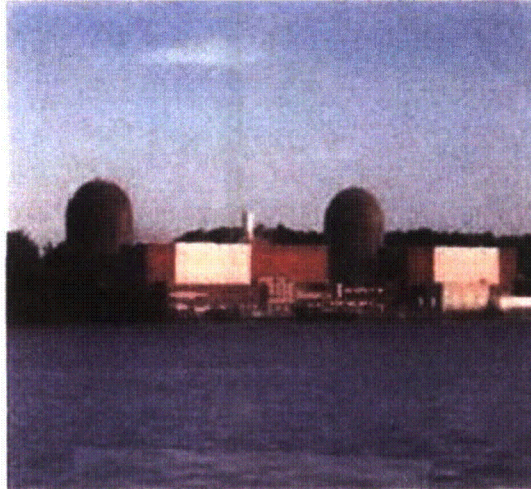


# INDIAN POINT UNIT 2 AND UNIT 3



## Coastal Zone Management Act Consistency Certification

In support of  
Renewal of Indian Point Unit 2 and Unit 3 USNRC Operating Licenses

Submitted by:

Entergy Nuclear Indian Point 2, LLC  
Entergy Nuclear Indian Point 3, LLC  
Entergy Nuclear Operations, Inc.



**SUPPLEMENTAL INFORMATION ON  
NATIONAL AND STATE INTERESTS**

**VOL. I OF IV**

**SEPTEMBER 26, 2014**

September 26, 2014

**Request to the New York State Department of State to Consider  
National and State Interests Served by Indian Point License Renewal**

**I. The Need for Supplemental Information.**

On December 3, 2013, Entergy Nuclear Indian Point 2, LLC, Entergy Nuclear Indian Point 3, LLC and Entergy Nuclear Operations, Inc. (collectively, “Entergy”) and the New York State Department of State (the “Department”) engaged in a consultation session at which the Department requested supplemental information regarding several topics of interest to the Department in connection with the Department’s consistency review of license renewal (“License Renewal”) by the United States Nuclear Regulatory Commission (“NRC”) of operating licenses for Indian Point Unit 2 and Unit 3 (“Indian Point”). At that consultation session, Entergy urged the Department to weigh in its review process the important federal and state interests served by License Renewal, many of which are expressly recognized in the New York Coastal Management Program (“CMP”). The Department, however, gave no indication that national security, national economic, or national energy interests within the coastal zone, or the state’s overarching goals and interests as articulated by the CMP, would be taken into account by the Department as it considers the consistency of License Renewal with individual CMP policies.<sup>1</sup> In fact, the Department indicated its belief that no such weighing of interests was appropriate.

With this supplemental submission, Entergy again requests that the Department take into account all important and applicable national and state interests in conducting its consistency review, as contemplated by the federal Coastal Zone Management Act, 16 U.S.C. § 1451 *et seq.* (the “CZMA”), and as reflected within the CMP itself. To that end, Entergy is submitting herewith a document entitled “*Historical Record of Federal Actions (and Corresponding State Actions) Supporting the Siting, Construction, and Operation of Indian Point Energy Center*,” dated September 26, 2014 (the “Historical Record”), which provides further information concerning the issues previously addressed by Entergy’s December 17, 2012 consistency certification (the “Consistency Certification”). In addition to summarizing information previously submitted, the Historical Record also describes events occurring after December 17, 2012, showing that federal

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<sup>1</sup> See also, *In the Matter of Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), NRC Licensing Board Docket Nos. 50-247-LR and 50-286-LR—Letters of Linda A. Baldwin, General Counsel, New York State Department of State to Mr. David J. Wrona, Chief, United States Nuclear Regulatory Commission, dated May 30, 2014 (describing federal consistency review in New York State as not subject to the legal standards for state consistency review); and July 25, 2014 (rejecting a balancing of interests approach to federal consistency review).

and state agencies, as well as President Obama, have continued to recognize, underscore, and rely upon the instrumental role of the existing United States nuclear power plant fleet, including Indian Point, in protecting and achieving vital national and state objectives.

## **II. The Sources of Information Regarding National and State Interests.**

The Historical Record presents, in chronological order, the series of federal and state decisions, policies, and reports that have caused Indian Point to be sited, constructed, and operated where it is today. The chronological presentation of federal and state actions documents how Indian Point has advanced, and will continue to advance, vital federal and state interests.

## **III. Threshold Issues Related to the Weighing of National and State Interests**

### **A. Indian Point's Consistency with the CMP Is Established by the Terms of the CMP Itself**

#### **1. Both the Federal CZMA and the New York CMP Emphasize the Importance of Energy Resources and Avoiding Pollution Associated With Fossil Fuels**

Throughout this country's history, the coastal zone, in which tens of millions of Americans live and work, has played an important role in business and commerce. International trade would be a fraction of itself without shipping vessels entering and leaving the nation's ports. Our freshwater and salt-water commercial fisheries play an important role in feeding the nation. Every year millions of people vacation along the country's shores and engage in maritime activities such as recreational boating and fishing. The coastal zone also is host to a significant portion of our energy economy, with activities ranging from oil exploration and refining to the siting of electric generation facilities. Indeed, "[a]ccording to the NOAA [National Oceanic & Atmospheric Administration] regulations, the siting of coastal dependent energy facilities inherently has economic consequences beyond the immediate locality where the facility is located, that is, involves a significant national interest."<sup>2</sup>

Cognizant of these human uses of the coastal zone, the federal CZMA is not a narrow environmental protection law. Instead, Congress broadly defined the national interest in coastal zone management to include *both* the protection *and the development* of the coastal zone and coastal resources, in particular electricity generation and even more specifically non-emitting generation.<sup>3</sup> The CZMA itself could not be more clear about the national priorities for fulfilling America's energy objectives within the coastal zone by:

- (a) Achieving "[t]he national objective of attaining a greater degree of energy self-sufficiency";<sup>4</sup>

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<sup>2</sup> *Connecticut v. Dep't of Commerce*, No. 3:04-cv-1271, 2007 WL 2349894, at \*8 (D. Conn. Aug. 17 2007).

<sup>3</sup> CZMA §§ 302, 303, 16 U.S.C. §§ 1451, 1452.

<sup>4</sup> CZMA § 302(j), 16 U.S.C. § 1451(j).

- (b) Generating substantial amounts of baseload electricity without releasing greenhouse gases from fossil-fuels “[b]ecause global warming may result in a substantial sea level rise with serious adverse effects in the coastal zone”;<sup>5</sup>
- (c) Locating energy production plants where industrial and commercial development already exists with “priority consideration being given to coastal-dependent uses . . . related to . . . energy”;<sup>6</sup> and
- (d) Avoiding the adverse impacts of global warming attributable to “the burning of fossil fuels.”<sup>7</sup>

The CZMA thus explicitly recognizes that energy production, particularly baseload energy production that does not contribute significantly to climate change, is a vital need for the United States and a proper and essential use of the coastal zone. The CZMA sets a preference for existing facilities because (among other reasons) such facilities achieve necessary energy production without the need for substantial new infrastructure that could damage coastal resources.

The CZMA directs states such as New York that adopt coastal management programs to consider national energy plans.<sup>8</sup> Such national energy plans include the *Blueprint For a Secure Energy Future* (“White House *Blueprint*”), released by the White House in March 2011. The White House *Blueprint* emphasizes the importance of the current nuclear fleet to securing America’s energy needs and providing clean energy, recounting:

Every president since Richard Nixon has called for America’s independence from oil

...

And beyond our efforts to reduce our dependence on oil, we must focus on expanding cleaner sources of electricity, including renewables like wind and solar, as well as clean coal, natural gas, *and nuclear power*—keeping America on

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<sup>5</sup> CZMA § 302(*l*), 16 U.S.C. § 1451(*l*) (underscoring the importance of electricity production that can be accomplished virtually free of emission of gases that contribute to global warming, such as through nuclear plants).

<sup>6</sup> CMZA § 303(2)(D), 16 U.S.C. § 1452(2)(D). Indian Point has existed at this location for more than 40 years and was located next to other industrial facilities and transmission lines within what was then part of America’s industrial heartland. Westchester County, with state approval, located the Charles Point Resource Recovery Facility adjacent to Indian Point on the Hudson River. The Bowline Generating Plant is an existing waterfront industrial land use located in nearby Haverstraw. At the time Indian Point was sited, Lovett Generating Station also operated at nearby Stony Point directly across the Hudson River. Thus, Indian Point fulfills the national legal requirement of locating energy facilities “to the maximum extent practicable . . . in or adjacent to areas where such development already exists.” CZMA § 303(2)(D), 16 U.S.C. § 1452(2)(D).

<sup>7</sup> In the Coastal Zone Act Reauthorization Amendments of 1990, Pub. L. No. 101-508, § 6202(a)(7), Congress specifically expressed concern about the global warming caused by burning fossil-fuels.

<sup>8</sup> CZMA § 306, (d)(8), 16 U.S.C. § 1455(d)(8).

the cutting edge of clean energy technology so that we can build a 21<sup>st</sup> century clean energy economy and win the future.<sup>9</sup>

This focus in the CZMA on the importance of energy resources, including nuclear, is no surprise. Electric power is an essential service, like fire and police protection. Without electric power, the basic necessities of modern life—air conditioning, heating, elevators, etc.—cannot be provided. Resulting health and safety implications are extremely serious. The blackouts of 2003, and more recently Superstorm Sandy,<sup>10</sup> and their economic and public safety impacts, are well within memory. When the lights go out, billions of dollars and many human lives are lost or placed in jeopardy. As one study reviewing the 2003 blackout found, “respiratory hospital admissions *and total mortality* in NYC increased significantly during the Northeastern blackout relative to normal summer days.”<sup>11</sup> The study attributes these increases to increased indoor temperatures from lack of air conditioning and increased exertion, as well as deteriorating air quality due to greater vehicle use and emissions, all exacerbated by psychological stress.<sup>12</sup>

The success of the CZMA is carefully guarded by NOAA. And that success has been built upon fair and pragmatic application of the law. As NOAA itself observed in 2006 in connection with the adoption of revised regulations governing federal consistency review:

For nearly 30 years, the CZMA has met the needs of coastal States . . . , Federal agencies, industry and the public to balance the protection of coastal resources with coastal development, including energy development. ***The CZMA requires the States to consider the national interest as stated in the CZMA objectives and give priority consideration to coastal dependent uses and processes for facilities related to national defense, energy, fisheries, recreation, ports and transportation, when adopting and amending their Coastal Management Programs (CMPs), and when making coastal management decisions.***<sup>13</sup>

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<sup>9</sup> *Blueprint For a Secure Energy Future* (The White House, March 30, 2011), Attachment 52 to the Consistency Certification, at 3 (emphasis added); *id.* at 36 (recognizing that “a comprehensive strategy must also modernize the electric power grid and ensure the safety of our nuclear power fleet—both today’s plants and tomorrow’s technologies”). In the White House *Blueprint*, President Obama recognized the importance of nuclear energy to this nation, and reaffirmed the need for nuclear power following the accident at Fukushima.

<sup>10</sup> New York City cannot avoid the risk of another or of many other Superstorm Sandys. But displacing carbon-free electricity production with fossil-fuel production clearly exacerbates that risk—a risk that a consortium of world scientists agree is the most serious that low elevation cities, like New York City, face.

<sup>11</sup> Shao Lin, *et al.*, *Health Impact in New York City During the Northeastern Blackout of 2003*, 126 Pub. Health Reports 384, 390 (2011) (emphasis added), Attachment 91 to Entergy’s September 26, 2014 submission entitled *Evidence Presented to the New York Department of Environmental Conservation Regarding Possible Future Implementation of Technological Improvements at Indian Point* (hereinafter the “NYSDEC Evidence Summary”)

<sup>12</sup> See, e.g., Lin, *et al.*, *supra*, at 390-91; see also Mark E. Beatty, *et al.*, *Blackout of 2003: Public Health Effects and Emergency Response*, 121 Pub. Health Reports 36, 43 (2006), Attachment 92 to the NYSDEC Evidence Summary (discussing adverse health and economic issues of blackouts, including increase in crime, “failure of hospital emergency generators, large numbers of patients dependent on electrically powered medical equipment,” “contamination of recreational waterways,” “spoilage of perishable foods, which could potentially result in foodborne disease and pest-control issues and vaccine spoilage”).

<sup>13</sup> 71 Fed. Reg. 788, at 788 (Jan. 5, 2006) (emphasis added).

In order to take advantage of the federal funding and consistency review rights provided by the CZMA, New York was required to create the CMP and submit it for approval by NOAA, which is housed within the United States Department of Commerce. NOAA could approve the CMP only if it concluded that the CMP advanced “adequate consideration of the national interest” in the coastal zone, including by giving priority to “the siting of facilities such as energy facilities which are of greater than local significance.” 16 U.S.C. § 1455(d)(8).<sup>14</sup> As NOAA explains on its website today:

Meeting energy needs and increasing the United States’ energy independence are two of the highest priority national issues of the Coastal Zone Management Act (CZMA). The CZMA recognizes the importance of energy and government facilities in coastal zones[,] and directs states to have a facility siting process that considers the national interest in energy production and protecting coastal resources.<sup>15</sup>

The Department, crafting the CMP on behalf of New York, responded to this CZMA requirement by, *inter alia*, confirming that “energy production and transmission” are “considered to be of national interest.”<sup>16</sup> The CMP states that the “National Energy Plan was the primary source for determining the national interest in energy facilities,” specifically including the national objective to “reduce dependence on foreign oil and vulnerability to supply interruptions.”<sup>17</sup> The CMP also goes on to acknowledge that “major electric and gas facilities are beneficial, for they supply the energy necessary for the operation of industries, transportation vehicles and services, and home heating,” and that “some major electric generation and transmission facilities are provided by the Power Authority of the State of New York [which owned and/or operated Indian Point Unit 3 from 1976 to 2000].”<sup>18</sup> On the basis of the existing energy production facilities already located in the State’s coastal zone, the Department predicted that the CMP would have “no negative effects” on energy use and development.<sup>19</sup> In fact, the CMP embraces as one of its foundational elements “the importance of adequate energy supplies for the economic development of the State.”<sup>20</sup>

## **2. The Terms of the CMP Directly Recognize That Indian Point Is Consistent with the CMP**

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<sup>14</sup> See also 15 C.F.R. § 923.52 (detailing the requirements for establishing that the national interest in energy facilities is met in State plans and requiring state management plans to “[i]ndicate how and where the consideration of the national interest is reflected in the substance of the management program”).

<sup>15</sup> Energy and Government Facility Siting, NOAA, [http://coastalmanagement.noaa.gov/ene\\_gov.html](http://coastalmanagement.noaa.gov/ene_gov.html) (last visited September 26, 2014).

<sup>16</sup> CMP Chapter II-9 at 2.

<sup>17</sup> *Id.* at 3.

<sup>18</sup> *Id.* at 8.

<sup>19</sup> *Id.* Chapter V at 7.

<sup>20</sup> *Id.*

The CMP describes the state's existing nuclear fleet and other existing nuclear facilities in the coastal zone as demonstrating the State's recognition of the national interest in electric generation in the coastal zone. In particular, the role played by Indian Point in New York's electric system is described within the CMP promulgated by the Department in 1982 and submitted to NOAA for approval.<sup>21</sup> The Department specifically discussed the existing nuclear energy facilities, including Indian Point, already located in the State's coastal zone, as follows:

Many energy facilities are already situated in the State's coastal area, including steam electric generating plants, transmission lines, oil storage tanks and LNG facilities. The Program's policies on energy are in accord with existing State laws and plans which address energy needs and environmental quality in a comprehensive manner.

*The State has demonstrated its recognition of the national interest in energy facilities by the number and scope of facilities already located in or planned for New York's coastal area . . . [including] nuclear—5 units . . . [and] 2 nuclear—under construction . . .*

CMP Chapter II-9, at 3 (emphasis added). At the time this language was written, there were five operating nuclear units in New York's coastal area, including Indian Point.<sup>22</sup>

This was no stray comment. The CMP also incorporates by reference the 1982 State Energy Master Plan, which in turn adopted 13 policies to reduce "the State's overdependence on imported petroleum" and specifically included "continued availability of the State's current inventory of licensed nuclear plants" as a means to meet future energy supply needs.<sup>23</sup> The Energy Planning Board at that time also relied upon "continued utilization of the five currently

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<sup>21</sup> In a letter to Mr. George Stafford, Deputy Secretary of the Department, dated November 30, 2012, NOAA's Acting Chief of Coastal Programs Division indicated that the Department "did not identify Indian Point as a component of the New York CMP." *Id.* However, whether or not Indian Point constitutes a "component" of the CMP is beside the point. In response to CZMA's policies favoring energy facilities in the coastal zone, the Department did, indeed, point to the five nuclear facilities operating in New York in 1982, including Indian Point, as a demonstration of New York State's "recognition of the national interest in energy facilities." CMP Chapter II-9 at 3.

<sup>22</sup> In addition to Indian Point Unit 2 and Indian Point Unit 3, the three other nuclear power plants operating within New York's coastal zone in 1982 were the R. E. Ginna Nuclear Power Plant, the Nine Mile Point Unit 1 Nuclear Station, and the James A. FitzPatrick Nuclear Power Station. The five nuclear power plants which existed within New York's coastal zone in 1982 continue to operate today. The nuclear power plants under construction in 1982 were Nine Mile Point Unit 2 (which is still operating) and Shoreham.

<sup>23</sup> CMP Chapter II-7 at 1; New York State Energy Planning Board, New York State Energy Master Plan (Mar., 1982), Attachment S-42 to the Historical Record (hereinafter "1982 State Energy Master Plan"), at Executive Summary p. 5.

licensed nuclear facilities” as part of the Electricity Supply Plan,<sup>24</sup> and “endorsed continued utilization of the five currently licensed nuclear facilities in the State.”<sup>25</sup>

Thus, when the CMP was submitted to NOAA for approval, the CMP affirmatively stated—and continues to state—that Indian Point’s operations are activities within the New York Coastal Zone that make the CMP consistent with the national interest in allowing and promoting appropriate energy facilities within the coastal zone. Moreover, pursuant to the State Energy Master plan incorporated by reference into the CMP, the “continued utilization of the five currently licensed nuclear facilities in the State” is necessary both to reduce New York’s “overdependence on imported petroleum” and to meet the State’s future energy demands.

Since the CMP was issued, all state agencies that have reviewed Indian Point for consistency with the CMP, acting with the advice or implicit consent of the Department, uniformly have concluded that continued operation of Indian Point is consistent with the CMP.<sup>26</sup> Indeed, the Department has in all prior cases concluded that NRC license renewal for nuclear facilities located within New York’s coastal zone is consistent with the CMP.<sup>27</sup>

And rightly so. Those other nuclear facilities formed part of the backbone of New York’s electrical system. Likewise, Indian Point unquestionably provides New York State’s residents and businesses—particularly the residents and businesses of Southeastern New York, including New York City—a substantial supply of reliable, baseload electricity that mitigates the risks of blackouts, leads to lower electric prices overall, and avoids damaging air pollutant emissions. *See infra* at Sections IV.A to IV.C.

Here, not only the general policy objectives of the CZMA and the CMP require a finding of Indian Point’s consistency, but also the very specific words of the NOAA-approved CMP show that, as a matter of federal law, Indian Point is consistent with the CMP.

## **B. The CMP Exempts Indian Point from Federal Consistency Review**

Moving beyond the overarching policy objectives of both the CZMA and the CMP, there are additional reasons why Indian Point is consistent with the CMP as a matter of law. In adopting a coastal management plan, states have the right to choose which federal permit activities shall be subject to federal consistency review.<sup>28</sup> The only logical conclusion to be drawn from the CMP’s explicit discussion of the important role served by Indian Point within the New York

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<sup>24</sup> 1982 State Energy Master Plan, Volume One, at 8.

<sup>25</sup> 1982 State Energy Master Plan, Volume Two, at 178. Although the 2009 and later State Energy Master Plans were revised to articulate the future goal of retiring Indian Point, that goal was never made part of the CMP and has not been submitted to NOAA for approval.

<sup>26</sup> *See, e.g.*, Historical Record, entries for the New York Power Authority, the New York Public Service Commission, and NYSDEC.

<sup>27</sup> *See In the Matter of Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), NRC Licensing Board Docket Nos. 50-247-LR and 50-286-LR: Letter of Bobby R. Burchfield, Attorney for Entergy, to David J. Wrona, Chief, United States Nuclear Regulatory Commission, dated July 15, 2014, at 12-13 (Department consistency concurrences were issued for the Nine Mile Point, FitzPatrick, and R.E. Ginna nuclear facilities).

<sup>28</sup> *See* 15 C.F.R. §§ 930.53-.54.



coastal zone is that Indian Point is inherently consistent with the CMP. Consequently, the Department has no legal authority to object to License Renewal unless and until it amends the CMP to eliminate its reliance on Indian Point and NOAA approves such an amendment.<sup>29</sup>

Put another way, the CMP's discussion of Indian Point and the other nuclear plants located in New York's coastal zone in 1982 is for all practical and legal purposes a "previous review" of Indian Point under the CMP: the Department could not have relied on Indian Point's existence and operation as demonstrating New York's commitment to location of energy resources in the coastal zone unless the Department had concluded that Indian Point was consistent with the CMP. The "previous review" issue currently is pending before the Nuclear Regulatory Commission ("NRC") staff.<sup>30</sup> If NRC concludes that Indian Point was previously reviewed then, barring a showing—that cannot be made—that Indian Point's effects on the coastal zone are substantially different than those originally reviewed, no further consistency review under the CMP is required.<sup>31</sup>

Importantly, the CMP also contains a grandfathering clause applicable to Indian Point and its License Renewal application. Such a grandfathering clause is common in new regulatory schemes such as the CMP; it applies the scheme going forward, but exempts existing facilities. The preamble of the CMP's grandfathering clause recognizes that the CMP should not be applied to "projects for which a substantial amount of time, money and effort have been expended."<sup>32</sup> Indian Point easily satisfies this criterion as it was constructed before 1982 over a period of several years at a cost of \$2.45 billion. The CMP's grandfathering clause then sets forth two ways in which a facility can be grandfathered. While either suffices to confer grandfathered status, Indian Point actually meets both. First, an environmental impact statement was prepared for Indian Point prior to September 28, 1982. Second, Indian Point is a project that SEQRA identified as grandfathered at the time of SEQRA's enactment in 1976. The applicability of the CMP's grandfathering clause as a matter of New York law is currently pending before the New York Supreme Court, Appellate Division, Third Department.<sup>33</sup> (NOAA may also have its own interpretation of the grandfathering clause). Moreover, even apart from the CMP and its grandfathering clause, federal regulations exempt Indian Point from federal consistency review by the Department because Indian Point has been previously reviewed.

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<sup>29</sup> This document addresses three threshold issues that precede consideration or weighing of federal and state interests in connection with federal consistency review of Indian Point License Renewal. However, Entergy is proceeding with federal consistency review under a full reservation of rights, including but not limited to the right to assert other threshold issues as appropriate. *See, e.g.*, Entergy's Consistency Certification at: (i) Letter from Fred Dacimo, Entergy's Vice President for License Renewal, dated December 17, 2012, n.2; (ii) Federal Consistency Assessment Form dated December 10, 2012, n.1; (iii) Overview of IPEC's Consistency with the NYCMP, dated December 17, 2012, n.2; and (iv) Introduction and Background Information, dated December 2012, n.8.

<sup>30</sup> *See In the Matter of Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), NRC Licensing Board Docket Nos. 50-247-LR and 50-286-LR.

<sup>31</sup> 15 C.F.R. § 930.51(b)(3).

<sup>32</sup> CMP Chapter II-9, at 1.

<sup>33</sup> The New York Supreme Court is expected to hear oral argument in October 2014. *See generally* Brief for Appellants Entergy Nuclear Operations, Inc., et al., in 3d Dep't App. Div. (filed Feb. 28, 2014); Reply Brief for Appellants Entergy Nuclear Operations, Inc., et al., in 3d Dep't App. Div. (filed July 1, 2014).

### C. The “Substantially Hinders” Standard For Consistency Review.

In conducting its consistency review, the Department should apply the same regulatory standards that other New York State agencies apply when making a consistency determination. Indeed, that is required as a matter of controlling federal law.<sup>34</sup> The New York Waterfront Revitalization and Coastal Resources Act, Article 42 of the New York State Executive Law (“WRCRA”), authorizes a New York coastal program that includes coastal policies, coastal boundaries, and state consistency requirements (N.Y. Executive Law Art. 42 § 910 *et seq.*). The regulatory framework for implementation of WRCRA is set forth in Policies and Procedures, 19 New York Codes, Rules, and Regulations (“NYCRR”) Part 600.

These authorities, which are incorporated into the CMP as “State Means for Implementing the Polic[ies],”<sup>35</sup> provide New York State’s only explanation of what it means for an action to be “consistent” with coastal policies. Specifically, 19 NYCRR § 600.4(b) provides that an action is consistent with the CMP as long as it does not “substantially hinder” the achievement of any coastal policies. Moreover, section 600.4(b) further explains that even those state actions that will “substantially hinder” the achievement of one or more coastal policies nonetheless will be consistent with the CMP if:

- (a) there are no reasonable alternatives,
- (b) adverse effects have been minimized,
- (c) one or more other coastal policies will be advanced, and
- (d) the action will result in an overriding regional or statewide public benefit.<sup>36</sup>

In accordance with the “substantially hinders” standard of review, the Department has concurred with the consistency of NRC license renewal for nuclear facilities within the coastal zone even when the consistency certifications for those facilities acknowledged inconsistency with one or more CMP policies.<sup>37</sup>

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<sup>34</sup> See CMP Chapter II-6 at 3. The Department is “required to uniformly and comprehensively apply the enforceable policies of the State’s management program.” 15 C.F.R. § 930.6(a). The uniformity principle “ensure[s] that States are not applying policies differently, or in a discriminatory way, among various entities for the same type of project for similar purposes, *e.g.*, holding a Federal agency to a higher standard than a local government or private citizen.” 65 Fed. Reg. 77,124, 77,128 (Dec. 8, 2000).

<sup>35</sup> CMP Chapter II-6 at 5.

<sup>36</sup> 19 NYCRR § 600.4(b).

