 (¶¶ 196-99).

<sup>169</sup> Entergy Proposed Findings at 100-02 (¶¶ 188-91).

<sup>170</sup> Oct. 22, 2012 Tr. at 2607:21-2610:12 (Tolley).

<sup>171</sup> Entergy Supplemental Testimony at 5-6 (A8) (ENT000592).

<sup>172</sup> New York Proposed Findings at 68 (¶ 184), 69 (¶ 188).

find that the MLS square of distance functional form results suggest Indian Point adversely impacts property values because the disamenity's strength should not increase the farther a property is from the plant.<sup>173</sup> This is especially true since New York cites noise, traffic, and aesthetics as the purported cause of the disamenity, none of which would affect property values more than a short distance from the Indian Point site, and certainly do not get worse at increasing distances.

54. Linear Distance Functional Form. New York claims that the linear functional form is another alternative functional form that Dr. Tolley should have considered.<sup>174</sup> Contrary to New York's argument, Dr. Tolley showed that the linear form is inappropriate in this case because the strength of any distance impact would decrease at greater distances.<sup>175</sup> Accordingly, it would be unreasonable to interpret those results as supporting New York's claim.

*c. Dr. Tolley's MLS Analysis Sample Size Was Appropriate*

55. New York claims that Dr. Tolley's MLS hedonic analysis was flawed because the sample size was too small.<sup>176</sup> The record, however, shows that Dr. Tolley's sample size was sufficiently large for the Board to consider and rely upon his work.<sup>177</sup> As Dr. Tolley explained, any statistical analysis contains some uncertainty.<sup>178</sup> For that reason, the Board should judge this

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<sup>173</sup> Entergy Proposed Findings at 102 (¶¶ 192-93).

<sup>174</sup> New York Proposed Findings at 69-70 (¶ 190).

<sup>175</sup> See Entergy Supplemental Testimony at 15-16 (A20) (ENT000592); see also Clark et al., Nuclear Power Plants and Residential Housing Prices, 28 Growth and Change 496, 503 (Sept. 1997) (NYS000236) ("Nonlinear forms are preferred on theoretical grounds."). Additionally, the linear distance term is not statistically significant when included in the quadratic form, rather than treated as a standalone form, which suggests that the linear term only becomes statistically significant because it is picking up the omitted squared term's effect (*i.e.*, when the squared term is eliminated, the squared term's effect is hidden and erroneously attributed to the linear term). See Entergy Proposed Findings at 103-04 (¶ 195).

<sup>176</sup> New York Proposed Findings at 59-60 (¶¶ 167-68), 65 (¶ 178).

<sup>177</sup> See Entergy Proposed Findings at 105-06 (¶¶ 197-200).

<sup>178</sup> Oct. 22, 2012 Tr. at 2592:15-25 (Tolley).

analysis's reliability using statistical measures such as standard error coefficients.<sup>179</sup> New York does not dispute that Table 1 in Dr. Tolley's expert report provided these measures for his MLS regression.<sup>180</sup> Nor does New York dispute that Dr. Tolley's sample size was sufficient to provide statistically-significant results for most relevant explanatory variables.<sup>181</sup>

56. New York also incorrectly claims that Dr. Sheppard's repeat-sales sample included 1500 properties<sup>182</sup> when, in fact, Dr. Sheppard's repeat-sale analysis involved approximately the same number of individual properties as Dr. Tolley's hedonic analysis.<sup>183</sup> Moreover, Dr. Sheppard's opinion on this issue is undermined by the fact that, earlier in this proceeding, he relied heavily on a 1974 study involving an Illinois coal plant that had half as many observations as Dr. Tolley's hedonic analysis.<sup>184</sup> For these reasons, Dr. Tolley's sample size was sufficiently large for this Board to consider and rely upon his work.

***d. Dr. Tolley's Use of Asking Price Rather Than Sales Price in the MLS Analysis Was Valid***

57. New York claims that Dr. Tolley's MLS hedonic analysis is flawed because it used asking price rather than sales price.<sup>185</sup> New York bases this argument on the assertion that sellers list their homes higher than the actual sales price. Nothing in the record, however, demonstrates that asking prices are biased in a manner that invalidates Dr. Tolley's MLS regression results.<sup>186</sup>

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<sup>179</sup> Entergy Proposed Findings at 105 (¶ 198).

