

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3)
	ASLBP #: 07-858-03-LR-BD01
	Docket #: 05000247   05000286
	Exhibit #: NYS000437-00-BD01
	Admitted: 10/15/2012
	Rejected:
Other:	Identified: 10/15/2012
	Withdrawn:
	Stricken:

NYS000437  
Submitted: June 29, 2012

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

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In re: Docket Nos. 50-247-LR; 50-286-LR

License Renewal Application Submitted by ASLBP No. 07-858-03-LR-BD01

Entergy Nuclear Indian Point 2, LLC, DPR-26, DPR-64

Entergy Nuclear Indian Point 3, LLC, and

Entergy Nuclear Operations, Inc. June 29, 2012

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**PRE-FILED WRITTEN REBUTTAL TESTIMONY OF**  
**DAVID A. SCHLISSEL**  
**REGARDING CONTENTION NYS-37**

On behalf of the State of New York ("NYS" or "the State"), the Office of the Attorney General hereby submits the following testimony by David A. Schlissel regarding Contention NYS-37.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to respond to the testimony of Entergy Witnesses Donald P. Cleary, David Harrison, Jr., and Eugene T. Meehan Regarding Contention NYS-37 (Energy Alternatives).

Q. What documents did you review in preparation for your rebuttal testimony?

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1           A.    I read Entergy's Statement of Position concerning  
2   Contention NYS-37; the testimony of Entergy witnesses Donald P.  
3   Cleary, David Harrison, Jr., and Eugene T. Meehan concerning  
4   NYS-37 and exhibits thereto ("Entergy Testimony") and the report  
5   prepared for Entergy by NERA Economic Consultants.  I have also  
6   read NRC Staff's Statement of Position concerning Contention  
7   NYS-37 and the testimony of NRC witness Andrew L. Stuyvenberg  
8   and exhibits thereto("Staff Testimony").

9           Q.    What are your conclusions?

10          A.    My conclusions are as follows:

11           1.    Entergy's witnesses on Contention NYS-37 (Energy  
12                  Alternatives) inappropriately used the widely  
13                  respected National Energy Modeling System  
14                  ("NEMS") to model the No Action Alternative.  NEMS  
15                  is traditionally used to model the effect of  
16                  proposed policy changes or alternatives.  I have  
17                  never seen it used, as Entergy's witnesses use it  
18                  here, to model the retirement of one or two  
19                  specific generating units.

20           2.    There are other production simulation models that  
21                  are traditionally used in the industry to  
22                  evaluate the economic and environmental impacts  
23                  of power plant retirements and the addition of

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1 new generating capacity, energy efficiency and  
2 renewable resources. For example, Entergy's 2003  
3 assessment of the potential economic and  
4 environmental impacts of an Indian Point Energy  
5 Center ("IPEC") retirement used the GE MAPS  
6 model.

7 3. Entergy has not modeled a credible No Action  
8 Alternative. It assumes that there would be no  
9 market or state response to replace the lost  
10 generation from IPEC until 2026 other than  
11 through the continued operation of old, dirty and  
12 inefficient coal and oil/gas steam units that  
13 would otherwise be retired by 2015.

14 4. The results of Entergy's NEMS modeling of the No  
15 Action Alternative do not provide credible  
16 evidence that there would only be a small role  
17 for additional energy efficiency and conservation  
18 under the No Action Alternative.

19 A. Neither the NEMS Baseline analysis nor  
20 Entergy's No Action Alternative modeled New  
21 York State's current "15 x 15" energy  
22 efficiency plan.

23 B. NEMS does not model energy efficiency as an

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1 additional resource. Instead, the only way  
2 in NEMS to model additional energy  
3 efficiency is to reduce the energy forecast  
4 - something that Entergy's witnesses did not  
5 do either in the Baseline Analysis or the  
6 No-Action Alternative. For this reason, it  
7 is not possible for NEMS to directly compare  
8 the cost of continuing to operate Indian  
9 Point against the cost of achieving more  
10 energy efficiency. In fact, the NEMS model  
11 could not add additional energy efficiency  
12 even if it is the lower cost resource.

13 5. The results of Entergy's NEMS modeling also do  
14 not provide credible evidence that additional  
15 renewable resources would not play a significant  
16 role as replacement energy in a No Action  
17 Alternative. In particular, Entergy did not  
18 consider the potential for a proposed  
19 transmission line to bring additional low cost  
20 renewable resources into downstate New York from  
21 Canada or that the cost of renewable resources  
22 might decrease as a result of economies of scale.

23 6. Entergy unreasonably assumes in its No Action

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1 Alternative that the following substantial  
2 amounts of older, dirtier and less efficient coal  
3 and oil and gas steam capacity would continue to  
4 operate long past 2015:

- 5 • 323 MW of coal capacity in Upstate New York  
6 that would otherwise be retired in 2015 or  
7 2017
- 8
- 9 • 822 MW of oil and gas steam capacity in  
10 Upstate New York that would otherwise be  
11 retired in 2018
- 12
- 13 • 25 MW of combustion turbine capacity on Long  
14 Island that would otherwise be retired in  
15 2015
- 16
- 17 • 85 MW of coal capacity in New England that  
18 would otherwise be retired in 2016
- 19
- 20 • 960 MW of oil and natural gas steam capacity  
21 in New England that would otherwise be  
22 retired in 2015 or 2016
- 23

24 7. Entergy's witnesses misleadingly understate the  
25 marginal cost of generating electricity at  
26 existing coal and oil and natural gas steam  
27 generating units.