<sup>37</sup> See *In the Matter of Entergy Nuclear Operations, Inc.* (Indian Point Nuclear Generating Units 2 and 3), NRC Licensing Board Docket Nos. 50-247-LR and 50-286-LR: Letter of Bobby R. Burchfield, Attorney for Entergy, to David J. Wrona, Chief, United States Nuclear Regulatory Commission, dated July 15, 2014, at 12-13 (“In their federal consistency certifications, the owners of both Nine Mile Point and FitzPatrick facilities expressly acknowledged that the continued operation of those plants under renewed licenses *would not* be consistent with several CMP policies. And for *more than 30* of the 44 policies, they and the owners of the R.E. Ginna facility made no claim or showing that renewal *would* be consistent, concluding instead that those policies were inapplicable in

As explained in Entergy's Consistency Certification, Indian Point's continued operation does not hinder, let alone "substantially hinder," the achievement of any coastal policies. Any alleged aquatic impacts of Indian Point are not borne out in fact. Indian Point's operation causes no discernable adverse effects on fish populations within the Hudson River.<sup>38</sup> Moreover, even if continued operation of Indian Point would "substantially hinder" the achievement of one or more coastal policies, Indian Point is consistent with the CMP under the standards set forth in section 600.4(b), because, as explained in greater detail above and in Entergy's other submissions:

- (a) For purposes of the CZMA, there are no reasonable alternatives to Indian Point's continued productive operation. Billions of public and private investment dollars already have been expended to establish Indian Point as it exists today. The construction of new, or the de-mothballing of existing, generation and transmission facilities to replace Indian Point's generation and voltage support—to the extent even feasible in the face of regulatory and market hurdles—will cost ratepayers, taxpayers, or both many billions of dollars, will increase pollutant emissions from fossil fuel sources, will introduce a plethora of additional adverse environmental impacts, and may not be achievable in the necessary timeframe to avoid electric system reliability risks.<sup>39</sup> All of these impacts render such alternatives unreasonable as a matter of fact and law.
- (b) The New York Department of Environmental Conservation ("NYSDEC"), through its existing permits and permitting process, has addressed and continues to address the environmental aspects of Indian Point operations, and has and will continue to assure that any adverse effects of continued operation are minimized.
- (c) Indian Point substantially advances the purposes of multiple coastal policies including, without limitation, the economic goals of Policy 2 ("Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters" including "uses requiring large quantities of water for ... cooling purposes") and Policy 18 ("to safeguard the vital economic ... interests of the state and of its citizens"); the fight against air pollution and global warming under Policy 41; and the fight against acid rain under Policy 43.

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the circumstances. In other words, Nine Mile Point, FitzPatrick, and R.E. Ginna certified that license renewal would be consistent with *less than 30%* of the CMP's 44 coastal policies, and two of the three expressly certified that it would be *inconsistent* with one or more policies. . . . [The Department] nonetheless concurred with all three certifications, without even mentioning their failure to show consistency with *all* CMP policies." (citations omitted)). Entergy incorporates by reference but does not repeat here the additional arguments made in the above-referenced proceeding regarding the standard of review to be applied by the Department in this case.

<sup>38</sup> See, e.g., Consistency Certification, Appendices D, F, and G.

<sup>39</sup> These facts are not only demonstrated by Entergy's Consistency Certification, they are further evidenced in the pending adjudicatory proceeding before the New York State Department of Environmental Conservation with respect to renewal of Entergy's State Pollutant Discharge Elimination System ("SPDES") permit (the "NYSDEC Adjudicatory Proceeding"). The relevant evidence from that proceeding is set forth in, and accompanies, the NYSDEC Evidence Summary.

- (d) Indian Point's continued baseload generation advances regional and statewide interests in reduced nitrogen oxides ("NOx"), sulfur dioxide ("SO<sub>2</sub>"), and greenhouse gas ("GHG") emissions, reduced ground-level ozone, fuel diversity, and low-cost electricity. All of these goals would be adversely impacted on a multi-state basis by an Indian Point retirement. Increased emissions have implications not only for New York State, but for neighboring states and, in the case of GHG emissions, the country and the world. The New York State Department of Public Service ("DPS") has confirmed that New York would export air pollution and increased energy prices to neighboring states as a result of an Indian Point retirement or outage.<sup>40</sup>

Under the State's regulatory definition of consistency, the continued operation of Indian Point meets or exceeds the standard for the Department's concurrence. In addition, the applicable legal standards require the Department to weigh the important federal and state interests served by Indian Point in reaching its consistency decision.

#### **IV. Federal and State Interests Served by Indian Point**

##### **A. Indian Point Advances President Obama's National Energy and Climate Change Objectives.**

The importance of electric generation in the coastal zone, particularly electric generation that is not reliant on fossil fuels, is no mere relic of a 1970s law. Far from it. More recently, the Obama Administration repeatedly has recognized the vital importance of nuclear energy to our nation. An explicit component of President Obama's national energy and security strategy is the reinvigoration of the United States nuclear industry (which continues reliably and economically to contribute almost 20% of the electricity generated in the United States), and the increased use of nuclear power to cut greenhouse gas emissions, reduce dependence on foreign oil, and diversify energy sources and suppliers.<sup>41</sup> As the White House *Blueprint* states in no uncertain terms: "In order to meet the Administration's goals of energy security and greenhouse gas reductions, nuclear energy must play an important role in the national energy portfolio."<sup>42</sup>

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<sup>40</sup> See *infra* at 14-15; see also NYSDEC Evidence Summary.

<sup>41</sup> The White House, *National Security Strategy* (May 2010), Attachment 34 to the Consistency Certification, at 30, 47. See also, The White House National Economic Council, *Advanced Energy Initiative* (February, 2006) at 11, Attachment S-50 to the Historical Record ("Nuclear power provides significant benefits to the Nation, in the form of cleaner air and low and stable electricity prices. Nuclear power does not emit the air pollutants and greenhouse gases that result from coal-fired and natural-gas fired generation. Nuclear power is also domestic and provides energy security . . .").

<sup>42</sup> U.S. Department of Energy, *Nuclear Energy Research and Development Roadmap, Report to Congress* (Apr. 2010), Attachment S-56 to the Historical Record, at 47. See also, U.S. Department of Energy, *A Roadmap to Deploy Nuclear Power in the United States by 2010* (October 31, 2001) Volume I at 1, Attachment S-48 to the Historical Record ("nuclear power technology has matured to the point that it is now a vital and extraordinarily valuable part of the nation's electrical supply. . . It is clear that an increase in nuclear produced electricity . . . will be needed to meet the nation's growing need for safe, clean and economical electricity generation. This vital role of nuclear power is a central message of the President's National Energy Policy.") In the *National Energy Policy*

In his 2011 State of the Union Address to Congress, President Obama called for an all of the above national energy strategy to support a clean energy economy.<sup>43</sup> Implementation of the President's policies by the U.S. Department of Energy ("DOE") not only recognizes the necessity to extend the operating licenses for the existing United States nuclear fleet to 60 years, but also that "[e]xtending operating licenses beyond 60 years would enable existing plants to continue to provide safe, clean, and economic electricity without significant greenhouse gas emissions":<sup>44</sup>

Extending the life of nuclear power plants is a vital step in meeting the electrical needs of the United States today and in decades to come. By keeping these plants safely in service, the Nation will retain valuable infrastructure and allow additional time to construct new sources of clean, reliable, and secure energy. Until other reliable sources of power are built and placed on the electrical grid, the existing fleet of nuclear power plants is a vital component of the economy.<sup>45</sup>

The White House *Blueprint* supports the continued safe use of the existing United States nuclear fleet and underscores the fact that a robust energy infrastructure is one of the prerequisites to national economic health, energy independence, and national security.<sup>46</sup> More recently, President Obama made reduction of carbon pollution associated with energy production a top priority for his administration:

With every passing day, the urgency of addressing climate change intensifies. I made clear in my State of the Union address that my Administration is committed to reducing carbon pollution that causes climate change, preparing our communities for the consequences of climate change, and speeding the transition to more sustainable sources of energy [including nuclear power.]<sup>47</sup>

The Third National Climate Change Assessment, released in May 2014, describes the urgent need to address climate change, and the role of nuclear energy in doing so.<sup>48</sup> Now, the U.S.

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*Report* (May 2001), at 5-17, Attachment S-46 to the Historical Record, President George W. Bush called for "the expansion of nuclear energy in the United States as a major component of our national energy policy."

<sup>43</sup> President Obama State of the Union Address (Jan., 2011), Attachment S-57 to the Historical Record (concluding "... we will need them all ...").

<sup>44</sup> U.S. Department of Energy, Office of Nuclear Energy, *Objective 1: Extend Life, Improve Performance, and Maintain Safety of the Current Fleet—Implementation Plan* (Jan. 2011), Attachment S-58 to the Historical Record, at 1-2.

<sup>45</sup> *Id.* at 4-5.

<sup>46</sup> The White House, *Blueprint for a Secure Energy Future* (Mar. 30, 2011), Attachment 52 to the Consistency Certification, at 3, 36.

<sup>47</sup> The White House, Presidential Memorandum, *Power Sector Carbon Pollution Standards* (Jun. 25, 2013), Attachment S-69 to the Historical Record; *see also* Executive Order # 13653, Preparing the United States for the Impacts of Climate Change, Attachment S-73 to the Historical Record.

<sup>48</sup> U.S. Global Change Research Program, *U.S. National Climate Assessment: Climate Change Impacts in the United States* (May 2014), Attachment S-75 to the Historical Record at 7, 654.

Environmental Protection Agency is moving forward with a “Clean Power Plan” which will mandate a 30% reduction of carbon pollution from power plants by 2030.<sup>49</sup>

There can be no doubt that the federal government is relying upon the continued contribution of the existing United States nuclear energy fleet to the nation’s fight against climate change, and to the resiliency and diversity of the nation’s energy infrastructure. Should the Department choose to object to the continued safe operation of Indian Point, the Department would be undercutting the national security, national energy security and independence, and the national economic security interests of the United States articulated by the President.

**B. Indian Point In Particular Promotes National Security, National Energy Security/Independence, National Economic Security, and National Environmental Policies.**

It requires no vanity for New York to recognize its own importance to the national and regional economies and to national and regional environmental efforts. New York’s is the third largest state economy in the Nation, behind only California and Texas, with a state gross domestic product (GDP) of over \$1.2 trillion.<sup>50</sup> If New York were its own country, it would rank 16th in the world by GDP, just behind Mexico and ahead of such large countries as Indonesia, Turkey, and Saudi Arabia.<sup>51</sup> That New York, and specifically New York City, is the center of the U.S. securities and financial industry is widely known: it is home to both the largest and second-largest stock exchanges in the world (NYSE and NASDAQ), measured in terms of overall average daily trading volume and of total market capitalization of listed companies.<sup>52</sup> New York also represents a major transportation and commercial hub for the United States and the world: it is home to the busiest seaport on the east coast, the Port of New York and New Jersey, which saw over 71 million metric tons, representing \$200 billion, in waterborne foreign trade come in and go out in 2013.<sup>53</sup> It also encompasses John F. Kennedy International airport, which handles more international traffic than any other airport in North America, and is the third-leading freight gateway (of any kind) into the country by cargo value.<sup>54</sup>

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<sup>49</sup> EPA, *Fact Sheet: Clean Power Plan State Roles* (June 2, 2014), Attachment S-77 to the Historical Record.

<sup>50</sup> See, e.g., U.S. Energy Information Administration, *New York State Profile and Energy Estimates* (Sept. 18, 2014), available at <http://www.eia.gov/state/data.cfm?sid=NY#EnergyIndicators> (reporting New York’s state gross domestic product for 2012 as \$1,205.9 billion).

<sup>51</sup> See The World Bank, *GDP (current US\$)*, <http://data.worldbank.org/indicator/NY.GDP.MKTP.CD> (last accessed Sept. 24, 2014) (providing 2009-2013 data).

<sup>52</sup> See World Federation of Exchanges, *2013 WFE Market Highlights* (Jan. 28, 2014), available at [http://www.world-exchanges.org/files/2013\\_WFE\\_Market\\_Highlights.pdf](http://www.world-exchanges.org/files/2013_WFE_Market_Highlights.pdf).

<sup>53</sup> See Port Authority of New York & New Jersey, *2013 Trade Stats Sheet* (undated), available at <http://www.panynj.gov/port/trade-stats.html>; American Association of Port Authorities, *Port Industry Statistics 2013, U.S. Waterborne Foreign Trade 2013 Port Ranking by Cargo Value* (undated), available at <http://www.aapa-ports.org/Industry/content.cfm?ItemNumber=900&navItemNumber=551>.

<sup>54</sup> See USDOT, *U.S. International Air Passenger and Freight Statistics* (June 2013), at tbl. 6, available at <http://www.dot.gov/office-policy/aviation-policy/us-international-air-passenger-and-freight-statistics-report-june-2013>; USDOT, Bureau of Transportation Statistics, *America’s Freight Transportation Gateways* (Nov. 2009), at 26,

New York's ability to respond to present economic needs and future economic growth depends in part upon adequate supplies of affordable energy.<sup>55</sup> In the near term, New York State will need to grapple with the implications of new environmental regulatory requirements that can affect the ongoing operations of a substantial portion of the installed generating capacity of New York State.<sup>56</sup> Within this context, Indian Point's strategically-placed 2,158 megawatt baseload generating capacity,<sup>57</sup> and annual generation of more than 17 million megawatt-hours of electricity,<sup>58</sup> constitutes an important asset in New York's existing energy supply system. Indeed, because metropolitan New York plays a critical role in our nation's economic health, any disruption of its power supply represents a potential national security risk, one that the United States National Academy of Sciences already has determined cannot be allowed without in-place power system reinforcements.<sup>59</sup>

As set forth in the Consistency Certification, there are five major attributes that make Indian Point uniquely situated to meet New York's *and therefore the region's and nation's* electricity, air quality and climate change objectives.

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73, available at [http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/americas\\_freight\\_transportation\\_gateways/2009/index.html](http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/americas_freight_transportation_gateways/2009/index.html).

<sup>55</sup> New York Energy Highway Blueprint (2012) (hereinafter "2012 NY Energy Highway Blueprint"), Attachment 69 to the Consistency Certification, at 3 (quoting Governor Cuomo's 2012 State of the State Address: "Key to powering our economic growth is expanding our energy infrastructure.")

<sup>56</sup> See New York Independent System Operator ("NYISO"), *2014 Power Trends: Evolution of the Grid* (2014), available at: [http://www.nyiso.com/public/flipbooks/PowerTrends\\_2014/index.html](http://www.nyiso.com/public/flipbooks/PowerTrends_2014/index.html) (hereinafter "2014 NYISO Power Trends"), at 59 ("New and proposed environmental regulations are estimated to affect more than 31,000 megawatts of generation, over 80 percent of New York State's installed generating capacity."); NYISO, *Power Trends 2012: State of the Grid* (hereinafter "2012 NYISO Power Trends"), Attachment 67 to the Consistency Certification, at 43 ("The array of proposed regulations is estimated to potentially impact more than half of the installed generating capacity in New York State, with effects ranging from retrofitting pollution controls to reduced use or retirement."); NYISO, *Power Trends 2011* (May 2011) (hereinafter "2011 NYISO Power Trends"), Attachment 49 to the Consistency Certification, at 41 ("The array of proposed regulations is estimated to impact 23,957 megawatts of capacity, more than half the installed generating capacity in New York State."); 2012 NY Energy Highway Blueprint at 42 ("More than 40 percent of New York's existing power generating capacity is over 40 years old and more than 20 percent is over 50 years old. Recent and pending environmental regulations . . . coupled with lower natural gas prices could lead to accelerated retirements of some of these older facilities. The potential retirement of power plants creates uncertainties for the future of the State's power supply." (citations omitted)).

<sup>57</sup> 2,158 megawatts is the combined gross generating capacity of Indian Point. NYISO has reported Indian Point as capable of producing 2,066.9 megawatts. NYISO, *2014 Load & Capacity Data: Gold Book* (Apr. 2014), available at: [www.nyiso.com](http://www.nyiso.com) (hereinafter "2014 NYISO Gold Book"), at 37 (Table III-2).

<sup>58</sup> *Id.* (Indian Point generated 17,076,800 megawatt-hours of electricity in 2013); see also NYISO, *2012 Load & Capacity Data: Gold Book* (Apr. 2012), available at: [www.nyiso.com](http://www.nyiso.com) (hereinafter "NYISO 2012 Gold Book") at 33.

<sup>59</sup> See 2006 National Academy Report, Attachment 46 to the Consistency Certification, at 1, 5-6. See also, Charles River Associates, *Indian Point Retirement Economic Analysis*, prepared for the New York City Department of Environmental Protection ("NYCDEP") (Aug. 2, 2011), Attachment 48 to the Consistency Certification (hereinafter "2011 NYCDEP Analysis"), at 12 ("[Indian Point]'s retirement without new generation or transmission system additions will compromise the reliability of the electricity grid.").

The first attribute of Indian Point that undergirds its uniquely crucial role for New York State, the region, and the world, is air quality. Indian Point's nuclear generation emits virtually no air pollutants that contribute to global warming or various air quality issues, such as carbon dioxide ("CO<sub>2</sub>"), NO<sub>x</sub>, SO<sub>2</sub>, particulate matter ("PM"), mercury, or any other air pollutants. Thus, Indian Point's operations contribute substantially to the ability of New York State to meet key federal climate change and air quality goals under the federal Clean Air Act.<sup>60</sup> NYSDEC and DPS estimate that an Indian Point retirement and/or outage would result in millions of tons of additional CO<sub>2</sub> emissions each year, *increasing* New York's total contribution to global warming, and negating concurrent efforts under the Regional Greenhouse Gas Initiative ("RGGI") to reduce emissions in New York.<sup>61</sup> Moreover, NO<sub>x</sub> is a precursor for ground-level ozone, a criteria pollutant for which the New York City-area (including parts of New Jersey and Connecticut) is presently in non-attainment with National Ambient Air Quality Standards set by the federal Environmental Protection Agency. Increases in NO<sub>x</sub> emissions resulting from Indian Point's retirement therefore can be expected to have serious human health impacts.

The second unique Indian Point attribute is location. Indian Point is located in the Southeastern New York area, serving not only the New York City area, but also the Lower Hudson Valley. This area represents a substantial and growing portion of the State's load and is traditionally supply-constrained due, in part, to the difficulty and cost of siting new generation and transmission infrastructure.<sup>62</sup>

The third Indian Point attribute is capacity. Indian Point has a combined gross generating capacity of 2,158 megawatts.<sup>63</sup> With this capacity offline, capacity prices in the New York Independent System Operator ("NYISO") capacity market would skyrocket, resulting in upwards of \$1 billion or more in capacity market payments each year, as confirmed by witnesses and

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<sup>60</sup> Letter of the National Economic Research Associates, Inc. ("NERA") dated April 29, 2010, to NYSDEC regarding "Effects of the Loss of [Indian Point] Nuclear Generating Units 2 and 3 Capacity and Generation on New York State Environmental, Economic and Energy Needs" Attachment 35 to the Consistency Certification, (hereinafter "NERA 2010"), at 4-5; NERA, *Potential Energy and Environmental Impacts of Denying Indian Point's License Renewal Application*, (Mar. 2012), Attachment 63 to the Consistency Certification (hereinafter "NERA 2012"), at E-4, 25-26, 33-34, 39-40.

<sup>61</sup> See, e.g., NYSDEC Adjudicatory Proceeding, Staff Ex. 218B, Attachment 19 to the NYSDEC Evidence Summary (estimating regional increases in CO<sub>2</sub> emissions of 7.5 million tons on a regional basis during a 9-month construction outage). To give a sense of the comparative scale of these increases, note that previous air emissions modeling in connection with RGGI anticipates an *aggregate* 86 million ton regional reduction in CO<sub>2</sub> emissions over several years through 2020, assuming the retirement of both Indian Point units in 2013 and 2015; an increase of 7.5 million tons in a single year represents nearly ten percent of that multi-year regional reduction goal. See Entergy Ex. 417, Attachment 73 to the NYSDEC Evidence Summary, at 11, 14, 20. It would be arbitrary for the Department to ignore unrefuted evidence of the serious adverse air quality impacts of closing Indian Point unless it undertakes an independent air quality and epidemiological assessments to refute that evidence.

<sup>62</sup> See NERA 2010 at 4.

<sup>63</sup> See USNRC, *Final Supplemental Environmental Impact Statement for License Renewal for Nuclear Plants, Supplement 38 Regarding Indian Point Nuclear Generation Unit Nos. 2 and 3* (Dec. 2010), Attachment 22 to the Consistency Certification (hereinafter "2010 USNRC FSEIS"), at 1-7 and 8-27.



expert economists testifying on behalf of the DPS, the City of New York, and Entergy in the NYSDEC SPDES permit and water quality certification proceeding.<sup>64</sup>

The fourth attribute of Indian Point is baseload operation and generation. Electricity generated by Indian Point accounts for approximately 10 percent of the total electricity consumption in New York State and 17 percent of the total electricity consumption in the Southeastern New York area.<sup>65</sup> Indian Point typically generates power across all months of the year and hours of the day, with the exception of limited planned outages (which last less than one month per unit every two years). As a result, due to its size and form of generation technology, Indian Point generates more electrical energy than any other facility within New York State.<sup>66</sup> Indeed, when considering the New York City area alone, instead of in combination with the Long Island area and Lower Hudson Valley, “[Indian Point] provides up to 30 percent of the New York City area’s base-load electricity.”<sup>67</sup>

Indian Point’s fifth uniquely important attribute is reactive power. In addition to the energy and capacity it provides, Indian Point is a significant source of voltage support in the Lower Hudson River Valley, an essential service for operation of the transmission and distribution system. Crucially, reactive power and voltage support must be provided on a local basis throughout the system; voltage support provided by Indian Point in the Lower Hudson Valley cannot be replaced with remote generating stations transmitting power from upstate.<sup>68</sup>

Singularly, and in any combination, these five characteristics of Indian Point explain why New York and the nation simply cannot afford the severe negative economic, energy instability, climate change, and air quality consequences that loss of Indian Point would entail.<sup>69</sup> Owing to its particularly vulnerable transmission system, DOE designated Southeastern New York as part of a “Critical Congestion Area.”<sup>70</sup> DOE warned that the “single greatest challenge in the Mid-

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<sup>64</sup> See, e.g., Thomas Paynter, Table: Potential Capacity Market Impacts, (NYSDEC Adjudicatory Proceeding, Staff Ex. 223), Attachment 14 to the NYSDEC Evidence Summary (estimating that, assuming Indian Point were offline for an entire year, statewide capacity prices would increase by \$1.451 billion in 2016); Prefiled Direct Testimony of Thomas S. Paynter (Feb. 28, 2014), Attachment 12 to NYSDEC Evidence Summary (explaining Staff Ex. 223); NERA Economic Consulting, *Impacts to the New York State Electricity System if Indian Point Energy Center Were Not Available* (Dec. 2013) (NYSDEC Adjudicatory Proceeding, Entergy Ex. 296E), Attachment 2 to NYSDEC Evidence Summary, at S-5 fig. S-1 (estimating that, assuming Indian Point were offline, capacity prices would increase by at least \$1.2 billion each year during the period 2015 to 2019); NYSDEC Adjudicatory Proceeding, City Ex. 2, Attachment 8 to NYSDEC Evidence Summary, at 62 tbl. 31 (estimating that, if Indian Point were offline and no new generation were added, capacity prices would increase by at least \$1.2 billion each year during the period 2016 to 2030).

<sup>65</sup> See NERA 2012 at E-2 and 1.

<sup>66</sup> NERA 2010 at 4. See also 2014 NYISO Gold Book at 37 (Table III-2).

<sup>67</sup> See Manhattan Institute, Center for Energy Policy and the Environment, *The Economic Impacts of Closing and Replacing the Indian Point Energy Center*, (Sept. 2012), Attachment 68 to the Consistency Certification (hereinafter “2012 Manhattan Institute”), at 2.

<sup>68</sup> NERA 2010 at 5.

<sup>69</sup> See 2012 Manhattan Institute at Executive Summary.

<sup>70</sup> U.S. Department of Energy, *National Electric Transmission Congestion Study* (Dec. 2009), Attachment S-55 to the Historical Record, at 29.

Atlantic region is how southeastern New York will meet its electricity needs in the years ahead.”<sup>71</sup> In that context, Indian Point plays a pivotal role in grid stability for both New York City and New York State. Indian Point helps to keep metropolitan New York safe, secure and prosperous by providing reliable<sup>72</sup> and affordable<sup>73</sup> energy in close proximity to the metropolitan area. During Superstorm Sandy, Indian Point was a bedrock that helped anchor New York’s electrical system. Unit 2 remained operating fully, while Unit 3 was shut down for 70 hours owing solely to problems with the transmission system unrelated to Unit 3. Without Indian Point, New York City’s electricity system would become more vulnerable to supply disruption and blackouts during storm events.<sup>74</sup>

One need not take Entergy’s word concerning the importance of Indian Point to New York and therefore the nation. Other governmental and quasi-governmental entities in New York, such as the DPS, NYISO, and New York City, have confirmed the crucial role Indian Point plays. Statements by witnesses for those government bodies made in the context of the NYSDEC SPDES adjudicatory proceeding will not be repeated here; they are addressed in the memorandum entitled “*Evidence Presented to the New York Department of Environmental Conservation Regarding Possible Future Implementation of Technological Improvements at Indian Point*” (“NYSDEC Evidence Summary”) being submitted by Entergy simultaneously with this memorandum (the “National and State Interest Summary”). This National and State Interest Summary, however, will identify further evidence from these New York sources confirming Indian’s Point’s indispensable role.

The New York metropolitan area is affected by transmission grid constraints and higher electricity costs that result from a number of factors.<sup>75</sup> In the official New York City document, “*PlaNYC—A Greener, Greater New York*” (City of New York, April 2011)(Attachment 47 to the Consistency Certification) (hereinafter “2011 NYC Plan”), the City’s heavy reliance on Indian Point is described. New York City’s electricity system faces “significant reliability challenges” and “[p]rincipal among these is the potential closure of Indian Point, which could lead to major

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<sup>71</sup> *Id.* at 40.

<sup>72</sup> This issue of Indian Point’s relationship to electrical system reliability is addressed in the 2011 NYCDEP Analysis at 32 and 33 (“In addition to providing active power generation, the reactive power reserves provided by [Indian Point] support the voltage necessary to keep the transmission system secure. . . . [Indian Point] is physically located in Westchester County . . . at a particularly important location.”), at 12 (“There are proprietary analyses from some Group members which strongly suggest that [without Indian Point] there are other factors which will result in local (i.e., in-City) and broader system reliability issues.”).

<sup>73</sup> 2011 NYCDEP Analysis at 11 (\$1.5 billion dollar annual increase in energy costs without Indian Point).

<sup>74</sup> See NYISO, *2012 Reliability Needs Assessment* (Sept. 18, 2012), Attachment 71 to the Consistency Certification (hereinafter “2012 NYISO RNA”), at 43.