<sup>180</sup> Tolley Report at 17 (ENT000144).

<sup>181</sup> Entergy Proposed Findings at 105 (¶ 198).

<sup>182</sup> New York Proposed Findings at 45 (¶ 132).

<sup>183</sup> See Entergy Proposed Findings at 106 (¶ 199).

<sup>184</sup> See *id.* at 106 (¶ 200).

<sup>185</sup> New York Proposed Findings at 61 (¶ 170).

<sup>186</sup> Entergy Proposed Finding at 107 (¶ 202).

58. Furthermore, this criticism is inapplicable to Dr. Tolley's Assessor hedonic analysis, which used sales, not asking prices.<sup>187</sup> The Assessor analysis, like the MLS analysis, failed to support New York's theory that Indian Point operations adversely impact property values.<sup>188</sup>

***e. Dr. Tolley's Treatment of the Rail Station Variable in the MLS Analysis Was Reasonable***

59. New York argues that Dr. Tolley should have included both distance from the rail station and the square of distance from the rail station in his MLS regression.<sup>189</sup> New York, however, points to no reason why this alternative functional form for the rail station is preferable to the one Dr. Tolley selected.<sup>190</sup> To the contrary, Dr. Tolley testified that the linear distance functional form is widely used in cases where travel costs are important<sup>191</sup> and Dr. Sheppard appeared to agree.<sup>192</sup> Further, New York provided no evidence that adding a quadratic distance rail station variable materially alters Dr. Tolley's ultimate conclusion about Indian Point.<sup>193</sup> Thus, Dr. Tolley's linear distance variable for rail stations is based on sound economic theory and New York's criticism about the rail station functional form is immaterial.

***f. Hedonic Analysis Requires No Control Group or Event Window***

60. New York argues that Dr. Tolley's MLS hedonic analysis failed to include a

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<sup>187</sup> Tolley Report at 48-50 (ENT000144).

<sup>188</sup> *Id.* at 50.

<sup>189</sup> New York Proposed Findings at 61-62 (¶ 172).

<sup>190</sup> *Id.*

<sup>191</sup> Entergy Supplemental Testimony at 15 (A20) (ENT000592).

<sup>192</sup> Oct. 22, 2012 Tr. at 2669:6-12, 2682:11-16 (Sheppard).

<sup>193</sup> Dr. Sheppard testified that including both the distance and the square of the distance from the nearest rail station "reveals that both distance and the square of distance from the *rail station* are statistically significant." New York Rebuttal Testimony at 33:1-3 (NYS000434) (emphasis added). Notably, he did *not* testify that including both the distance and the square of the distance from the nearest rail station reveals that both distance and the square of distance from *Indian Point* are statistically significant.

proper control group and focused on too narrow a timeframe.<sup>194</sup> Contrary to New York’s assertion, the record shows that hedonic regression analysis does not require a control group, an event, or a representative time period.<sup>195</sup> Instead, hedonic modeling uses statistical regression analysis to estimate property value impacts by controlling for other housing characteristics that also impact property values.<sup>196</sup> Numerous hedonic studies in the record—including studies on which Dr. Sheppard relied—illustrate that the hedonic technique does not require a control group or identifying an event.<sup>197</sup>

**3. Even Assuming Dr. Sheppard’s \$1.07 Billion Increase The No-Action Alternative Would Result in a Net Negative Property Value Impact Compared to License Renewal**

61. New York fails to directly address the fundamental argument by Entergy and the NRC Staff that Dr. Sheppard presented a \$1.07 billion post-operations property value rebound estimate, but never compared the impacts of the no-action alternative with license renewal impacts, leaving Dr. Sheppard’s analysis fundamentally incomplete.<sup>198</sup> As Dr. Tolley explained, to conduct such a comparison requires that the Board consider the difference in the discounted net present value of property values changes under the no-action alternative and the license renewal alternative.<sup>199</sup> Dr. Tolley testified that any reasonable comparison between the no-action alternative and license renewal must: (1) apply a horizon cut-off or discount rate to sensibly compare benefits and costs that occur in different time periods; (2) account for when the alleged

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<sup>194</sup> New York Proposed Findings at 60 (¶ 169), 61 (¶ 171).