28 8. In Entergy's modeling of the No Action  
29 Alternative:

30 A. No clean and efficient replacement capacity  
31 is added in New York State (let alone

1 downstate New York City/Westchester County)  
2 until 2026 and then only a relatively small  
3 amount (300 MW in total) is added in the  
4 years 2026 through 2040.

5 B. In Entergy's modeling of the No Action  
6 Alternative most of the replacement power  
7 for Indian Point is built in New England and  
8 not New York State. However, no clean and  
9 efficient replacement capacity would be  
10 added in New England before 2025 and then  
11 only a relatively small amount (110 MW)  
12 would be added until 2030.

13 9. It is more reasonable to expect that the likely  
14 market response would be to add some replacement  
15 generating capacity before 2026 if IPEC is not  
16 relicensed.

17 10. New York State is currently taking a number of  
18 actions to ensure that there would be new  
19 generating capacity in downstate New York if IPEC  
20 is not relicensed or that there would be  
21 additional transmission capability to import new  
22 generating capacity (both clean and efficient gas  
23 and renewable) into the downstate region. These

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1 actions include the development of a New York  
2 Energy Highway.

3 11. Well over 2,000 MW of clean and efficient new  
4 natural gas-fired combined cycle capacity is  
5 being proposed for construction in or near New  
6 York City and Westchester County.

7 12. The NEMS modeling of the Baseline Analysis and  
8 the No Action Alternative does not reflect either  
9 the New York Energy Highway or the over 2,000 MW  
10 of clean and efficient generating capacity being  
11 proposed for construction in or near New York  
12 City and Westchester County.

13 13. Entergy's witnesses misleadingly overstate the  
14 environmental impacts of the No Action  
15 Alternative by understating the potential for (a)  
16 substantial energy efficiency, (b) renewable  
17 energy and (c) clean and efficient generating  
18 capacity as alternatives if IPEC is not  
19 relicensed.

20 Q. Entergy's witnesses have testified that they have  
21 developed two related "empirical" evaluations to identify the  
22 environmental impacts of the generation that would likely  
23 replace Indian Point Energy Center ("IPEC") under the No Action

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1 Alternative.<sup>1</sup> Do you agree that they have presented the results  
2 of two "empirical" evaluations?

3 A. No. They present only a single empirical evaluation -  
4 based on their NEMS modeling - (and that is seriously flawed as  
5 I will explain). The remainder of the Entergy witnesses'  
6 testimony on Contention NYS-37 consists of hypothesis and  
7 conjecture.

8 Q. Entergy's witnesses testify that the results of their  
9 NEMS modeling show that under the No Action Alternative (1)  
10 existing IPEC generation would be replaced primarily by fossil-  
11 fueled generation from existing natural gas and coal facilities  
12 and (2) conservation and renewables would be unlikely to play  
13 significant roles in replacing lost generation from IPEC. Do  
14 the results of the NEMS modeling support these claims?

15 A. No. The NEMS results presented by Entergy's witnesses  
16 are misleading and flawed for several reasons. First, NEMS is  
17 not the appropriate model to use to determine the economic and  
18 environmental impacts of the No Action Alternative. Second,  
19 NEMS does not accurately or fully model New York's "15 x 15"  
20 energy efficiency plan or the potential for additional energy

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<sup>1</sup> Testimony of Entergy Witnesses Donald P. Cleary, David Harrison, Jr., and Eugene T. Meehan Regarding Contention NYS-37 (Energy Alternatives), ENT000479 ("Entergy Testimony") at Answer A49 on page 34.

1 efficiency above that included in the "15 x 15" plan. Third,  
2 the assumption that if Indian Point Units 2 and 3 were retired  
3 in 2013 and 2015, respectively, replacement capacity would not  
4 be added in downstate New York until sometime in 2026 is  
5 completely unrealistic in that it ignores (a) the current plans  
6 being developed by New York State to add clean and efficient new  
7 natural gas-fired generating capacity in the New York  
8 City/Westchester region of the state and (b) the economic  
9 incentives that the retirement of IPEC would create for  
10 developers of new generating projects in the New York  
11 City/Westchester region.

12 Q. Have you ever seen NEMS used to measure the economic  
13 and environmental impacts of retiring one or two generating  
14 units, as Entergy's witnesses use it here?

15 A. No. I have seen NEMS used (a) to evaluate the impact  
16 of new or revised national or regional policies or (b) to  
17 provide inputs (such as projected future natural gas and coal  
18 prices) that have been used in plant retirement studies.  
19 However, I have not seen NEMS used to evaluate the potential  
20 economic and environmental impacts of retiring one or two  
21 specific generating units such as Indian Point Units 2 and 3.

22 Q. In your experience is the NEMS model the appropriate  
23 model to use to evaluate the economic and environmental impacts

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1 of retiring Indian Point Units 2 and 3?