<sup>75</sup> NERA 2010 at 11 (“In 2008, average electricity prices in New York were more than 70 percent higher than average electricity prices in the country as a whole. On average, New York prices were about 60 percent higher than U.S. prices over the 19-year period [1990-2008].”) (emphasis added). Higher energy costs will be particularly harmful to the residents and businesses of New York City and Long Island where the range of energy costs is already about 30% higher than in upstate New York.

system disruptions in the absence of a viable replacement plan.”<sup>76</sup> According to the 2011 NYC Plan:

New York City’s ability to import electricity is limited by under-sized and congested transmission lines, and opportunities to expand in-city generation are limited. Periods of peak summer demand put significant stress on utility infrastructure and cause the activation of the dirtiest in-city plants. As a result, each summer we must brace for the possibility of neighborhood-level blackouts and increased air pollution.<sup>77</sup>

“Leaving older and dirtier power plants in place is simply too costly for New Yorkers’ health and pocketbooks.”<sup>78</sup> Given the public safety imperatives and the reliability requirements of providing adequate power supplies to New York City, existing, less efficient power plants in the New York City area have continued to operate. Without Indian Point, emergency actions to provide additional energy to New York City residents, and the attendant public health risks, could become more serious and more frequent.

The 2011 NYC Plan—to say nothing of New York City’s involvement in the NYSDEC SPDES adjudicatory proceeding—makes New York City’s support for Indian Point’s continued operations abundantly clear:

- Indian Point is the “cornerstone” of New York City’s electricity system, “that supplies up to 30% of our power virtually carbon free,” and its removal could “threaten the reliability, increase prices, and jeopardize our [greenhouse gas] reduction efforts.”<sup>79</sup>
- “Closing Indian Point without a viable and relatively clean replacement option would jeopardize reliability, significantly increase prices, worsen local air quality, and make it very challenging to achieve our goal of reducing greenhouse gas emissions 30% by 2030. For these reasons we will support the continued safe operation of Indian Point.”<sup>80</sup>
- “Retiring Indian Point without replacing at least a portion of its capacity could lead to power system instability. Replacement costs would exceed \$2 billion and New Yorkers would also pay at least \$1.5 billion in higher energy costs [per year] over the next decade, and electricity consumers could see their bills increase by 15%. Local air pollution would increase and our efforts to reduce [greenhouse

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<sup>76</sup> 2011 NYC Plan at 116.

<sup>77</sup> 2011 NYC Plan at 116.

<sup>78</sup> 2011 NYC Plan at 112.

<sup>79</sup> 2011 NYC Plan at 105.

<sup>80</sup> 2011 NYC Plan at 112.

gas] emissions 30% by 2030 would be unachievable because we would most likely shift to electricity generated by more carbon-intensive sources.”<sup>81</sup>

The economic realities of running the nation’s largest city, and the human health and security effects of undermining that city’s electric supply, cannot be ignored and must be given the utmost consideration. If Indian Point’s baseload generation is lost:

- there is a threat that New York’s energy system will become unreliable and vulnerable to disruption;
- the residents of New York and neighboring states will be unnecessarily exposed to the harmful effects of increased air pollution; and
- the increased cost of energy production will be imposed on New York’s residents and businesses—a functional new \$1.5 billion annual tax.<sup>82</sup>

Respected energy market entities, including NYISO, repeatedly have issued the dire warning that, were Indian Point’s baseload generation to be lost, New York State could not meet the applicable capacity requirements under the assumed base case scenario, leading to risks of blackouts that are unacceptable under established reliability criteria.<sup>83</sup> As NYISO’s most recent Reliability Needs Assessment, dated September 16, 2014, explains at length:

*Significant violations of transmission security and resource adequacy criteria could occur in 2016 if the Indian Point plant were to be retired at that time. These results were determined using the base case assumptions with the additional change that the Con Edison load was modified to incorporate 125 MW of targeted load reduction projects, consisting of 100 MW of Energy Efficient and Demand Reduction, and 25 MW of Combined Heat and Power distributed generation.*

The Indian Point Plant has two base-load units (2,060 MW total) located in Zone H in Southeastern New York, an area of the State that is subject to transmission constraints that limit transfers in that area as demonstrated by the reliability violations that arise by 2019 in the base case. *Southeastern New York, with Indian Point in service, currently relies on transfers to augment existing capacity.*

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<sup>81</sup> 2011 NYC Plan at 117.

<sup>82</sup> 2012 Manhattan Institute at Executive Summary and at 19 (“Closing [Indian Point] . . . would impose the equivalent of a tax on consumers and producers that would, as tax increases do, reduce economic growth.”). As the New York State Public Service Commission and Department of Public Service have noted, “[t]he cost of electricity in New York State is high compared with neighboring states.” New York State Public Service Commission, *Indian Point Contingency Plan, Final Generic Environmental Impact Statement* (Sept. 2013) (hereinafter “Indian Point Contingency Plan”), Attachment S-72 to the Historical Record, at p. 4-19.

<sup>83</sup> In addition to power production, Indian Point provides required voltage support. See New York State Energy Planning Board, *New York State Energy Infrastructure Issue Brief: New York State 2009 Energy Plan* (Dec. 2009), available at: <http://energyplan.ny.gov/Plans/2009.aspx> (hereinafter “2009 Energy Infrastructure Brief”), at 22 (Indian Point “provides 900 MVAR of reactive power capability needed to support lower Hudson Valley voltages, which in turn enable transfers into New York City and Long Island that could not otherwise occur.”).

*Consequently, load growth or loss of generation capacity in this area would aggravate constraints.*

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Using the base case load forecast adjusted for the Con Edison EE program, LOLE (loss of load expectation, or the statistical expectation of a blackout) is 0.31 in 2016 with Indian Point retired, *which is a substantial violation of the 0.1 days per year criterion. Beyond 2016, the LOLE continues to escalate due to annual load growth for the remainder of the Study Period reaching an LOLE of 1.17 days per year in 2024.*<sup>84</sup>

The economic and human health impacts of the blackout of 2003 still reverberate today,<sup>85</sup> more than a decade later; neither New York—nor the country that relies on New York City as its financial center and major transportation hub—can countenance the risks associated with clear and substantial violations of reliability standards.<sup>86</sup>

The Final Generic Environmental Impact Statement (“FGEIS”), prepared last year by DPS as part of the Public Service Commission’s (“PSC”) Indian Point Contingency Plan process, further underscores the havoc that would ensue were Indian Point’s baseload generation capacity lost anytime soon. In considering a “No Action” alternative in which Indian Point’s generation is not adequately replaced before Indian Point’s closure, the FGEIS reported that the result would be “higher-priced electricity, potentially more air pollutant emissions from generation facilities (e.g., more use of diesel generators, which are high in particulate emissions), and, in an emergency situation on peak demand days, the potential for disruptions of service,” *i.e.*, blackouts.<sup>87</sup> Replacement sources “would be limited, higher priced, and less efficient and more polluting plants would be utilized during periods when the demand dictated their use”; “[t]he increased use of natural gas and oil electricity sources would increase emissions in the New York City metropolitan area because existing sources would be required to produce more electricity, using more fossil fuels.”<sup>88</sup> In the short term, an Indian Point retirement without adequate planning and preparation for that contingency “could decrease the amount of capacity available to meet the reserve margin, which would decrease reliability of the transmission system and may result in implementation of NYISO emergency operations.”<sup>89</sup> “Overall, the lack of a Contingency Plan [in the event of Indian Point’s retirement] would increase the potential for interruptions of service in downstate New York during critical demand periods.”<sup>90</sup> DPS

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<sup>84</sup> NYISO, *2014 Reliability Needs Assessment* (Sept. 16, 2014), Attachment S-78 to the Historical Record at 30-40 (emphases added).

<sup>85</sup> See note 12, *supra*.

<sup>86</sup> See 2009 Energy Infrastructure Brief at 21 (“The complete shutdown of the Indian Point units without adequate replacement infrastructure would have material adverse effects on the electrical system . . . [with] the probability of 41 outages in a 10-year period.”); 2014 NYISO Power Trends at 58.

<sup>87</sup> Indian Point Contingency Plan at 3-3 to -4.

<sup>88</sup> *Id.* at 5-43.

<sup>89</sup> *Id.* at 5-44

<sup>90</sup> *Id.* at 5-45.

acknowledged the potential for other adverse impacts from Indian Point’s closure as well, including risks to human health, especially in environmental justice communities.<sup>91</sup> At the same time, DPS also noted that replacing Indian Point—such as through the construction of new transmission lines or of additional generating facilities—may result in adverse environmental and other impacts of its own.<sup>92</sup> Moreover, such alternatives are hardly assured of achieving their mission. Indeed, the New York Power Authority just recently noted the “delay[s] and uncertainty” that have “arisen as to the timing and completion of the full suite of [transmission] projects originally contemplated” by the PSC’s Indian Point Contingency Planning process.<sup>93</sup>

Disruption of Indian Point’s continued operation also can be expected to increase air emissions, adversely affect system reliability and, in a difficult economy, cause higher overall energy prices further weakening the State’s economic productivity and competitiveness.<sup>94</sup> In addition, the regional electric grid, in which power sometimes travels long distances from other states or even Canadian provinces, presents a security risk, making baseload generation near the economic hub of New York City a priority.<sup>95</sup>

### **C. Closure of Indian Point Would Likely Cause Cumulative Adverse Impacts**

Despite the vital importance of the U.S. nuclear fleet to national security, national energy security/independence, and national economic security, the future of nuclear generation of electricity in the United States already faces serious financial headwinds. Since 2012, plans for closure of five existing nuclear power plants, representing 4.2 gigawatts of electricity generation, have been announced.<sup>96</sup> One of those five plants—Vermont Yankee—is part of Entergy’s

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<sup>91</sup> *Id.* at 5-46.

<sup>92</sup> *See id.* at 5-1, -3, 5-9 to -10 (discussing potential impacts of new transmission lines, including the need for “quite substantial” land requirements, potential for injury or mortality to birds and bats associated with collisions and electrocutions, and potential adverse impacts to any critical environmental areas within or near where transmission facilities may be sited); *id.* at 5-21, -24, -28, -31, -33 (“The potentially significant environmental impacts associated with all generation facilities include air emissions, water use and wastewater discharge”; specific impacts discussed include potential for closed-loop cooling systems to reduce water levels and water quality in the source water body; increased air pollutant emissions, which may result in negative medical consequences for “[m]ore vulnerable individuals, such as the elderly, the sick, and the very young”; and increased reliance on natural gas, which “would be expected to increase the overall price of electricity”).

<sup>93</sup> Letter from Glenn D. Haake, New York Power Authority, to Hon. Kathleen H. Burgess, New York State Department of Public Service (July 1, 2014).

<sup>94</sup> 2012 Manhattan Institute at Executive Summary (“The effects of these higher electricity costs absorbed by customers would ripple through the New York economy, leading to estimated reductions in output of \$1.8 billion—\$2.7 billion per year over the 15-year period 2016-30. The resulting loss of jobs in the state could range from 26,000 to 40,000 per year, depending on the alternative chosen to replace [Indian Point].”), and at 19 (“Closing [Indian Point] . . . would impose the equivalent of a tax on consumers and producers that would, as tax increases do, reduce economic growth.”).

<sup>95</sup> *See* Lindsay Bragg, *R. James Woolsey: Our Energy Future* (Nov. 8, 2011), <http://universe.byu.edu/2011/11/06/r-james-woolsey-our-energy-future/> (“When the system was designed, no thought was given to potential interference. ‘[It is a] relatively fragile system, never put together with the idea it could be attacked,’ Woolsey said. . . . If the energy grid were to fail, the United States would plunge back into the 1800s.”)

<sup>96</sup> U.S. Energy Information Administration, *Annual Energy Outlook 2014 with projections to 2040* (Apr. 2014), Attachment S-76 to the Historical Record, at IF-34.

Northeast nuclear fleet. A sixth nuclear power plant—Oyster Creek—is expected to close by 2019.<sup>97</sup> Over the coming years, still more nuclear power plants are expected to face profitability concerns, possibly leading to additional plant closures.<sup>98</sup> It is not mere idle speculation that adverse regulatory changes or economic circumstances could precipitate the closure of yet more nuclear power plants in the future.<sup>99</sup>

The negative consequences of even a single nuclear plant closure, such as the closure of Indian Point, can reach well beyond regional to national significance.<sup>100</sup> By undermining the stability of the U.S. nuclear fleet, the closure of Indian Point would seriously undercut the national interests supported by a vibrant and productive United States nuclear fleet.<sup>101</sup>

## V. Conclusion

The overwhelming weight of the evidence and expert opinion across numerous governmental and quasi-governmental entities and private think tanks and analysts is clear: the continued

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<sup>97</sup> *Id.*

<sup>98</sup> Center for Strategic & International Studies, *Restoring U.S. Leadership in Nuclear Energy—A National Security Imperative* (June 2013), Attachment S-66 to the Historical Record, at v (“[A]s many as a quarter of commercial nuclear energy facilities in America are cash-flow negative, or may be soon, or could be facing difficult investment decisions which may lead to early shutdowns.”)

<sup>99</sup> See, e.g., NYSDEC Adjudicatory Proceeding, Prefiled Direct Testimony of Christopher J. Russo (on behalf of New York City) (Feb. 28, 2014) Attachment 6 to the NYSDEC Evidence Summary, at 15-16; Prefiled Rebuttal Testimony of Christopher J. Russo (on behalf of New York City) (Mar. 28, 2014) Attachment 11 to the NYSDEC Evidence Summary, at 3 (recognizing that adverse economic and regulatory requirements can cause owners of nuclear facilities to close).

<sup>100</sup> See, e.g., Ari Phillips, *A Nuclear Power Plant Goes on the Auction Block* (April 18, 2014), available at <http://thinkprogress.org/climate/2014/04/18/3425661/nuclear-power-plant-auction/> (noting the loss of 1500 jobs, a 35% increase in greenhouse gas, and a 59% increase in wholesale electricity prices throughout California when the San Onofre Nuclear Generating Station closed in Southern California); J. Mullin and Z. Kotval, *The Closing of Yankee Rowe Nuclear Power Plant: The Impact on a New England Community* (UMass Amherst Landscape Architecture U Regional Planning Faculty Publication Series 1997) (without the myriad of economic, social, and cultural benefits that Yankee Rowe provided, the Rowe Township and nearby communities rapidly sunk into economic stagnation).

<sup>101</sup> There are even more direct ways that the existing United States nuclear power fleet, including Indian Point, has advanced national security goals. For example, the “Megatons to Megawatts Program” was established under a 1993 United States–Russia nonproliferation agreement to convert high-enriched uranium (HEU) taken from dismantled Russian nuclear weapons into low-enriched uranium (LEU) for nuclear fuel. USEC, *Megatons to Megawatts*, <http://www.usec.com/russian-contracts/megatons-megawatts> (last accessed Sept. 26, 2014). From 1995 through December 2013, 500 metric tons of HEU from Russian nuclear warheads were recycled into LEU for U.S. nuclear power plants. *Id.* This is the equivalent of eliminating 20,000 nuclear warheads. The United States established a government corporation—the United States Enrichment Corporation (“USEC”) to implement the program. *Id.* In years past, nuclear warheads that were once on Russian missiles aimed at American cities have provided up to 10 percent of the electricity produced in the United States. *Id.* The Megatons to Megawatts Program continues through 2013, and has been extended by a Transitional Supply Contract through 2022. USEC, *Transitional Supply Contract*, <http://www.usec.com/russian-contracts/transitional-supply-contract> (last accessed Sept. 26, 2014). LEUs supplied by Russia under the Transitional Supply Contract “will come from Russia’s commercial enrichment activities rather than from downblending of excess Russian [HEU].” *Id.* Although this program is in transition, it underscores the potential ongoing beneficial use of U.S. demand for nuclear fuel in the realm of national security and international diplomacy.

operation of Indian Point serves vital national and state interests. The critical need to extend safely the useful life of the existing United States nuclear fleet, including Indian Point, has been pointed out explicitly by President Obama and his Administration. Moreover, the pivotal importance of Indian Point, standing alone and apart from the United States nuclear fleet, also has been addressed directly by the National Academy of Sciences, as well as experts employed and retained by DPS, NYISO, and the City of New York, in addition to Entergy.

As detailed in this National and State Interest Summary and in the Historical Record, and as has been the subject of voluminous testimony before NYSDEC, Indian Point's continued operation serves an absolutely crucial role in achieving national, state, and local economic, environmental, electric system reliability, and human health objectives. Any actions by the Department that lead to premature closure of Indian Point would pose yet another threat to the continued viability of the United States nuclear fleet and would fly in the face of the global imperative of combatting climate change. Such misguided actions would greatly undermine any attempt by the United States to forge a path of leadership in that world effort.

Under the CZMA and the CMP, those vital national and state interests must be front and center when the Department considers whether Indian Point License Renewal is consistent with the CMP. The legal standards applicable to consistency review in New York State, as incorporated into the CMP and approved by NOAA, call for such national and state interests to be carefully weighed by the Department against any perceived countervailing concerns by the Department about CMP consistency. Accordingly, Entergy urges the Department to concur with Entergy's Consistency Certification.



*Date: September 26, 2014*

*Historical Record of Federal Actions (and Corresponding State Actions)  
Supporting The Siting, Construction, and Operation of Indian Point Energy  
Center*

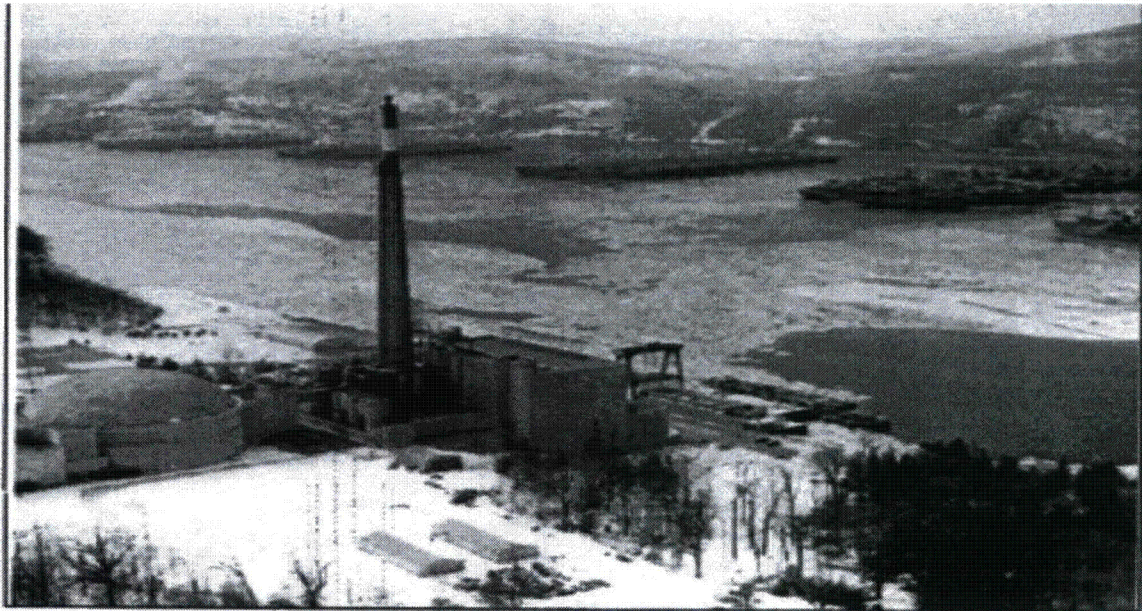


Photo circa 1962 from Indian Point archives showing the United States "Ghost Fleet" anchored across the Hudson River from Indian Point

***This “Historical Record of Federal Actions (and Corresponding State Actions) Supporting The Siting, Construction, and Operation of Indian Point Energy Center” demonstrates that Indian Point:***

- (A) promotes national security, national energy security/independence, and national economic security;***
- (B) is featured in, consistent with, exempted from review by, and previously reviewed under, the New York Coastal Management Program; and***
- (C) advances President Obama’s national energy and climate change objectives.***

DATE	EVENT	SOURCE
December 8, 1953	<p>President Eisenhower presents Atoms-for-Peace proposal to the United Nations General Assembly as major pronouncement of America's public policy concerning the international management of nuclear energy.</p> <p><i>Id.</i> at 3.</p>	<p>Alice L. Buck, <u>A History of the Atomic Energy Commission</u>, U.S. Department of Energy, July, 1983 ("<u>Buck</u>")</p> <p>Attachment S-1</p>
March, 1954	<p>The Atomic Energy Commission ("<u>AEC</u>") launches its "Five Year Plan" to create commercially competitive technology for nuclear electric generation.</p>	<p><u>Report of the Subcommittee on Research and Development on the Five-Year Power Reactor Development Program Proposed by the Atomic Energy Commission</u>, March, 1954</p> <p>Attachment S-2</p>
August 30, 1954	<p>Atomic Energy Act of 1954: creates the foundation for private and public nuclear electric generating facilities</p>	<p>Atomic Energy Act of 1954, Pub. L. No. 83-703, 68 Stat. 919 (1954)</p>

DATE	EVENT	SOURCE
1954-55	<p>Consolidated Edison of New York, Inc. ("<u>Con Ed</u>") land assembly begins at Indian Point Energy Center ("<u>Indian Point</u>" or "<u>IPEC</u>")—a former brick yard, converted to an amusement park, opposite the massive US Navy "Ghost Fleet" on the Hudson River.</p> <p>The short distance to the New York City load center, the availability of existing transmission right-of ways, the availability of Hudson River cooling water and navigable waters, the proximity to the U.S. Navy fleet and other existing industrial facilities, the geology, and elevation of the site above flood levels, combine to make Indian Point an ideal location for nuclear power generation.</p>	<p>Deed dated October 30, 1954, recorded at Liber 5392, Page 29; Deed dated December 1, 1954, recorded at Liber 5398, Page 340; Deed dated January 1, 1955, recorded at Liber 5419, Page 283; Deed dated January 31, 1955, recorded at Liber 5538, Page 404</p> <p>Attachment S-3-1; S-3-2; S-3-3; S-3-4</p> <p>Attachment S-3</p>
March 22, 1955	<p>Con Ed submits the first-ever application to AEC for a nuclear power plant—Indian Point Unit No. 1 ("<u>IP1</u>")</p> <p><i>Id.</i> at 438.</p>	<p>Excerpt from <u>Major Activities in the Atomic Energy Programs, January—December 1961</u>, United States Atomic Energy Commission, January, 1962, at Appendix 8, <i>License Applications Filed and Actions Taken: Summary of License Actions</i>.</p> <p>Attachment S-4</p>

DATE	EVENT	SOURCE
May 4, 1956	<p>IP1 Construction permit issued by AEC</p> <p><i>Id.</i> at I-5, CPRR-1, Table 1-2 and IV-1.</p>	<p><u>Final Environmental Statement Relating to the Operation of Indian Point Nuclear Generating Plant No. 3, United States Nuclear Regulatory Commission (“NRC”), February, 1975 (hereinafter “NRC 1975 FEIS for IP3”)</u>.</p> <p>Attachment 21 to Consistency Certification, December, 2012; excerpts included as Attachment S-5 to this Supplemental Filing</p>
1958	<p>AEC launches the “Ten-Year Program” for civilian power with the primary objective of competitive nuclear power by 1968.</p> <p><i>Id.</i> at 5.</p>	<p>Buck</p> <p>Attachment S-1</p>
February 17, 1959	<p>Governor Rockefeller seeks to establish New York as the leader among the states in encouraging the development and use of atomic energy within the State as fully as possible.</p> <p>“In the industrial use of atomic energy, there is already evidence that New York State is losing the leading position it once enjoyed.</p> <p>...</p> <p>This trend must and can be reversed. A new Office of Atomic Development, such as I propose, is one of the necessary steps.”</p> <p><i>Id.</i> at 4.</p>	<p>Message of the Governor in relation to the Use of Atomic Energy for Peaceful Purposes, State of New York Legislative Document No. 46 (1959)</p> <p>Attachment S-6</p>

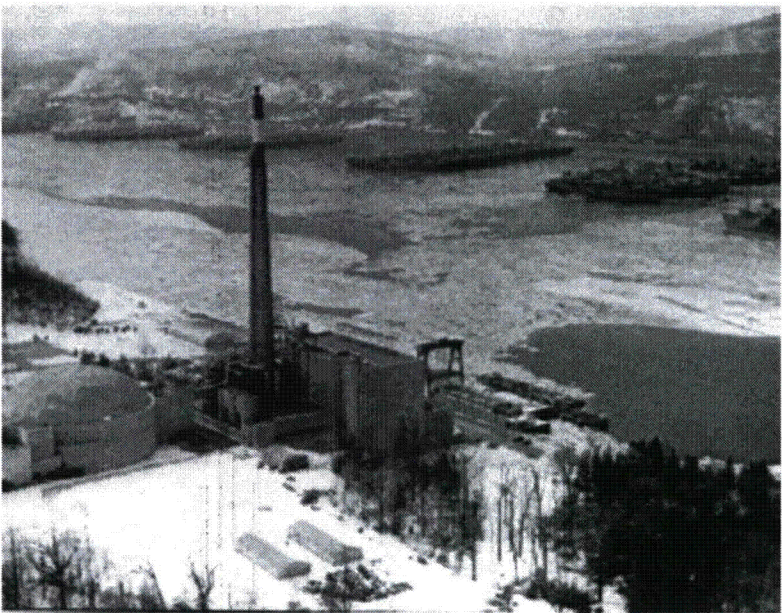
DATE	EVENT	SOURCE
March 9, 1959	<p>New York State Legislative findings:</p> <p>“The development and use of atomic energy for peaceful purposes is a matter of important concern to the economic growth, and the health and safety of the people, of the state. It is, therefore, declared to be the policy of the state to encourage such development and use within the state as fully as possible, consistent with the health and safety of workers and the public as well as with the powers and responsibilities of the federal government and the governments of other states.”</p> <p><i>Id.</i> at 72.</p>	<p>(C. 41, inserting Article 19-D, Atomic Energy Law, and establishing the New York Office of Atomic Development.) 1959 N.Y. Sess. Law 71 (McKinney)</p> <p>Attachment S-7</p>
October 27, 1959	<p>New York State conveys a portion of the Indian Point site to Con Ed for the purpose of facilitating the construction of IP1, and later Indian Point Energy Center Unit 2 (“<u>IP2</u>”) and Unit 3 (“<u>IP3</u>”).</p>	<p>Deed dated October 17, 1959, recorded at Liber 5973, Page 283</p> <p>Attachment S-8</p>

