

Statements & Testimony on Indian Point

Written Testimony of New York Independent System Operator Chief Executive Officer to New York Senate Standing Committee on Energy and Telecommunications (Stephen G. Whitley, Chief Executive Officer of New York Independent System Operator, Written Testimony to New York Senate Standing Committee on Energy and Telecommunications, May 12, 2011)

“There are three key points to take away on this topic. First, the immediate shut down of Indian Point without replacement resources could have serious electric reliability consequences during peak load periods, including rolling blackouts.” (p. 5)

Written Testimony of Chief Operating Officer of New York Independent System Operator to New York Senate Standing Committee on Energy and Telecommunications (Rick Gonzales, Senior Vice President and Chief Operating Officer of New York Independent System Operator, Written Testimony to New York Senate Standing Committee on Energy and Telecommunications, May 12, 2011)

“The assessment also found that Southeast New York is a load pocket, similar to New York City and Long Island, which requires the operation of local area generating resources because of the transmission system limitations that currently exist. The capability of the existing electric transmission system is simply not sufficient to allow available upstate New York resources to meet Southeast New York needs if certain local generating resources, such as Indian Point, become unavailable.” (p. 3)

Written Testimony of Con Edison Vice President to New York Senate Standing Committee on Energy and Telecommunications (Joseph P. Oats, Vice President for Energy Management at Con Edison, Written Testimony to New York Senate Standing Committee on Energy and Telecommunications, May 12, 2011)

“Before a permanent shutdown can happen, new facilities and infrastructure must be built and placed into service, meaning the replacement electric capacity and voltage support resources would need to be designed, receive all required permits, be constructed, tested and placed into operation to avoid reliability criteria violations.” (p. 2)

“The time required to plan, site and permit the needed solutions will likely be lengthy, and followed by what could be a lengthy construction period, depending on the solution that is pursued. Indeed, experience shows that it could take up to ten years for some of these projects to be completed.” (p. 3)

SolveClimate News (Alice Kenny, “Possible Indian Point Nuke Shutdown Heightens Economic Fears,” SolveClimate News, July 11, 2011, Available at: <http://insideclimatenews.org/news/20110708/indian-point-nuclear-shutdown-economy-jobs-bloomberg-cuomo-westchester>)

“The plant has the capacity to provide more than 2,000 megawatts of electricity, roughly a quarter of New York City's electricity needs and 12 percent of the entire states, reports the New York Independent System Operator (NYISO), which oversees New York's power markets and distribution. Currently, New York City doesn't have enough alternatives to substitute for Indian Point's electricity, especially during high-demand periods such as in the summer months, NYISO says.” (p. 1)

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Indian Point Energy Center

Indian Point Energy Center Retirement Analysis

(Charles River Associates on behalf of New York City Department of Environmental Protection, August 8, 2011, Available at: http://www.nyc.gov/html/dep/pdf/energy/final_report_d16322_2011-08-02.pdf)

- **Key Facts:** Shutting down Entergy's Indian Point Energy Center would increase electricity prices, have a negative impact on the air people breathe, and create reliability problems throughout a region whose economy depends on a reliable electrical supply.

The DEP commissioned the report from Charles River Associates to analyze the impact of IPEC on the region's economy, environment and supply of reliable electricity.

- **Increased Costs:** Closing IPEC would increase electricity costs. New York City consumers would pay between \$2 billion and \$3 billion in higher energy costs, while on a statewide basis New York State consumers would pay between \$10 billion and \$12 billion in higher energy costs through the year 2030. These figures do not include the cost related to building new power plants needed to replace Indian Point. These additional costs are estimated to be as high as \$2.1 billion. New Yorkers would also incur additional significant costs due to the transmission upgrades needed to deliver power from the new generation sources. While the need for transmission upgrades was identified in the report, no cost estimates were provided.