2 A. No. As Entergy's witnesses have explained, NEMS is  
3 used by the Energy Information Administration to perform policy  
4 analyses in response to requests from Congress, the White House,  
5 the Department of Energy, and other federal agencies.<sup>2</sup> The firm,  
6 NERA Economic Consulting, for which Entergy witnesses David  
7 Harrison and Eugene Meehan work, and other analysts, also have  
8 used NEMS to model potential policy changes in other contexts.<sup>3</sup>

9 Q. Why is NEMS an inappropriate model to use to evaluate  
10 the economic and environmental impacts of retiring IPEC?

11 A. Although NEMS is a widely used model for policy  
12 analysis because it seeks to replicate the entire U.S. and even  
13 portions of Canada, it offers only very simplified descriptions  
14 of the electric grid and the electric dispatch process in any  
15 one state (New York State included). For example, generating  
16 units are dispatched in NEMS for only 9 demand points or  
17 segments in the year instead of all 8760 hours. Thus, the model  
18 does not provide a detailed or accurate picture of the dispatch  
19 of generating units in the state. The same is true for the rest  
20 of the United States. For this reason, the results of the NEMS  
21 analyses presented by Entergy's witnesses may be gross

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<sup>2</sup> Entergy Testimony, Answer A88 at page 72.

<sup>3</sup> Id.

1 distortions of what would actually happen if IPEC is not  
2 relicensed.

3 In addition, NEMS divides the New York State electric grid  
4 into only 3 zones with just a single transmission link modeled  
5 between each zone. By way of contrast, NYISO divides New York  
6 into 11 zones (A through K) with different transmission  
7 interchange limits between the zones.

8 Q. Are there other electric system models that Entergy  
9 could and should have used to better evaluate the economic and  
10 environmental impacts of the No Action Alternative?

11 A. Yes. There are a number of electric system models  
12 that are routinely used for capacity expansion planning analyses  
13 or for examining the economic and environmental impacts of  
14 retiring existing generating facilities. These models include  
15 GE-MAPS, Strategist, Market Analytics, and PROMOD. These models  
16 provide more detailed replications of the existing electric  
17 grids and the economic dispatch of existing generating  
18 facilities than does NEMS.

19 Q. Has Entergy previously used any of these models to  
20 evaluate the economic and environmental impacts of retiring  
21 Indian Point Units 2 and 3?

22 A. Yes. As noted by Entergy witnesses Harrison and  
23 Meehan, Entergy used the GE MAPs model in a 2002-2003 assessment

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1 of the potential economic and environmental impacts of an IPEC  
2 shutdown.<sup>4</sup>

3 Q. What is your opinion of the No Action Alternative that  
4 Entergy has modeled with NEMS?

5 A. The No Action Alternative that Entergy has modeled is  
6 not credible in any way. It assumes that there would be no  
7 market or state response to replace any of the lost generation  
8 from IPEC until 2026 other than through the continued operation  
9 of old, dirty and inefficient coal and oil/gas steam units that  
10 would otherwise have been retired by 2015.

11 For this reason, Entergy does not model a reasonable No  
12 Action Alternative. Instead, it models what clearly is a 'worst  
13 case' alternative in which (a) there is very little or no new  
14 energy efficiency, (b) little new renewable energy and (3) no  
15 efficient and clean new capacity is added until 2026 or later.  
16 Instead, Entergy models a No Action future in which old, dirty  
17 and inefficient coal and oil/gas units that would be retired in  
18 or around 2015 are operated as baseload facilities for an  
19 additional 20 years. This is simply not a credible future.

20 Q. What have you reviewed to reach your conclusions about  
21 the reasonableness of the results of Entergy's NEMS modeling of  
22 the Baseline analysis and the No Action Alternative?

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<sup>4</sup> Entergy Testimony, Answer A12 at page 9.

1           A.    I reviewed an Excel file provided by Entergy entitled  
2 "NERA\_Full NEMS Output Including Unused Tables." Entergy  
3 represents that this Excel file contains the full NEMS output,  
4 including all the output tables that NERA used in its analysis  
5 and the output tables that NERA deemed irrelevant and did not  
6 use in its analysis.<sup>5</sup>

7           Q.    What is your opinion of the results of Entergy's NEMS  
8 modeling that purport to show there would only be a small role  
9 for additional energy efficiency and conservation under the No  
10 Action Alternative?<sup>6</sup>

11           A.    These results are not credible. First, contrary to  
12 what Entergy's witnesses imply, NEMS does not model (nor does it  
13 have an easy way to model) New York State's current "15 x 15"  
14 energy efficiency goal. Consequently, Entergy's witnesses have  
15 not shown that all of the low cost energy efficiency that will  
16 be achieved under the "15 x 15" plan already is included in  
17 their "Baseline" analysis and, in fact, there may be a  
18 significant amount of additional low cost energy efficiency  
19 available to replace IPEC beyond that reflected in that Baseline  
20 analysis.

21           At the same time, the NEMS model does not treat energy

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<sup>5</sup>       Exh. NYS000438

<sup>6</sup>       Entergy Testimony, Answer A85 at page 71.