<p>December 1, 1959</p>	<p>New York Adopts an "Atomic Development Plan":</p> <p>"It is generally accepted that the one transcending event that would do more than anything else to transform peaceful atomic development into a large, important new American industry is the achievement of economically competitive atomic power.</p> <p>In the national effort to achieve this goal, the New York State utility industry has to date made, or committed itself to make, the largest investment of any state's utility industry. This investment, including commitments through 1965, amounts to approximately \$110 million, the bulk of which is being paid by the Consolidated Edison Company for the \$100 million atomic power plant the company now has under construction at Indian Point, near Peekskill.</p> <p>This project, when completed in early 1961, will be the nation's second largest atomic power plant. It also has the expensive objective of substantially advancing the technology of atomic power by utilizing, along with uranium, a new hitherto largely unused and little understood material called thorium as a source of nuclear fuel.</p> <p>...</p> <p>There is no doubt that the New York State utility industry will benefit from its forward-looking contributions to atomic power projects in other states. The fact remains, however, that at present the Indian Point plant is the only atomic power plant in existence, under construction or planned within the State of New York itself. The fact also remains that, at this important early stage of development, each atomic power project that is undertaken serves as both a beacon and a magnet to the scientific, educational and industrial worlds which make its existence possible.</p> <p>With these considerations in mind, <i>it is our opinion that it would be in the best interests of the people of the state if there were to exist a definite plan for the construction within the state of at least one atomic power plant in addition to the one now under construction by the Consolidated Edison Company. Such a plan would provide continuity to atomic power development within the state beyond the 1961 completion date of the Indian Point plant, would tend to keep the state in the forefront of such development, and would,</i></p>	<p><u>An Atomic Development Plan for the State of New York, A Report to Governor Nelson A. Rockefeller</u>, New York Office of Atomic Development, December 1, 1959</p> <p>Attachment S-9</p>
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<p>December 1, 1959 (cont.)</p>	<p><i>most importantly, serve as an effective stimulant to the atomic industry generally in the New York area.</i>”</p> <p><i>Id.</i> at 8. (emphasis added).</p> <p>“[Therefore, New York State’s objectives include:] Expansion of the state’s atomic power capacity, including particularly the construction at the earliest practicable date of either an economically competitive full-scale atomic power plant or a prototype leading directly toward the construction of an economically competitive full-scale plant.</p> <p>We propose this because we believe that there is no single event that would do more to establish the peaceful atomic industry on a permanent, flourishing basis in the State of New York than the achievement of economically competitive atomic power in this area.”</p> <p><i>Id.</i> at 19.</p>	<p><u>An Atomic Development Plan for the State of New York, A Report to Governor Nelson A. Rockefeller, New York Office of Atomic Development, December 1, 1959</u></p> <p>Attachment S-9</p>
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January-December, 1961	<p>“<i>Consolidated Edison Thorium Reactor</i>: Construction of the privately financed uranium oxide-thorium oxide Consolidated Edison Co. reactor was essentially completed at Indian Point, N.Y., in December. Initial criticality is expected by early 1962. Full power operation of the 255,000 ekw pressurized water plant, which includes 104,000 kilowatts from an oil-fired superheater, is scheduled for the spring of 1962. The Indian Point plant will provide important operating data for large water-cooled reactor systems and technical data on the use of a fuel mixture of thorium and uranium 235. It will be the second large-scale nuclear power plant to be put into operation without financial assistance from the Commission; Dresden was the first. A public hearing to consider the issuance of a provisional operating license was held on December 7-20, 1961, and recessed to January 3, 1962.”</p> <p><i>Id.</i> at 81.</p>	<p><u>Major Activities in the Atomic Energy Programs, January—December 1961</u>, United States Atomic Energy Commission, January, 1962</p> <p>Attachment S-4</p>
1962	<p>IP1 construction completed</p> <p><i>Id.</i> at IV-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
March, 1962	<p>President Kennedy requests AEC to take a “new and hard look at the role of nuclear power” in the Nation’s economy.</p> <p><i>Id.</i> at 5.</p>	<p>Buck</p> <p>Attachment S-1</p>
March 26, 1962	<p>IP1 receives provisional operating license from AEC, DPR-5</p> <p><i>Id.</i> at I-1 and 1-5 Table 1-2.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>

<p>April 1, 1962</p>	<p>New York State creates the New York State Atomic and Space Development Authority to, among other things, promote “the peaceful use of atomic energy,” including the then-constructed and planned nuclear facilities at Indian Point. Section 1 of the Act creating the New York State Atomic and Space Development Authority sets forth the following legislative findings:</p> <p>“That the maximum development and use within the state of atomic energy for peaceful and productive purposes, consistent with the health and safety of the public, will promote the state’s economic growth and will be in the best interests of the health and welfare of the state’s population.</p> <p>...</p> <p>It is hereby declared to be the policy of the state to encourage, through the public benefit corporation hereinafter created, the maximum development and use within the state of atomic energy for peaceful and productive purposes.”</p> <p><i>Id.</i> at 428.</p>	<p>Pub. Auth. Law § 1850-a, 1962 N.Y. Sess. Law. 428 (McKinney) (c. 210).</p> <p>Attachment S-10</p>
<p>October 1962</p>	<p>IP1 begins operation (output 265 Mwe) across the Hudson River from the massive U.S. “Ghost Fleet”</p> <p><i>Id.</i> at III-1.</p> 	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p> <p>Photo circa 1962 from Indian Point archives</p>

<p>November, 1962</p>	<p>AEC issues “Civilian Nuclear Power . . . a Report to the President—1962 ”</p> <p>“Nuclear energy can and should make an important and, ultimately, a vital contribution toward meeting our long-term energy requirements. . . . The development and exploitation of nuclear electric power is clearly in the near- and long-term national interest and should be vigorously pursued.”</p> <p><i>Id.</i> at 8.</p> <p>“[T]he nuclear power program should continue on an expedited basis.”</p> <p><i>Id.</i> at 47.</p>	<p><u>Civilian Nuclear Power . . . a Report to the President—1962</u>, Atomic Energy Commission, November, 1962.</p> <p>Attachment S-11</p>
<p>December, 1962</p>	<p>National Academy of Sciences, National Research Council, issues “Energy Resources: A Report to the Committee on Natural Resources,” concluding that use of nuclear energy is necessary:</p> <p>“If a world-wide industrial collapse due to the exhaustion of the fossil fuels and the high-grade ores of metals within the next few centuries is to be forestalled, there appears to be no possible way of accomplishing this except by a newer and larger supply of energy suitable to the requirements of large-scale industrial operations.</p> <p>...</p> <p>The only . . . source of energy that does have the proper magnitude and does lend itself to large industrial use is nuclear.”</p> <p><i>Id.</i> at 132-133.</p> <p>...</p> <p>“Nuclear Energy. The eventual dependence upon nuclear energy as the principal source of industrial power in areas which now have abundant fossil fuels, and the immediate needs in other areas, makes it essential that research and development in this field should be vigorously pursued.”</p> <p><i>Id.</i> at 138.</p>	<p><u>Energy Resources: A Report to the Committee on Natural Resources</u>, National Academy of Sciences, National Research Council, December, 1962</p> <p>Attachment S-12</p>

August 26, 1964	<p>President Johnson signs "Private Ownership of Special Nuclear Materials Act" allowing private ownership of nuclear fuel.</p> <p><i>Id.</i> at 5.</p>	<p>Buck</p> <p>Attachment S-1</p>
October, 1964	<p>The Federal Power Commission issues a report detailing the Nation's need to build new energy generating capacity:</p> <p>"Nuclear plants operating in the base of the load at an average capacity factor of 85 percent are expected to supply about 19 percent of the energy needs in 1980. These estimates are about 70 percent greater than the general projections contained in the National Power Survey Advisory Committee Report No. 15 on Nuclear Development and in the Atomic Energy Commission's Report to the President, 1962, on Civilian Nuclear Power."</p> <p><i>Id.</i> at 204.</p>	<p>Excerpt from <u>National Power Survey</u>, Federal Power Commission, October, 1964</p> <p>Attachment S-13</p>
1965	<p>IP2 construction begins</p> <p><i>Id.</i> at IV-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
November 9-10, 1965	<p>The Northeast Blackout triggers federal action to address national needs for adequate supplies of electricity and reliable supply systems.</p> <p>"The largest electric power failure in history began at approximately 5:16 p.m. on November 9, 1965, and extended into November 10, 1965. The effect encompassed momentary power interruptions in some areas to a complete loss of electric power in other areas for varying periods up to 13 hours. New York City and much of the Northeastern United States and the Province of Ontario, Canada, were blacked out, affecting some 30 million people in an 80,000 square mile area. The states of Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and several small pockets in Maine, New Jersey and Pennsylvania were affected."</p> <p><i>Id.</i> at 1.</p>	<p><u>A Report by the Federal Communications Commission on the Northeast Power Failure of November 9-10, 1965, and its Effect on Communications</u>, Federal Communications Commission, February 23, 1966</p> <p>Attachment S-14</p>
January 1, 1966	<p>New York State certifies that Con Ed has satisfied the conditions of prior state land grants to support construction of IP1</p>	<p>Certificate dated January 1, 1966, recorded at Liber 6589, Page 308</p> <p>Attachment S-15</p>

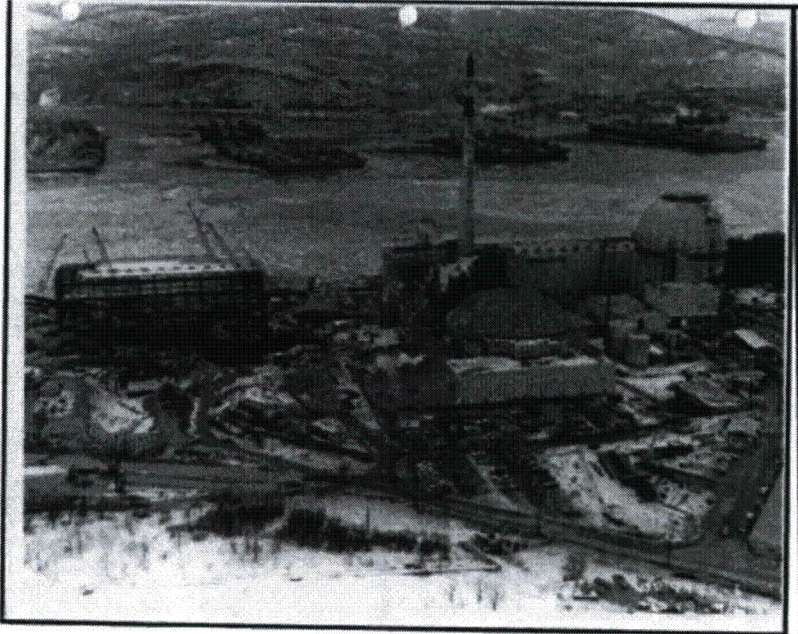
April 21, 1966	New York State conveys a portion of the Indian Point site to Con Ed for the purpose of facilitating the construction of IP2, and later IP3.	Deed dated April 21, 1966, recorded at Liber 6614, Page 70  Attachment S-16
October 14, 1966	IP2 construction permit CPPR-21 issued by AEC, CPPR-21  <i>Id.</i> at I-5 Table 1-2.	NRC 1975 FEIS for IP3  Attachment S-5
October 19, 1966	IP2 Facility Operating License DPR-26 to Load Fuel and conduct subcritical testing issued by AEC  <i>Id.</i> at I-5 Table 1-2.	NRC 1975 FEIS for IP3  Attachment S-5
Fall, 1966	AEC Chairman statement:  “Why is this an appropriate time for a new look at nuclear power in the U.S.? Primarily because the electric utilities in this country are accepting the large nuclear power reactor as a reliable and an economically competitive means to generate electricity and are putting a good deal of their money where their conviction is.”  <i>Id.</i> at 191.	Dr. Glenn T. Seaborg, <i>A New Look at Nuclear Power:</i> 8 Atomic Energy L.J. No. 3, 191 (1966)  Attachment S-17

<p>Fall, 1966</p>	<p>Statement of the Chairman of the New York State Atomic and Space Development Authority:</p> <p>“ . . . New York State currently leads the nation in the construction of atomic electric generating capacity.”</p> <p><i>Id.</i> at 208.</p> <p>“The most clearly discernible beginning of atomic power development in New York State is March 22, 1955, when the Consolidated Edison Company submitted the first application to be received by the Atomic Energy Commission for permission to build an atomic power plant under the national “private ownership” legislation of 1954. Such permission was subsequently granted, and construction of the project was begun at Indian Point, near Peekskill, on the Hudson River in 1957. The 270,000-kilowatt plant was completed in 1962 and it continues to be in successful operation today.</p> <p>...</p> <p>The next noteworthy step in the evolvement of atomic power development in New York State occurred in 1959, when, upon the recommendation of the then newly-installed Governor Rockefeller, there was adopted the state’s first atomic energy law, which created an Office of Atomic Development along with an Atomic Energy Coordinating Council of governmental officials and a broadly representative General Advisory Committee, both appointed by the Governor.</p> <p>One of the first actions of the then-new Office of Atomic Development was to prepare, with the advice and concurrence of the Coordinating Council and Advisory Committee, an “Atomic Development Plan for the State of New York” which established as its first objective, and I quote:</p> <p>‘Expansion of the state’s atomic power capacity, including particularly the construction at the earliest practicable date of either an economically competitive full-scale atomic power plant or a prototype leading directly toward the construction of an economically competitive full-scale plant.’”</p> <p><i>Id.</i> at 215-217.</p>	<p>Oliver Townsend, <i>Atomic Power Development in New York State</i>, 8 Atomic Energy L.J. No. 3, 207 (1966)</p> <p>Attachment S-18</p>
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<p>Fall, 1966 (cont.)</p>	<p>“Since that project [Nine Mile Point] was undertaken, and as evidence of the striking way in which atomic power has taken hold here in New York State, <b>construction starts have also been made on an 875,000-kilowatt second unit at Indian Point</b> and a 420,000-kilowatt facility at Rochester; contracts have been let for a 750,000-kilowatt plant near Troy, <b>a third unit of nearly 1,000,000 kilowatts at Indian Point</b> and 500,000 kilowatts at Shoreham on Long Island, and plans have been laid for another 500,000 kilowatts on Long Island and another 1,000,000 kilowatts in the mid-Hudson Valley.</p> <p><b><i>These are the actions that have brought New York State to its position of national leadership in the development and utilization of atomic power.</i></b>”</p> <p><i>Id.</i> at 218. (emphasis added)</p> <p>“[A]tomic power development is going to continue to advance in New York State.”</p> <p><i>Id.</i> at 227.</p>	<p>Oliver Townsend, <i>Atomic Power Development in New York State</i>, 8 Atomic Energy L.J. No. 3, 207 (1966)</p> <p>Attachment S-18</p>
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<p>February, 1967</p>	<p>AEC issues “Civilian Nuclear Power—The 1967 Supplement to the 1962 Report to the President,” doubling its previous forecasts about nuclear electric generation:</p> <p>“In the four years since the 1962 Report was issued, remarkable advances have taken place in the promise of nuclear power and its acceptance by the U.S. utility industry as a new source of electrical energy.”</p> <p><i>Id.</i> at 2.</p> <p>“Whereas less than 1 percent of the electrical generating capacity in 1965 was nuclear, it is estimated that 23 to 30 percent will be nuclear in 1980 and about 50 percent in 2000.”</p> <p><i>Id.</i> at 6.</p>	<p><u>Civilian Nuclear Power—The 1967 Supplement to the 1962 Report to the President</u>, Atomic Energy Commission, February, 1967</p> <p>Attachment S-19</p>
<p>Spring, 1968</p>	<p>Commissioner of New York State Department of Commerce speaks out:</p> <p>“Electric power is the essential ingredient of our industrial civilization – the <i>sine qua non</i> of the highly productive, richly rewarding, American economy. Electric power is a basic controlling factor in the economic growth of any area.”</p> <p>...</p> <p>Atomic power generation is generally indicated for the future.</p> <p><i>Id.</i> at 6.</p> <p>The public has largely accepted the operation of atomic power plants to be without hazard – the need for large coal piles is eliminated – it creates no air pollution. Its advantages over conventional thermal generation are extensive – and as such the nuclear power plant has been recommended by Governor Rockefeller’s Electric Power Committee as the basis for expanding the State’s generating capacity to meet tomorrow’s needs for economic growth.”</p> <p><i>Id.</i> at 6.</p>	<p>Neal L. Moylan, <i>The Role of Power in Economic Development</i>, 10 Atomic Energy L.J., No. 1,1 (1968)</p> <p>Attachment S-20</p>



<p>August 13, 1969</p>	<p>IP3 construction permit CPPR-62 issued by AEC, (rated output 965 Mwe)</p> <p><i>Id.</i> at I-1, 1-5 Table 1-2, and IV-1.</p>  <p>Photo circa 1969 from Indian Point archives showing the start of construction of IP3 with the United States "Ghost Fleet" anchored across the Hudson River</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
<p>November 10, 1969</p>	<p>Full term operating license application filed for IP1</p> <p><i>Id.</i> at 1-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
<p>Spring, 1970</p>	<p>"In the spring of 1970, the Government was rightly concerned that the nation's public utilities might be unable to satisfy peak public demands for electrical power during the coming summer."</p> <p><i>Id.</i> at 1123.</p>	<p><u>United States v. Consolidated Edison of New York, Inc.</u>, 580 F.2d 1122 (2<sup>nd</sup> Cir. 1978)(<u>US v. Con Ed</u>)</p> <p>Attachment S-21</p>
<p>July 21, 1970</p>	<p>Con Ed power crisis: "Con Edison suffered a major power crisis. ..."</p> <p><i>Id.</i> at 1124.</p>	<p>US v. Con Ed</p> <p>Attachment S-21</p>

July 23, 1970	<p>Con Ed power crisis: U.S. Office of Emergency Preparedness issues a press release: “The President announced today that the [AEC] will take immediate action to make available several hundred megawatts of power to the Consolidated Edison Company serving New York City. This action is being taken to help relieve the critical power shortage in New York City created by the failure of its largest generating unit on July 21.”</p> <p><i>Id.</i> at 1124.</p>	<p>US v. Con Ed</p> <p>Attachment S-21</p>
July— September, 1970	<p>Con Ed power crisis: Even with the benefit of federal help, “[o]n six separate days between July 27, 1970 and September 28, 1970, Con Edison’s reserve capacity was well under 200 MW. Indeed, even with the 200 MW Con Edison was compelled to engage in eight per cent voltage reductions on three different days, and on September 22, 1970, Con Edison did in fact shed load. An eight percent voltage reduction is no light matter. Load shedding is the equivalent of designated area blackouts.”</p> <p><i>Id.</i> at 1129. (internal quotation marks omitted)</p>	<p>US v. Con Ed</p> <p>Attachment S-21</p>
June 4, 1971	<p>President Nixon delivers the first ever energy message to Congress stressing development of domestic energy resources, including nuclear facilities as a clean fuel:</p> <p>“For most of our history, a plentiful supply of energy is something the American people have taken very much for granted. In the past twenty years alone, we have been able to double our consumption of energy without exhausting the supply. But the assumption that sufficient energy will always be readily available has been brought sharply into question with the last year. The brownouts that have affected some areas of our country, the possible shortages of fuel that were threatened last fall, the sharp increases in certain fuel prices and our growing awareness of the environmental consequences of energy production have all demonstrated that we cannot take our energy supply for granted any longer.”</p> <p><i>Id.</i> at 1.</p>	<p>Committee on Energy and National Resources, <u>Executive Energy Documents</u>, Publication No. 95-114 (Comm. Print July 1978)(hereinafter “<u>Executive Energy Documents</u>”)</p> <p>Attachment S-22</p>

July 1, 1971	<p>New York State Atomic and Space Development Authority lease of cooling water structures to Con Ed:</p> <p>“WHEREAS, the State of New York has determined that the development and use of atomic energy for peaceful and productive purposes is a matter of important concern to the economic growth of the State and it is the statutorily declared policy of the State of New York to encourage within New York such development and use to the maximum extent consistent with the health and safety of the public. . .”</p> <p><i>Id.</i> at 7.</p>	Lease between New York Atomic & Space Development Authority and Consolidated Edison Corporation of New York, Inc. July 1971
July 26, 1971	Con Ed deed of Indian Point cooling water structures to New York State Atomic and Space Development Authority	Deed dated July 26, 1971, recorded at Liber 7006, Page 298  Attachment S-23
October 19, 1971	<p>IP2 facility operating license DPR-26 to load fuel and conduct subcritical testing issued</p> <p><i>Id.</i> at 1-5, Table 1-2.</p>	NRC 1975 FEIS for IP3  Attachment S-5
May 10, 1972	<p>Federal Power Commission (T.A. Phillips, Chief, Bureau of Power) letter to AEC:</p> <p>“[T]he staff of the Bureau of Power concludes that all reasonable efforts should continue to bring [IP2] into service at the earliest possible date. The need for added capacity to safeguard against contingencies of forced outages, as well as the desirability of implementing scheduled preventive maintenance programs, is self-evident.”</p> <p><i>Id.</i> at 2.</p>	Letter from Federal Power Commission (T.A. Phillips, Chief, Bureau of Power) to Atomic Energy Commission, dated May 10, 1972  Attachment S-24

<p>September 1972</p>	<p>Con Ed power crisis:</p> <p>“Following a series of problems affecting bulk power supply for the New York City area in the summer of 1969, the staff of the Federal Power Commission’s Bureau of Power undertook a comprehensive review of the circumstances which had led to the conditions then existing and examined in detail the Consolidated Edison Company’s plans for expanding its power supply facilities to meet projected demands for electric power in the Company’s service area for the 10-year period ending in 1979.</p> <p><i>Id.</i> at Foreword.</p> <p><i>“Power Sources for the Future:</i>  . . .</p> <p>After Indian Point No. 2, the planned capacity additions represent somewhat longer term considerations.</p> . . . <p>The 965-megawatt Indian Point No. 3 Nuclear Unit is presently scheduled for completion in the fall of 1974.:</p> <p><i>Id.</i> at 5-6.</p> <p><i>“Possible Problem Areas Affecting Future Power Supply:</i></p> <p>At the time of this review, there appear to be several problem areas which could create major obstacles in carrying out the planned expansion programs and providing the generation and transmission facilities expected to be needed to meet New York City’s future demands for electric power.</p> <p>The plans as outlined for furnishing the power requirements of the metropolitan area in the years ahead involve the timely completion of many new facilities if serious power shortages are to be avoided.”</p> <p><i>Id.</i> at 11.</p>	<p><u>A Review of Consolidated Edison Company 1972 Summer Power Supply Problems and Twenty-Year Expansion Plans, Bureau of Power Federal Power Commission, September, 1972</u></p> <p>Attachment S-25</p>
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<p>September, 1972 (cont.)</p>	<p>“Any severe restrictions in the operations of these units could seriously affect area power supplies, including New York City.”</p> <p><i>Id.</i> at 11.</p> <p>“<i>Conclusions and Recommendations:</i></p> <p>The many restrictions affecting the expansion programs and future sources of any supply for loads of the Consolidated Edison Company leave little room for any substantial alternatives at any given time, and it remains incumbent upon the Company to continually review timely performance of all programs involving facilities to meet future power needs of the New York metropolitan area. Apparently, it will also continue to be necessary for the Company to diligently pursue practical means of providing for requirements many years into the future if the essential facilities and arrangements are to be available when needed.” <i>Id.</i> at 13.</p>	<p><u>A Review of Consolidated Edison Company 1972 Summer Power Supply Problems and Twenty-Year Expansion Plans</u>, Bureau of Power Federal Power Commission, September, 1972</p> <p>Attachment S-25</p>
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<p>September, 1972</p>	<p>AEC issues Final Environmental Impact Statement for IP2</p>	<p><u>Final Environmental Statement Relating to the Operation of Indian Point Nuclear Generating Plant No. 2, United States Atomic Energy Commission, September, 1972.</u></p> <p>Attachment 20 to Consistency Certification; excerpts included as Attachment S-26 to this Supplemental Filing</p>
<p>October 27, 1972</p>	<p>The Coastal Zone Management Act (“<u>CZMA</u>”) is adopted. “New activities” requiring a federal license in coastal states with a federally approved coastal management plan require federal consistency review:</p> <p>[The CZMA] assures that before a Federal license or permit is issued to conduct any <u>new activity</u> in the coastal zone, directly, significantly and adversely affecting the coastal waters, it will be reviewed by an appropriate State agency and a certification of compliance supplied. This is done as both an aid to Federal licensing and permitting agencies and to insure the development projects, are consistent with the coastal State’s management program. <u>Emphasis is placed upon “new” activity. This activity is after the date of enactment of the legislation. It will thus be appropriate to distinguish between new activities, such as the building of a new marina, or the dredging of a new channel, as opposed to the maintenance of existing facilities or activities begun prior to the enactment of the bill.</u> (emphasis added)</p> <p><i>Id.</i> at 211.</p>	<p>Excerpt from <u>Legislative History of the Coastal Zone Management Act of 1972, as Amended in 1974 and 1976 With a Section-By-Section Index</u>, U.S. Government Printing Office, December 1976, at 211, reprinting Senate Report No. 92-753 (1972)</p> <p>Attachment S-27</p>
<p>April 13, 1973</p>	<p>ConEd resubmitted an application for an operating license for IP3</p> <p><i>Id.</i> at I-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>

<p>April 18, 1973</p>	<p>President Nixon Message to Congress:</p> <p>“Although our greatest dependence for energy until now has been on fossil fuels such as coal and oil, we must not and we need not continue this heavy reliance in the future. <b><i>The major alternative to fossil fuel energy for the remainder of this century is nuclear energy.</i></b></p> <p><b><i>Our well-established nuclear technology already represents an indispensable source of energy for meeting present needs.</i></b> At present there are 30 nuclear power plants in operation in the United States. . . . By 1980, the amount of electricity generated by nuclear reactors will be equivalent to 1.25 billion barrels of oil . . . It is estimated that nuclear power will provide more than one-quarter of this country’s electrical production by 1985, and over half by the year 2000.</p> <p>...</p> <p>[W]e must seek to avoid unreasonable delays in developing nuclear power. They serve only to impose unnecessary costs and aggravate our energy shortages. It is discouraging to know that nuclear facilities capable of generating 27,000 megawatts of electric power which were expected to be operational by 1972 were not completed. To replace that generating capacity we would have to use the equivalent of one-third of the natural gas the country used for generating electricity in 1972. This situation must not continue.</p> <p>...</p> <p><b><i>Our nuclear technology is a national asset of inestimable value. It is essential that we press forward with its development.</i></b> (emphasis added)</p> <p><i>Id.</i> at 13, 20-21.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>April 1973</p>	<p>IP2 construction completed</p> <p><i>Id.</i> at IV-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5.</p>
<p>April 20, 1973; April 27, 1973</p>	<p>IP2 facility operating license DPR-26 to conduct tests up to 50% of rated power issued by AEC, Amendments 1 and 2</p> <p><i>Id.</i> at 1-5, Table 1-2.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>