<sup>195</sup> Oct. 22, 2012 Tr. at 2598:18-23 (Tolley); *see also* Entergy Proposed Findings at 90 (¶ 170), 92 (¶ 174).

<sup>196</sup> Tolley Report at 9 (ENT000144).

<sup>197</sup> *See, e.g.*, B. Prest, *Measuring the Externalities of Nuclear Power: A Hedonic Study*, unpublished thesis, Williams College (2009) (NYS000232); D. Clark and L. Nieves, *An Interregional Hedonic Analysis of Noxious Facility Impacts on Local Wages and Property Values*, 27 *Journal of Environmental Economics and Management* 235 (1994) (NYS000235). *See also* New York Direct Testimony at 5:4-17 (NYSR00224).

<sup>198</sup> Oct. 22, 2012 Tr. at 2565:9-16 (Sheppard) (leaving it to “the Board, or whomever” to compare the no-action alternative to license renewal).

<sup>199</sup> Entergy Testimony at 97 (A123) (ENT000132); Oct. 22, 2012 Tr. at 2630:6-2631:24 (Tolley).

property value change would happen under each scenario; and (3) account for differences in PILOT payments and property taxes under each scenario.<sup>200</sup> As discussed below, New York's Proposed Findings largely ignore or obfuscate the significance of these issues.

**a. Discount Rate**

62. New York dismisses the importance of discount rates and simply argues that Dr. Sheppard applied no discount rate in his final report because he used "the actual change in house prices in the broader region as a basis for estimating the impact of removing the IPEC disamenity" and "evaluated the impact as of a particular date (January 2011)."<sup>201</sup> This confusing explanation avoids the fundamental nature of this issue.

63. As Dr. Tolley made clear, using a discount rate in the evaluation of future scenarios is economically necessary to properly weigh the costs and benefits of a proposed action when these costs and benefits accrue in the future or at different points in time.<sup>202</sup> In this case, that is important for two reasons. First, it allows one to compare Dr. Sheppard's alleged property value recovery under the no-action alternative with the alleged recovery under the license renewal alternative (which would be delayed by twenty years). Second, it allows one to compare the loss of PILOT payments under the no-action alternative with the loss of PILOT payments under the license renewal (which would be delayed by twenty years).

64. Dr. Sheppard acknowledged that he did not apply a discount rate and instead asserted that his \$1.07 billion gain merely provided an input that the Board can consider when comparing the no-action alternative and license renewal.<sup>203</sup> Specifically, Dr. Sheppard testified that his study only provides "an estimate of the dollar value magnitude of property value

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<sup>200</sup> Entergy Testimony at 97 (A123) (ENT000132); Oct. 22, 2012 Tr. at 2630:6-2631:24 (Tolley).

<sup>201</sup> New York Proposed Findings at 76 (¶ 207).

<sup>202</sup> Entergy Testimony at 97 (A123) (ENT000132).

<sup>203</sup> See Oct. 22, 2012 Tr. at 2565:9-20, 2638:21-2639:17 (Sheppard).

recovery that can be expected after cessation of operations” but that the “the Board, or whomever can consider the difference between getting \$1 billion now, or getting \$1 billion in 2015 versus getting \$1 billion 20 years later.”<sup>204</sup> To properly consider the difference between the no-action alternative and license renewal, however, the Board would have to consider a discount rate.<sup>205</sup> Thus, it appears that New York has simply shifted its burden on this issue to the Board<sup>206</sup> and has failed to substantiate its assertion that no discount rate is necessary to compare the no-action alternative and license renewal.<sup>207</sup>

***b. Property Value Increase Timeframe***

65. Dr. Sheppard testified that the full \$1.07 billion gain would be realized within about ten years after operations end, well before the plant would be decommissioned and the site reclaimed.<sup>208</sup> New York, however, never mentions that Dr. Sheppard’s testimony was a significant departure from positions he took on three separate occasions in written reports filed with the Board, which identified the completion of site reclamation and decommissioning as the

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<sup>204</sup> Oct. 22, 2012 Tr. at 2565:9-16 (Sheppard).

