

## **2.0 Scope of Work and Deliverables**

### **2.1 Project Background**

The NYISO conducts three types of Installed Capacity (“ICAP”) auctions: the Capability Period Auction, the Monthly Auction, and the ICAP Spot Market Auction. Load Serving Entities (“LSEs”) can meet their obligation to procure Unforced Capacity (“UCAP”) through self supply, in a bilateral transaction with an Installed Capacity Supplier, or through NYISO-administered auctions. The NYISO submits a demand bid in the ICAP Spot Market Auction for the total megawatts (“MW”) of LSEs UCAP obligations that were not satisfied by the monthly deadline. The ICAP Spot Market Auction clears at a price on an administratively determined Demand Curve, which is known in advance to the market. Thus, there is a measure of certainty as to the future value of capacity. The New York State Reliability Council (“NYSRC”) sets an Installed Reserve Margin for the New York Control Area (“NYCA”) for the purpose of maintaining resource adequacy. The Installed Reserve Margin requirement is annually set such that the probability of disconnecting any firm load due to resource deficiencies shall be, on average, not more than once in ten years. The NYSRC submits the Installed Reserve Margin to the Federal Energy Regulatory Commission and the New York State Public Service Commission for review.

The NYISO determines the minimum installed capacity requirement for the NYCA utilizing the Installed Reserve Margin. The NYISO converts the NYCA Minimum Installed Capacity Requirement into a NYCA Minimum Unforced Capacity Requirement. The NYISO also computes a Locational Minimum Installed Capacity Requirement and Locational Minimum Unforced Capacity Requirement for New York City and Long Island. The NYISO then computes an Unforced Capacity Obligation for each LSE.

Since 2007, PJM Interconnection (“PJM”) and ISO New England (“ISO-NE”) have transitioned from monthly capacity obligations to annual obligations, which are procured at least three years in advance of the capability period (i.e. “Forward Capacity Markets”). In 2009, the NYISO retained a consultant which, with stakeholder input, evaluated the effectiveness of a forward capacity market for the NYCA. The consultant concluded that while there are advantages to procuring capacity in a mandatory forward market, there are significant costs and complexities, and until the NYISO needs new generating capacity, that cost may not be warranted.

With interest expressed by some stakeholders in assessing the performance of the existing capacity market structure in New York; efforts between the NYISO, PJM, and ISO-NE to improve coordination for other energy market products across neighboring control areas; and two years of additional experience with forward capacity market constructs in PJM and ISO-NE; the NYISO seeks an assessment of the performance of the existing capacity market in meeting our reliability and market obligations, and an assessment of viable alternate capacity market constructs (collectively referred to herein as a “study”).

### **2.2 Scope of Work**

The overall purpose of this study is to examine the current capacity market design and recommend ways in which it might be enhanced. To accomplish this purpose, the consultant will evaluate the performance of the NYISO’s Installed Capacity market in meeting its reliability and market obligations; evaluate and compare the design and performance of the installed capacity markets in PJM and ISO-NE; review differences between and among PJM, ISO-NE, and the NYISO’s capacity market auction timing, supplier qualification, commitment periods, and LSE and ICAP Supplier obligations; evaluate the interrelationships between the NYISO’s capacity market and NYISO resource adequacy planning processes; and analyze cost-effective modifications that could be made to the NYISO capacity market to efficiently satisfy the NYCA Installed Reserve Margin in the context of NYISO’s operating procedures and market structure. The consultant will consider input from the NYISO’s stakeholders as part of the study, including input on an interim report. Based on its analyses, the consultant will recommend viable market enhancements.