<p>May 22, 1973</p>	<p>IP2 achieves criticality</p> <p><i>Id.</i> at IV-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
<p>June 29, 1973</p>	<p>President Nixon directs AEC to recommend an integrated power program for the Nation and establishing an energy office to formulate and coordinate energy policies at the Presidential level:</p> <p>“America faces a serious energy problem. While we have only 6 percent of the world’s population, we consume one-third of the world’s energy output. The supply of domestic energy resources available to us is not keeping pace with our ever-growing demand, and unless we act swiftly and effectively, we could face a genuine energy crisis in the foreseeable future.”</p> <p><i>Id.</i> at 49.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>August 9, 1973</p>	<p>IP2 facility operating license DPR-26 from AEC to operate up to 50% of rated power issued, Amendment 3</p> <p><i>Id.</i> at I-5, Table 1-2.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>
<p>August 17, 1973</p>	<p>“The United States with about 6% of the world’s population is now consuming over 35% of the planet’s total energy and mineral production. The average American uses as much energy in just a few days as half of the world’s people on an individual basis consume in one year. This Nation has literally been developed without any significant restrictions due to lack of energy or mineral resources. However, we now see ever increasing indications of the fact that the United States cannot long maintain the growth rate of recent years in our energy consumption without major changes in our energy supply patterns.”</p> <p><i>Id.</i> at 3.</p>	<p>Joint Committee on Atomic Energy, <u>Understanding the “National Energy Dilemma”</u>, 99-730 (Joint Comm. Print 1973)</p> <p>Attachment S-28</p>



<p>September 8, 1973</p>	<p>President Nixon Remarks on the Nation's Energy Policy:</p> <p>“We have lagged behind in peaceful uses [of nuclear energy]. Some nations abroad, while they certainly do not have our technology, at least have more thrust here, they have more drive here in this area than we have. But the development of nuclear power for peaceful purposes is to be a major Administration initiative from now on through the balance of our term here.”</p> <p><i>Id.</i> at 69, 71.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>September 10, 1973</p>	<p>President Nixon Message to Congress:</p> <p>“I will soon be meeting with members of the [AEC] to determine whether we can bring nuclear power plants on line more quickly.</p> <p>...</p> <p>It is absolutely essential that the Congress not wait for the stimulation of energy shortage to provide the legislation necessary to meet our needs. Already we have seen some regional inconveniences this summer with respect to gasoline and this winter we may experience a similar problem with regard to heating fuels.”</p> <p><i>Id.</i> at 73.</p> <p>One of the major energy questions we face in 1973 is whether we can provide sufficient electric power to light our cities, cool and heat our homes, and power our industries in the decades ahead. One of the solutions to that problem lies in the increased use of nuclear energy.”</p> <p><i>Id.</i> at 75.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>September 28, 1973</p>	<p>Con Ed received amendment to AEC operating license to operate IP2 up to 100% of steady state power (rated capacity 873 Mwe), DPR-26 Amendment 4</p> <p><i>Id.</i> at I-1 and 1-5 at Table 1-2.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>

<p>October 9, 1973</p>	<p>President Nixon issues a statement:</p> <p>“It is now widely recognized that we may face fuel shortages for the next few years.”</p> <p><i>Id.</i> at 77.</p> <p>“Our energy program is all-embracing. We must act to increase supplies and we must insure a fair distribution of those supplies. But equally important, we must not consume more than we need. We must not waste energy.”</p> <p><i>Id.</i> at 78.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>October 11, 1973</p>	<p>President Nixon issues a statement:</p> <p>“America’s national energy policy requires the fullest possible utilization of science and technology to insure that all of our energy resources become available rapidly and in a balanced and prudent fashion. As I indicated in my press statement on September 8, our goal must be self-sufficiency—the capacity to meet our energy needs with our own resources. I intend to take every step necessary to achieve that goal. A great nation cannot be dependent upon other nations for resources essential to its own social and economic progress.”</p> <p><i>Id.</i> at 79.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>October 17, 1973 – March, 1974</p>	<p>Organization of Arab Petroleum Exporting Countries embargoes oil to the United States.</p>	<p>U.S. Department of State, Archive, <a href="http://2001-2009.state.gov/r/pa/ho/time/dr/96057.htm">http://2001-2009.state.gov/r/pa/ho/time/dr/96057.htm</a></p>

<p>November 7, 1973</p>	<p>President Nixon Address on the Energy Emergency:</p> <p>“As America has grown and prospered in recent years, our energy demands have begun to exceed available supplies. In recent months, we have taken many actions to increase supplies and to reduce consumption. But even with our best efforts, we knew that a period of temporary shortages was inevitable.</p> <p>Unfortunately, our expectations for this winter have now been sharply altered by the recent conflict in the Middle East.</p> <p>...</p> <p>In the short run, this course means that we must use less energy—that means less heat, less electricity, less gasoline. In the long run, it means that we must develop new sources of energy which will give us the capacity to meet our needs without relying on any foreign nation.</p> <p>The immediate shortage will affect the lives of each and every one of us. In our factories, our cars, our homes, our offices, we will have to use less fuel than we are accustomed to using. Some school and factory schedules may be rearranged, and some jet airplane flights will be cancelled.</p> <p><i>Id.</i> at 81-82.</p> <p>...</p> <p>“I am asking the [AEC] to speed up the licensing and construction of nuclear plants. We must seek to reduce the time required to bring nuclear plants on line.”</p> <p><i>Id.</i> at 82.</p> <p>“Let us unite in committing the resources of this Nation to a major new endeavor, an endeavor that in this bicentennial era we can appropriately call “Project Independence.” Let us set as our national goal, in the spirit of Apollo, with the determination of the Manhattan Project, that by the end of this decade we will have developed the potential to meet our own energy needs without depending on any foreign energy sources.</p> <p><b><i>Let us pledge that by 1980, under Project Independence, we shall be able to meet America’s energy needs from America’s own energy resources.”</i></b></p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>November 8, 1973</p>	<p>(emphasis added) <i>Id.</i> at 86.</p> <p>Message to the Congress:</p> <p>“This new effort to achieve self-sufficiency in energy, to be known as Project Independence, is absolutely critical to the maintenance of our ability to play our independent role in international affairs. In addition, we must recognize that a substantial part of our success in building a strong and vigorous economy in this century is attributable to the fact that we have always had access to almost unlimited amounts of cheap energy. If this growth is to continue, we must develop our capacity to provide enormous amounts of clean energy at the lowest possible cost. Thus, irrespective of the implications for our foreign policy and with the implicit understanding that our intentions are not remotely isolationist, the increasing costs of foreign energy further contribute to the necessity of our achieving self-sufficiency in energy.”</p> <p><i>Id.</i> at 95, 98.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>November 25, 1973</p>	<p>President Nixon Address on the National Energy Policy:</p> <p>“. . . I indicated that the sudden cut-off of oil from the Middle East had turned the serious energy shortages we expected this winter into a major energy crisis. That crisis is now being felt around the world, as other industrialized nations have also suffered from cutbacks in oil from the Middle East.” <i>Id.</i> at 99.</p> <p>“What I have called Project Independence-1980 is a series of plans and goals set to insure that by the end of this decade Americans will not have to rely on any source of energy beyond our own.”</p> <p><i>Id.</i> at 102.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>December 1, 1973</p>	<p>AEC issues “The Nation’s Energy Future,” Task 4 of which was to “Validate the Nuclear Option.”</p> <p>“The program proposed will ensure that nuclear power plants are available to meet their planned share of the requirements imposed by the growth in demand over the next few decades. Nuclear reactors are now used to generate 5% of the Nation’s electrical power. This fraction is expected to grow to about 23% by 1980, 49% by 1990, and 60% by the year 2000.”</p> <p><i>Id.</i> at 107.</p>	<p><u>The Nation’s Energy Future</u>, Atomic Energy Commission, December 1, 1973</p> <p>Attachment S-29</p>

<p>December 13, 1973</p>	<p>Federal Power Commission (T.A. Phillips, Chief, Bureau of Power) letter to AEC:</p> <p>“Since the publication of the draft environmental statement [for IP3], fuel oil supplies from the Middle East have been curtailed. . . . [I]n view of the impact that the current oil shortage is having on the electric utility industry, it seems prudent to make use of nuclear power to the extent possible.</p> <p>...</p> <p>The Bureau of Power staff concurs with the conclusion that new capacity such as that represented by the 965-megawatt Indian Point Unit 3 is needed to meet the projected load requirements and provide reliability of bulk power supply in the power supply areas involved.”</p> <p><i>Id.</i> at 2-3.</p>	<p>Letter from Federal Power Commission (T.A. Phillips, Chief, Bureau of Power) to Atomic Energy Commission dated December 13, 1973</p> <p>Attachment S-30</p>
<p>January 19, 1974</p>	<p>Address by President Nixon on the National Energy Situation:</p> <p>“We must never again be caught in a foreign-made crisis where the United States is dependent on any other country, friendly or unfriendly, for the energy we need to produce our jobs, to heat our homes, to furnish our transportation for wherever we want to go.</p> <p>Late last year I announced the beginning of Project Independence, a full-scale effort to provide the capacity to meet American energy needs with American energy resources by 1980.”</p> <p><i>Id.</i> at 118.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>

<p>January 23, 1974</p>	<p>President Nixon Proposals to Deal with the Energy Crisis:</p> <p>“Our Program for the Future: Project Independence</p> <p>...</p> <p>We must also face the fact that when and if the oil embargo ends, the United States will be faced with a different but no less difficult problem. Foreign oil prices have risen dramatically in recent months. If we were to continue to increase our purchase of foreign oil, there would be a chronic balance of payments outflow which, over time, would create a severe problem in international monetary relations.</p> <p>...</p> <p>Project Independence entails three essential concurrent tasks: The first task is to rapidly increase energy supplies – . . . [including] the introduction of nuclear power.”</p> <p><i>Id.</i> at 125.</p> <p>“Under this proposal [creation of Energy Research and Development Administration], the five-member Atomic Energy Commission would be renamed the Nuclear Energy Commission and would carry out the vital task of licensing and regulating the rapidly growing use of nuclear power.”</p> <p><i>Id.</i> at 128.</p> <p>“The energy emergency has shown us that we must never again be caught so dependent upon uncertain supplies. It is a lesson the American people must and will take to heart. By 1980, if we move forward with the proposals I have outlined today, I believe we can place ourselves in a position where we can be essentially independent of foreign energy producers.”</p> <p><i>Id.</i> at 133.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>Fall 1974</p>	<p>Construction of IP3 92% complete</p> <p><i>Id.</i> at III-1.</p>	<p>NRC 1975 FEIS for IP3</p> <p>Attachment S-5</p>

<p>October 11, 1974</p>	<p>Statement of President Ford on Signing the Energy Reorganization Act of 1974:</p> <p>Establishing “The Nuclear Regulatory Commission (NRC) which will take over the licensing and regulation responsibilities previously performed by the Atomic Energy Commission.”</p> <p><i>Id.</i> at 163.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>End of 1974</p>	<p>New York State enacted legislation that recognized the critical role of Indian Point in serving New York City’s energy needs, and authorized the New York Power Authority’s (“NYPA”) acquisition of IP3. NYPA’s acquisition of IP3 was effected, in part, “<b>to help assure continuity of electric power to the people,</b>” Governor’s memorandum at 1, in response to Con Ed’s then-difficult economic condition, thus representing a commitment of New York State capital and a preferred regulatory structure for Indian Point’s ownership.</p>	<p><i>See, e.g.</i>, Pub. Auth. Law § 1001-a (1974), “Emergency Provisions for the Metropolitan Area of the City of New York,” N.Y. Sess. Law 1974 c. 369, 1974 N.Y. Sess. Laws 505 (McKinney)</p> <p>Attachment S-31</p>
<p>December 30, 1974</p>	<p>Con Ed deed of IP3 to NYPA</p> <p>“The Authority in 1975 acquired the 965,000-kilowatt Indian Point 3 nuclear power plant in Westchester County from Con Edison, completing a 1974 legislative authorization to purchase two partially-completed plants from the utility.</p> <p>The plant is scheduled to serve public agencies and other customers in New York City and Westchester County beginning in the second half of 1976.” 1975 Annual Report at 6.</p>	<p>Deed dated December 30, 1974 recorded at Liber 7306, Page 736 (Attachment S-32)</p> <p>Excerpt from 1975 Annual Report, <u>The Power Authority of the State of New York</u>, March 25, 1976</p> <p>Attachment S-33</p>

<p>January 13, 1975</p>	<p>Address by President Ford:</p> <p>“Americans are no longer in full control of their own national destiny, when that destiny depends on uncertain foreign fuel at high prices fixed by others. Higher energy costs compound both inflation and recession, and dependence on others for future energy supplies is intolerable to our national security.</p> <p>...</p> <p>Stronger measures to speed the development of other domestic energy resources, such as coal, geothermal, solar and nuclear power are also essential.”</p> <p><i>Id.</i> at 171, 172.</p> <p>“We know what must be done. The time to act is now. We have our Nation to preserve and our future to protect. Let us act together.”</p> <p><i>Id.</i> at 174.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>January 15, 1975</p>	<p>President's Ford's 1975 State of the Union Message:</p> <p>"The economic disruption we and others are experiencing stems in part from the fact that the world price of petroleum has quadrupled in the last year. But we cannot put all of the blame on the oil-exporting nations. We in the United States are not blameless. Our growing dependence upon foreign sources has been adding to our vulnerability for years and we did nothing to prepare ourselves for an event such as the embargo of 1973.</p> <p>During the 1960s, this country had a surplus capacity of crude oil, which we were able to make available to our trading partners whenever there was a disruption of supply. This surplus capacity enabled us to influence both supplies and prices of crude oil throughout the world. Our excess capacity neutralized any effort at establishing an effective cartel, and thus the rest of the world was assured of adequate supplies of oil at reasonable prices.</p> <p>In the 1960s, our surplus capacity vanished and, as a consequence, the latent power of the oil cartel could emerge in full force. Europe and Japan, both heavily dependent on imported oil, now struggle to keep their economies in balance. Even the United States, which is far more self-sufficient than most other industrial countries, has been put under serious pressure.</p> <p>I am proposing a program which will begin to restore our country's surplus capacity in total energy. In this way, we will be able to assure ourselves reliable and adequate energy and help foster a new world energy stability for other major consuming nations."</p> <p><i>Id.</i> at 175, 180.</p> <p>"I am proposing a number of actions to energize our nuclear power program. I will submit legislation to expedite nuclear licensing and the rapid selection of sites.</p> <p>In recent months, utilities have cancelled or postponed over 60 percent of planned nuclear expansion and 30 percent of planned additions to non-nuclear capacity. Financing problems for that industry are growing worse. I am therefore recommending that the one year investment tax credit of 12 percent be extended an additional two years to specifically speed the construction of</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>January 15, 1975 (cont.)</p>	<p>power plants that do not use natural gas or oil. I am also submitting proposals for selective changes in State utility commission regulations.</p> <p>To provide the critical stability for our domestic energy production in the face of world price uncertainty, I will request legislation to authorize and require tariffs, import quotas or price floors to protect our energy prices at levels which will achieve energy independence.”</p> <p><i>Id.</i> at 182, 183.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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January 17, 1975	AEC issues "1974 Annual Report to Congress"  "Under the impact of worsening financial conditions and some scaling down of projected future energy demand, utilities announced deferral of over 50 percent of all nuclear power projects during the latter half of the year."  <i>Id.</i> at 171.	Excerpt from Atomic Energy Commission, <u>1974 Annual Report to Congress</u> , January 17, 1975  Attachment S-34
February, 1975	NRC issues Final Environmental Impact Statement for IP3	NRC 1975 FEIS for IP3  Attachment S-5
December 12, 1975	Operating License for IP3 issued by NRC	Adams Accession No. ML052720273
1975	Chapter 464 of the 1975 Laws of New York State authorizes NYSDOS to accept federal grants under the Federal CZMA and to prepare a New York State coastal management plan.	1975 N.Y. Sess. Laws 669 (McKinney) (ch. 464)  Attachment S-35
1975	Construction of IP3 to be completed by early 1975  <i>Id.</i> at I-1.	NRC 1975 FEIS for IP3  Attachment S-5

<p>December, 1975</p>	<p>Findings of the Congressional Joint Committee on Atomic Energy:</p> <p>“1. Short of draconian measures to be taken by the executive and legislative branches of Government, “Project Independence” goals now seem unattainable. For a variety of reasons the contributions of coal and nuclear power—the only viable alternatives to petroleum during the next decade—are expected to fall considerably short of earlier estimates made by FEA and other executive agencies for the next ten years.”</p> <p><i>Id.</i> at VII.</p> <p>“12. Among the many consequences of heavy reliance on imported oil are:</p> <p>[A] An Arab oil embargo in 1977 could result in a GNP loss in the U.S. of \$39 to \$56 billion, and additional unemployment of 1 to 1.5 million, if the embargo were to last six months.</p> <p>[B] The already low ratio of oil shipped in domestic U.S. flag tanks would drop further.</p> <p>[C] Possible price increases of OPEC oil when total demand rises beyond 1973-74 OPEC production levels, and potential conflict among consumer nations over available supplies.</p> <p>[D] Potential national security problems related to defense of the supply lines from the Middle East to the U.S.</p> <p>[E] Ability to pay for additional oil imports will need to be reexamined</p> <p>[F] Increased possibility of environmental damage in the coastal zone as more oil must be shipped in small tanks be shipped in small tankers to U.S. ports.</p> <p>[G] Increased reliance on foreign oil could affect the nation’s leverage in foreign policy. Energy may become the “Achilles heel” of U.S. foreign policy in the same way as agricultural shortages are for the Soviet Union.”</p> <p><i>Id.</i> at VIII.</p>	<p>Joint Committee on Atomic Energy, <u>Towards Project Interdependence: Energy in the Coming Decade</u>, (Jt. Comm. Print December, 1975.)</p> <p>Attachment S-36</p>
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<p>February 26, 1976</p>	<p>Message of President Ford to the Congress Proposing enactment of Legislation to Provide for Energy Needs:</p> <p>“A little over 2 years ago, the Arab embargo proved that our Nation had become excessively dependent upon others for our oil supplies. We now realize how critical energy is to the defense of our country, to the strength of our economy, and to the quality of our lives.</p> <p>We must reduce our vulnerability to the economic disruption which a few foreign countries can cause by cutting off our energy supplies or by arbitrarily raising prices. We must regain our energy independence.”  <i>Id.</i> at 339.</p> <p><b>“Nuclear Power: Greater utilization must be made of nuclear energy in order to achieve energy independence and maintain a strong economy.</b> It is likewise vital that we continue our world leadership as a reliable supplier of nuclear technology in order to assure that worldwide growth in nuclear power is achieved with responsible and effective controls.</p> <p>At present 57 commercial nuclear power plants are on line, providing more than 9 percent of our electrical requirements, and a total of 179 additional plants are planned or committed. <b><i>If the electrical power supplied by the 57 existing nuclear power plans were supplied by oil-fired plants, an additional one million barrels of oil would be consumed each day.</i></b></p> <p>One January 19, 1975, I activated the independent Nuclear Regulatory Commission (NRC) which [h]as the responsibility for assuring the safety, reliability, and environmental acceptability of commercial nuclear power.”  <i>Id.</i> at 340-41.</p> <p>“I have requested greatly increased funding in my 1977 budget to accelerate research and development efforts that will meet our short-terms needs to: make the safety of commercial nuclear power plants even more certain;”  <i>Id.</i> at 341.</p> <p><i>Summary:</i> I envision an energy future for the United States free of the threat of embargoes and arbitrary price increases by foreign governments. . . . I envision a major expansion in the</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>March, 1976</p>	<p>production and use of coal, aggressive exploration for domestic oil and gas, a strong commitment to nuclear power.</p> <p><i>Id.</i> at 345.</p> <p>Federal Power Commission addresses the power crisis:</p> <p>“The health and efficient growth of the economy depend importantly upon the availability of sufficient supplies of electrical energy. In a modern economy, geared to a high level of electric service, any but the shortest interruption of that service is likely to impose losses far in excess of the value of sales lost, as business and factories are forced to curtail operations and individuals are variously inconvenienced—some seriously. Over the longer term electricity is a crucial input to economic growth; and although it is clear that the growth of power consumption need not bear precisely the same relationship to economic growth in the future that it has in the past, it is also apparent that an insufficient supply of electricity is likely to act as a drag upon the growth of real economic well-being by raising the volume of labor, machines and materials required to achieve any given increment in GNP.</p> <p>To electricity’s historic role has been added another special role: the continuing uncertain availability of imported oil and the limited supplies of domestic oil and gas mean greater than ever reliance on coal and uranium resources. Generated from relatively abundant domestic coal and from temporarily adequate if not vast uranium resources, electricity can contribute toward oil import independence and to the conservation of domestic oil and gas reserves, both of which may be important for national security and continued economic well-being.”</p> <p><i>Id.</i> at 7.</p> <p><i>“The Cause of Our Dilemma”</i></p> <p>“How did the nation get itself into a situation in which it faces the prospect of inadequate electric power supplies? How indeed, given the historical fact that the United States has for long enjoyed a high standard of electric power reliability? The answer, of course, is that we slid into it. . . slowly, imperceptibly at first. . . through a long series of seemingly local, unrelated governmental and utility actions (or inactions)</p>	<p><u>National Power Survey, The Adequacy of Future Electric Power Supply: Problems and Policies</u>, Federal Power Commission, March, 1976</p> <p>Attachment S-37</p>
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<p>March 1976 (cont.)</p>	<p>in the late 1960s and early 1970s that ultimately proved to be related either directly to each other or indirectly through the institutional mechanisms, such as the capital market, that serve the electric power industry.” <i>Id.</i> at 12.</p> <p>...</p> <p>[T]he national defense aspects of any prolonged shortage must be considered. The Department of Defense has advised this Committee that:</p> <p style="padding-left: 40px;">The continued availability of electric power at reasonable prices is, of course, essential and of concern to the Department of Defense (DOD). . . In . . . 1975 the DOD will use approximately 1.5 percent of the total amount of electricity sold in the United States. . . Without commercial electric power, DOD could not operate and maintain facilities or equipment. . . Within the Department of Defense all essential communications equipment, weapons systems and related support facilities are provided with their own standby generating units so that as long as the fuel supply (usually petroleum) lasts, the DOD could operate. However, this generating capacity is quite small and much of the generating equipment is of high RPM and designed for relatively short periods of use.</p> <p><i>Id.</i> at 54-55.</p>	
<p>December 1, 1976</p>	<p>Federal Power Commission issues a report entitled “Factors Affecting The Electric Power Supply: 1980-85,” concluding that “regional shortages of generating capacity and/or electric energy are distinct possibilities in the period 1979 to 1985.”</p> <p><i>Id.</i> at 5.</p>	<p><u>Factors Affecting The Electric Power Supply: 1980-85</u>, Federal Power Commission December 1, 1976</p> <p>Attachment S-38</p>

<p>January 7, 1977</p>	<p>Message of President Ford to Congress on Energy Legislation:</p> <p><i>“Our Energy Problem:</i> The principal energy problem now facing the United States is our excessive and growing dependence on imported oil from a relatively few foreign nations that own the majority of world oil reserves and have the ability to control world oil prices and production.”</p> <p><i>Id.</i> at 351-352.</p> <p><i>“The Costs of Dependence:</i> The real price paid for our growing dependence on imported oil is our vulnerability to significant economic and social disruption from the interruption of oil imports. Apart from the inconvenience experienced by millions of people, the 1973-74 embargo and the resulting higher prices caused a loss of about 500,000 jobs and approximately \$20 billion in our Gross National Product. The sudden four-fold increase in OPEC oil prices contributed significantly to inflation. Since 1974 our dependence on imports, particularly from Arab nations, has grown by a million barrels per day, so that an interruption of supply today would be even more disruptive of our economy than the 1973-74 embargo.</p> <p>Another cost of energy dependence is the outflow of U.S. dollars to pay for imported oil, totaling about \$34 billion in 1976 or \$160 for each American, eleven times that in 1972.</p> <p>Still another option is the limitation on our freedom of action in international affairs due to our vulnerability to the threat of another interruption.”</p> <p><i>Id.</i> at 353.</p> <p>“[W]e must increase the use of <i>both</i> coal and nuclear energy until more acceptable alternate energy sources available.</p> <p>The only alternative is to increase our growing dependence on imported oil.”</p> <p><i>Id.</i> at 355.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>April 18, 1977</p>	<p>President Carter Address to the Nation on the Energy Problem:</p> <p>“Tonight I want to have an unpleasant talk with you about a problem that is unprecedented in our history. With the exception of preventing war, this is the greatest challenge that our country will face during our lifetime.</p> <p>The energy crisis has not yet overwhelmed us, but it will if we do not act quickly. It’s a problem that we will not be able to solve in the next few years, and it’s likely to get progressively worse though the rest of this century.</p> <p>We must not be selfish or timid if we hope to have a decent world for our children and our grandchildren. We simply must balance our demand for energy with our rapidly shrinking resources. By acting now we can control our future instead of letting the future control us.</p> <p>...</p> <p>The most important thing about these proposals is that the alternative may be a national catastrophe.</p> <p>...</p> <p>This difficult effort will be the moral equivalent of war.</p> <p>...</p> <p>The oil and natural gas that we rely on for 75 percent of our energy are simply running out. In spite of increased effort, domestic production has been dropping steadily at about 6 percent a year. Imports have doubled in the last 5 years. Our Nation’s economic and political independence is becoming increasingly vulnerable. Unless profound changes are made to lower oil consumption, we now believe that early in the 1980’s the world will be demanding more oil than it can produce.”</p> <p><i>Id.</i> at 387.</p> <p>“The ninth principle is that we must conserve the fuels that are scarcest and make the most of those that are plentiful. We can’t continue to use oil and gas for 75 percent of our consumption, as we do now, when they only make up 7 percent of our domestic reserves.</p> <p><i>Id.</i> at 390.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>April 20, 1977</p>	<p>President Carter Address Before a Joint Session of the Congress on the National Energy Program:</p> <p>...</p> <p>“The heart of our energy problem is that we have too much demand for fuel that keeps going up too quickly, while production goes down. And our primary means of solving this problem is to reduce waste and inefficiency.</p> <p>...</p> <p>...our imports have risen sharply...</p> <p>...</p> <p>Our trade deficits are growing.”</p> <p><i>Id.</i> at 393.”</p> <p>[We] still face a gap between the energy we need and the energy that we can produce or import. Therefore, as a last resort, we must continue to use increasing amounts of nuclear energy.</p> <p>We now have 63 nuclear powerplants producing about 3 percent of our total energy, and we also have about 70 more nuclear powerplants which are licensed for construction. Domestic uranium supplies can support this number of plants, judged by the most conservative estimate, for another 75 years at least. Effective conservation efforts can minimize the shift toward nuclear power. There is no need to enter the plutonium age by licensing or building a fast breeder reactor such as the proposed demonstration plan at Clinch River. We must, however, increase our capacity to produce enriched uranium fuels for light water, nuclear powerplants, using the new centrifuge technology, which consumed only about one-tenth the energy of existing gaseous diffusion plants.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
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<p>April 20, 1977 (cont.)</p>	<p>However, even with the most thorough safeguards, it should not take 10 years to license a plant. It only takes 3 years to license, design, and built a plant in a country like Japan. I propose that we establish reasonable, objective criteria for licensing, and that plants which are based on a standard design not require extensive, individual design studies before the license is granted. “</p> <p><i>Id.</i> at 398.</p> <p>“Even with vigorous conservation, America’s demand for energy will continue to grow for the next decade. Although the United States will eventually make extensive use of solar and other nonconventional energy sources, it will have to rely, for at least the next two decades, on the conventional sources now at hand: oil, natural gas, coal, nuclear power, and hydroelectric power.”</p> <p><i>Id.</i> at 412.</p>	<p>Executive Energy Documents</p> <p>Attachment S-22</p>
<p>July 13-14, 1977</p>	<p>New York City Blackout of 1977:</p> <p>“The blackout of July 13-14, 1977, was dominated by criminal activities. During the 26.5 hours of the blackout, 3,418 persons were arrested, primarily for looting.”</p>	<p>Mark E. Beatty, Scot Phelps, <i>et al.</i>, <i>Blackout of 2003: Public Health Effects and Emergency Response</i>, 121 <i>Pub. Health Reports</i> 36, 43 (2006), available at <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497795/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497795/</a></p> <p><i>See also</i> <a href="http://en.wikipedia.org/wiki/New_York_City_blackout_of_1977">http://en.wikipedia.org/wiki/New_York_City_blackout_of_1977</a></p>

