Assembly Standing Committee on Energy
Assemblyman Kevin A. Cahill, Chairman

Assembly Standing Committee on Corporations, Authorities and Commissions
Assemblyman James F. Brennan, Chairman

Public Hearing

"Potential Closure of Indian Point Energy Center (IPEC)"
Written Testimony of Rick Gonzales
January 12, 2012

Welcome and Introductions

Good afternoon Chairman Cahill, Chairman Brennan, and Members of the Committee on Energy and the Committee on Corporations, Authorities and Commissions. Thank you for the opportunity to participate in today's hearing.

My name is Rick Gonzales. I serve as Senior Vice President and Chief Operating Officer for the New York ISO. I am responsible for New York State's grid reliability and market operations, as well as the ISO's system planning functions. I have been with the New York ISO since its formation in 1999.

Functions of NYISO

The NYISO carries out several important functions for the State of New York. Our primary mission is to reliably operate New York's bulk electric system in accordance with all national, regional and state-specific reliability requirements. Second, we administer New York's competitive wholesale electricity markets to allow generators and other suppliers to sell power to utilities and those other parties who provide it directly to New York consumers. Third, the NYISO conducts future reliability and economic planning processes and participates as a member of the State Energy Planning Board.

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The NYISO is not testifying today about whether a shutdown of Indian Point Energy Center should or should not occur. Rather, I am here today to discuss the potential impacts to New York if Indian Point were to close. There are three key points to take away on this topic.

- First, to meet reliability requirements, replacement resources have to be in place prior to a closure of the Indian Point Energy Center. Failure to do so would have serious reliability consequences, including the possibility of rolling customer blackouts.
- Second, due to New York's existing transmission limitations, new generation, additional demand response, and limited transmission upgrades would likely be the potential solutions in response to an Indian Point closure in the next three to five years.
- Third, New York's transmission system is aging and many facilities will require replacement over the next 20 years. Whether Indian Point remains in service or not, it may very well be prudent to pursue upgrades to the existing transmission system to make better use of statewide generating resources, including renewables from wind power projects

already developed and for those additionally proposed throughout upstate New York.

I would like to take a few minutes to address both the potential market and reliability impacts resulting from the closure of Indian Point. After my testimony, I will be glad to answer any questions you may have.

Market Impact

With respect to market impacts, electricity generated by the Indian Point Energy Center represents about 30% of the power consumed by New York City. The cost to generate electricity from an existing nuclear power facility is likely to be less than any other replacement generation option available. Therefore, the cost of electricity to serve New York may increase if Indian Point is retired. Since the mix of potential replacement supply is not known at this time, it is not possible to determine what the actual cost increases might be.

Impact on Reliability

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With respect to the potential impacts on reliability, I would first like to review with the Committee how reliability requirements for New York are established. The North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council (NPCC), and the New York State Reliability Council are the agencies that set and enforce New York's reliability requirements. These three agencies provide for compliance oversight and enforcement by routinely performing audits on the NYISO and the other New York electric utilities. The New York Public Service Commission has also adopted the NPCC and New York State Reliability Council rules as state regulations.

To ensure the NYISO continues to meet these reliability requirements, we have developed a robust planning process. Every two years we perform a Reliability Needs Assessment (RNA) to examine whether the bulk electric power system in New York will have sufficient resources to maintain reliable electric service over a ten-year planning horizon. If we determine a reliability need, we report those findings and solicit market-based solutions to meet the identified need. At the same time, we require the affected New York State Transmission Owners (TOs) to submit a "regulated backstop solution" that could be implemented in case adequate market-based solutions do not materialize. In the event that market-based solutions are not sufficient, the New York Public Service Commission decides what backstop solution project should be built in collaboration with

the NYISO and the affected Transmission Owners. The NYISO itself does not select or build projects to meet reliability needs.

The New York ISO's 2010 RNA assumed the Indian Point Energy Center would be available, as no decision had been made to close the plant by federal or state regulators or by the plant's owners. The report found that New York would meet all reliability requirements until 2020. There are three primary reasons why no reliability needs were identified. First, the RNA assumed the continued operation of Indian Point. Second, the analysis included over 1,000 megawatts of new power plants that are now already or expected to be on line by 2012. Third, forecasts of load growth have declined due to the recession and because of the state's energy efficiency programs.