<sup>205</sup> As discussed in the following section, Dr. Sheppard provides no support that his \$1.07 billion property value increase would take place within ten years after operations cease. Even so, a discount rate would still be necessary to put in present dollars a property value increase that takes place over a 10-year period and to compare that to an increase that license renewal delays by twenty years.

<sup>206</sup> See New York Proposed Findings at 58 (¶ 162).

<sup>207</sup> New York’s claim that Dr. Tolley “confused” the discount rate discussion in Dr. Sheppard’s 2009 report with Dr. Sheppard’s failure to use a discount rate in his December 2011 report is contrary to the hearing record. To support this argument, New York cites Dr. Tolley’s prefiled testimony plainly criticizing Dr. Sheppard’s earlier (January 2011) report for applying a four percent discount rate instead of a seven percent discount rate. Entergy Testimony at 99 (A126-127) (ENT000132). It was not until later that Dr. Sheppard submitted prefiled rebuttal testimony conceding that a seven discount rate is appropriate and, at the hearing, emphasized that the Board should focus on his final analysis in his December 2011 report. See New York Proposed Finding at 76 (¶ 207 n.11). Thus, Dr. Tolley was not “confused” about Dr. Sheppard’s earlier report. Of importance here, Dr. Tolley criticized Dr. Sheppard’s December 2011 report for failing to apply *any* discount rate. Entergy Testimony at 111 (A140) (ENT000132); Tr. at 2660:8-24 (Tolley).

<sup>208</sup> New York Proposed Finding at 2 (¶ 5).

trigger for any property value increase.<sup>209</sup> In fact, Dr. Sheppard pointed to no data connecting any physical changes at Indian Point to his 10-year timeframe and otherwise failed to substantiate that timeframe as the period for any potential property value recovery.<sup>210</sup> As such, Dr. Sheppard's 10-year assumption is entitled to no weight.

66. In contrast to Dr. Sheppard's speculation, Entergy's and NRC Staff's decommissioning experts established that a 60-year decommissioning timeframe constitutes a reasonable assumption for how long it would take for site reclamation and restoration to occur.<sup>211</sup> As Dr. Tolley testified, any disamenity impact must therefore be discounted over the 60-year decommissioning period because no beneficial use of the site could occur and any purported disamenity impacts from Indian Point would remain, at least in part, for decades.<sup>212</sup>

67. In summary, based on the entire record, Dr. Sheppard failed to justify his 10-year recovery period, whereas the 60-year decommissioning constitutes a more reasonable assumption for considering the timeframe for any potential property value increase.

***c. PILOT and Property Tax Payments***

68. New York does not dispute that Entergy's PILOT payments currently represent a significant portion of local government revenues.<sup>213</sup> Instead, New York claims that Dr. Sheppard need not explicitly consider PILOT payments because: (1) his repeat-sales analysis implicitly

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<sup>209</sup> See New York Proposed Findings at 55 (¶ 153) (conceding that "decommissioning of IPEC and reclamation of the site" is what would generate Dr. Sheppard's billion property value increase); see also Entergy Proposed Findings at 112-13 (¶ 214), 114-15 (¶ 217).

<sup>210</sup> Oct. 22, 2012 Tr. at 2640:11-25 (Sheppard).

<sup>211</sup> NRC Staff Testimony at 19-22 (A.24-A.25) (NRCR00081); Entergy Testimony at 94-96 (A122) (ENT000132).

<sup>212</sup> Entergy Testimony at 97-99 (A123-A128) (ENT000132); Oct. 22, 2012 Tr. at 2630:2-10, 2658:15-2659:17 (Tolley). Notwithstanding New York's claim to the contrary, see New York Proposed Findings at 27 (¶ 86), NRC's initial approval of Entergy's 60-year decommissioning period is not at issue in this proceeding. In any event even if decommissioning were to occur earlier, there is no evidence in the record that this would or even could occur within ten years.