"Every replacement option studied will result in a cost increase to energy consumers throughout the state, either through increased market prices or subsidies to new generators. If the market is allowed to function without subsidies for new generation, consumer prices will see marked increases. The state market would see wholesale cost increases of approximately \$1.5 billion per year, or roughly a 10% increase under our base-case scenarios. NYC consumers would pay approximately \$300 million per year more for wholesale energy, or approximately a 5-10% increase." (p. 11)

"Our analysis indicates that the additional costs to consumers from the various options range from a total net present value (NPV) of \$691 million for a combined cycle thermal replacement option to over \$2.1 billion for a low-carbon solution. These costs are in addition to increased costs for energy, and given the large uncertainties associated with project development, should be considered a minimum." (p. 11)

- **Loss of Jobs:** Economic impacts to the area include the loss of the 1,100 employees in the region as well as ancillary jobs associated with vendors that provide services and products needed by the plants.

"IPEC's retirements 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. We have focused our analysis

on the electricity market impacts of a potential IPEC retirement, but the ancillary economic impacts may be substantial.” (p. 11)

- **Impact on Grid Reliability:** The reliability of the electricity grid will be compromised without new generation or transmission system additions. The report stated that it is not unusual for a major capital project (500 megawatts or larger) to take four to five years to develop and construct. The report also notes it took a very narrow look at the reliability issue and indicated a more detailed look at transmission limitations and dynamic stability of the grid would be needed to determine the total extent of threat to system reliability.

“Unless new generation or transmission capacity is constructed beyond those additions currently planned, the retirement of IP3 in 2015 would cause the grid to fall short of minimum resource adequacy standards in the summer of 2016, with an LOLE for New York of 0.113. Therefore, new generation or transmission must be constructed if IPEC is to retire.” (p. 12)

- **Increased Pollution:** Because IPEC is able to provide 2,000 megawatts of generation (enough to power approximately 2 million homes) with virtually no air emissions, any option to replace the plants would significantly increase air pollutants. Developing a scenario in which there is no net emissions increase would be extraordinarily expensive.

“IPEC is able to provide approximately 2 GW of baseload generation with no direct air emissions. Its retirement will cause a substantial increase in air emissions under all the scenarios analyzed in our study. Our analysis indicates that both NYC and NYS would see approximately a 15% increase in carbon emissions under most conventional replacement scenarios, with roughly a 7-8% increase in NOx emissions.” (p. 13)

The Effects of Closing Indian Point on Westchester Electrical Rates

(Dr. Marsha Gordon & Paul Vitale, The Business Council of Westchester in conjunction with New York Affordable Reliable Electricity Alliance, December 3, 2008)

- ***IPEC Replacement Options:*** “The New York Independent System Operator (NYISO) projected in its 2008 Comprehensive Reliability Plan that to address specific reliability needs within the state, “1,000 megawatts (MW) of new resources should be located in or available to serve New York City, 1,050 MW should be located in the lower Hudson Valley and 300 MW can be located anywhere in New York State.” If Indian Point Units 2 and 3 are shut down when their current licenses are set to expire in 2013 and 2015 respectively, a gap of approximately 3,050 MW would then exist in the lower Hudson Valley.” (p. 3)

“A gap of over 3,000 MW would consequently cripple lower Westchester’s economy and dramatically increase electric rates for the residential, commercial and industrial sectors, particularly since so much more power would have to be bought on the spot market, leading to higher prices and supply volatility. With electricity prices in Westchester already well over the national average, they could reach up to \$.50 per kilowatt-hour, over three times the national average by 2017.” (p. 3)

- ***Job Losses:*** “Sky-high electricity prices would force many business owners to close or relocate to less expensive areas of the state, or even out of state. According to a 2008 study by the Westchester Business Alliance, the dramatic increase in electricity prices and decrease in reliability would result in “as many as 11,000 fewer jobs; \$2.1 billion in cumulative lost wages and nearly \$5.5 billion in cumulative lost economic output could result in higher energy costs.” (p. 3)
- ***Tax Increases:*** “In addition to the potential spike in retail prices, Westchester County would be forced to absorb the additional utility costs to villages, school districts and other taxpayer supported agencies, not to mention the loss in tax base from the discontinued operations of a major industrial taxpayer, i.e., Indian Point.” (p. 4)

