

## MEMORANDUM

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DATE: June 7, 2005  
TO: ICAP Working Group Members Involved in ICAP Import Rights Discussions  
FROM: Mike Cadwalader  
RE: Summary of Installed Capacity Import Right Auction Proposal

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At the last meeting to discuss ICAP import rights, I sketched a proposal for the allocation of those rights via an auction (and for the determination of which entities would be permitted to import ICAP, which is a related, but slightly different, question). This memo will describe this proposal in a little more detail, along with a brief discussion of the advantages of this proposal compared to alternative auction-based proposals for allocating these rights.

### **HOW THE ICAP IMPORT RIGHTS AUCTION WOULD WORK**

First, the ISO would conduct an auction for ICAP import rights. While this part of this proposal includes more details on the operation of the ICAP import rights auction than have been seen in other proposals, I do not believe it differs significantly from those proposals.

The ICAP import rights auction would be conducted at about the same time as when ICAP import rights are currently allocated. The ICAP import rights auction would be conducted twice per year, and that all ICAP import rights for a given capability period would be available in that auction, although it would be possible to modify this element of the proposal if desired. Additionally, while it would be possible to implement a more elaborate auction later (if justified on a cost-benefit basis), the auction would initially use a mechanism very similar to the current ICAP auctions operated by the ISO. Each bidder would submit one or more bids, indicating the following:

- The maximum amount of ICAP import rights it wishes to purchase in association with that bid.
  - The external control area from which it would like to be able to import ICAP in association with that ICAP import right.
  - The month or months for which it wishes to purchase ICAP import rights.
  - The maximum price it is willing to pay for that ICAP import right for that month or months.
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So, for example, one bid might be for up to 100 MW of ICAP import rights from PJM for all six months of the upcoming capability period at a price not to exceed \$2/kW-mo. of rights. The quantity of bids that each auction participant could submit would be limited by creditworthiness criteria, but it would not depend on an advance demonstration that the auction participant has sufficient ICAP under its control to utilize those rights in their entirety, as auction participants may instead wish to purchase the ICAP import rights first and *then* arrange for capacity that would use those rights.

Holders of grandfathered ICAP import rights would also be permitted to offer those rights for sale into the auction; the information they would need to submit would be similar to the information that bidders must supply (except that offers would specify the minimum price they are willing to accept for their rights).<sup>1</sup> The ISO would then determine the awards that would maximize the bid value of awarded rights to the awardees of those rights, net of the bid cost of any grandfathered rights that have been sold in the auction, subject to the limits on the amount of ICAP imported that can be imported into the NYCA, both in the aggregate and from each individual external control area, that have been declared by the ISO.<sup>2</sup>

The price for ICAP import rights in these auctions would be determined by the marginal bids for ICAP import rights. Consequently:

- If the aggregate limit on ICAP imports is binding, but none of the limits on the number of ICAP import rights that can be allocated from individual external control areas are binding, then all ICAP import rights would have the same positive price. The price is positive because not all requests to purchase ICAP import rights at a positive price could be honored. The price is the same because ICAP import rights from different external control areas have the same effect on the aggregate import limit.
- If the aggregate limit on ICAP imports is not binding, but the limits on the number of ICAP import rights that can be allocated from one or more external control

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<sup>1</sup> For simplicity, this proposal assumes that all entities that currently hold grandfathered ICAP import rights would elect to convert those rights into rights that would function as described in this proposal. Of course, they should be given the right to decide whether to convert those rights, just as holders of transmission rights under grandfathered contracts were permitted to decide whether to convert their rights into grandfathered TCCs. In the event that any decided not to convert their ICAP import rights, this proposal can be modified easily to accommodate them. However, since there is no possibility that an ICAP import rights holder, as those rights are defined under this proposal, would be required to make payments to the ISO, incentives for the holders of grandfathered rights to convert their rights are strengthened.

<sup>2</sup> This proposal does not envision any changes to the procedure for determining those limits, although eventually we may want to reassess this process. Ideally, the tradeoffs between the number of rights that can be defined to import capacity from each external control area would not need to be assumed outside the framework of the auction, but could be determined within the auction, based on the willingness of market participants to pay for the right to import capacity from each adjoining external control area.

areas are binding, then ICAP import rights from only those control areas would have a positive price. ICAP import rights from other control areas would have a zero price because there is a surplus of those rights available.