1977	Federal Power Commission continues its focus on deficiencies in the Con Ed electric power system, listing Con Ed's reported system disturbances on July 12, 1971, July 17, 1972, July 24, 1972, February 20, 1973, August 29, 1973, August 5, 1974, and July 13, 1977 (which affected 2,725,000 people), as well as 40 load reductions between 1970 and 1977. Table 5.	Federal Power Commission, <u>Electric System Disturbance on the Consolidated Edison Company of New York, Inc., System</u> , (July 13-14, 1977, supplemented August 4, 1977.)  Attachment S-39
November 8, 1977	President Carter Address to the Nation on the National Energy Plan:  "With every passing month, our energy problems have grown worse. This summer we used more oil and gasoline than ever before in our history. More of our oil is coming from foreign countries."  <i>Id.</i> at 423.  "This excessive importing of foreign oil is a tremendous and rapidly increasing drain on our national economy. It hurts every American family. It causes unemployment."  <i>Id.</i> at 424.	Executive Energy Documents  Attachment 22
1978	Sixteen public meetings on New York Coastal Management Program (" <u>NYCMP</u> ")	Letter of Basil A. Patterson, August 13, 1982  Attachment S-40; ; NYCMP II-1, at 2
Spring, 1979	Eight public hearings on NYCMP held by NYSDOS in coastal communities	NYCMP II-1, at 2
Summer and Fall, 1979	Legislative hearings on NYCMP; Draft NYCMP Circulated	NYCMP II-1, at 2

1981	New York Legislation authorizing aspects of the NYCMP	<p>Waterfront Revitalization and Coastal Resources Act of 1981</p> <p>1981 N.Y. Sess. L. 1696 (McKinney) (ch. 842)</p> <p>Attachment S-41</p>
March, 1982	<p>New York State adopts the “New York State New York State Energy Master Plan,” with 13 policies to reduce “the State’s overdependence on imported petroleum,” specifically including “continued availability of the State’s current inventory of licensed nuclear plants” to meet future energy supply needs.</p> <p>Executive Summary at 5.</p> <p>The Energy Planning Board relied upon “continued utilization of the five currently licensed nuclear facilities” as part of the Electricity Supply Plan.</p> <p>Volume One at 8.</p> <p>The Energy Planning Board “endorsed continued utilization of the five currently licensed nuclear facilities in the State.”</p> <p>Volume Two at 178.</p>	<p>Excerpt from <u>New York State Energy Master Plan</u>, New York State Energy Planning Board, March, 1982</p> <p>Attachment S-42</p>
1982	Final Environmental Impact Statement for NYCMP circulated	

<p>September 30, 1982</p>	<p>NYCMP approved by NOAA making “federal consistency review” applicable in New York State for the first time with respect to new activities occurring after September 30, 1982.</p> <p>a. <u>The NYCMP Exempts Indian Point from Federal Consistency Review.</u></p> <p>In drafting the NYCMP, NYSDOS explicitly provided that projects for which “a substantial amount of time, money, and effort have been expended” should be entirely exempted from application of the NYCMP. NYCMP, II-9, at 1. NYSDOS then “determined,” as a blanket matter, that projects satisfying either of two sets of circumstances would meet the “substantial amount of time, money, and effort” standard:</p> <ul style="list-style-type: none"> <li>• the “project” was “identified as grandfathered” under State Environmental Quality Review Act (“SEQRA”) “at the time of its enactment,” which we interpret to be SEQRA’s effective date of September 1, 1976; or</li> <li>• a “final Environmental Impact Statement” has been prepared prior to the “effective date” of NYSDOS CZM regulations at 19 NYCRR Part 600, i.e., September 28, 1982.</li> </ul> <p>NYCMP, II-9, at 1.</p> <p>In NYSDOS’ own words, “projects which meet one of the following two criteria . . . will not be subject to New York State’s Coastal Management Program and therefore <i>will not be subject to review pursuant to the Federal consistency procedures</i> of the Federal Coastal Zone Management Act of 1972, as amended.” <i>Id.</i> Both prongs of this NYCMP exemption are applicable to Indian Point.</p> <p>b. <u>The NYCMP Itself Contains an Unequivocal Consistency Determination for Indian Point.</u></p>	<p>47 Fed. Reg. 47056 (October 26, 1982); NYCMP II-1 at 2.</p>
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<p>September 30, 1982 (cont.)</p>	<p>The NYCMP embraces as one of its foundational elements “the importance of adequate energy supplies for the economic development of the State.” NYCMP V at 7. The NYCMP acknowledges that “major electric and gas facilities are beneficial, for they supply the energy necessary for the operation of industries, transportation vehicles and services, and home heating.” NYCMP II-9 at 8. The “National Energy Plan was the primary source for determining the national interest in energy facilities,” specifically including the national objective to “reduce dependence on foreign oil and vulnerability to supply interruptions.” NYCMP II-9 at 3. Thus, under the NYCMP, “energy production and transmission” are “considered to be of national interest.” NYCMP II-9 at 2. The NYCMP incorporates the 1982 State Energy Master Plan and its reliance on New York’s licensed nuclear facilities, including Indian Point. NYCMP II-7 at 1. In seeking approval of the NYCMP from NOAA, NYSDOS specifically described the existing nuclear energy facilities, including Indian Point, already located in the State’s coastal zone:</p> <p style="padding-left: 40px;">Many energy facilities are already situated in the State’s coastal area, including steam electric generating plants, transmission lines, oil storage tanks and LNG facilities. The Program’s policies on energy are in accord with existing State laws and plans which address energy needs and environmental quality in a comprehensive manner.</p> <p style="padding-left: 40px;"><i>The State has demonstrated its recognition of the national interest in energy facilities by the number and scope of facilities already located in or planned for New York’s coastal area . . . [including] nuclear—5 units . . . [and] 2 nuclear—under construction.</i></p> <p>NYCMP II-9, at 3. (emphasis added).</p>	<p>NYCMP II-1 at 2.</p>
<p>1995</p>	<p>New York Legislature calls for private ownership of power production facilities to increase competition and reduce exorbitant electricity costs for New York consumers. “In 1992, the average electric rate charged by New York’s utilities was 50 percent higher than the average rate nationwide . . . .”</p> <p><i>Id.</i> at 4.</p>	<p>New York State Assembly, <u>The Electric Industry in New York</u>, Sheldon Silver, Speaker of the Assembly, 1995</p> <p>Attachment S-43</p>

May 3, 1996	New York Public Service Commission issues its Final Generic Environmental Impact Statement in the Competitive Opportunities Proceeding addressing the impacts of opening New York's electric markets to competition.	Opinion No. 96-12 PSC Cases 94-E-0952, et al., In re Competitive Opportunities Regarding Electric Service.”  Attachment S-44
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<p>March 31, 2000</p>	<p>NYPA Negative Declaration under SEQRA authorizing sale of IP3 to Entergy:</p> <p>The Negative Declaration was supported by a full environmental assessment (“EA”), a NYCMP federal consistency assessment form (“Federal CAF”), and a NYCMP coastal management assessment form (“State CAF”). NYPA, Negative Declaration, Notice of Determination of Non-Significance (Mar. 31, 2000). Among other things, NYPA specifically considered the long term, future operation of IP3 by Entergy, and determined that such operation was consistent with the NYCMP. The statements are many, including as follows: A “condition of the selection” of Entergy by NYPA was that Entergy had “a record of experience and safe operation of nuclear facilities.” IP3 Negative Declaration at EA Addendum p.8. “Entergy’s ability to operate the two facilities was scrutinized to assure that operation of these facilities continues at the level the facilities have attained in recent years under Authority supervision.” <i>Id.</i> at 6. “The biggest factor that will affect long term future operation is the competitive market system. That system will dictate how and when these facilities will operate in the future ... [T]o the extent that the competitive market dictates physical or operational changes at the facilities that affect safety or the environment, they will be subject to federal and/or state review and approval.” <i>Id.</i> at 15-16. Specifically, NYPA certified that the “proposed activity complies with New York State’s approved Coastal Management Program . . . and will be conducted in a manner consistent with such program.” IP3 Negative Declaration at Federal CAF p.2. NYSDOS acted in an advisory role with respect to this NYPA consistency determination, <i>see</i> Exec. Law Art. 42 §919 (NYSDOS “review[s] actions proposed by state agencies which may affect the achievement of the [coastal] policies . . . and shall make recommendations to such agencies with respect to achievement of such policies”), and did not object to NYPA acting as lead agency under SEQRA with respect to this action, <i>see</i> IP3 Negative Declaration at EA Addendum p.1.</p>	<p>Attachment 55 to the Consistency Certification</p>
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November 21, 2000	NYPA deed of IP3 to Entergy	Deed dated November 21, 2000, recorded at Westchester County Registry, Control Number 403340618  Attachment S-45
May 2001	<p>President George W. Bush's administration supports expansion of nuclear power production:</p> <ul style="list-style-type: none"> <li>• "A primary goal of the National Energy Policy is to add supply from diverse sources. This [includes] nuclear power."  <i>Id.</i> at xiii.</li> <li>• "Nuclear power plants serve millions of American homes and businesses, have a dependable record for safety and efficiency, and discharge no greenhouse gases into the atmosphere."  <i>Id.</i> at xiii.</li> <li>• <b><i>The National Energy Policy</i></b> calls for "the expansion of nuclear energy in the United States as a major component of our national energy policy" and "<b><i>encourage[s] "NRC to relicense existing nuclear plants that meet or exceed safety standards."</i></b>  <i>Id.</i> at 5-17. (emphasis added)</li> </ul>	<p><u>National Energy Policy Report of the National Energy Policy Development Group (May, 2001)</u>  Attachment S-46</p>

<p>August 17, 2001</p>	<p>New York Public Service Commission approves Final Supplemental Environmental Impact Statement authorizing sale of IP2 by Con Ed to Entergy:</p> <p>A primary concern of NYPSC was to assure the continued operation of IP2 by Entergy in the future, and thus protect the interests of ratepayers. “If the transaction is approved, [Entergy’s] ownership and operation of IP2 is likely to result in its improved performance. Additionally, synergies are expected by virtue of its . . . ownership of [IP3].” NYPSC FEIS Order at 3. “[T]he potential change in ownership would likely result in improved operations and an increased capacity factor. These changes would increase the overall system capacity in New York and contribute to system reliability and satisfying energy demands . . . [T]hese are positive impacts and consistent with the move to a competitive electricity marketplace.” NYPSC FEIS Order at 39. “While improved operations could lead to increase water usage, [Entergy] must remain within the bounds of its SPDES and other water permits. Accordingly, it can reasonably be concluded that the Proposed Action will not result in any additional potentially significant or likely adverse impacts to the coastal zone in the area surrounding IP2. It also can be concluded that the future coastal zone impacts of the facility would be approximately the same under the Proposed Action and No Action alternatives.” <i>Id.</i> at 36-37.</p> <p>Finally, the FSEIS acknowledged that the change in ownership “is not expected to have a substantial impact on the decision whether to continue to operate or retire IP2.”</p> <p><i>Id.</i> at 33.</p>	<p>PSC Case 01-3-0040, “Joint Petition of [Con Ed] and [Entergy].”</p> <p>Attachment 54 to the Consistency Certification</p>
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<p>August 17, 2001 (con't)</p>	<p>NYPSC determined, based on the FSEIS, that the proposed transfer of IP1 and IP2 to Entergy is “consistent with the applicable coastal zone policies set forth in 19 NYCRR §600.5.” FSEIS at 2. In the August 31, 2001 NYPSC order authorizing the sale of IP2 to Entergy (the “Disposition Order”), NYPSC concluded that the “separation of generation facilities from electric transmission and distribution facilities should lead to a competitive marketplace and reduced rates” and that “[l]ower electric rates should in turn lead to economic growth and development in the State.” Disposition Order at 11. On this basis, NYPSC determined that the “action is consistent with the applicable policies set forth in Article 42 of the Executive Law, as implemented by 19 NYCRR 600.5, and will achieve a balance between the protection of the environment and the need to accommodate social and economic considerations.” <i>Id.</i></p> <p>Thus, NYPSC confirmed and certified that Entergy’s operation of IP2 is consistent with the NYCMP.</p>	<p>PSC Case 01-3-0040, “Joint Petition of [Con Ed] and [Entergy].”</p>
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September 6, 2001	Con Ed deed of IP2 to Entergy	Deed dated September 6, 2001, recorded at Westchester County Registry, Control Number 412500378  Attachment S-47
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October 31,  
2001

The Department of Energy (“DOE”) issues “A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010”

- “Nuclear power plants in the United States currently produce about 20 percent of the nation’s electricity. This nuclear-generated electricity is safe, clean and economical, and does not emit greenhouse gases. Continued and expanded reliance on nuclear energy is one key to meeting future demand for electricity in the U.S. and is called for in the National Energy Policy.”

*Id.* Volume I at iv

- “[N]uclear power technology has matured to the point that it is now a vital and extraordinarily valuable part of the nation’s electricity supply.”

*Id.* Volume I at 1.

- “It is clear that an increase in nuclear-produced electricity . . . will be needed to meet the nation’s growing need for safe, clean and economical electricity generation. This vital role of nuclear power is a central message of the President’s National Energy Policy.”

*Id.* Volume I at 1 (footnote omitted).

- “The U.S. depends on energy supply to maintain its economic strength and competitive position in the global economy. . . . ***Addressing our strategic energy needs is an urgent matter, with clear and direct implications to our nation’s security and economic strength, to our global competitiveness, and to worldwide environmental quality.*** Both aggressive conservation and new supplies must be pursued.”

*Id.* Volume II at 1-2 (emphasis added)

A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010, United States Department of Energy Office of Nuclear Energy, Science and Technology and its Nuclear Energy Research Advisory Committee Subcommittee of Generation IV Technology Planning (October 31, 2001)

Attachment S-48

<p>October 31, 2001 (cont.)</p>	<ul style="list-style-type: none"> <li>• “U.S. national energy policy must embrace a balanced portfolio of supply options that includes increased use of safe, reliable and emission-free nuclear energy.” <i>Id.</i> Volume II at 2-1—2-2.</li> <li>• <b><i>“License renewal of the nation’s 103 operating nuclear plants is critical to maintaining this [20%] contribution to energy supply over the next two decades.”</i></b> Volume II at 2-3. (emphasis added)</li> <li>• “Nuclear energy generated 26 percent of the electricity in New York, avoiding emission of 110,000 tons of nitrogen oxide, 200,000 tons of sulfur dioxide and 8.5 million tons of carbon.  Many other states face the same issues to varying degrees. These states simply cannot meet the broad spectrum of clean air requirements unless they use nuclear energy for a substantial portion of their electricity generation. Volume II at 2-4.</li> <li>• “The benefits to society from emission free and highly reliable nuclear energy are huge. Nuclear energy reduces our dependence on foreign sources of energy fuels, and reduces the demand on precious natural gas resources so critical to transportation and residential sectors, and to a wide range of manufacturing applications.” Volume II at 2-4.</li> <li>• “Nuclear energy has proven itself to be a safe, environmentally sound, economically competitive source of electricity for the United States and an indispensable component of our national energy mix. Nuclear energy plants in the U.S. lead the world in most categories of performance, and continue to improve.” Volume II at 2-10.</li> </ul>	<p><u>A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010</u>, United States Department of Energy Office of Nuclear Energy, Science and Technology and its Nuclear Energy Research Advisory Committee Subcommittee of Generation IV Technology Planning (October 31, 2001)</p> <p>Attachment S-48</p>
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<p>2003</p>	<p>MIT Study Underscores the Need for Nuclear Power:</p> <p><i>“[N]uclear power . . . , despite the challenges it faces, is an important option for the United States and the world to meet future energy needs without emitting carbon dioxide (CO<sub>2</sub>) and other atmospheric pollutants.”</i></p> <p><i>Id.</i> at vii. (emphasis added)</p> <p>“Over the next 50 years, unless patterns change dramatically, energy production and use will contribute to global warming through large-scale greenhouse gas emissions—hundreds of billions of tonnes of carbon in the form of carbon dioxide.”</p> <p><i>Id.</i> at ix.</p> <p>“The generation of electricity from fossil fuels, notably natural gas and coal, is a major and growing contributor to the emission of carbon dioxide—a greenhouse gas that contributes significantly to global warming. We share the scientific consensus that these emissions must be reduced and believe that the U.S. will eventually join with other nations in the effort to do so.</p> <p>At least for the next few decades, there are only a few realistic options for reducing carbon dioxide emissions for electricity generation: [1. More efficient production and use; 2. Expanded use of renewable energy; 3. Capture and sequester carbon emissions; 4. Increase use of nuclear power.]”</p> <p><i>Id.</i> at 1.</p>	<p><u>The Future of Nuclear Power, An Interdisciplinary MIT Study</u>, Massachusetts Institute of Technology, 2003</p> <p>Attachment S-49</p>
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<p>June 25, 2003</p>	<p>The New York State Department of Environmental Conservation (“NYSDEC”) review of Indian Point’s consistency with the NYCMP, which commenced on February 11, 2000, with the preparation of a State Consistency Assessment Form, reaches a conclusion in the SEQRA Final Environmental Impact Statement that, among other things, ongoing operation of Indian Point is consistent with the NYCMP. NYSDEC determined that State Pollutant Discharge Elimination System (“SPDES”) permits for Roseton Units 1 &amp; 2, Bowline Units 1 &amp; 2, and Indian Point “will not result in any new effects on coastal zone policies.” Further evaluation of the potential that application Best Technology Available (“BTA”) at Indian Point could require selection and implementation of new cooling water technologies is underway in a pending NYSDEC adjudicatory proceeding. Within that context it is NYSDEC’s responsibility to determine whether any selected BTA is consistent with the NYCMP.</p>	<p><u>Final Environmental Impact Statement, New York State Pollutant Discharge Elimination Permits for the Roseton 1 &amp; 2, Bowline 1 &amp; 2, and Indian Point 2 &amp; 3 Steam Electric Generating Stations, New York State Department of Environmental Conservation (June 25, 2003).</u></p>
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August 14,  
2003

The Northeast Blackout of 2003:



This blackout was more widespread than the Northeast Blackout of 1965, affecting an estimated 10 million people in Ontario and 45 million people in eight U.S. states, including New York State. Governor George Pataki declared a state of emergency. Manhattan, including Wall Street and the United Nations, was completely shut down.

[http://en.wikipedia.org/wiki/Northeast\\_Blackout\\_of\\_2003](http://en.wikipedia.org/wiki/Northeast_Blackout_of_2003)

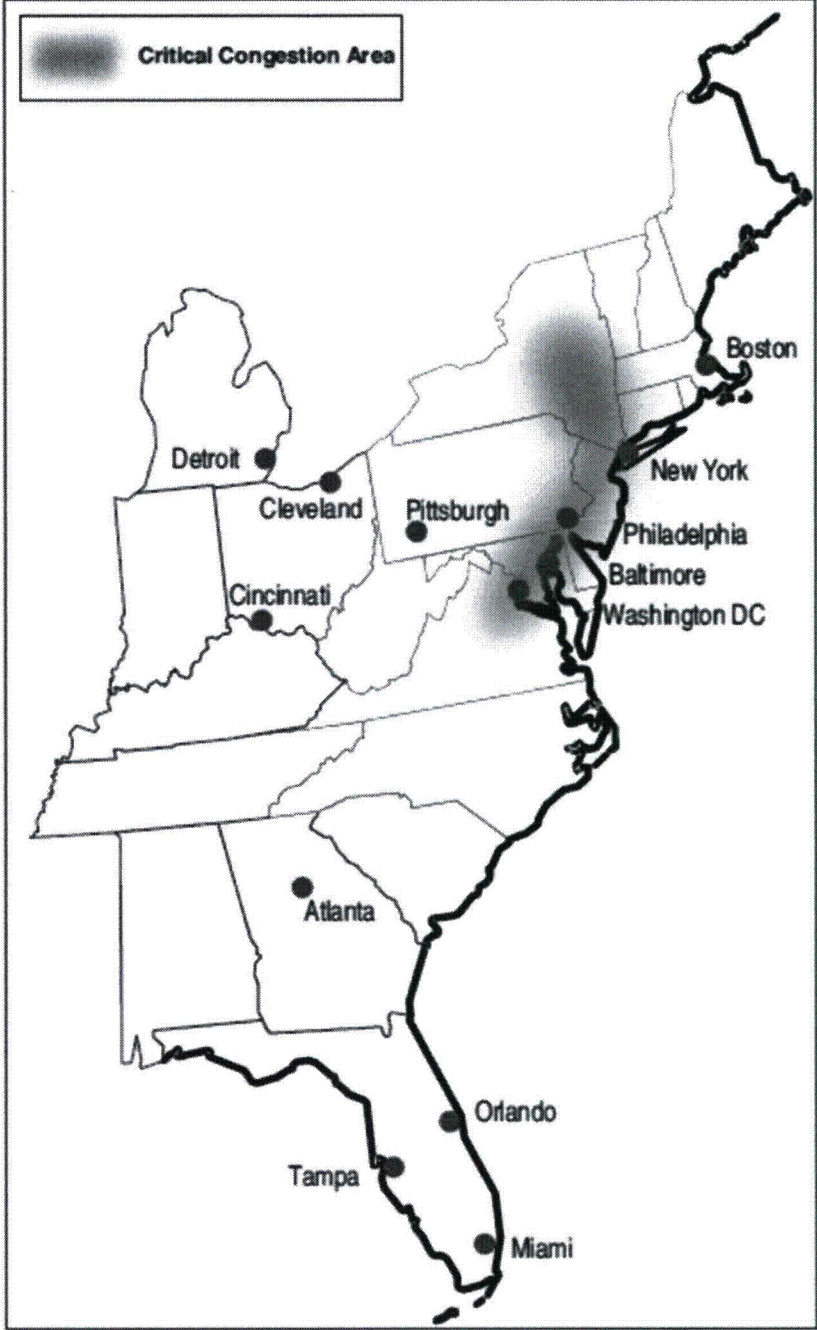
See also Mark E. Beatty, Scot Phelps, et al., *Blackout of 2003: Public Health Effects and Emergency Response*, 121 Pub. Health Reports 36, 43 (2006), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497795/>; Shao Lin, Barbara A. Fletcher, et al., *Health Impact in New York City During the Northeastern Blackout of 2003*, 126 Pub. Health Reports 384, 390-91 (2011), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3072860>

<p>February, 2006</p>	<p>White House Underscores the Need for Nuclear Power:</p> <p><b><i>“For the sake of our economic and national security,</i></b> we must reduce our dependence on foreign sources of energy . . . To achieve this objective, we will take advantage of technology [including] safe nuclear energy.”</p> <p><i>Id.</i> at introduction (emphasis added).</p> <p>“Nuclear power provides significant benefits to the Nation, in the form of cleaner air and low and stable electricity prices. Nuclear power does not emit the air pollutants and greenhouse gases that result from coal-fired and natural-gas fired generation. Nuclear power is also domestic and provides energy security—North American uranium reserves are more than sufficient for the foreseeable future.”</p> <p><i>Id.</i> at 11.</p>	<p>White House National Economic Council, <u>Advanced Energy Initiative</u>, February, 2006.</p> <p>Attachment S-50</p>
<p>2006</p>	<p>National Academies Underscore the Need for Indian Point:</p> <p>The National Academies report describes Indian Point as “a <b><i>vital part</i></b> of the system supplying electricity to the New York City region,” <i>Id.</i> at vii, and a “<b><i>key part</i></b> of the electric power system.” <i>Id.</i> at 1 (emphasis added).</p>	<p><u>Alternatives to the Indian Point Energy Center for Meeting New York Electric Power Needs</u>, National Research Council of the National Academies, 2006</p> <p>Attachment 46 to the Consistency Certification</p>
<p>October 27, 2007</p>	<p>Governor Spitzer unveils global warming regulations.</p> <p><b><i>“Global warming is the most significant environmental problem of our generation,</i></b> and by helping lead this regional program, we can reduce emissions from power plants—one of the main sources of carbon dioxide emissions in the Northeast.” (emphasis added)</p>	<p>Press Release, “Governor Spitzer Unveils Cutting-Edge Global Warming Regulations,” October 24, 2007</p> <p>Attachment S-51</p>