“As reported in a June 2006 study by the National Academy of Sciences (NAS) titled ‘Alternatives to the Indian Point Energy Center for Meeting New York Electric Power Needs,’ combined cycle natural gas plants are the only practical replacement option that could offset the loss of Indian Point’s power in the near-term. However, the construction of at least four to five combined cycle natural gas plants to replace Indian Point, would create nearly insurmountable siting and regulatory obstacles (a standard size combined cycle natural gas plant has a net capacity of 408 MW), as concluded by the NAS.” (p. 4)

- ***Plant Safety:*** “An independent safety evaluation panel concluded in the summer of 2007 that Indian Point is a safe plant that meets all U.S. Nuclear Regulatory Commission requirements, and plant safety systems are well maintained and reliable. Indian Point’s performance compares favorably to high-performing plants in most aspects of nuclear safety.” (p. 5)

- **Environmental Impact:** “Unlike nuclear energy, natural gas would also increase the region’s greenhouse gas emissions, making it nearly impossible for reaching carbon emissions elimination targets as agreed to by New York State as a partner in the nine-state Regional Greenhouse Gas Initiative. Natural gas is also subject to severe price fluctuations.” (p. 4)

“Renewable options are also difficult to site and require significant amounts of land, especially the installation of wind turbines or photovoltaic panels. While these sources can play a role in meeting New York State’s total energy supply and should be factored into a more diverse portfolio of power sources, they cannot serve as a viable replacement for base load power sources as they are intermittent in their production – only when the sun shines or the wind blows.” (p. 4)

Independent Safety Evaluation

(Indian Point Safety Evaluation Panel on their observations and conclusions regarding operations at Indian Point, July 31, 2008, Available at: <http://nyindianpoint.org/images/Full%20Report.pdf>)

- **Plant Safety:** “In nuclear safety, Indian Point’s performance is good, and compares favorably to high-performing plants in most aspects of nuclear safety.” (p. 15)
 - “The ISE Nuclear Safety Team concludes that the plant is physically sound and is being operated safely. From a nuclear safety standpoint, Indian Point is generally comparable to that of high performing U.S. nuclear power plants. As with all nuclear plants, there are areas where improvements can be made, as noted in the report. And while this review was not focused on regulatory compliance, the team found no instance of non-compliance with regulations.” (p. 62)
 - “The team noted several strengths germane to nuclear safety, particularly the positive attitude and professionalism of station personnel. Observed crew performance in control rooms and simulator was excellent. Nuclear safety systems and equipment were found to be reliable and in good material condition.” (p. 62)
- **Plant Security:** “Based on its evaluation of IPEC security, the ISE Security Team concludes that the security posture at the station is sufficient to meet the DBT imposed upon it by regulation. Furthermore, as confirmed by personal observation and table-top exercises, the Team concludes that the IPEC security force would be able to defend the station from land and water based interventions from forces armed to levels beyond the DBT.” (p. 94)
 - “Indian Point security compares favorably to high-performing U.S. nuclear plants in a number of areas, but needs upgrading in others. The ISE Panel judges Indian Point security to meet the highest standards of international nuclear facilities and to be superior to most complex non-nuclear U.S. industrial facilities.” (p. 94)
 - “Considering IPEC security in terms of its detection, assessment and response capabilities, the Team concludes:
 - “The equipment and procedures for detecting challenges to the safety and security of the station are in compliance with NRC requirements. Some of the equipment, however, is old and should be brought up to current technological standards; likewise, some process could be enhanced.
 - “The equipment and procedures by which the security force assesses potential interventions onto the site is also in compliance with federal requirements and allows for an accurate determination of vulnerabilities and challenges.