<sup>213</sup> FSEIS at 4-46 (NYS00133B); Declaration of Cory Gruntz at 2-4 (Nov. 21, 2012) (ENT000591).

accounted for PILOT distribution impacts on property values; and (2) Dr. Tolley's separate hedonic analysis on the different, MLS data set showed that PILOT payments have a statistically insignificant impact on property values.<sup>214</sup> Both arguments lack merit.<sup>215</sup>

69. First, New York's claim that Dr. Sheppard implicitly accounts for PILOT payments ignores Dr. Tolley's rationale for explicitly including PILOT payments. Namely, Dr. Sheppard's \$1.07 billion impact estimate presumably accounted for net property value impacts (*i.e.*, positive PILOT impacts minus disamenity impacts). However, any comparison between license renewal and the no-action alternative must account for the fact that PILOT distributions will significantly decrease far earlier than when property owners would realize any alleged property value increase associated with Indian Point's decommissioning.<sup>216</sup> New York does not dispute that while PILOT and tax payments would remain relatively unchanged under license renewal, those payments would decrease significantly once operations cease.<sup>217</sup> Accordingly, New York has no basis to dispute that explicitly including PILOT payments calculations in the no-action alternative and license renewal comparison, as suggested by Dr. Tolley, is necessary to account for this difference when one compares the two.

70. Second, contrary to New York's claim, Dr. Tolley did not reject "actual site-specific evidence on the flimsy ground that it is contrary to the 'body of received public finance literature on this point.'"<sup>218</sup> To be sure, Dr. Tolley relied on decades of experience and established economic theory to support his view that PILOT payments have an effect on property

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<sup>214</sup> New York Proposed Findings at 74-75 (¶¶ 203-04); *see also id.* at 55-56 (¶¶ 154-56).

<sup>215</sup> *See* Entergy Proposed Findings at 82-83 (¶¶ 222-23).

<sup>216</sup> *See* Entergy Testimony at 103-06 (A132) (ENT000132).

<sup>217</sup> *See id.* at 102-03 (A131).

<sup>218</sup> New York Proposed Finding at 75 (¶ 206).

values.<sup>219</sup> However, in addition to this established economic literature, Dr. Tolley also considered *all* of the evidence, including the site-specific statistically-significant results he developed using Dr. Sheppard’s own data, which Dr. Sheppard did not dispute.<sup>220</sup> Thus, based on the entire record, it is clear that the no-action alternative and license renewal comparison should recognize, and take account of, differences in PILOT and property tax payments.<sup>221</sup>

***d. Comparing the No-Action Alternative to License Renewal***

71. Aside from the issues discussed above, New York does not dispute Dr. Tolley’s calculations or conclusion that the no-action alternative would have a net negative impact on property values compared to license renewal if one accounts for discount rates, a 60-year decommissioning period, and differences in PILOT distributions. Thus, to the extent New York claims that the FSEIS did not adequately address a LARGE positive property value impact, the record shows that no such impact exists.<sup>222</sup>

**F. New York’s Future Positive Offsite Land-Use Impacts Are Remote and Speculative**

72. At its core, NYS-17B is about property value-driven offsite land-use impacts, not simply property value changes (a purely economic phenomenon, standing alone).<sup>223</sup> New York, however, incorrectly claims that it is “*undisputed* that property values determine land use.”<sup>224</sup> Based on Dr. Sheppard’s testimony, New York asserts that “[o]ne cannot understand the land use consequences of a decision or public policy without careful analysis of how the decision or

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<sup>219</sup> See *id.* at 75 (¶ 205); Entergy Proposed Finding at 117-18 (¶ 223).

<sup>220</sup> Tolley Report at 49 (ENT000144); Entergy Supplemental Testimony at 5-6 (A8) (ENT000592).

<sup>221</sup> Mr. Cleary’s testimony is not inconsistent with this conclusion as suggested by New York. See New York Proposed Findings at 75 (¶ 206). Consistent with the FSEIS, Mr. Cleary testified that “population levels and land use conditions in the Town of Cortlandt, Village of Buchanan, and Westchester County have not changed significantly since Entergy started making payments to local jurisdictions.” Entergy Testimony at 58 (A84) (ENT000132). Mr. Cleary was discussing land-use impacts, not property value impacts, which he and Dr. Tolley indicated cannot be equated in the broad-brushed manner suggested by Dr. Sheppard. *Id.* at 49 (A74). Further, Mr. Cleary’s statement says nothing about the importance of PILOT payments under the no-action alternative.

