CON EDISON AND ORANGE AND ROCKLAND COMMENTS ON THE REGIONAL GREENHOUSE GAS INITIATIVE REFERENCE CASE ASSUMPTIONS FOR ELECTRICITY SECTOR MODELING

October 5, 2011

Consolidated Edison Company of New York, Inc. ("Con Edison") and Orange and Rockland Utilities, Inc. (together, "the Companies") submit the following comments on the Reference Case that will be used as a baseline for electricity sector modeling in the 2012 program review of the Regional Greenhouse Gas Initiative (RGGI).

Introduction

The Companies appreciate the opportunity to provide stakeholder comments in preparation for the RGGI Participating States' 2012 program review. The Companies support efforts by RGGI, Inc., on behalf of the Participating States, to review the program at this juncture. We believe an appropriate review will help elicit and explain the impacts that decisions can have on the environmental and economic future of the region and thereby enable policy makers to make informed decisions. As such, we support a transparent review process that includes collaboration with a broad spectrum of stakeholders. Since its inception in 2005, one of the RGGI program's notable successes has been its sustained emphasis on partnership in policy development across jurisdictions and industry segments. The Companies are pleased to see the same spirit of cooperation continue in the current program review.

In these comments the Companies offer input on the Reference Case that the Participating States have developed to establish a baseline for future electricity needs and carbon dioxide (CO_2) emissions of the RGGI region. The Reference Case is the foundation that will allow the Participating States to model various policy options. Developing a Reference Case that

is consistent with resource plans developed in other forums will enable Participating States and interested stakeholders to make sound policy decisions during the 2012 program review. With that objective in mind, the Companies offer the following suggestions and insights to enhance the Reference Case. The Companies may offer additional insights on the Reference Case as we explore it further, in addition to any comments we have on the policy scenarios that will be developed by the Participating States as part of the program review.

Assumptions Should Be Based on Known Criteria and Reflect the Best Available Information

The Companies believe that it is critical for RGGI's analysis to remain consistent with assumptions made in the latest regional planning studies conducted by the Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), so that the Participating States can make informed policy decisions that take into account reliability issues. From a resource planning perspective, the regional RTO/ISO studies such as the NYISO Resource Needs Assessment (RNA), the NYISO Load and Capacity document (the 'Gold Book') and the PJM Regional Transmission Expansion Plan reflect the 'best available information,' and should only be modified for the RGGI Reference Case if future expectations have changed as a result of definitive events.

To assist stakeholders in assessing the assumptions used in the Reference Case and forthcoming policy scenarios, the Companies suggest that RGGI, Inc. outline the overarching criteria used to specify assumptions for the Reference Case. Information provided to stakeholders to date does not clearly describe these criteria, making the process less transparent, and thereby reducing the confidence of stakeholders when evaluating modeling of future policy options. By providing clear criteria for specifying assumptions, consistent with sound resource

planning principles, RGGI, Inc. will also bring to light the rationale behind assumptions that deviate from the RTO/ISO planning studies.

Model Indian Point as Operational in the Baseline Scenario

RGGI's Reference Case includes a critical assumption that Units 2 and 3 at the Indian Point (IP) nuclear power plant are retired when their current nuclear operating licenses expire in 2013 and 2015, respectively. The Companies believe that the IP units should be included in the RGGI Reference Case as operating at their current capability through the 2020 planning period, with scenarios used to evaluate IP units retired, as a sensitivity to the Reference Case. As discussed above, sound energy policy should be built on a foundation of the best available information and consistent assumptions, with scenarios developed for the study of potentially significant events. Applying this principle to the modeling of the IP units, consistent with the NYISO and other regional plans, it is more appropriate to assume that the IP units are operating for the period covered by the RGGI baseline scenario.

The Companies also are concerned that RGGI's modeling solution for a Reference Case that includes IP retirement may be insufficient to meet bulk system loss of load reliability criteria of one day in ten years. The NYISO's 2010 RNA shows that under a scenario where each of the two IP units retires at the end of its nuclear operating license, a resource adequacy need is immediately triggered upon retirement of Unit 3 in December 2015. RGGI's Reference Case solution only adds 1,318 MWs of new combined cycle capacity in New York State over the planning horizon, which is just enough to meet New York State load growth from 2016 to 2020,

plus the corresponding reserve requirement.[1] This would leave none of the new capacity in the Reference Case to replace approximately 2,000 MWs of retiring IP capacity.