1 efficiency as an additional resource - that is, the only way to  
2 model additional energy efficiency in NEMS is as a reduction to  
3 the energy forecast. For this reason, it is not possible in  
4 NEMS to directly compare the cost of continuing to operate  
5 Indian Point against the cost of adding more energy efficiency.  
6 As a result, as Entergy has run it, (that is, without reducing  
7 the energy forecast for New York State to reflect either the "15  
8 x 15" goal or the availability of other low cost energy  
9 efficiency) the NEMS model could not add additional energy  
10 efficiency even if it is the lower cost resource. Instead, the  
11 model is limited to reflecting only a very limited amount of  
12 price induced conservation.

13 Q. After reviewing the testimony and report filed by  
14 Entergy's witnesses on Contention NYS-37, is it still your  
15 opinion that energy efficiency could play a significant role as  
16 replacement energy in a No Action Alternative?

17 A. Yes. It is not a surprise that Entergy's modeling  
18 results do not show a major role for additional energy  
19 efficiency in the No Action Alternative because (1) NEMS does  
20 not model the New York State "15 x 15" energy efficiency goal  
21 and (2) it is not possible to add any other low cost energy  
22 efficiency in NEMS except by reducing the energy forecast which  
23 Entergy's witnesses have not done. For these reasons, I

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1 continue to believe that energy efficiency could play a  
2 significant role as replacement energy in a No Action  
3 Alternative.

4 Q. What is your opinion of the results of Entergy's NEMS  
5 modeling that purport to show that additional renewable  
6 resources would not play a significant role as replacement  
7 energy in a No Action Alternative?

8 A. These results are not credible. Entergy's  
9 hypothetical analysis that purports to show that any additional  
10 renewable resources beyond those considered in the State's "30 x  
11 15" plan would be more expensive is incomplete and misleading.<sup>7</sup>  
12 First, the NEMS output information provided by Entergy's  
13 witnesses does not show conclusively that the amount of  
14 renewable energy in either the Baseline Analysis or the No  
15 Action Alternative actually meets the New York State "30 x 15"  
16 goal.

17 At the same time, Entergy's modeling of the No Action  
18 Alternative ignores the possibility that there will be  
19 additional low cost renewable energy above that included in the  
20 "30 x 15" goal. For example, Entergy's NEMS modeling ignores  
21 the very possibility that its own witnesses cite, that is, that

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<sup>7</sup> For example, see the discussion in Entergy's Testimony,  
answer A68 on pages 53 and 54.

1 the completion of transmission system upgrades could unlock the  
2 capability of bringing large amounts of low cost hydro generated  
3 power from Canada into downstate New York.<sup>8</sup> Entergy also ignores  
4 the very real possibility that the cost of renewable resources  
5 will decrease over time, in part as the result of economies of  
6 scale. Instead, all Entergy's witnesses provide are some  
7 theoretical graphs that are not empirically tied to actual costs  
8 and circumstances in New York State.

9 Q. Will the new hydro generation capacity and energy from  
10 Quebec that Entergy's witnesses discuss be available whether or  
11 not IPEC is relicensed?

12 A. Not necessarily. Entergy provides absolutely no  
13 evidence that this additional hydro generation from Canada is  
14 included as a resource either in the state's "30 x 15" renewable  
15 portfolio plan or in Entergy's NEMS Baseline analysis. Nor do  
16 they present any evidence that the delivered price of the  
17 additional hydro generated power from Quebec would be more  
18 expensive than any of the renewable energy that is included in  
19 "30 x 15" plan or the NEMS modeling. Instead, Entergy presents  
20 only analytic conjecture and theoretical graphs with no  
21 empirical links to New York State.

22 Q. What units does Entergy assume would not be retired if

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<sup>8</sup> See Entergy Testimony, Answer A124 on page 98.

1 IPEC were not relicensed?

2 A. Entergy assumes that the following older, dirtier, and  
3 less efficient coal and oil/gas steam capacity that would be  
4 retired in the Baseline analysis would not be retired in the No  
5 Action Alternative:

- 6 • 323 MW of coal capacity in Upstate New York that would  
7 otherwise be retired in 2015 or 2017  
8
- 9 • 822 MW of oil and gas steam capacity in Upstate New  
10 York that would otherwise be retired in 2018  
11
- 12 • 85 MW of coal capacity in New England that would  
13 otherwise be retired in 2016  
14
- 15 • 960 MW of oil and natural gas steam capacity in New  
16 England that would otherwise be retired in 2015 or  
17 2016<sup>9</sup>

18 Q. Is there any evidence that the merchant companies that  
19 own this capacity will want to keep their plants operating in  
20 future years whether or not IPEC is relicensed?

21 A. No. In fact, coal units in both New York State and  
22 New England have reduced their generation or have been shut down  
23 as a result of competition from extremely low natural gas  
24 prices.

25 Q. Based on their NEMS modeling, Entergy's witnesses  
26 claim that the marginal costs of generation at existing coal and  
27 oil and natural gas steam generating units are lower than the

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<sup>9</sup> Exh.NYS000438

1 costs of either (1) generating power at new natural gas fired  
2 combined cycle units, (2) additional conservation beyond that  
3 included in the state's "15 x 15" energy efficiency plan or (3)  
4 additional renewable energy beyond that included in the state's  
5 "30 x 15" plan. From this, they argue that new, clean gas-fired  
6 generation, additional conservation or additional renewable  
7 energy will be more expensive and therefore less competitive in  
8 New York's deregulated electricity market. Do you agree?