Reliability

Power Trends 2011: Energizing New York's Legacy of Leadership

New York Independent System Operator 2011 Reliability Report (New York Independent System Operator, Available at: http://www.nyiso.com/public/webdocs/newsroom/power_trends/Power_Trends_2011.pdf)

- “Without the development of adequate replacement generation in southeastern New York, retirement of both nuclear units at the Indian Point Energy Center when their current licenses expire would result in violations of reliability standards in 2016. Impacts would include loss of power supply and transmission voltage support affecting the metropolitan New York region.” (p. 39)

Environment

PlaNYC Update: April 2011

The City of New York's PlaNYC Report (City of New York, April 2011, Available at: http://nytelecom.vo.llnwd.net/o15/agencies/planyc2030/pdf/planyc_2011_planyc_full_report.pdf)

- “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 GHG emissions 30% by 2030.” (p. 112)
- “Local air pollution would increase and our efforts to reduce GHG emissions 30% by 2030 would be unachievable because we would most likely shift to electricity generated by more carbon-intensive sources.” (p. 117)

What Others Are Saying About Indian Point

Indian Point is essential for New York’s economic recovery, jobs, and grid reliability.

- **Jerry Kremer, Chairman of the New York Affordable Reliable Electricity Alliance (New York AREA) and a former Chairman of the New York Assembly Ways and Means Committee:** “While New York has made important energy strides in recent years, Indian Point remains essential to New York, especially the City and downstate region, where it provides up to 30 percent of the electricity on a typical day. Due to such factors as growing future demand, the rise in the use of electric cars, the retirement of many aging fossil fuel facilities, and the challenges faced by downstate New York to improve its air quality, Indian Point will be more crucial to the region’s economy in five years than it is today.” (*New York AREA Press Release, January 12, 2012*)
- **Mario Cilento, President of the New York State AFL-CIO:** “New York's number one priority is creating and retaining good jobs. Closing Indian Point would have the exact opposite effect. Obviously, the workers at the facility would be impacted, but more than that, the closure would be a blow to our economy as a whole. We need more, not less, clean and low-cost power, like that which is generated at Indian Point, to enable New York's residents and businesses to thrive in the face of ever-increasing competition.” (*New York AREA Press Release, January 12, 2012*)
- **Gavin Donohue, President and CEO of the Independent Power Producers of New York:** “The continued operation of Indian Point is vital to the reliability of our state’s electric system, as well as to the region’s economy. Indian Point provides 2,000 MW of electricity, more than 1,000 jobs, and pays more than \$75 million dollars in taxes. New York should not make the decision to forgo a safe, secure, and vital source of energy that provides economic stability, a reliable power supply, and helps the state achieve its environmental goals. In his State of the State address last week, Governor Cuomo recognized the importance of energy and infrastructure as key to maintaining and growing our economy. The continued operation of Indian Point helps to maintain a positive climate for new investment and reinforces New York's commitment to creating jobs and opportunity here in the Empire State.” (*New York AREA Press Release, January 12, 2012*)
- **John Ravitz, Executive Vice President & COO of the Business Council of Westchester:** “New York needs to send out consistent and clear signals that we are open for business so that we attract the investments necessary to revitalize our economy. Shutting down Westchester-based Indian Point would eliminate 11 percent of the state’s electricity and say to investors and businesses, especially in energy-intensive industries like manufacturing, that New York is not business-friendly.” Note: Mr. Ravitz is also a former member of the New York State Assembly. (*New York AREA Press Release, January 12, 2012*)