A. Functional Requirements

1. **NYISO Capacity Market Review:** Evaluate the historical effectiveness of the NYISO capacity market in satisfying the resource adequacy requirements for the NYCA, the interrelationship of the capacity market with the NYISO's Energy and Ancillary Services markets, and the manner in which the NYISO satisfies related obligations, including the deliverability standard and other requirements.
2. **Other Capacity Markets Review:** Describe and evaluate the design and performance of the capacity markets in PJM and ISO-NE. This analysis should include an assessment of (1) the ability of these markets to attract new capacity and to maintain existing economic capacity including demand-side resources and repowering projects, (2) the ability of these markets to anticipate possible, and respond to imminent, generator retirements, particularly facilities needed for reliability, with sufficient lead time to develop viable market options, and regulated options in the absence of such viable market options (including transmission, generation, or demand side resources), (3) the ability of these markets and the related deliverability requirements to effectively identify and compensate for localized capacity needs, (4) interrelationships with energy and ancillary services markets, (5) the effectiveness of rules in ensuring future resources will be available for their commitment period, (6) resource performance during the obligation period, and (7) the level of administrative determination on market prices and (8) the rules to mitigate the exercise of market power.
3. **Market Differences and Portability Assessment:** Review differences in the timing of auctions, obligation periods, performance requirements, and qualification requirements among the NYISO, PJM, and ISO-NE. Describe the effects of market differences on the portability of capacity among the Northeast control areas (PJM, ISO-NE, IESO, Hydro Quebec) and the NYISO, and the potential benefits from increased market coordination and an improved interregional market for capacity, while considering limiting factors such as locational requirements and transmission rights and limits.
4. **Resource Planning:** Evaluate whether the existing regulatory requirements, resource planning processes, and the capacity market construct in New York provide adequate notice for the NYISO's reliability planning obligations. Evaluate the desirability of a forward capacity market in New York with a 3 to 5 year reserve adequacy reliability criterion.
5. **Alternative Market Designs:** Evaluate the interrelationships among alternate capacity market constructs within the framework of NYISO's overall market structure, and whether they provide efficient price signals to various types of capacity resources, including those with longer and shorter lead times for construction, and varying fuel sources and technologies. For the PJM and ISO-NE capacity markets identify strengths and weaknesses to understand if there are features of those markets that might enhance the NYISO's capacity market design. The consultant shall also consider the appropriateness of including energy efficiency in any capacity market construct. The consultant is not limited to evaluating the PJM and ISO-NE market designs and may consider alternate market design approaches that likely may be viable. The consultant should also evaluate the slopes and shapes of the Demand Curves in the NYISO, PJM and ISO-NE markets, and evaluate alternatives to those used by the NYISO. The assessment of alternative market designs shall consider design elements, both price and non-price, that may minimize the need for out-of-market actions.
6. **Review of Alternatives and Recommendations:** Based on the analyses and empirical evidence gathered in Objectives 1 through 5, the consultant shall assess the performance of the current capacity market construct in meeting the NYISO's reliability and market obligations in comparison to the alternate viable market design constructs the consultant identifies in accomplishing Objective 5. The consultant shall then develop recommendations for potential modifications to the NYISO capacity market construct and other steps that may be taken to ensure resource adequacy and the efficient functioning of capacity markets. Recommendations should identify key elements to effectively integrate the capacity market design with the overall wholesale market structure, and with resource planning processes. Any recommendation should consider design and implementation costs.

B. Deliverables

The Vendor is required to:

1. Consultant shall deliver an interim and a final report setting forth in detail its findings in accordance with the scope of work. A draft of both reports shall be subject to NYISO review.
2. Consultant shall prepare and execute two presentations to NYISO stakeholders in forums to be identified by the NYISO: one on the interim report and one on the final report. Consultant shall make additional presentations upon request of the NYISO. Consultant shall provide to the NYISO presentation materials containing a synopsis, to be utilized to focus consultant's discussions with stakeholders. The presentation materials shall be subject to NYISO review and approval.
3. Consultant shall meet with NYISO staff identified by the NYISO, and on the request of the NYISO, (in person up to three times at the NYISO's office in Rensselaer, NY), to discuss its interim and final reports.
4. The budget for this project is limited to \$250,000. Accordingly, proposals submitted in response to this RFP must accomplish the objectives and provide the Deliverables at an amount no greater than the budgeted amount including costs and expenses to attend in-person meetings.

C. Deliverables Schedule

<b>Event</b>	<b>Date</b>
Interim Report Draft Deadline	6/13/2012
Interim Report Deadline	6/27/2012
Stakeholder Presentation on Interim Report	7/12/2012
Final Report Draft Deadline	8/10/2012
Final Report Deadline	8/31/2012
Stakeholder Presentation of Final Report	9/06/2012