Long Island Power Authority
Overview of Deliverability / Current Market Design Issues
For Discussion at ICAP Working Group Meeting July 31, 2001

What is Deliverability

"Deliverability" may be defined as "sufficient transmission capability into, within, and through the transmission system to ensure that the generator capacity may be transported from the source to all nodes in the locality in order to meet system reliability requirements."

Importance of Deliverability

The concept of deliverability is fundamental to prudent utility planning as only generation that is deliverable can be counted towards satisfying locational capacity requirements.

New York Resource Adequacy Rules

Rule 1. Statewide Installed Reserve Margin Requirements

Adequate Resource capacity shall exist in the New York State Control Area such that, *after due allowance for* scheduled outages and deratings, forced outages and deratings, assistance from neighboring systems, *internal transmission capacity*, uncertainty of load forecasts, and capacity and/or Load Relief from available operating procedures, *the probability of disconnecting firm load due to a Resource deficiency will be, on the average, no more than once in ten (10) years*.

Rule 2. LSE Capacity Requirements

LSEs shall be required to provide sufficient Resource Capacity so as to meet the statewide installed reserve margin determined from Rule 1. Further, *this LSE capacity obligation shall be distributed so as to meet Locational Capacity requirements*, *considering the availability and capacity of the internal transmission system* to maintain Rule 1 reliability requirements.

PJM Deliverability

All generator interconnections in PJM require the performance of a MAAC Project Filing, demonstrating the generator's ability to be connected to the system consistent with the reliability criteria specified by MAAC. The tests required in such a MAAC Filing include the demonstration of deliverability, to ensure that the new generation resource can be certified as an installed capacity resource with respect to the PJM installed capacity obligations imposed through the Reliability Assurance Agreement. These obligations ensure the compliance of the PJM Control Area with the reliability criteria specified by MAAC. To maintain reliability in a competitive capacity market, resources must contribute to the deliverability of the Control Area in two ways:

1. Energy must be deliverable, from the aggregate of resources available to the Control Area, to load in portions of the Control Area experiencing a localized capacity emergency, or deficiency. PJM utilizes the CETO / CETL procedure to study this "deliverability of load".
2. Capacity resources within a given electrical area must, in aggregate, be able to be exported to the remainder of the Control Area, which is experiencing a capacity

emergency. PJM utilizes a Generator Deliverability procedure to study the "deliverability of individual generation resources".

Preliminary Proposals for Application of Deliverability in New York

Three potential options for application of deliverability in New York are listed below. The ICAP Working Group should explore these options since the addition of new generation throughout New York state is likely to create a deliverability issues within the localities that currently exist.

1. Considering New York as one zone for deliverability

PJM considers deliverability of resources to the remainder of PJM for participation in the capacity market. Due to the uniqueness of the New York Control Area (limited circuits into New York City and Long Island), it may not be economically practical to require capacity resources to be deliverable to all of NYCA.

2. Consider existing three localities for deliverability

The three localities for ICAP are Long Island, New York City, and Rest of State. Under this proposal, a resource would be qualified to participate in the capacity market of the locality in which it is located if it is deliverable to all points in that locality. If system capability exists (or is created through system reinforcements) such that a resource located in "Rest of State" is deliverable to one of the other localities (e.g., Long Island or NYC), it may be possible to also qualify that unit as a capacity resource for the other locality.

3. Consider developing additional localities for deliverability

Similar to the concept of the three localities, except additional localities are developed. These localities could be based on existing NYISO load zones or based on internal transmission constraints within each load zone. This should be investigated for possible exertion of market power.