- **Ed Malloy, President of the New York State & New York City Building & Construction Trades Council:** “The New York State Building & Construction Trades Council, representing more than 200,000 unionized construction workers, supports the relicensing of Indian Point. Producing clean, green energy at Indian Point over the next twenty years will require more than 44 million man-hours of work for building trades members who will earn more than \$1.8 billion. Failure to relicense could result in the need to import power from other states or Canada, effectively eliminating certain jobs, reducing New York’s tax base, and adding additional strain to our already struggling economy. Relicensing is the only option that makes sense.” (*New York AREA Press Release, January 12, 2012*)
- **Dr. Matthew Cordaro (Former President of the Midwest ISO, a regional transmission organization serving 11 U.S. states):** “It is hard to deny Indian Point’s vital contribution to New York’s grid reliability. The New York Independent System Operator has made this clear on numerous occasions. In New York City, where the transmission challenges are as intricate and overwhelming as anywhere in the world, the loss of Indian Point’s power would create serious problems.” (*New York AREA Press Release, January 12, 2012*)
- **Tom Klein, Business Manager of Boilermakers Local 5:** “Our members, many of whom work at the plant, know Indian Point is a safe and modern facility that continually undergoes rigorous scrutiny and deservedly earns high grades from the U.S. Nuclear Regulatory Commission. If we had any doubt about the plant’s safety, our members would not work there or, as many of them do, live in close proximity to the plant with their families.” (*New York AREA Press Release, January 12, 2012*)
- **Norris McDonald, President of the African American Environmentalist Association:** “The Charles River Associates study found that New York would become a dirtier and less healthy place to live without Indian Point. The firm said, ‘Our analysis indicates that both the City and State would see approximately a 15 percent increase in carbon emissions under most conventional replacement scenarios, with roughly 7-8% in NOx [nitrous oxide] emissions.’ The NOx findings are very disturbing, as NOx is linked to a number of adverse effects on the respiratory system which impact children and the elderly in particular.” (*New York AREA Press Release, January 12, 2012*)
- **Michael Cavanaugh, Business Manager of the Millwright and Machinery Erectors Local 740:** “New York needs the thousands of jobs that come directly from Indian Point, and as a result of Indian Point’s operation. Now is not the time to enact policies which eliminate jobs in New York! In fact, an independent study a few years ago found that Indian Point generates nearly \$1 billion in annual economic activity for New York. In these tough times, unnecessary and higher energy costs would amount to a politically-imposed tax on the hard working people of this state who are already struggling to get by.” (*New York AREA Press Release, January 12, 2012*)

- **Lenny Caro, President & CEO, of the Bronx Chamber of Commerce:** “The Bronx’ many small to mid-sized and entrepreneurial businesses need ample, affordable power to not only survive, but create new jobs. New York must not stifle that opportunity by adding new layers of costs or other hurdles in the pathway to economic recovery. The Charles River study, commissioned by the Bloomberg Administration, shows that the economic and environmental health of our city is dependent on safe, economic, and clean sources of energy. Upgrading our energy infrastructure, while keeping facilities like Indian Point, makes sense both environmentally and economically.” (*New York AREA Press Release*, January 12, 2012)

Indian Point generates affordable electricity and closing the facility would lead to higher electricity bills.

- **Greg David, Columnist at *Crain’s New York Business*:** “Indian Point is the lowest cost energy available in New York, which has among the highest electric costs in the nation. Whatever replaces Indian Point will drive up the cost of energy, which will be bad for the economy.” (*Crain’s New York Business*, June 30, 2011)
- **Joseph Oats, Vice President of Con Edison:** “As a result, the shutdown of the Indian Point units would increase the cost of electricity for consumers, would increase greenhouse gases and other air emissions in the region, and would impact the local economy.” (Joseph P. Oats, Vice President for Energy Management at Con Edison, Written Testimony to New York Senate Standing Committee on Energy and Telecommunications, p. 2, May 12, 2011)
- **New York State Senator George Maziarz:** “If Indian Point is closed, residential and business energy costs are going to rise dramatically in downstate New York ... It is going to drive jobs out of New York.” (*The New York Times*, March 22, 2011)

Indian Point is vital to maintaining a reliable electrical grid and its closure would result in rolling blackouts.

- **New York City Mayor Michael Bloomberg:** “Well, if you closed Indian Point down today we’d have enormous blackouts ... There is no alternative to the energy that we get from Indian Point.” (*Crain’s New York Business*, June 30, 2011)
- **Stephen Whitley, President and CEO of the New York Independent System Operator (NYISO):** “The immediate shutdown of Indian Point without replacement resources could have serious electric reliability consequences ... including rolling blackouts ... The economic costs ... can total billions of dollars a day.” (*SolveClimate News*, July 8, 2011)
- **Joseph Oats, Vice President of Con Edison:** “Indian Point’s current electricity production is required to maintain electric system reliability.” (Joseph P. Oats, Vice President for Energy Management at Con Edison, Written Testimony to New York Senate Standing Committee on Energy and Telecommunications, p. 1, May 12, 2011)

Indian Point produces clean, emission-free electricity and its closure would result in increased air pollution.