9 A. No. Entergy's witnesses present a very misleading  
10 comparison in Table 1 on page 58 of their testimony that  
11 purports to show the marginal costs of generation technologies  
12 "that are generally capable of increasing utilization," which  
13 are all fossil fuel power plants and do not include wind, solar,  
14 or hydro facilities. The listed marginal costs are too low  
15 because Entergy uses the heat rates of efficient new coal and  
16 gas fired combined cycle and combustion turbine units to  
17 calculate the marginal costs of the existing coal and natural  
18 gas steam units that NERA assumes will run more if IPEC is not  
19 relicensed. However, these existing units generally are less  
20 efficient than new natural gas combined cycle units and the heat  
21 rates of these older, less efficient units are more probably  
22 above (perhaps significantly above) 10,000 btu/kwh than in the  
23 7-8,000 btu/kwh range assumed by Entergy in the derivation of

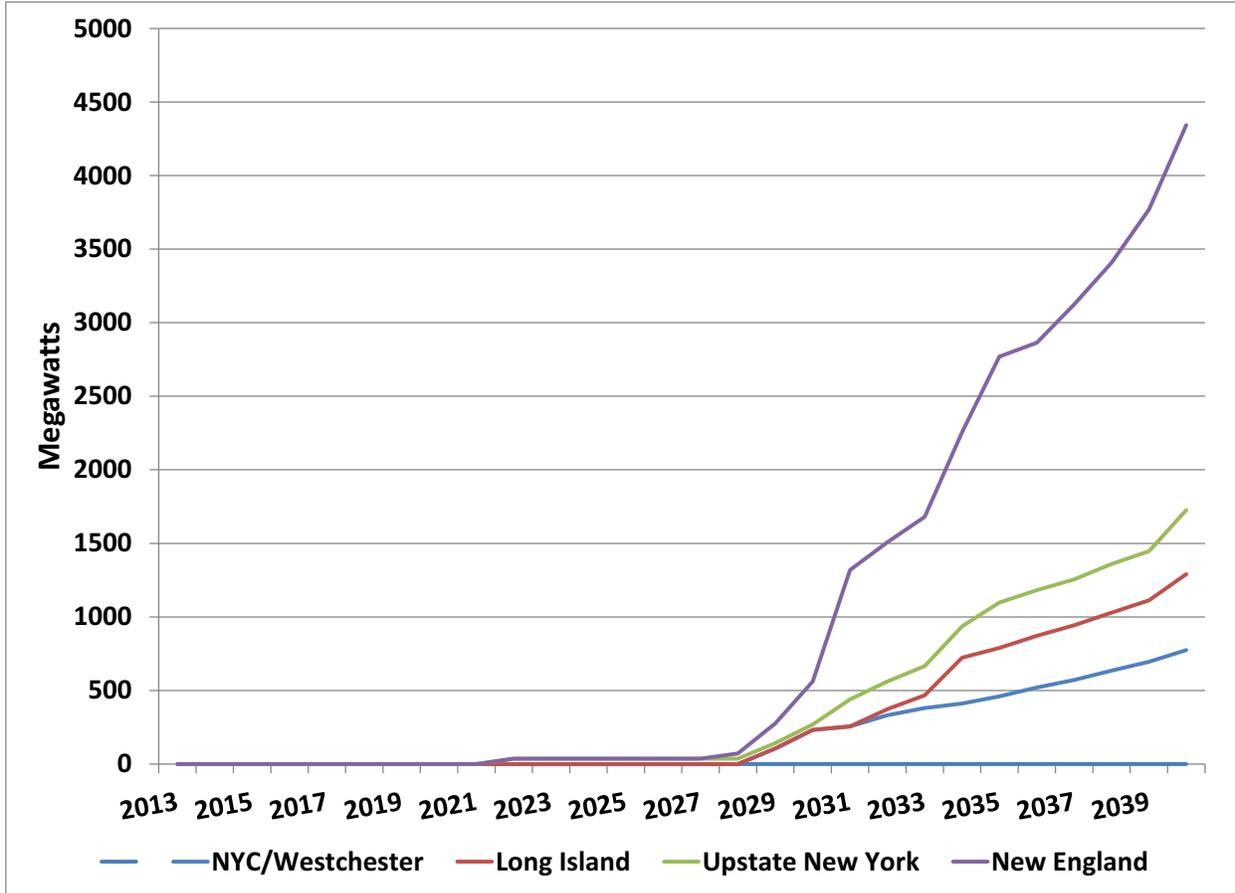
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1 the marginal costs in Table 1. Therefore, the marginal costs of  
2 existing fossil fuel units are higher per megawatt hour than the  
3 figures shown in the table and they would be less competitive  
4 than Entergy asserts.