- If the aggregate limit on ICAP imports is binding, and the limits on the number of ICAP import rights that can be allocated from one or more external control areas are binding, then all ICAP import rights would have a positive price, and the prices of ICAP import rights from the external control areas with binding constraints would exceed the price of ICAP import rights from other external control areas.
- Finally, if neither the aggregate limit on ICAP imports nor the limits on the number of ICAP import rights that can be allocated from individual external control areas are binding, then the price of all ICAP import rights would be zero because there is a surplus of rights available.

Prices for ICAP import rights from a given external control area also might vary from month to month within a given capability period, since bids may differ from month to month.

Purchasers of rights in the auction would be charged the market-clearing price of each ICAP import right purchased. Sellers of rights would receive the market-clearing price of each ICAP import right sold; the remaining revenues would be divided among the TOs and used to reduce their TSCs (or, in the case of NYPA, the NTAC).

## **HOW ICAP IMPORT RIGHTS WOULD BE USED**

Purchasers of ICAP import rights (and holders of grandfathered ICAP import rights who did not sell those rights in the ICAP import rights auction) would be permitted to:

- Match those rights with capacity located in the external control area from which they have purchased the right to import capacity, in which case that capacity would be treated as ROS capacity (and could be offered into ICAP auctions as ROS capacity, or could be used to meet an LSE's ROS capacity obligation); or
- Release those rights for use by other market participants in an ISO-administered auction (either a monthly auction or a spot market auction).

In the event that one or more ICAP import rights holders chose the second option, offers of ICAP from that external control area would be permitted in that auction to the extent that rights from that control area have been released; in addition, offers of ICAP from other control areas would be permitted in that auction, to the extent that the limits applicable to those control areas permit. So, for example, if the ISO had sold the limit of 2755 MW of ICAP import rights, and the maximum number of ICAP import rights from PJM had also been sold, but there was plenty of room to import additional capacity from

New England, then if an entity elects to release its right to import ICAP from PJM into an ISO-administered auction, that right could be used to import capacity in that auction from either PJM or New England—whichever is willing to sell that capacity for less.

Entities selling ICAP in ISO-administered auctions from resources located in external control areas would be paid prices determined by the NYISO for imports from those control areas (as they are now). Those prices will be equal to ROS prices when NYISO import constraints are not binding, and will be less than ROS prices when NYISO import constraints are binding. Sellers of ICAP within New York in these auctions would, of course, receive the ROS or locality price, as appropriate. LSEs purchasing capacity to meet their residual shares of ROS ICAP obligations would be charged the ROS price for those purchases. Entities releasing rights to import ICAP from a given external control area for use in an auction will receive the difference between the ROS price determined in that auction and the price for that external control area determined in that auction, which will be positive when constraints limiting imports of capacity from that external control area bind.

The ISO will specify a date by which rights holders wishing to employ the first option—i.e., to match their rights with external capacity, thereby using those rights to import that capacity—must indicate their desire to do so and submit any documentation necessary to substantiate the import of capacity using those rights. Entities failing to meet this deadline will be deemed to have released their rights into the next ISO-administered auction. Inclusion of such a deadline ensures that the holders of ICAP import rights will not be able to prevent the import of capacity by failing either to use or to release their rights. The deadline **must** be set at a date that is early enough to ensure that suppliers in other control areas will be able to use those rights to import ICAP, and to permit them to offer that imported capacity at a reasonable price. This portion of the proposal is necessary in order to guard against the potential for holders of import rights to reduce the amount of capacity that can be imported by failing to use their rights, or by failing to release them until it is too late for others to use them effectively, thereby driving up the price of ICAP in ROS.

## **ADVANTAGES OF THIS PROPOSAL**

### ***Flexibility and Efficiency***

First, this proposal permits the maximum degree of flexibility regarding the area from which ICAP import rights are being imported, as a right to import capacity from one control area that is released may be used to import capacity from other control areas, if offers from those control areas are lower. This improves efficiency and should lower the cost of imported ICAP. In contrast, the ISO's auction proposal locks in rights, so that rights to import capacity from PJM, for example, must always be used to import capacity from PJM, even if capacity from other control areas is available at lower prices and the ISO would not be violating limits on the import of capacity from those control areas if it were to accept those imports.