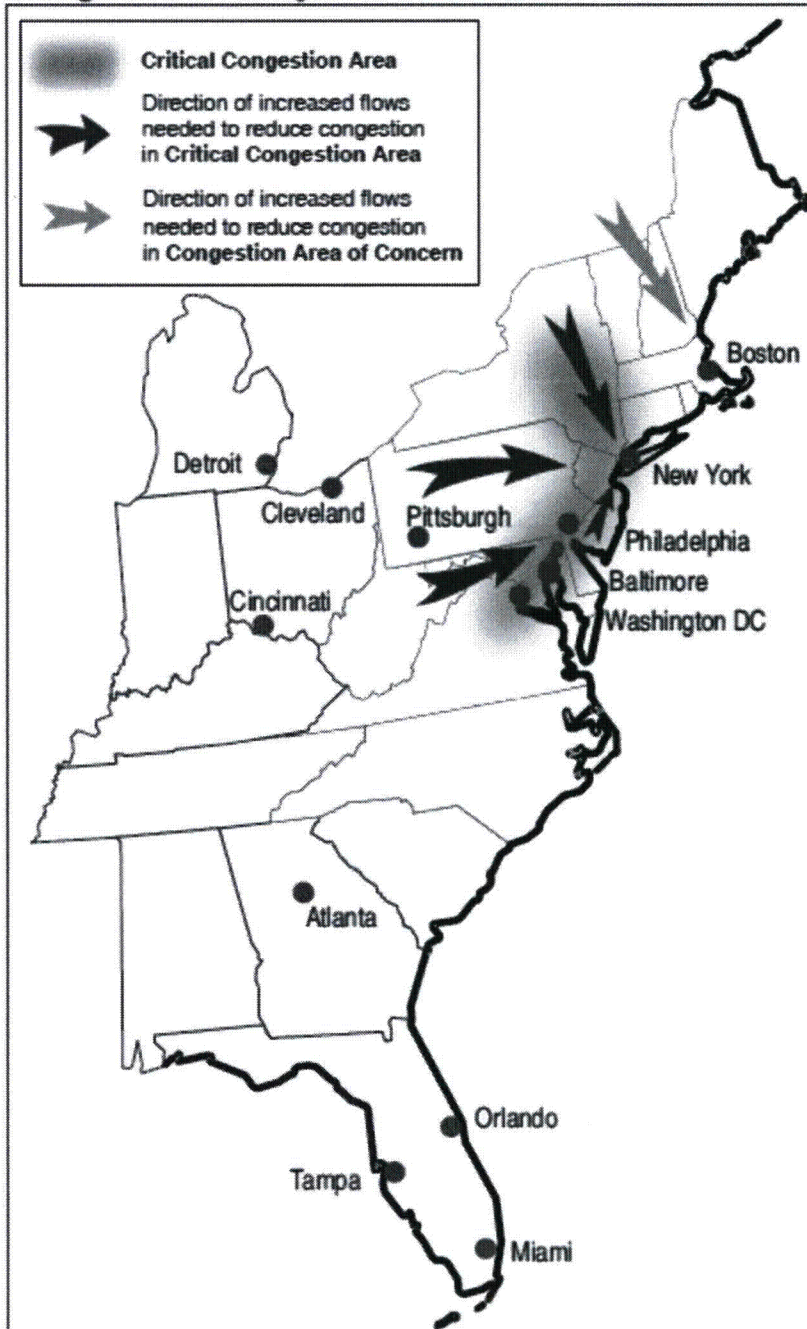
<p>February, 2008</p>	<p>National Science and Technology Council issues peer review report on effect of climate change on U.S. energy production and use:</p> <p>“Climate change is expected to have noticeable effects in the United States; a rise in average temperatures in most regions, changes in precipitation amounts and seasonal patterns in many regions, changes in the intensity and pattern of extreme weather events, and sea level rise. Some of these effects have clear implications for energy production and use. . . . Increases in storm intensity could threaten further disruptions of the sorts experienced in 2005 with Hurricane Katrina. Concerns about climate change impacts could change perceptions and valuations of energy technology alternatives. Any or all of these types of effects could have very real meaning for energy policies, decisions, and institutions in the United States, affecting discussions of courses of action and appropriate strategies for risk management.”</p> <p><i>Id.</i> at 1.</p>	<p><u>Effects of Climate Change on Energy Production and Use in the United States</u>, National Science and Technology Council, U.S. Climate Change Science Program, February 2008.</p> <p>Attachment S-52</p>
<p>September 26, 2008</p>	<p>Governor Paterson hails Regional Greenhouse Gas Initiative (“RGGI”):</p> <p>“<b><i>Global warming is the most pressing environmental issue of our time</i></b>,” and “by coming together with nine other states, New York is showing that we can take our own bold action in reducing greenhouse gas emissions.” (emphasis added)</p>	<p>Press Release, “Governor Paterson Rings in New Era to Combat Climate Change,” September 26, 2008</p> <p>Attachment S-53</p>

<p>2009</p>	<p>MIT updates its report on the Future of Nuclear Power:</p> <p>“Concern with avoiding the adverse consequences of climate change has increased significantly in the past five years. The United States has not adopted a comprehensive climate change policy, although President Obama is pledged to do so. . . . With global greenhouse gas emissions projected to continue to increase, there is added urgency both to achieve greater energy efficiency and to pursue all measures to develop and deploy carbon free energy sources.</p> <p>...</p> <p>In sum, <i>compared to 2003, the motivation to make more use of nuclear power is greater, and more rapid progress is needed in enabling the option of nuclear power expansion to play a role in meeting the global warming challenge.</i>”</p> <p><i>Id.</i> at 4 (emphasis added).</p>	<p><u>Update of the MIT 2003 Future of Nuclear Power, An Interdisciplinary MIT Study</u>, Massachusetts Institute of Technology, 2009</p> <p>Attachment S-54</p>
<p>December, 2009</p>	<p>“One recent analysis suggests that it would be more economical to relieve in-City congestion by increasing local energy efficiency and in-city generation than to build new major transmission facilities down from upstate.” <i>Id.</i> at 49</p> <p>DOE conclusions include (i) “new generation is slow to come on-line and is often offset by retirement of older generation capacity;” (ii) “it takes years to bring needed large-scale, multi-state transmission projects from analysis to plan to reality;” (iii) “Until New York has better load and resource balance from sources within and close to New York City, Long Island and Westchester County, there will continue to be tension between New York’s needs and PJM’s, and significant price differentials across the region;” and (iv) “Slow development of new generation and new backbone transmission facilities (notwithstanding the growth in demand-side resources to moderate load growth and assist operational reliability) could compromise continued reliability in the Washington, Baltimore, New Jersey and New York City areas.”</p> <p><i>Id.</i> at 51.</p>	<p>U.S. Department of Energy, <u>National Electric Transmission Congestion Study</u>, December, 2009.</p> <p>Attachment S-55</p>

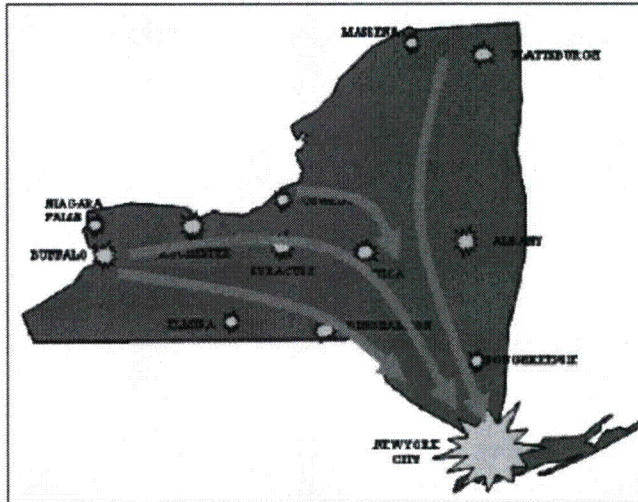
**Figure ES-2. Mid-Atlantic Critical Congestion Area, 2009**



**Figure 4-1. Eastern Critical Congestion Area and Congestion Area of Concern Identified in the 2006 National Electric Transmission Congestion Study**



**Figure 4-8. Bulk Power Flows in New York State**



Source: Buechler, J. (NYISO) (2009). "Inter-Regional Planning in the Northeast." Presented at the U.S. DOE Office of Electricity Delivery and Energy Reliability Spring 2009 Technical Workshop in Support of DOE 2009 Congestion Study, at <http://www.congestion09.anl.gov/techws/index.cfm>, slide 20.



April 2010

DOE Report to Congress:

“To achieve energy security and greenhouse gas (GHG) emission reduction objectives, the United States must develop and deploy clean, affordable, domestic energy sources as quickly as possible. Nuclear power will continue to be a key component of a portfolio of technologies that meets our energy goals.” *Id.* at v.

***“Nuclear power is a proven clean, affordable, domestic energy source that is part of the current U.S. energy portfolio. . . Nuclear energy is an important element of the diverse energy portfolio required to accomplish our national objectives.”*** *Id.* at 1 (emphasis added).

“The driver for the new energy policy is to continue to generate energy, mostly from domestic sources, at an affordable price. The policy must meet increasing demand, with considerably reduced GHG emissions, and without stifling GDP growth.”

*Id.* at 7.

“While in operation, nuclear power plants do not emit GHGs.”  
*Id.* at 8.

“The existing U.S. nuclear fleet has a remarkable safety and performance record, and today these reactors account for 70 percent of the low GHG-emitting domestic electricity production. Extending the operating lifetimes of current plants beyond sixty years and, where possible, making further improvements in their productivity will generate near-term benefits.”

*Id.* at 12.

“The current fleet of 104 nuclear power plants has reliably and economically contributed almost 20 percent of electricity generated in the United States over the past two decades.”

*Id.* at 16. ***“In order to meet the Administration’s goals of energy security and greenhouse gas reductions, nuclear energy must play an important role in the national energy portfolio.”***

*Id.* at 47 (emphasis added).

U.S. Department of Energy, Nuclear Energy Research and Development Roadmap, Report to Congress, April 2010

Attachment S-56

<p>May 2010</p>	<p>President Obama identified global warming and climate change as issues affecting national security:</p> <p>“We must grow our economy and reduce our deficit. . . We must develop the clean energy that can power new industry, unbind us from foreign oil, and preserve our planet.” (Preface)</p> <p>“At the center of our efforts is a commitment to renew our economy, which serves as the wellspring of American power. <i>Id.</i> at 2. “Our national security begins at home. . . . First and foremost, we must renew the foundation of America’s strength. . . . Our prosperity serves as a wellspring for our power. . . . That is why we are rebuilding our economy so that it will serve as an engine of opportunity for the American people, and a source of American influence abroad. . . . We must transform the way that we use energy—diversifying supplies, investing in innovation, and deploying clean energy technologies. By doing so, we will enhance energy security, create jobs, and fight climate change.” <i>Id.</i> at 9-10. “The foundation of American leadership must be a prosperous American economy. . . . To allow each American to pursue the opportunity upon which our prosperity depends, we must build a stronger foundation for economic growth. . . [including] a transformation of the way that we produce and use energy, so that we reduce our dependence on fossil fuels and lead the world in creating new jobs and industry. . .” <i>Id.</i> at 28. “[T]he nation that leads the world in building a clean energy economy will enjoy a substantial economic and security advantage. . . We have already made the largest investment in clean energy in history, but there is much more to do to build on this foundation. We must continue to transform our energy economy, leveraging private capital to accelerate deployment of clean energy technologies that will cut greenhouse gas emissions, improve energy efficiency, increase use of renewable <b>and nuclear power</b>, reduce the dependence of vehicles on oil, and diversify energy sources and suppliers. We will invest in research and next-generation technology, modernize the way we distribute electricity, and encourage the usage of transitional fuels, while moving towards clean energy produced at home.” <i>Id.</i> at 30 (emphasis added). “The danger from climate change is real, urgent, and severe. . . Our effort begins with the steps that we are taking at home. We will stimulate our energy economy at home, <b>reinvigorate the U.S. domestic nuclear industry</b>, increase our efficiency standards, invest in renewable energy, and provide the incentives that make clean energy the profitable kind of energy.” <i>Id.</i> at 47 (emphasis added)</p>	<p><u>National Security Strategy</u>, The White House, May, 2010</p> <p>Attachment 34 to the Consistency Certification</p>
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<p>January 25, 2011</p>	<p>President Obama announces that clean energy, including nuclear power, is needed to reduce dependence on foreign oil:</p> <p>“By 2035, 80 percent of America’s electricity will come from clean energy sources. Some folks want wind and solar. Others want nuclear, clean coal and natural gas. To meet this goal, <i>we will need them all.</i>”</p> <p><i>Id.</i> at 3.</p>	<p>President Obama, State of the Union Address, January 25, 2011</p> <p>Attachment S-57</p>
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January,  
2011

DOE Objective 1 for Existing Nuclear Fleet:

“The U.S. Department of Energy (DOE) Office of Nuclear Energy’s Research and Development Roadmap has organized its activities [to] ensure nuclear energy remains a compelling and viable energy option for the United States.”

*Id.* at 1

“The existing U.S. nuclear fleet has a remarkable safety and performance record and today accounts for 70% of the low greenhouse gas emitting domestic energy production.” *Id.* at iv. In about the year 2030, unless further licensing renewal occurs, the current fleet of nuclear power plants will reach the end of their 60-year operating license period. . . Over the next three decades, this would result in a loss of 100 Gwe of emission-free generating capacity . . . “

*Id.* at 1.

“Replacement of this 100-Gwe generating capacity with traditional fossil plants would lead to significant increases in carbon dioxide emissions. Extending operating licenses beyond 60 years would enable existing plants to continue to provide safe, clean, and economic electricity without significant greenhouse gas emissions.”

*Id.* at 2.

“Secretary of Energy Steven Chu has reiterated the Administration’s position that nuclear energy is an important part of the energy mix. . . . DOE-NE intends to proceed in a manner that supports a strong and viable nuclear industry in the United States. . . .”

*Id.* at 3

***“2.1 Vision . . . Existing operating nuclear power plants will continue to safely provide clean and economic electricity well beyond their first license-extension period, significantly contributing to reduction of United States and global carbon emissions, enhancement of national energy security, and protection of the environment.***

. . .

Objective 1: Extend Life, Improve Performance, and Maintain Safety of the Current Fleet—  
Implementation Plan,  
U.S. Department of Energy, Office of Nuclear Energy,  
January, 2011

Attachment S-58

<p>January, 2011 (cont.)</p>	<p>Sustaining the existing operating U.S. fleet also will improve its international engagement and leadership on nuclear safety and security issues.”</p> <p><i>Id.</i> at 4 (emphasis added)</p> <p><b><i>“Extending the life of nuclear power plants is a vital step in meeting the electrical needs of the United States today and in decades to come. By keeping these plants safely in service, the Nation will retain valuable infrastructure and allow additional time to construct new sources of clean, reliable, and secure energy. Until other reliable sources of power are built and placed on the electrical grid, the existing fleet of nuclear power plants is a vital component of the economy.”</i></b></p> <p><i>Id.</i> at 4-5.</p>	<p><u>Objective 1: Extend Life, Improve Performance, and Maintain Safety of the Current Fleet—</u>  <u>Implementation Plan,</u>  U.S. Department of Energy, Office of Nuclear Energy,  January, 2011</p> <p>Attachment S-58</p>
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<p>March 30, 2011</p>	<p>President Obama’s Blueprint for a Secure Energy Future:</p> <p>In Blueprint, President Obama recognized the importance of nuclear energy to this nation, and reaffirmed the need for nuclear power following the accident at Fukushima:</p> <p>“Every president since Richard Nixon has called for America’s independence from oil.</p> <p>...</p> <p>And beyond our efforts to reduce our dependence on oil, we must focus on expanding cleaner sources of electricity, including renewables like wind and solar, as well as clean coal, natural gas, <b>and nuclear power</b>—keeping America on the cutting edge of clean energy technology so that we can build a 21<sup>st</sup> century clean energy economy and win the future.”</p> <p><i>Id.</i> at 3 (emphasis added).</p> <p>“A global race is underway to develop and manufacture clean energy technologies.</p> <p>...</p> <p>That’s why, in his State of the Union address, President Obama proposed an ambitious but achievable standard for America: By 2035, we will generate 80 percent of our electricity from a diverse set of clean energy sources—including renewable energy sources like wind, solar, biomass, and hydropower; <b>nuclear power</b>; efficient natural gas; and clean coal.”</p> <p><i>Id.</i> at 32 (emphasis added).</p> <p>“To help restart the domestic nuclear industry, the Administration issued a conditional loan guarantee for a nuclear plant at the Vogtle site in Georgia in 2010.”</p> <p><i>Id.</i> at 34</p> <p>“<b>[C]lean energy credits should be issued for electricity generated from renewable sources as well as nuclear power . . .</b>”</p> <p><i>Id.</i> at 35 (emphasis added)</p>	<p><u>Blueprint for a Secure Energy Future</u>, The White House, March 30, 2011</p> <p>Attachment 52 to the Consistency Certification</p>
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March 30, 2011	“While a Clean Energy Standard will provide powerful incentives for innovation, <i>a comprehensive strategy must</i> also modernize the electric power grid and <i>ensure the safety of our nuclear power fleet—both today’s plants</i> and tomorrow’s technologies.” <i>Id.</i> at 36 (emphasis added).	<u>Blueprint for a Secure Energy Future</u> , The White House, March 30, 2011  Attachment 52 to the Consistency Certification
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<p>April, 2011</p>	<p>New York City Underscores the Need for Indian Point:</p> <p>New York’s electricity system faces “significant reliability challenges” and “[p]rincipal among these is the potential closure of [IPEC], which could lead to major system disruptions in the absence of a viable replacement plan.” <i>Id.</i> at 116.</p> <p>“New York City’s ability to import electricity is limited by undersized and congested transmission lines, and opportunities to expand in-city generation are limited. Periods of peak summer demand put significant stress on utility infrastructure and cause the activation of the dirtiest in-city plants. As a result, each summer we must brace for the possibility of neighborhood-level blackouts and increased air pollution.” <i>Id.</i></p> <p>“Leaving older and dirtier plants in place is simply too costly for New Yorkers’ health and pocketbooks.” <i>Id.</i> at 112.</p> <p>IPEC is the “<i>cornerstone</i>” of New York City’s electricity system, “<i>that supplies up to 30% of our power virtually carbon free.</i>” <i>Id.</i> at 105 (emphasis added).</p> <p><b><i>“Closing Indian Point without a viable and relatively clean replacement option would jeopardize reliability, significantly increase prices, worsen local air quality, and make it very challenging to achieve our goal of reducing greenhouse gas emissions 30% by 2030. For these reasons we will support the continued safe operation of Indian Point.”</i></b> <i>Id.</i> at 112 (emphasis added).</p> <p>“Retiring Indian Point without replacing at least a portion of its capacity could lead to power system instability. Replacement costs would exceed \$2 billion and New Yorkers would also pay at least \$1.5 billion in higher energy costs [per year] over the next decade, and electricity consumers could see their bills increase by 15%. Local air pollution would increase and our efforts to reduce [greenhouse gas] emissions 30% by 2030 would be unachievable because we would most likely shift to electricity generated by more carbon-intensive sources.” <i>Id.</i> at 117.</p>	<p><u>PlaNYC—A Greener, Greater New York</u>, The City of New York and Mayor Michael R. Bloomberg, April 2011</p> <p>Attachment 47 to the Consistency Certification</p>
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<p>August 2, 2011</p>	<p>The New York City Department of Environmental Protection Underscores the Need for Indian Point:</p> <p>(1) IPEC’s retirement will increase the cost to New York’s consumers under every feasible scenario; (2) IPEC’s retirement without new generation or transmission additions will compromise the reliability of the electricity grid; (3) Each option for replacement of IPEC’s capacity would measurably increase air emissions. <i>Id.</i> at 11-13. “In addition to providing active power generation, the reactive power and reserves provided by IPEC support the voltage necessary to keep the transmission system secure. . . IPEC is physically located in Westchester County . . . at a particularly important location.” <i>Id.</i> at 32-33. “There are proprietary analyses from some Group members which strongly suggest that [without Indian Point] there are other factors which will result in local (i.e., in-City) and broader system reliability issues.” <i>Id.</i> at 12. “IPEC’s retirement without new generation or transmission additions will compromise the reliability of the electricity grid.” <i>Id.</i> There will be an approximately 15% increase in carbon emissions, and roughly 7-8% increase in NOx, in New York City and New York State, without IPEC. <i>Id.</i> at 13. There will be a \$1.5 billion annual increase in energy costs without IPEC. <i>Id.</i> at 11. “<b><i>IPEC’s retirement may have far-reaching ancillary economic impacts. IPEC is a major employer in the region, employing approximately 1,100 people, with additional jobs created through indirect and induced economic activity . . . [T]he ancillary economic impacts [of retiring IPEC] may be substantial.</i></b>” <i>Id.</i> (emphasis added).</p>	<p><u>Indian Point Energy Center Retirement Analysis</u>, prepared for the New York City Department of Environmental Protection by Charles River Associates, August 2, 2011</p> <p>Attachment 48 to the Consistency Certification</p>
<p>2012</p>	<p>Governor Cuomo emphasizes the need for energy infrastructure:</p> <p>“Another key to powering our economic growth is expanding our energy infrastructure.”</p> <p><i>Id.</i> at 12</p>	<p>Governor Andrew Cuomo, State of the State Address, January 4, 2012</p> <p>Attachment S-59</p>

<p>May, 2012</p>	<p>Report to Congress on the Need for Energy Security:</p> <p>“The vulnerability of the U.S. economy to disruptions in the supply of a particular energy source depends on the importance of that energy source to the economy. More than 80 percent of the energy consumed in the United States comes from oil, natural gas, or coal.”</p> <p><i>Id.</i> at Summary</p> <p>“Nuclear power is used exclusively to generate electricity. In 2010, the United States had 65 working nuclear power plants that operated a total of 104 reactors and generated 21 percent of all electricity.”</p> <p><i>Id.</i> at 13.</p>	<p><u>Energy Security in the United States</u>, Congressional Budget Office, May, 2012</p> <p>Attachment S-60</p>
<p>June 20, 2012</p>	<p>Report to Congress on Clean Energy Strategy:</p> <p>“Nuclear power plants emit relatively little carbon dioxide, mostly from nuclear fuel production and auxiliary plant equipment. This ‘green’ nuclear power argument has received growing attention in think tanks and academia. As stated by the Massachusetts Institute of Technology in its major study <i>The Future of Nuclear Power</i>: ‘Our position is that the prospect of global climate change from greenhouse gas emissions and the adverse consequences that flow from these emissions is the principal justification for government support of the nuclear energy option.’ As discussed above, the Obama Administration is also including nuclear power as part of its clean energy strategy.”</p> <p><i>Id.</i> at 26 (footnote omitted)</p>	<p>Mark Holt, <u>Nuclear Energy Policy</u>, Congressional Research Service, June 20, 2012</p> <p>Attachment S-61</p>

<p>September, 2012</p>	<p>Manhattan Institute Report Underscores the Economic Need for Indian Point:</p> <p>When considering the New York City area alone, instead of in combination with the Long Island area and Lower Hudson Valley, “IPEC provides up to 30 percent of the New York City area’s base-load electricity.”</p> <p><i>Id.</i> at 2.</p> <p>“Closing IPEC . . . would impose the equivalent of a tax on consumers and producers that would, as tax increases do reduce economic growth.”</p> <p><i>Id.</i> at 19</p> <p>The effects of these higher electricity costs absorbed by customers would ripple through the New York economy, leading to estimated “reductions in output of \$1.8 billion--\$2.7 billion per year over the 15-year period 2016-30. <b><i>The resulting loss of jobs in the state could range from 26,000 to 40,000 per year,</i></b> depending on the alternative chosen to replace IPEC.”</p> <p><i>Id.</i> at Executive Summary.</p>	<p><u>The Economic Impacts of Closing and Replacing the Indian Point Energy Center</u>, Manhattan Institute, Center for Energy Policy and the Environment, September, 2012</p> <p>Attachment 68 to the Consistency Certification</p>
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<p>September 18, 2012</p>	<p>NYISO Documents Need for Indian Point:</p> <p>“Reliability violations of transmission security and resource adequacy criteria would occur in 2016 if the Indian Point Plant were to be retired by the end of 2015 (the latter of the current license expiration dates) using the Base Case load forecast assumptions.</p> <p>The Indian Point Plant has two base-load units (2060 MW) located in Zone H in Southeastern New York, an area of the State that is subject to transmission constraints that limit transfers in that area as demonstrated by the reliability violations in the Base Case and Econometric Forecast Scenario. Southeastern New York, with the Indian Point Plant in service, currently relies on transfers to augment existing capacity, and load growth or loss of generation capacity in this area would aggravate those transfer limits.”</p> <p><i>Id.</i> at 43.</p> <p>Furthermore, . . . under stress conditions the voltage performance on the system without the Indian Point Plant would be degraded. In all cases, power flows replacing the Indian Point generation cause increased reactive power losses in addition to the loss of reactive output from the plant. It would be necessary to take emergency operations measures, including load relief to eliminate the transmission security violations in Southeastern New York.</p> <p>For the Base Case load forecast, [Loss of load expectation] LOLE was 0.48 in 2016, a significant violation of the 0.1 days per year criterion. <b><i>Beyond 2016, due to annual load growth the LOLE continues to escalate for the remainder of the Study Period reaching an LOLE of 3.63 days per year in 2022 [more than 36 times worse than the LOLE system reliability standard].</i></b></p> <p><i>Id.</i> at 43 (emphasis added)</p>	<p><u>2012 Reliability Needs Assessment</u>, New York Independent Systems Operator, September 18, 2012</p> <p>Attachment 71 to the Consistency Certification</p>
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<p>January, 2013</p>	<p>DOE Secretary Chu endorsed nuclear energy:</p> <p><i>“Nuclear energy is an important contributor to our nation’s energy security, and promotes clean-energy jobs. Nuclear energy production also provides important environmental benefits by producing little carbon dioxide or conventional air pollutants</i></p> <p>.....</p> <p>[G]lobal demand for nuclear energy continues to grow, with commensurate risks in terms of safety, weapons proliferation, and terrorism if this growth occurs outside a vigorous safety and security framework. America’s ability to influence the mitigation of these risks is strengthened when we demonstrate the commitment and ability to perform here at home.”</p> <p><i>Id.</i> at Preface (emphasis added).</p>	<p><u>Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste</u>, U.S. Department of Energy, January, 2013</p> <p>Attachment S-62</p>
<p>February 8, 2013</p>	<p>Governor Cuomo announced that New York joined neighboring states in agreeing to lower the emissions cap established by RGGI. Nine Northeastern and mid-Atlantic states agreed to set a 91 million ton emissions cap in 2014, which will decline 2.5% each year through 2020.</p>	<p>Press Release, Governor Cuomo, February 8, 2013</p>