5 Q. When would new generation capacity be added under Entergy's  
6 No Action Alternative?

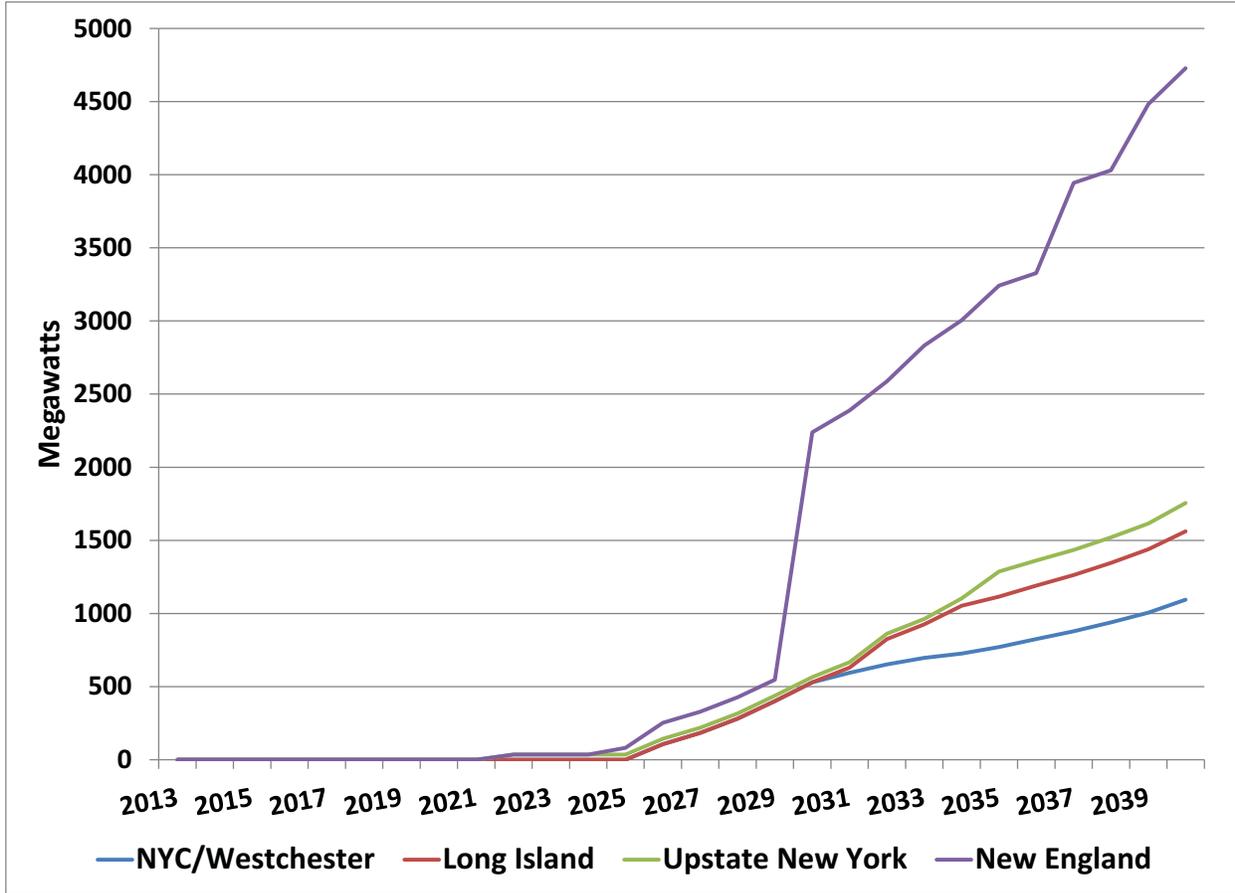
7 A. Figures 1 and 2, below (taken from the outputs for  
8 Entergy's NEMS modeling) show the cumulative megawatts of  
9 capacity added in New York State and New England under Entergy's  
10 Baseline analysis (Figure 1) and the No Action Alternative  
11 (Figure 2). Figure 3 then shows how much capacity is added  
12 under the No Action Alternative above that which would be added  
13 in the Baseline analysis. This represents the capacity added as  
14 a result of the retirement of Indian Point Units 2 and 3.

1 **Figure 1: Cumulative Capacity Additions After 2012 in New York State**  
2 **and New England in Entergy's Baseline Analysis**