Mark Younger's auction proposal permits more flexibility than the ISO's proposal, but because his proposal would not compensate rights holders for the rights that they do not use, it may encourage inefficiency. For example, suppose that the anticipated price of ROS ICAP is \$5/kW-mo., the anticipated price of PJM ICAP is \$4/kW-mo., and the anticipated price of New England ICAP is \$3/kW-mo., and the ISO is able to accept additional ICAP from New England. The efficient outcome is for additional capacity to be imported from New England instead of PJM, but that would require the holder of the PJM import right to forego a right worth \$1/kW-mo. Instead, without compensation for the released right, the holder of that right is likely to use it to import capacity from PJM, which is inefficient in this example.

### ***Increases Value of Rights***

This proposal increases the value of the ICAP import rights sold in the auction for two related reasons. First, bidders in the auction would not be required to designate the resources that would use those rights in advance. Imposing such requirements would reduce bidders' interest in the auction, and would therefore reduce the price at which these rights are sold. Second, bidders in the auction who have not lined up resources in advance are not faced with the risk of needing to surrender these rights without compensation, or needing to line up resources to comply with must-offer requirements. Instead, they will be compensated for the market value of any released import rights. The elimination of this risk will encourage higher bids.

### ***No Need to Re-solve the Auction***

Under the ISO's proposal, winning bidders are required to submit documentation within 48 hours of the end of the auction of the resources they would use in association with the ICAP import rights purchased in each auction. If any bidder or bidders failed to do so, the auction would be re-solved (not re-run, since bids could not change), with the bids for the entity who failed to submit that documentation removed. This may be quite unwieldy, especially if several rounds of re-solving prove necessary. It also introduces some gaming concerns as it may permit auction participants to manage the market-clearing prices determined in the auction through strategic decision-making regarding whether to submit the required documentation, as failure to submit some or all of that documentation can lower the price of the remaining rights.

Mark Younger's proposal evades this problem by requiring documentation to be submitted in advance, but as noted above, this precludes participation by market participants who wish to purchase the rights to import capacity before lining up the capacity that would use those rights. This proposal takes the opposite approach, by deferring the requirement to submit documentation of the capacity that will use the rights until well after the auction. It thereby permits market participants to purchase the rights before lining up the capacity that would use those rights.

The ISO's proposal to re-solve the auction protects winning bidders in the auction who made good faith efforts to find capacity to utilize their import rights but were unable to do so, but this proposal also protects those participants by giving them the option to release their rights into ISO-administered auctions, and fairly compensating them for the value of those rights in the event they do so. It therefore achieves the same protection objective as the ISO's re-solving of the auction without the disadvantages. It also achieves the same objective as was intended by the ISO's 48-hour deadline by requiring ICAP import rights holders to submit their documentation by a deadline that is early enough to preclude withholding of import capacity.

### ***Can Be Performed Readily Using Existing Optimization Software***

The auction can be solved readily using the same software that the ISO currently uses to conduct ICAP auctions. The primary modifications needed are to change the objective function from a minimization (which is necessary in auctions whose primary intent is to purchase) to a maximization (which is necessary when the intent is to sell), and to eliminate constraints pertaining to the localities that will, at least initially, not be relevant for this auction.<sup>3</sup>

Suggestions have been made that the component of this auction which calls for entities who release their ICAP import rights to be paid for the market-determined value of those rights may make this proposal too difficult to implement easily, taking into account the billing and accounting changes that would be needed. One should note that these settlements for released rights would only have to be made on a monthly basis, so they should be substantially less cumbersome than other balancing settlements made by the ISO.

Additionally, as we found out at the last ICAP WG meeting, the settlement procedures embedded in the ISO's ICAP automation project would charge loads a different ROS price than is paid to ROS suppliers, effectively eliminating the settlements surplus that would have been used to pay entities who released their ICAP import rights under this proposal. After further discussion with Art Desell, it does not appear that it would be that difficult to change this aspect of the ICAP automation project, so I do not currently anticipate that this would be a major impediment to adoption of this proposal.

### ***Allocates Revenues from the Sale of ICAP Import Rights Correctly***

Finally, this proposal allocates the revenues derived from the sale of ICAP import rights to reduction of TSCs (and the NTAC), which is consistent with the treatment of TCC revenues. TCCs are made possible by TOs' investment in the transmission system, so the TOs' customers deserve the offset against fixed costs that results from crediting TCC revenues against the TSCs. Similarly, ICAP import rights are also made possible

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<sup>3</sup> At some later point, we may wish to modify the auction rules to permit bidders to purchase rights to import capacity from external control areas into localities.



by TOs' investment in the transmission system, and the TOs' customers deserve this offset for the very same reason.