<sup>222</sup> See Entergy Testimony at 111-13 (A141) (ENT000132).

policy will affect house prices and property values.”<sup>225</sup> As support for this claim, New York quotes a book co-authored by Dr. Tolley, which states that “the same things that influence house price also determine location patterns . . . city size and migration.”<sup>226</sup> New York also claims that the severity of the nationwide recession resulting from the 2007 housing market collapse illustrates that the no-action alternative would have LARGE positive land-use impacts.<sup>227</sup>

73. The record demonstrates that, even assuming the no-action alternative would eventually cause surrounding property values to increase, such an increase would not drive any reasonably foreseeable offsite land-use impacts.<sup>228</sup> Dr. Sheppard provided no supporting analysis of particular future land-use development or changes. He only vaguely equated land-use impacts with his alleged property value impacts.<sup>229</sup> Similarly, Dr. Sheppard’s reference to the national recession is just as vague and provides nothing that could assist the NRC in evaluating any potential land-use impacts.<sup>230</sup> Further, at best, the quote from Dr. Tolley’s book cited by New York says only that property values and land use are influenced by the same things—not that property value changes directly cause land-use impacts.<sup>231</sup> Nor does that quote mention the magnitude of any land-use impacts. Thus, even if there were a property value increase under the no-action alternative—an outcome that Dr. Tolley disputed—the quote from Dr. Tolley is entirely consistent with the conclusion that land-use impacts would, at most, be SMALL. As

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<sup>223</sup> See *Indian Point*, LBP-08-13, 68 NRC at 114-16.

<sup>224</sup> New York Proposed Finding at 24-25 (¶ 79) (emphasis added); see also *id.* at 30 (¶ 95), 77 (¶¶ 210-11).

<sup>225</sup> *Id.* at 24-25 (¶ 79).

<sup>226</sup> *Id.*

<sup>227</sup> *Id.* at 56-57 (¶¶ 157-59).

<sup>228</sup> Entergy Proposed Findings at 119-23 (¶¶ 226-33).

<sup>229</sup> New York Direct Testimony at 40:1-10 (NYSR00224).

<sup>230</sup> *Id.* at 40:12-23 (NYSR00224).

<sup>231</sup> New York Rebuttal Testimony at 8:13-18 (NYS000434).

such, it provides no support for New York’s overly simplistic assertion that it is appropriate to equate property value impacts with offsite land-use impacts.

74. In addition, New York’s argument that a property value impact assessment is central to a land-use evaluation is directly contrary to how New York itself evaluates land use under the New York State equivalent of NEPA. In the recent State Environmental Quality Review Act (“SEQRA”)<sup>232</sup> FEIS for the Cricket Valley natural-gas plant, the New York State Department of Environmental Conservation (“NYSDEC”) reached conclusions consistent with those taken by Entergy and the NRC Staff in this proceeding.<sup>233</sup> In the Cricket Valley FEIS, NYSDEC stated that there is no “clear, consistent correlation between power plant location and reduced property values.”<sup>234</sup> Further, NYSDEC performed no quantitative or site-specific property value impact analysis, nor did it mention property value changes in its discussion of land-use impacts.<sup>235</sup> Instead, the Cricket Valley FEIS land-use evaluation focused on historic land-use patterns, current land-use regulations and zoning ordinances, and tax rates and incentives—the same issues addressed by Entergy and the NRC Staff.<sup>236</sup> Once again, New York’s position appears to be “do as I say, not as I do.”<sup>237</sup>

75. Entergy and NRC Staff testimony, along with the Indian Point-specific study included in the GEIS and more recent information in local land-use plans included in the record, undermines New York’s claim that there are unexamined non-speculative and significant offsite

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<sup>232</sup> SEQRA is the New York State-level counterpart of NEPA. *See Jackson v. N.Y. State Urban Dev. Corp.*, 67 N.Y.2d 400, 415, 494 N.E.2d 429, 434 (1986) (noting SEQRA is modeled after NEPA).