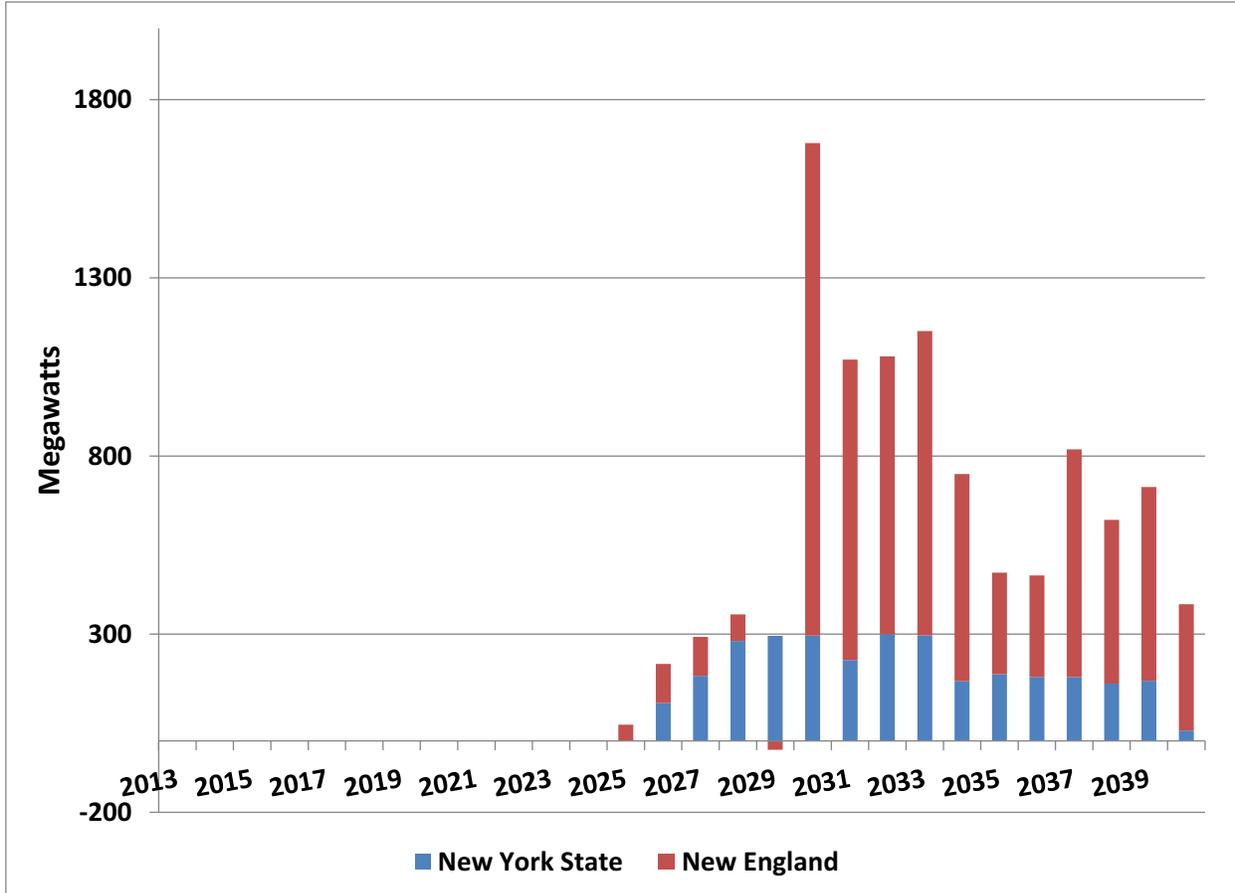
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1 Figure 2: Cumulative Capacity Additions After 2012 in Entergy's  
2 No Action Alternative



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1 **Figure 3: Cumulative Megawatts of Replacement Capacity Added in**  
 2 **NEMS No Action Alternative above That Added in Baseline Analysis**



3  
 4 Q. What do Figures 1, 2 and 3 reveal about the results of  
 5 Entergy’s NEMS modeling of the No Action Alternative?

6 A. In Entergy’s NEMS modeling of the No Action  
 7 Alternative:

- 8 • No clean and efficient replacement capacity is added  
 9 in New York State (let alone New York City and/or  
 10 Westchester) until 2026 and only a relatively small  
 11 amount (300 MW in total) is added in the years 2026  
 12 through 2040.
- 13 • No clean and efficient replacement generating capacity  
 14 would be added in New England until 2025 and then only

1 a relative small amount (110 MW) of new capacity would  
2 be added between 2025 and 2030.<sup>10</sup>

3 Although this result is not reflected in Figure 4, remarkably,  
4 the results of Entergy's NEMS modeling projects that more new  
5 generating capacity would be built in Upstate New York in the  
6 Baseline analysis than under the No Action Alternative.

7 Q. Is it reasonable to expect that any significant  
8 portion of the replacement capacity that would be added if IPEC  
9 is retired would be built in New England?

10 A. No. It is more reasonable to expect that replacement  
11 generating capacity would either be built (1) in the downstate  
12 New York region or (2) in Upstate New York rather than in  
13 unspecified locations in New England.

14 Q. What do you believe would be the likely market  
15 response to the retirement of Indian Point Units 2 and 3?

16 A. It is reasonable to expect that current or new market  
17 participants would seek to add new capacity in New York City or  
18 Westchester County close to the downstate loads. Given the  
19 current and projected low costs of natural gas, and the  
20 financial risks faced by new coal plants, I believe that the new  
21 generating capacity that would be added would be clean and  
22 efficient natural gas combined cycle units. Indeed, new

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<sup>10</sup> Exh.NYS000438

1 efficient natural gas combined cycle units have been added in  
2 New York City within the past decade and other proposed combined  
3 cycle units were licensed by the state to be built in downstate  
4 New York but were unable to obtain needed financing. It is  
5 reasonable to expect that IPEC's retirement would facilitate the  
6 licensing of new replacement generation projects.

7 Q. What actions is the State of New York currently taking  
8 to ensure that there would be new clean and efficient natural  
9 gas-fired or renewable generating capacity added in downstate  
10 New York or that there would be additional transmission  
11 capability to import new generating capacity into the downstate  
12 region?