The NYISO also evaluated a number of scenarios to determine the impact they might have on the future reliable operations. One scenario evaluated the impact of a closure of the Indian Point Energy Center. The NYISO found that, without Indian Point, replacement resources would be needed to maintain reliability beginning in 2016. Our studies have found that, absent Indian Point or absent adequate replacement resources, there would be a deficiency of over 1,200 megawatts by the summer of 2016, and this deficiency would increase over time.

Simply put, this means that adequate replacement resources are required **prior** to a closure of Indian Point, otherwise New York will not meet its' reliability standards.

Statewide, New York has more than an adequate level of generation capacity. However, the capability of the existing electric transmission system is not sufficient to allow upstate supply to fully meet demand in the Southeast portion of the State.

Possible Solutions if Indian Point Becomes Unavailable

These reliability assessments performed by the NYISO raise the question of what replacement solutions could be available in the short term. The Hudson Transmission Project is currently under construction and will provide 320 megawatts of supply to the New York City Area by mid-year 2013.

Additionally, there are a number of generation projects proposed in Southeast New York that may come into service by 2015. These projects could add up to 2,000 megawatts of new resource capability. Also, several transmission projects have been proposed that could bring up to 3,000 megawatts of additional capability into Southeastern New York by 2016. However, it is unclear at this time when, or if, any of these transmission projects will be built.

Transmission Reinforcement

Today's discussion about the impact of Indian Point provides us with an opportunity to discuss the benefits of improving New York's electric system. A short-term solution to an Indian Point shutdown would likely consist of new natural gas-fired

generation in, or near, the New York City metropolitan area. Another possibility might consist of transmission upgrades that could be made in the short-term. Generally, new generation resources can be added more quickly than major transmission upgrades. Also, increasing the potential for demand response during peak load times could also be part of the solution. However, we should use this opportunity to look at long-term solutions, with consideration to replacing aging transmission infrastructure with upgraded, expanded facilities along existing rights-of-way. I was very appreciative of the focus the Governor placed on upgrading New York's aging transmission system during his recent State of the State address.

Upgrades to the existing transmission system could provide reliability benefits by allowing upstate resources to meet the needs of the New York City metropolitan area. These same transmission upgrades could provide consumer benefits by relieving some of the historic congestion bottlenecks that continue to impact the economic operation of New York's electric system.

As a complement to the NYISO's planning processes, the New York Transmission Owners have initiated a joint study of the state's electric system to help address future electricity needs and support the growth of renewable energy resources.

The New York State Transmission Assessment and Reliability Study, known as "STARS", is a study evaluating New York's aging transmission infrastructure and the potential for beneficial transmission projects.

Eighty four (84) percent of New York's high-voltage transmission lines were built prior to 1980 and the STARS initiative will estimate the potential costs and benefits realized by upgrading these aging facilities with greater capacity.

There are potential STARS projects that could increase transfer capabilities by over 1,500 megawatts from upstate to Southeast New York. By improving the capability of the Central to East and Leeds to Pleasant Valley transmission corridors, New York could increase its ability to move excess generation from upstate to downstate load centers. The upstate and western areas of New York State have the greatest potential for the development of renewable resources. I believe such transmission upgrades would also add significant reliability benefits by allowing for a more diverse set of generating resources to meet New York's electric needs.

Closing

In closing, I would like to reiterate the three points I mentioned at the outset.

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- First: To meet reliability requirements, replacement resources have to be in place prior to a closure of the Indian Point Energy Center.

- Second: Due to New York's existing transmission limitations, new generation, additional demand response, and limited transmission upgrades would be the likely potential solutions in response to an Indian Point closure in the next three to five years.

- Third: Due to New York's aging transmission infrastructure, we have an opportunity to pursue beneficial upgrades to New York's transmission system - with or without the closing of Indian Point.

Thank you, Chairman Cahill and Chairman Brennan for this opportunity to inform your Committees in examining this important issue. I look forward to your questions.