<p>April, 2013</p>	<p>Nuclear power was an “issue in focus” in the Energy Information Administration (“EIA”) Annual Energy Outlook for 2013:</p> <p>“In 2011, approximately 19% of the nation’s electricity was generated by 104 operating commercial nuclear reactors, totaling 101 gigawatts of capacity.”</p> <p><i>Id.</i> at 44.</p> <p>“Nuclear energy was projected to grow by 14.3% between 2013 and 2040.</p> <p><i>Id.</i></p> <p>“The High Nuclear case assumes that all existing nuclear power plants receive their second license renewal [extending their lives to 80 years and that they] operate through 2040 [the end of the projection period].”</p> <p><i>Id.</i> at 47.</p> <p>“Even in the Low Nuclear case, EIA projects license renewal to increase the useful life of the nuclear fleet to 60 years for all existing plants, with a few exceptions, not including Indian Point.”</p> <p><i>Id.</i> at 46.</p>	<p>Excerpt from <u>Annual Energy Outlook 2013</u>, Energy Information Administration, April, 2013</p> <p>Attachment S-63</p>
<p>May, 2013</p>	<p>White House supports resilient infrastructure:</p> <p>“Building 21<sup>st</sup> Century resilient infrastructure is vital to American competitiveness, regional economic growth and development, and local jobs. Accordingly, [President Obama] made a commitment in [his] 2012 State of the Union Address to ‘cut the red tape that can slow down construction’ of infrastructure projects.:</p> <p><i>Id.</i> at 1</p>	<p><u>Report to the President—Rebuilding America’s Infrastructure: Cutting Timelines and Improving Outcomes for Federal Permitting and Review of Infrastructure Projects</u>, The White House, May, 2013</p> <p>Attachment S-64</p>

<p>June, 2013</p>	<p>President Obama’s Climate Action Plan:</p> <p>“In 2009, President Obama made a pledge that by 2020, America would reduce its greenhouse gas emissions in the range of 17 percent below 2005 levels if all other major economies agreed to limit their emissions as well. Today, the President remains firmly committed to that goal and to building on the progress of his first term to help put us and the world on a sustainable long-term trajectory.”</p> <p><i>Id.</i> at 4.</p> <p><b><u>“Expanding Clean Energy Use and Cut Energy Waste:</u></b>  Roughly 84 percent of current carbon dioxide emissions are energy-related and about 65 percent of all greenhouse gas emissions can be attributed to energy supply and energy use. The Obama Administration has promoted the expansion of renewable, clean, and efficient energy sources and technologies worldwide through:</p> <p>...</p> <ul style="list-style-type: none"> <li>• <b><i>Support for the safe and secure use of nuclear power</i></b>  <i>Id.</i> at 18 (emphasis added)</li> </ul> <p><b>“Nuclear Power.</b> The United States will continue to promote the safe and secure use of nuclear power worldwide through a variety of bilateral and multilateral engagements. For example, the U.S. Nuclear Regulatory Commission advises international partners on safety and regulatory best practices, and the Department of Energy works with international partners on research and development, nuclear waste and storage, training, regulations, quality control, and comprehensive fuel leasing options. Going forward, we will expand these efforts to promote nuclear energy generation consistent with maximizing safety and nonproliferation goals.”</p> <p><i>Id.</i> at 19.</p>	<p><u>The President’s Climate Action Plan</u>, Executive Office of the President, June, 2013</p> <p>Attachment S-65</p>
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<p>June, 2013</p>	<p>“The case for U.S. leadership in nuclear energy, domestically and globally, is based on various dimensions of national security benefits to the U.S.”</p> <p>...</p> <p>The United States may face a substantial contraction of commercial nuclear energy in the coming years. . . . Indeed, as many as a quarter of commercial nuclear facilities in America are cash-flow negative, or may be soon, or could be facing difficult investment decisions which may lead to early shutdowns</p> <p>.....</p> <p>[The contraction of commercial nuclear energy in the United States] would undoubtedly affect the defense establishment and our nuclear Navy’s capabilities, as well as the United States’ ability to shape global standards for safety, security, operations, emergency response and nonproliferation.”</p> <p><i>Id.</i> at v.</p> <p>“[F]ederal action to reverse the U.S. nuclear industry’s impending decline is a national security imperative. The United States cannot afford to become irrelevant in a new nuclear age.”</p> <p><i>Id.</i> at x.</p> <p>“The health of the U.S. civil nuclear industry bears directly on our nation’s ability to advance a number of crucial objectives, particularly with respect to nonproliferation, military strength, and energy security. At the same time, a robust nuclear industry helps advance several important domestic priorities, such as reducing greenhouse gas emissions while creating jobs and supplying affordable, reliable energy.”</p> <p><i>Id.</i> at 19.</p>	<p><u>Restoring U.S. Leadership in Nuclear Energy—A National Security Imperative</u>, Center for Strategic &amp; International Studies, June, 2013</p> <p>Attachment S-66</p>
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<p>June 10, 2013</p>	<p>“Japan’s [GHG] emissions rose by some 70 [million tons of] CO<sub>2</sub>, or 5.8%, in 2012 [,] a rate of growth last seen two decades ago, as a consequence of the need to import large quantities of liquefied natural gas and coal in order to compensate for the almost 90% reduction in electricity generation from nuclear power following the Fukushima Daiichi accident. The increase in fuel import costs was a key reason for Japan’s record high trade deficit of . . . \$87 billion . . . in 2012.”</p> <p><i>Id.</i> at 29.</p>	<p><u>Redrawing the Energy-Climate Map</u>, International Energy Agency, June 10, 2013</p> <p>Attachment S-67</p>
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<p>June 11, 2013</p>	<p><b>New York City Underscores its Need for Resilient Infrastructure:</b></p> <p>In 2006, a heat wave caused an extended black-out that affected approximately 250,000 Queens residents. In 2011, Hurricane Irene’s floodwaters came close to leaving parts of Lower Manhattan in the dark. And in the summer of the same year, another heat wave led to an all-time record for city electricity demand.</p> <p>But Sandy was different. . . .</p> <p>By the time the storm passed, more than 800,000 customers (representing over 2 million New Yorkers) were without power and 80,000 customers were without natural gas service. A third of the buildings served by the city’s steam system—including several major hospitals—were without heat and hot water.</p> <p>. . .</p> <p>In keeping with the overarching goals of this report—which are to limit the impacts of climate change while enabling New York to bounce back quickly when impacts cannot be avoided—the City will work with utility companies and regulatory bodies to improve the current approach to utility regulation and investment. The City will advocate for incorporating risk-based preparation for low-probability but high-impact events, spending capital dollars to harden energy infrastructure and make utility systems more flexible, and diversifying energy sources. Collectively these strategies will reduce the frequency and severity of service disruptions, while allowing for more rapid restoration of service when these disruptions do occur.” <i>Id.</i> at 107</p> <p>“In the days leading up to Sandy, the utilities took preemptive actions to minimize potential downtime by protecting and preserving their infrastructure.</p> <p>. . .</p> <p>Con Edison prepared to de-energize feeders when flooding appeared imminent at key underground transformer vaults.</p> <p>. . .</p>	<p><u>PlaNYC: A Stronger, More Resilient New York</u>, The City of New York and Mayor Michael R. Bloomberg, June 11, 2013</p> <p>Attachment S-68</p>
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<p>June 11, 2013 (cont.)</p>	<p>When the storm arrived, the surge exceeded projections, topping out not at 11 feet but at 14 feet (MLLW) at the Battery and overwhelming many pre-storm preparations. <b><i>Flooding forced several power plants and several transmission lines that import electricity from New Jersey to shut down, leaving New York City more dependent on a subset of its in-city generation capacity and on the electricity supply from Upstate New York.</i></b> <i>Id.</i> at 113 (emphasis added)</p> <p>...</p> <p>“53 percent of New York City’s power plants are in the 100-year floodplain. By the 2050s, 97 percent will be.”</p> <p><i>Id.</i> at 125.</p> <p>“New York City’s 9,600 MW of power generation can satisfy over 80 percent of peak demand, but the majority of these in-city power plants are located in the 100-year floodplain, all depend on natural gas and liquid fuel supplies (which themselves are subject to supply interruptions during extreme weather events), and almost two-thirds are more than 40 years old. The City will take steps to diversify and improve the sources of the city’s power supply, and to do so in a way that will connect the city directly to new, low-carbon generation sources (which address some of the causes of climate change).”</p> <p><i>Id.</i> at 126.</p>	<p><u>PlaNYC: A Stronger, More Resilient New York</u>, The City of New York and Mayor Michael R. Bloomberg, June 11, 2013</p> <p>Attachment S-68</p>
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<p>June 25, 2013</p>	<p>President Obama reiterates that reducing carbon pollution associated with energy production a priority of his Administration:</p> <p>“With every passing day, the urgency of addressing climate change intensifies. I made clear in my State of the Union address that my Administration is committed to reducing carbon pollution that causes climate change, preparing our communities for the consequences of climate change, and speeding the transition to more sustainable sources of energy.</p> <p>...</p> <p>The United States now has the opportunity to address carbon pollution from the power sector, which produces nearly 40 percent of such pollution. As a country, we can continue or progress in reducing power plant pollution, thereby improving public health and protecting the environment, while supplying the reliable, affordable power needed for economic growth and <i>advancing cleaner energy technologies, such as</i> efficient natural gas, <i>nuclear power</i>, renewables such as wind and solar energy, and clean coal technology.” (emphasis added)</p>	<p>The President, Memorandum of June 25, 2013—<u>Power Sector Carbon Pollution Standards</u> 79 Fed. Reg. 395, 535 (July 1, 2013)</p> <p>Attachment S-69</p>
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<p>July, 2013</p>	<p>DOE Calls for Steps to Assure Resilient Infrastructure:</p> <p>“Climate change and extreme weather risks facing the U.S. energy sector are varied, complex, and difficult to project in terms of probability, timing, and severity. Climatic conditions are already affecting energy production and delivery in the United States, causing supply disruptions of varying lengths and magnitude and affecting infrastructure and operations dependent upon energy supply. These risks are expected to increase, and despite their inherent uncertainty, private entities, governments, and research institutions are taking action to further understand and reduce them. However, the magnitude of the challenge posed by climate change on an aging and already stressed U.S. energy system could outpace current adaptation efforts, unless a more comprehensive and accelerated approach is adopted.</p> <p>...</p> <p>In the near term, adaptation efforts should be flexible and could focus on assessing vulnerabilities and implementing actions that are low-cost; actions that end or reverse policies that have unintended negative consequences for resilience; and win-win measures that promote other national objectives, such as energy and national security, economic growth and job creation, and public health.”</p> <p><i>Id.</i> at 46.</p>	<p><u>U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather</u>, U.S. Department of Energy, July 2103</p> <p>Attachment S-70</p>
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<p>August, 2013</p>	<p>Post-Sandy Strategy Calls for Resilient Infrastructure:</p> <p><b>“Energy</b></p> <p>Following Hurricane Sandy, power outages impacted approximately 8.5 million customers, including businesses and services, affecting millions more people. Additionally, breaks in natural gas lines caused fires in some locations, resulting in the destruction of many residences. Access to gasoline and diesel fuel in New York City and northern New Jersey was severely impaired following Sandy. This was largely caused by flooding damage to major terminals and docks in the Arthur Kill area of New Jersey. These fuel shortages delayed first responders and other response and recovery officials. As a result, portable generators sat unused and lines at fueling stations were long and problematic while consumers struggled to identify which gas stations had power and were operational.</p> <p><b>Communications</b></p> <p>The storm disrupted telecommunications and data access to millions of people and hundreds of thousands of businesses, paralyzing the greater New York Metropolitan economy. At the peak of the storm, tracking by the Federal Communications Commission (FCC) revealed that approximately 25 percent of cell sites across all or part of 10 states and Washington, D.C. were out of service.</p> <p>...</p> <p><b>Transportation</b></p> <p>Hurricane Sandy was the worst disaster for public transit systems (e.g., bus, subway, commuter rail) in the nation’s history. On October 30, 2012, the morning after the storm made landfall, more than half of the nation’s daily transit riders were without service. New York City’s subway system was shut down on October 28, in advance of the storm, and remained closed through November 1.”</p> <p><i>Id.</i> at 24-25. (footnotes omitted)</p>	<p><u>Hurricane Sandy Rebuilding Strategy</u>, Hurricane Sandy Rebuilding Task Force, August, 2013</p> <p>Attachment S-71</p>
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<p>August, 2013 cont.</p>	<p>“The damage from Hurricane Sandy to physical infrastructure in New York, New Jersey, and other impacted states is measured in the tens of billions of dollars, but the impact of that damage on the people of the region goes well beyond the financial cost. For example, the failure of hospitals and health facilities due to disasters carries a high cost in terms of both lives and economic resources. Infrastructure systems are more than just physical assets; they create the framework that allows people to be safe and comfortable in their homes, the movement of goods and people, individuals to communicate with one another, and for society and communities to function.</p> <p>The two overarching infrastructure-related goals of the Task Force were to ensure all Federal actions, policies, and resources work together to foster a quick and effective recovery from Hurricane Sandy and to encourage investment in systems and assets that ensures the region is better prepared to both withstand and recover from future disasters.”</p> <p><i>Id.</i> at 49.</p> <p>“To prevent shortages in future disasters, the Task Force worked to ensure that critical infrastructure such as hospitals, transportation systems, drinking water and wastewater treatment plants, and public facilities, as well as industrial economic engines such as refineries, office buildings, data centers, and manufacturing facilities, become more energy resilient as a result of investments made by the Federal government during the Sandy recovery. Additionally, the Task Force encourages the alignment of investments in the Nation’s energy infrastructure with the goal of improved resilience and the national policy initiatives regarding climate change, transparency, and innovative technology deployment. Most energy infrastructure is privately owned and operated, which means that resilience investment will come about only through close cooperation between the Federal and State governments and the private sector.”</p> <p><i>Id.</i> at 65.</p>	<p><u>Hurricane Sandy Rebuilding Strategy</u>, Hurricane Sandy Rebuilding Task Force, August, 2013.</p>
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<p>September 1, 2013</p>	<p>“The analysis shows that impacts on a number of environmental resources are associated with the construction and operation of transmission and generation facilities such as those proposed for the Contingency Plan. The resources that may be affected, depending on the specific design of any individual project, include land use patterns, water resources, plants and animals, agricultural resources, aesthetic resources, historic and archaeological resources, open space and recreation, critical environmental areas, air quality, transportation, energy, noise and odor, public health, community character, and socioeconomics. . . .</p> <p>The No Action alternative would result in a significant reliability shortfall and deterioration in utilities’ ability to manage other stresses on their systems. This would lead to both short-term and long-term responses, including maximum use of existing available generation during periods of high demand; maximizing imports; potentially higher electricity prices; and the possible implementation of New York Independent Operator’s (NYISO) emergency operations procedures, which could include load-shedding measures.”</p> <p><i>Id.</i> at 2.</p> <p>“The increased use of natural gas and oil electricity sources would increase emissions in the New York City metropolitan area because existing sources would be required to produce more electricity, using more fossil fuels. Some sources may require expansions of air quality permit emission limits.”</p> <p><i>Id.</i> at 5-43.</p>	<p><u>Indian Point Contingency Plan, Final Generic Environmental Impact Statement (New York Public Service Commission, September, 2013)</u></p> <p>Attachment S-72</p>
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<p>November 1, 2013</p>	<p>President Obama reiterates that climate change is an Administration priority:</p> <p>“The impacts of climate change – including an increase in prolonged periods of excessively high temperatures, more heavy downpours, an increase in wildfires, more severe droughts, permafrost thawing, ocean acidification, and sea-level rise – are already affecting communities, natural resources, ecosystems, economies, and public health across the Nation. These impacts are often most significant for communities that already face economic or health-related challenges, and for species and habitats that are already facing other pressures. Managing these risks requires deliberate preparation, close cooperation, and coordinated planning by the Federal Government, as well as by stakeholders, to facilitate Federal, State, local, tribal, private-sector, and nonprofit-sector efforts to improve climate preparedness and resilience; help safeguard our economy, infrastructure, environment, and natural resources; and provide for the continuity of executive department and agency (agency) operations, services, and programs.”</p> <p><i>Id.</i> at § 1.</p>	<p>Executive Order # 13653, <u>Preparing the United States for the Impacts of Climate Change</u> (November 1, 2013)</p> <p>Attachment S-73</p>
<p>December, 2013</p>	<p>“There are significant questions about the continuation of existing nuclear generation that serves New York City. The nuclear power sector also faces significant regulatory uncertainty, although this could change when next generation technologies, such as modular reactors that promise to be smaller, cheaper, and more reliable, become commercially available. In 2011, the City released its Indian Point Retirement Analysis, describing the impacts of the potential closure of the Indian Point Energy Center. <b><i>Presently, nuclear power provides approximately 30 percent of the city’s electricity; phase out of nuclear energy with natural gas-fired generation is estimated to increase New York City’s green- house gas emissions by approximately 15%. The city also depends on Indian Point for reliability, as congested transmission lines limit power imports from more distant locations. This study assumes a 20 year extension for both units of the Indian Point Energy Center.</i></b>”</p> <p><i>Id.</i> at 60 (emphasis added).</p>	<p><u>PlaNYC—New York City’s Pathways to Deep Carbon Reductions</u> (Mayor’s Office of Long-Term Planning and Sustainability, December, 2013)</p> <p>Attachment S-74</p>

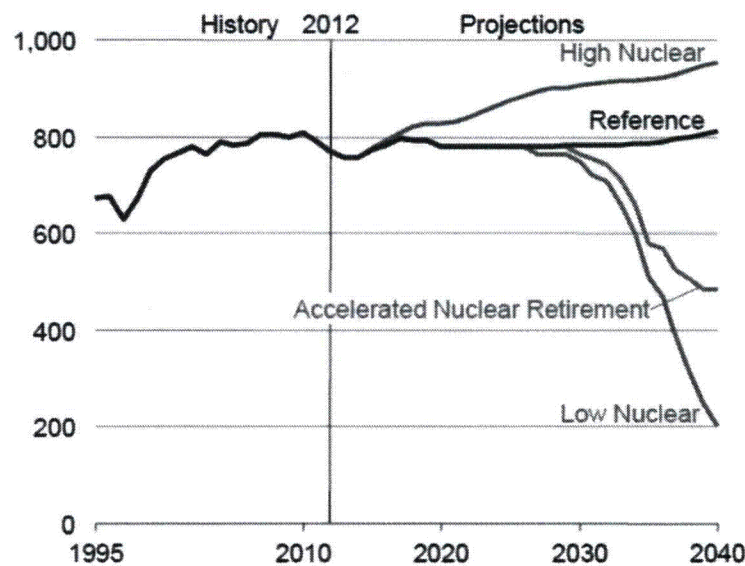
<p>May, 2014</p>	<p>The Third National Climate Change Assessment underscores the urgency of dealing with climate change:</p> <p>“Climate change is already affecting the American people in far-reaching ways. Certain types of extreme weather events with links to climate change have become more frequent and/or intense, including prolonged periods of heat, heavy downpours, and, in some regions, floods and droughts. In addition, warming is causing sea level to rise and glaciers and Arctic sea ice to melt, and oceans are becoming more acidic as they absorb carbon monoxide. These and other aspects of climate change are disrupting people’s lives and damaging some sectors of our economy.”</p> <p><i>Id.</i> at 7</p> <p>One of the mitigation measures identified by the Climate Change Assessment was “reduction of CO<sub>2</sub> emissions from energy supply through the <i>promotion of . . . nuclear energy . .</i>”</p> <p><i>Id.</i> at 654 (emphasis added)</p>	<p>Excerpt from <u>Climate Change Impacts in the United States</u>, U.S. National Climate Assessment, U.S. Global Change Research Program</p> <p>Attachment S-75</p>
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May 7, 2014

EIA's Annual Energy Outlook 2014 "Reference Case" assumes that NRC will authorize operation of the existing U.S. nuclear fleet beyond the initial 40-year license period, into the next 20 years of operation. The Reference Case further assumes that the existing U.S. nuclear fleet will be authorized to operate beyond that 60 year period. *Id.* at IF-35, E-12. Even under the "Accelerated Nuclear Retirement Case," NRC is assumed to authorize plant operation through 60 years.

*Id.* at IF -36, E-7, E-11.

**Figure MT-35. Nuclear electricity generation in four cases, 1995-2040 (billion kilowatthours)**



Excerpt from Annual Energy Outlook 2014, U.S. Energy Information Administration (April, 2014)

Attachment S-76

June 2, 2014

The United States Environmental Protection Agency announces its draft "Clean Power Plan" calling for a 30% reduction of carbon pollution from power plants by 2030 measured against a 2005 baseline. Among the options states can pursue to achieve the reduction of carbon pollution is expanding nuclear power.

U.S. Environmental Protection Agency, Fact Sheet: Clean Power Plan National Framework for States

Attachment S-77

<p>September 16, 2014</p>	<p><b>4.5.3. Indian Point Retirement Assessment</b></p> <p>“Because its owners submitted license renewal applications on a timely basis, the Indian Point Plant is authorized to continue operations throughout its currently ongoing license renewal processes. This scenario studied the impacts if the Indian Point Plant were instead to be retired by the end of 2015 (the later of the two current license expiration dates). Significant violations of transmission security and resource adequacy criteria would occur in 2016 if the Indian Point Plant were to be retired as of that time. These results were determined using the base case assumptions with the additional change that the Con Edison load was modified to incorporate 125 MW of targeted load reduction projects, consisting of 100 MW of Energy Efficiency and Demand Reduction, and 25 MW of Combined Heat and Power distributed generation.</p> <p>“The Indian Point Plant has two base-load units (2,060 MW total) located in Zone H in Southeastern New York, an area of the State that is subject to transmission constraints that limit transfers in that area as demonstrated by the reliability violations that arise by 2019 in the base case. Southeastern New York, with the Indian Point Plant in service, currently relies on transfers to augment existing capacity. Consequently, load growth or loss of generation capacity in this area would aggravate constraints.</p> <p>The transmission security analysis has not materially changed since the 2012 RNA regarding the need year under the Indian Point retirement scenario. The results showed that the shutdown of the Indian Point Plant exacerbates the loading across the UPNY-SENY interface, with the Leeds – Pleasant Valley and Athens – Pleasant Valley 345 kV lines above their LTE ratings in 2016.”</p> <p><i>Id.</i> at 39-40.</p>	<p><u>2014 Reliability Needs Assessment</u>, New York Independent System Operator, Final Report (September 16, 2014)</p> <p>Attachment S-78</p>
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September 16, 2014 (cont.)

“Using the base case load forecast adjusted for the Con Edison EE program, LOLE is 0.31 in 2016 with Indian Point Plant retired, which is a substantial violation of the 0.1 days per year criterion. Beyond 2016, the LOLE continues to escalate due to annual load growth for the remainder of the Study Period reaching an LOLE of 1.17 days per year in 2024. The NYCA LOLE is summarized in Table 4-13 below.

Table 4-13: Indian Point Plant Retirement LOLE Results

Indian Point Plant Retirement	2016	2017	2018	2019
NYCA LOLE	0.31	0.40	0.40	0.59

Indian Point Plant Retirement	2020	2021	2022	2023	2024
NYCA LOLE	0.67	0.76	0.89	1.03	1.17

Compared with 2012 RNA, the resulting LOLE violations are lower, but continue to substantially exceed the LOLE requirement should the Indian Point Plant retire. Note that with the large loss of capacity, the LOLE violations increase exponentially. Other factors, such as Transmission Owner Transmission Solutions (TOTS), decrease the impact of the loss of capacity, but will not solve the violations.”

*Id.* at 40.

2014 Reliability Needs Assessment, New York Independent System Operator, Final Report (September 16, 2014)

Attachment S- 78

<p>September, 2014</p>	<ul style="list-style-type: none"> <li>• “A foundational pillar of our American way of life is access to affordable energy. Today nearly all Americans can obtain electricity, home heating and cooling, cooking fuels, refrigeration, potable water, and communications connectivity. The domestic production and availability of natural gas, oil, nuclear power, coal, hydropower, wind, solar, and other renewables provides Americans with energy security, the access to uninterruptable energy sources at an affordable price.</li> <li>• However, too many Americans suffer from energy insecurity; they cannot afford the energy required to heat or cool their homes or secure other basic needs such as refrigeration. These Americans are still too often faced with harsh choices between paying for energy and paying for food, medical care, and other necessities.”</li> </ul> <p><i>Id.</i> at 1.</p>	<p>U.S. Senators Lisa Murkowski and Tim Scott, <u>Plenty at Stake: Indicators of American Energy Insecurity</u>, An Energy 20/20 White Paper (September, 2014)</p> <p>Attachment S-79</p>
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**LIST OF SUPPLEMENTAL ATTACHMENTS:**

S-1	Alice L. Buck, <u>A History of the Atomic Energy Commission</u> , U.S. Department of Energy, July, 1983
S-2	<u>Report of the Subcommittee on Research and Development on the Five-Year Power Reactor Development Program Proposed by the Atomic Energy Commission</u> , March, 1954
S-3-1, 3-2; 3-3 and 3-4	Deed dated October 30, 1954, recorded at Liber 5392, Page 29; Deed dated December 1, 1954, recorded at Liber 5398, Page 340; Deed dated January 1, 1955, recorded at Liber 5419, Page 283; Deed dated January 31, 1955, recorded at Liber 5538, Page 404
S-4	Excerpt from <u>Major Activities in the Atomic Energy Programs, January—December 1961</u> , United States Atomic Energy Commission, January, 1962, at Appendix 8, <i>License Applications Filed and Actions Taken: Summary of License Actions</i> .
S-5	Excerpt from <u>Final Environmental Statement Relating to the Operation of Indian Point Nuclear Generating Plant No. 3</u> , United States Nuclear Regulatory Commission, February, 1975.  Attachment 21 to Consistency Certification, December, 2012; excerpts included as Attachment S-5 to this Supplemental Filing.
S-6	Message of the Governor in relation to the Use of Atomic Energy for Peaceful Purposes, State of New York Legislative Document No. 46 (1959)
S-7	Act inserting Article 19-D, Atomic Energy Law, and establishing the New York Office of Atomic Development, 1959 N.Y. Sess. Law 72 (McKinney)
S-8	Deed from New York State to Consolidated Edison Company dated October 17, 1959, recorded at Liber 5973, Page 283
S-9	<u>An Atomic Development Plan for the State of New York, A Report to Governor Nelson A. Rockefeller</u> , New York Office of Atomic Development, December 1, 1959.
S-10	Pub. Auth. Law § 1850-a, 1962 N.Y. Sess. Law. 428 (McKinney) (c. 210).
S-11	<u>Civilian Nuclear Power . . . a Report to the President—1962</u> , Atomic Energy Commission, November, 1962
S-12	<u>Energy Resources: A Report to the Committee on Natural Resources</u> , National Academy of Sciences, National Research Council, December, 1962.

S-13	<u>National Power Survey</u> , Federal Power Commission, October 31, 1964.
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