

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

ISO New England Inc.,

)

Docket No. EL00-62-015

AFFIDAVIT OF PETER CRAMTON¹

I have been asked by ISO New England to comment on the modifications of the Installed Capability (ICAP) market as part of the ISO's June 4, 2001, compliance filing in this docket.

The initial ICAP market suffered from fatal design flaws. ICAP was defined in such a way that it did little to promote reliability. Reliability comes from having sufficient operable resources that are sufficiently flexible to handle contingencies as they arise. Traditional ICAP has nothing to do with the responsiveness of resources, and little to do with a resource's ability to produce energy consistently and at reasonable prices. The initial ICAP market resulted in arbitrary prices that had little to do with either the value of ICAP to the system or the cost of providing ICAP. As a result of these flaws, the ICAP market was eliminated on August 1, 2000.

The ICAP market was replaced with an administratively determined deficiency charge. This approach forces participants short on ICAP to purchase more in the bilateral market or face the deficiency charge. This approach is essentially the same as before with just two changes: (1) the more transparent ICAP market is replaced by less transparent bilateral trading, and (2) the price of ICAP is capped at the deficiency charge. In particular, this approach does nothing to solve the fundamental problems with the ICAP market, aside from setting a price cap on arbitrary prices.

In the June 4 compliance filing, the ISO proposes substantial modifications to the ICAP market and the non-spinning reserve markets. In particular, the ISO plan

- Establishes a forward purchase requirement for ICAP.
- Makes ICAP an option-like product with restrictions on scheduled maintenance.
- Enables inter-control-area trade of ICAP that is not subject to recall.
- Treats quick-start capability as a long-term capacity product like ICAP, and eliminates the non-spinning reserve markets.

¹ Peter Cramton is Professor of Economics at the University of Maryland and President of Market Design Inc. Over the last 15 years, he has conducted research on auction theory and practice. This research appears in the leading peer-reviewed economics journals. During the last 7 years, Cramton has applied this research in the design and implementation of auction markets in the U.S. and abroad. He has led the design and implementation of several high-stake auction markets in the telecommunications and electricity industries.

All four elements of the plan are important improvements. I will comment briefly on each.

Forward purchase requirement. For ICAP to be a meaningful product, the ICAP requirement needs to be established ahead of time. Then ICAP can be monitored by the ISO and internal ICAP units can be recalled ahead of time. Under the current system, the ICAP requirement is determined after the fact, making it impossible to monitor ICAP and recall ICAP resources ahead of time. With a forward requirement, participants know exactly how much ICAP they need and can purchase ICAP ahead of time without residual uncertainty. Initially, 95% of the ICAP requirement must be purchased forward with up to 5% purchased in a cure period after the fact.

ICAP as an option-like product. Under the plan, ICAP is a commitment to be available to provide energy or reserves during the supply period. A unit supplying ICAP may provide non-firm energy outside of New England, but may be recalled to supply energy or reserves in New England. ICAP units are obligated to submit energy bids at or below a predetermined “bid commitment price.” Hence, ICAP is a real product with a real obligation. ICAP units are being compensated for being recallable, for being ready to supply, and for being unable to set the clearing price above the bid-commitment price.

Inter-control-area trade of ICAP. Ultimately, the plan allows for trade of non-recallable ICAP across control areas. This is an important step in integrating control areas. One of the dangers of ICAP is a tendency for it to reduce reliability by reducing coordination across control areas. Reliability is enhanced by trade and coordination across control areas.

Quick-start capability to replace non-spinning reserves. Quick-start units are especially valuable to the ISO in handling contingencies. Currently, quick-start units are compensated from the energy market, the non-spinning reserve markets, and ICAP. The ISO plan would eliminate the non-spinning reserve markets, and instead provide compensation through a long-term capacity market for quick-start units. The non-spinning reserve markets suffer from many of the problems of the current ICAP market. Treating quick-start capability like ICAP as a forward requirement and an option-like product would eliminate these problems.

Not all of these elements can be implemented in the near term. Hence, the ISO plans to stage the implementation between July 1, 2001, and January 1, 2002. For July 1, it is possible to make ICAP an option-like product with a limited implementation of the forward purchase requirement. This will be a significant step in moving toward an economically sensible resolution of the ICAP problem.

The ISO plan includes steps to improve the transparency of ICAP trading and to monitor and address market power. On market power, the ISO proposes to apply a structural screen to the preliminary settlement. If any three participants together have more surplus than the net surplus, then the market is not workable competitive, and the ISO clears the market at one-half of the deficiency charge. This encourages parties to settle bilaterally or face a lower price. Deficiency charge payments also are allocated so as to deter the withholding of ICAP.

The ISO plan takes important steps toward a sensible approach to reliability. Under the plan, participants provide and are compensated for real products that enhance reliability.

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Peter Cramton

June 4, 2001

Subscribed and sworn to before me
this 1st day of June 4, 2001

Notary Public

My commission expires: _____