NEW YORK INDEPENDENT SYSTEM OPERATOR

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September 20, 2010

By Electronic Filing

Mr. Jonathan Schrag,
Executive Director
Regional Greenhouse Gas Initiative, Inc.
90 Church St, 4th Floor
New York, NY 10007

Dear Mr. Schrag,

The NYISO supports the goals of RGGI program and looks forward to being a participant in the stakeholder process. To provide assistance in the effort to develop the Reference Case, the NYISO suggests that the following sources of information be utilized in this effort.

The NYISO's Load & Capacity Report ("Gold Book") and its Reliability Needs Assessment ("RNA") provide sources of data and analysis for the IPM on load and generation in the New York Control Area[1]. Information developed in connection with NYISO's economic planning process - the Congestion Assessment & Resource Integration Study (CARIS) - may also provide useful information on Load and generation in the NYCA, over the longer term. Given the longer-term perspective used in developing the modeling for economic planning, the CARIS data provides extended forecasts useful for the modeling process being conducted by ICF. Additionally, the scenarios analyzed in the NYISO's CARIS Phase I report can provide input for some scenarios that IPM might examine. CARIS data and the scenarios evaluated in the CARIS process are both available in the Phase I Report.[2] The NYISO is currently developing twenty-year forecasts for the CARIS Phase II Report. When complete these may also provide input for some scenarios that IPM might examine.

[1] The Gold Book is available at: http://www.nyiso.com/public/webdocs/services/planning/planning_data_reference_documents/2010_GoldBook_Public_Final_033110.pdf. The RNA assumptions are available at http://www.nyiso.com/public/webdocs/committees/mc/meeting_materials/2010-08-25/agenda_06_RNA_2010_Draft_6_MC_81810.pdf

[2] The report is available at http://www.nyiso.com/public/webdocs/services/planning/Caris_Report_Final/CARIS_Final_Report_1-19-10.pdf

The following questions, observations, and suggestions pertain to the presentation made during the Sep. 13, 2010 Stakeholder Meeting and the discussions related to determining the assumptions behind the IPM Reference Case.

Category A

- In general, all of the dollar-denominated figures in the presentation were expressed in real terms, i.e. in 2008 $. In the NYISO's view, it reasonable to expect that, for example, the average rate of annual change in natural gas prices will differ from the corresponding rate for, say, EPC costs due to the different underlying market forces. This implies that a different implicit deflator lies behind each category of prices/costs. Will the IPM explicitly recognize such economic disparities, and if so, how?

- ICF intends to use EIA's levelized-cost forecasts as the basis for establishing capital and O&M cost structures for new generation. The related information in the 2010 AEO (Fig. 63, p. 67) lacks detail and rests on the assumption that substantial technological improvement will lower per-kW costs over the 2020 – 2035 period. What will be the basis for establishing the progression of capital cost reductions (by technology) during the 2010-2020 period?

- NYISO's capacity market is based on separate demand curves for the individual capacity zones. The parameters of each demand curve rests on a regionally-specific structure of per-kW costs of 'new entry.' IPM may want to consider using the demand curve assumptions in determining regional differences in capital costs.[3]

Category B

- NYISO agrees with the assumptions regarding the underlying base forecast of fuel prices. The long-term fuel price forecasts currently being used for the CARIS analyses are also based on EIA's 2010 AEO figures and incorporate insight from historical spot prices across various trading hubs, third-party data etc. to apply the appropriate basis and seasonality for region-specific forecasts. Natural gas prices for downstate NY load zones and ISO-NE states are significantly higher when compared to PJM's mid-Atlantic states and the upstate NY zones. Differing perceptions about the potential for the Marcellus Shale

[3] The final NERA-developed Demand Curve Report can be found at: http://www.nyiso.com/public/committees/documents.jsp?com=bic_icapwg&directory=2010-09-16. Please refer to the clean versions of the Demand Curve Study Report and the NYISO Demand Curve Recommendations

fields to provide additional natural gas reserves may also produce differences in how parties view medium- to long-term patterns in delivered natural gas prices.

- A major factor that shapes forecasts of energy usage and peak loads is the assumed impact of energy efficiency measures being implemented during the study period. We expect that there will be serious deliberations about the assumed levels and time-path of these impacts. In fact, among the scenarios being considered as part of CARIS Phase II, NYISO's stakeholders placed the highest importance on simulating the system implications of higher than predicted energy efficiency related savings. While the NYISO has observed that energy efficiency program expenditures and their observed/projected impacts are exhibiting significant growth in the post-recession period, the actual impact in future years of these measures will depend on State budgetary considerations.

- The advent of smart metering and dynamic retail pricing is assumed to increase the responsiveness of demand. The increasingly direct relationship of natural gas prices and wholesale electric prices may lead to a similar and increasingly direct relationship between the price of natural gas and energy demand. The NYISO suggests that IPM explore the potential impacts of efficiency measures with the market-changes that may result from policies related to Smart Grid technologies (including, possibly, PHEVs).

<u>Category C & D</u>

- Understandably, the area of federal and state environmental policies presents the greatest amount of uncertainty for the IPM process. NYISO agrees with the structure of assumptions being suggested.

- Presumably, the production–cost modeling incorporates policies/regulations through the use of cost-adders. With the decline in relevance of allowance prices transmitted by the derivatives market, there is considerable disparity in the emissions costs being assumed by planning modelers across control areas. The IPM process can gain from a transparent discussion of the assumed path and progression of regulatory measures and the resulting quantification in the form of assumed cost-adders for SO_2, NOx, and Carbon.

- As some parties mentioned at the Stakeholder meeting, NYISO conducts a variety of analyses in which environmental policies are allowed to feed back into projected generation retirements. The NYISO would be glad to assist in the development of a similar scenario by IPM.

The NYISO also suggests the following scenarios be considered for this modeling exercise.

- Indian Point Retirement
- Retirement of a Set of Generators Subject to NYSDEC's Best Technology Available
- Retirement of a Set of Generators Subject to New USEPA and State Emission Reduction Regulations
- Retirement of a Set of Generators with Poor Economic Performance
- Sensitivity Cases for High and Low Penetration of Energy Efficiency Programs
- Sensitivity Cases for High and Low Renewable Portfolio Standard Requirements
- Sensitivity Cases for High and Low Load Forecasts
- Sensitivity Cases for High and Low Fuel Forecasts

Respectfully;

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