- **Dr. Josh Bloom, Director of Chemical and Pharmaceutical Sciences of the American Council of Science and Health:** “[N]uclear power has no emissions at all. This is clean energy.” (*American Council of Science and Health*, July 5, 2011)
- **Marcia Bystryn, President of the New York League of Conservation Voters:** “Whatever other alternatives are put in place to generate that power that we’ll lose, the air will inevitably be dirtier.” (*The New York Times*, July 6, 2011)
- **The Daily Editorial Staff:** “Indian Point is virtually emission-free. And because wind and solar energy cannot meet New York City’s demands, Indian Point is the only viable clean energy supplier.” (*The Daily*, July 5, 2011)

Indian Point is safe and secure. Employees plan and train every day to expect the unexpected.

- **Gregory Jaczko, Chairman of the Nuclear Regulatory Commission:** “The [NRC] closely monitors the operation of all nuclear facilities to ensure that they meet our very stringent safety and security requirements ... Indian Point meets those requirements.” (*CNN*, May 10, 2011)
- **U.S. Congresswoman Nan Hayworth:** “Indian Point is run with an eye to safety and I am confident that it is an important source of power and of jobs for our area that we can feel confident is being run in a manner that is sound and consistent with our strict regulatory standards.” (*MidHudson News*, May 13, 2011)
- **Deborah Milone, Executive Director of the Hudson Valley Gateway Chamber of Commerce:** “Make no mistake, we are all concerned about safety; we live here, we work here, we raise our families here, however, these plants have gotten a green rating from the NRC for continuous years.” (*Mid Hudson News*, May 11, 2011)
- **Westchester County Executive Rob Astorino:** “With regard to Indian Point, it is always safety first. The most important thing we can do right now is gather the facts and do it in a steady, comprehensive way so that we have the best information possible available to us ... People should be re-assured that Indian Point preparedness is a 365-day-a-year job.” (*WestchesterNewsOnline.com*, 2011)

Indian Point is “critical” to the region’s economic prosperity and closing it would hamper economic development.

- **New York City Mayor Michael Bloomberg:** “Indian Point is critical to the city's economic viability.” (*SolveClimate News*, July 11, 2011)

- **Bill Mooney, President of the Westchester County Association:** “The Westchester County Association supports the continued operations of the Indian Point Energy Center and has serious concerns related to calls to close the facility ... Our economic development efforts to attract and retain business to a region already saddled with high energy costs and an unfavorable business climate will only be hampered if the growing demand for electricity will be become unavailable and/or cost prohibitive by taking Indian Point off line.” (*Westchester Counter Association Press Statement*, June 30, 2011)
- **Town of Chester Supervisor Steven Neuhaus:** “Indian Point provides anywhere from 16 to 30 percent of New York City’s energy needs and it’s a very clean source of producing electricity. A shutdown of this plant would have a major economic impact on the residents and businesses in my community.” (*MidHudson News*, May 1, 2011)
- **Town of Deerpark Supervisor Karl Brabenec:** “If the plant is forced to shut down, ‘it will have severe energy shortage implications on New York’s electricity grid, which will have a profound domino effect on the residents of my community ... Closing the plant would put more people out of work ... which is not what you need in this struggling economy.” (*MidHudson News*, May 1, 2011)
- **Tom Klein, Business Manager of Boilermakers Local 5:** “A union’s main purpose is to negotiate both good wages and safe working environment for its members. Indian Point has consistently shown a rigorous commitment to safety of not only our workers, but members of the surrounding community.” (*Reliable News*, Spring 2009)
- **George Miranda, Eastern Region Vice President of the Teamsters:** “Relicensing Indian Point is the right move for New York’s union workers. The plant is not only the backbone of the downstate region’s supply of clean and affordable electricity; it employs thousands of highly skilled, often unionized, workers.” (*New York Post*, September 24, 2009)