<sup>233</sup> New York State Department of Environmental Conservation, Final Environmental Impact Statement, Cricket Valley Energy Project - Dover, NY at 6-67 to -68 (NRC000165).

<sup>234</sup> *Id.* at 6-68 (noting that “property values are driven by a myriad of factors which include externalities such as the quality of school systems, property taxes, and community services”).

<sup>235</sup> *See id.* at 6-1 to -2, 6-67 to -68.

<sup>236</sup> *See id.* at 6-1 to -2.

<sup>237</sup> *See* Entergy’s Proposed Findings of Fact and Conclusions of Law for Contention NYS-37 Energy Alternatives at 70-71 (¶ 128) (Mar. 22, 2013), *available at* ADAMS Accession No. ML13081A744.

land-use impacts under the no-action alternative.<sup>238</sup> New York, however, never cites, let alone analyzes, the land-use plans from the jurisdictions directly surrounding Indian Point, including the Village of Buchanan (ENTR00137), the Town of Cortlandt (ENT000138), or Westchester County (ENT000139). As such, New York ignores that for significant offsite land-use changes to occur, numerous uncertain future steps by unknown third parties would have to take place, including zoning changes, shutting down other nearby industrial facilities along the Hudson River, and then developing the surrounding properties.<sup>239</sup> Because such long-term, significant future land-use changes are both contrary to historic development patterns and current local land-use plans, such possible changes are remote and speculative and thus need not be considered under NEPA.<sup>240</sup>

### III. CONCLUSION

76. For the foregoing reasons, and those expressed in the NRC Staff's and Entergy's Proposed Findings, the NRC Staff and Entergy carried their respective burdens of proof, and, based on the entire evidentiary record of this proceeding, the NRC has satisfied its NEPA obligations under 10 C.F.R. Part 51 with respect to NYS-17B. In summary, the preponderance of the evidence shows that New York's alleged property value changes are not the result of any physical impact to the environment actually caused by Indian Point and, even if they were, the no-action alternative would not cause a substantial increase in property values. The preponderance of the evidence also shows that even assuming the no-action alternative would

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<sup>238</sup> See New York Proposed Findings § V.E.

<sup>239</sup> Entergy Testimony at 60 (A87) (ENT000132).

<sup>240</sup> See *Soc'y Hill Towers Ass'n*, 210 F.3d at 182 (NEPA does not require consideration of "merely contemplated future actions" or development that "is unlikely or difficult to anticipate."); see also *Natural Res. Def. Council v. Callaway*, 524 F.2d 79, 93 (1975) (holding that NEPA does not require consideration of "significant changes in governmental policy or legislation"); *Shasta Res. Council v. U.S. Dep't of Interior*, 629 F. Supp. 2d 1045, 1059-60 (E.D. Cal. 2009) (holding that agency did not err by failing to consider alternative that would have required legislative appropriation of additional funds because chances of additional appropriations were remote and speculative).

eventually cause surrounding property values to increase, such an increase would not drive any reasonably foreseeable offsite land-use impacts. Nothing in New York's Proposed Findings alters these fundamental conclusions. The Board should therefore resolve NYS-17B in favor of the NRC Staff and Entergy.

Respectfully submitted,

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

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OPERATIONS, INC.

Dated in Washington, D.C.  
this 3rd day of May 2013

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**BEFORE THE ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of )	Docket Nos. 50-247-LR and
ENTERGY NUCLEAR OPERATIONS, INC. )	50-286-LR
(Indian Point Nuclear Generating Units 2 and 3) )	
	May 3, 2013

**CERTIFICATE OF SERVICE**

Pursuant to 10 C.F.R. § 2.305 (as revised), I certify that, on this date, copies of “Entergy’s Reply to New York State Proposed Findings of Fact and Conclusions of Law For Contention NYS-17B (Property Values)” were served upon the Electronic Information Exchange (the NRC’s E-Filing System), in the above-captioned proceeding.

*Signed (electronically) by Lance A. Escher*

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