NYISO Reserve Margins are Not Appropriate as Modeled

The Companies recommend that the Participating States reconsider the Reference Case assumptions related to reserve margins in the NYISO control area. As modeled, RGGI's Reference Case assumes that the NYISO installed reserve margin (IRM) remains at a steady 15.5 percent throughout the scenario timeline, with local reserve requirements of 80 percent and 104.5 percent for Zones J and K, respectively. However, a steady IRM requirement set at the current level does not consider the process by which the IRM is set nor recent history of the IRM itself. The IRM is recalculated annually in New York and has varied between 15 and 18 percent in the last six years.[2] In order to reflect the likely variation of the IRM during the planning horizon, the Companies suggest that RGGI consider an IRM for the NYISO that reflects a historical average, such as the average of IRMs from 2006 to 2011, or 16.5 percent.

IPM Does Not Factor in Local Reliability Rules in New York City

The Companies recommend that RGGI, Inc. carefully evaluate any output generated by Integrated Planning Model (IPM) in light of the recent experience with the United States Environmental Protection Agency (EPA) Cross State Air Pollution Rule (CSAPR). The IPM output files provided by EPA, and the technical support documents provided in the rulemaking docket, indicate that the IPM did not correctly incorporate any of the local reliability rules and the minimum oil burn rules that are so critical to the reliable operation of the New York City electric and steam systems. Among other issues, the IPM modeled a significant under-

[1] NYISO, 2011 Load and Capacity Data (Gold Book).
[2] IRM values for the years 2006 through 2011 were 18%, 16.5%, 15%, 16.5%, 18%, and 15.5%, respectively.

generation of units in New York City and Long Island when compared to historic levels, and calculated more out of state imports compared to historic levels. Additionally, the IPM technical support documents clearly stated that the model was not able to take into account dual-fueled (oil and gas) units, black start units, spinning reserve units and "must-run" units. In all of these cases, the amount of fossil fuel and related CO_2 emissions would be understated relative to historic operation of the system, before taking into account expected future changes in the generating mix.

CSAPR's Estimates of Allowance Prices Should be Incorporated into the Modeling in the Reference Case and Sensitivity Cases

The Companies recommend that RGGI Inc. revisit the assumptions made for nitrous oxide (NO_x) and sulfur dioxide (SO_2) allowance prices that are included in the Reference Case, and particularly in the Federal Regulatory Sensitivity Case. The criteria documents provided for the September 19, 2011 RGGI Stakeholder meeting indicate that the Reference Case modeling includes the finalization of CSAPR. Yet, none of the cases presented include the projected allowance costs as modeled by EPA in the final CSAPR, and in most cases, the projected NO_x and SO_2 allowance costs are significantly lower than those projected by EPA.

Additionally, it is not clear from the information presented that the IPM model deals with the fact that not all of the Participating States are covered by CSAPR, and how the differential costs associated with allowance prices would impact transfers of power from one state to another state. Future policy analyses that evaluate a change in the CO_2 cap level, the effect of a different cap on CO_2 allowance prices, and the interactions between CSAPR allowance prices and CO_2

allowance prices, should only be considered after undertaking a more rigorous review of potential CSAPR allowance prices.

Providing Assumptions and Sensitivities Will Better Enable Stakeholders to Provide Meaningful Input on Policy Scenarios

To better respond to RGGI's future requests for input on policy scenarios, it would be helpful to have a list of all of the assumptions made for the Reference Case and sensitivities, categorized by the source of information, such as the 2010 NYISO RNA, 2011 Congestion Assessment and Resource Integration Study (CARIS), and the annual NYISO IRM study, and an indication of how the assumptions were used or modified across the Reference Case and sensitivity runs. In particular, the Companies would like to gain a better perspective on how assumed changes to transmission imports and exports contribute to the IPM's tally of resource adequacy over time in southeastern New York.

Conclusion

In closing, the Companies request that these comments be duly considered in developing the Reference Case that will be used as a baseline for electricity sector modeling in the 2012 program review of the Regional Greenhouse Gas Initiative (RGGI). We look forward to continued participation in the 2012 Program Review. Our subject matter experts are available to discuss additional modeling details should RGGI, Inc. or stakeholders have questions regarding planning for the Companies' service territories.