13 A. The State has taken a number of actions that can be  
14 expected to lead to efficient and clean new generation being  
15 built in or imported into downstate New York. First, the Power  
16 New York Act of 2011 established a process for the siting of  
17 electric generating facilities and repowering projects. Second,  
18 the State has started the process for developing an Energy  
19 Highway plan that will include (1) building new transmission  
20 lines or rebuilding and upgrading existing ones; (2) repowering  
21 aging power plants to increase their efficiency and making them  
22 more environmentally friendly and (3) building new plants  
23 including those powered by natural gas and by wind and other

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1 renewable fuels.<sup>11</sup> The State has explained that:

2 While taking action to reduce demand through the  
3 State's on-going energy efficiency initiatives  
4 remains critical to the current and future  
5 sustainable energy system, this initiative  
6 focuses on supply-side and infrastructure  
7 projects that generate and transmit energy.<sup>12</sup>

8  
9 The specific objectives of the Energy Highway are to:

- 10 • Reduce constraints on the flow of electricity into,  
11 and within, the downstate area; and expand the  
12 diversity of power generation sources supplying  
13 downstate
- 14 • Assure that long-term reliability of the electric  
15 system is maintained in the face of major system  
16 uncertainties
- 17 • Encourage development of utility-scale renewable  
18 generation resources throughout the state
- 19 • Increase the efficiency of power generation,  
20 particularly in densely populated urban areas.<sup>13</sup>

21 The current schedule calls for the State's Energy Highway Task  
22 Force to develop an action plan sometime in the summer of 2012.

23 Q. Are clean and efficient new generation facilities  
24 being proposed for in or near downstate New York?

25 A. Yes. A number of new projects representing well over  
26 2,000 MW of clean and efficient generating capacity have been  
27 proposed for completion in and near New York City in the years

---

<sup>11</sup> New York Energy Highway Request for Information, at page 4,  
[www.nyenergyhighway.com/Content/pdf/EH\\_RFI/Brochure\\_2012.pdf](http://www.nyenergyhighway.com/Content/pdf/EH_RFI/Brochure_2012.pdf)  
f

<sup>12</sup> Id.

<sup>13</sup> Id. at page 11.

1 2014-2017:

2 • NRG's Berrians GT I, II and III project involving the  
3 addition of 580 MW of natural gas-fired capacity in  
4 New York City

5 • The CPV Valley Energy Center in Orange County  
6 involving 650 MW of natural gas -fired combined cycle  
7 capacity

8 • US Power Gen's Luyster Creek Energy Project in New  
9 York City involving 400 MW of natural gas-fired  
10 combined cycle capacity

11 • The Cricket Valley Energy Center located east of  
12 Poughkeepsie, New York which would add 1000 MW of new  
13 natural gas-fired combined cycle capacity.

14 Q. Does Entergy's NEMS Baseline or No Action Alternatives  
15 include the New York Energy Highway or any of these proposed  
16 facilities?

17 A. No.

18 Q. You testified earlier that in Entergy's No Action  
19 Alternative, clean new replacement generating capacity would not  
20 be added in the New York City/Westchester region until 2026 and  
21 in New England until 2025. Does the discussion of the  
22 environmental impacts of the No Action Alternative by Entergy's  
23 witnesses address the impact of adding this clean new  
24 replacement capacity?

25 A. Not surprisingly, Entergy's witnesses discuss only the  
26 environmental impacts of not relicensing IPEC in the years 2016-

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1 2025.<sup>14</sup> This is significant because under Entergy's No Action  
2 Alternative only a very small amount of clean and efficient  
3 replacement capacity would be added in New York State during  
4 this period and a mere 46 MW of clean and efficient replacement  
5 capacity would be added in New England. Entergy also adds only  
6 a little bit more energy conservation and barely any additional  
7 renewable energy. Instead, Entergy assumes that the great bulk  
8 of the replacement energy would come from the continued  
9 operation of existing inefficient and dirty coal and oil/gas  
10 steam units.<sup>15</sup> Consequently, it is no wonder that Entergy  
11 concludes that there would be significant environmental impacts  
12 as it has excluded all clean sources of replacement energy.

13 Q. Does this complete your testimony?

14 A. Yes.

15 I have reviewed all the exhibits referenced herein. True  
16 and accurate copies are attached.

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14 For example, see Entergy Testimony, Table 8 on page 80.

15 As shown in Entergy Testimony, Table 7 on page 78, 43.1% of the replacement energy would come from coal and 55.9% from existing gas and oil units.

1 UNITED STATES

2 NUCLEAR REGULATORY COMMISSION

3 BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

4 -----X

5 In re: Docket Nos. 50-247-LR; 50-286-LR

6 License Renewal Application Submitted by ASLBP No. 07-858-03-LR-BD01

7 Entergy Nuclear Indian Point 2, LLC, DPR-26, DPR-64

8 Entergy Nuclear Indian Point 3, LLC, and

9 Entergy Nuclear Operations, Inc. June 29, 2012

10 -----X

11 **DECLARATION OF David A. Schlissel**

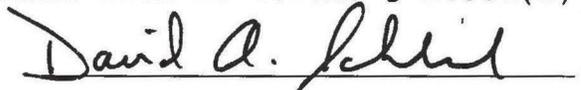
12 I, David Schlissel, do hereby declare under penalty of

13 perjury that my statements in the foregoing testimony and my

14 statement of professional qualifications are true and correct to

15 the best of my knowledge and belief.

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

17 

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23 June 29, 2012

24

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 Schlissel  
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