# Directed ICAP -A Proposal by Strategic Energy To Improve Reliability of America's Power Supplies

### **Executive Summary**

The Installed Capacity (ICAP) charge currently exists in some regions and is being considered in other regions around the United States as a tool to make sure that there are enough generators are built to provide for reliability of electricity supplies as well as price stability. However, ICAP is a very expensive tool that does little if anything to ensure adequate generation is built.

# The Evolution of ICAP

ICAP originally was developed to allow neighboring utilities to share generation resources and economic dispatch of generators. The basic premise was that one centralized dispatch over a large region would result in lower costs than would result from several, separate dispatches. This regional optimization of energy costs did not compensate the most efficient generators (with the highest capital cost) for their long-term expenses. The concept of Installed Capacity was invented to gain the participation of the efficient generators.

Importantly, ICAP was invented when utilities owned all of the generation and could only sell at market-based rates and there was no incentive to withhold ICAP credits. Owners of ICAP credits could only earn a regulated return on their investments, and withholding ICAP would only prevent utilities from sharing in the benefits of the joint economic dispatch.

The introduction of competition changed the ICAP environment forever. First, sellers' earnings are no longer limited as most can sell at market-based rates. This introduces an incentive to withhold, and ICAP markets are very transparent to all participants. Everybody knows how many credits exist and the aggregate demand, and everybody knows the number of credits that must be withheld to drive the price of credits to the deficiency rate. As a result, ICAP as a market structure begs for abuse because it takes so little action to drive prices to the cap.

In addition, the idea of capacity has changed. Energy and Capacity used to be separate products, but Firm energy contracts now have an implicit Capacity component. Still, the ICAP market construct forces Load Serving Entities ("LSE") to purchase ICAP credits even if they have Firm Energy supplies that are more than adequate to serve their retail customers. As a result, LSEs must pay for capacity twice – once in the Firm Energy contract, and again in the ICAP credit. Evidence of this is that if an LSE's power is being delivered and its energy from its ICAP resource is "recalled", then twice the amount of power needed by the LSE to serve its customers is delivered into the region. This double payment for capacity, more than any other factor, threatens the future of retail choice anywhere that the ICAP market construct is implemented.

# Why ICAP Is Not Effective

Although proponents of market structures incorporating ICAP suggest that ICAP encourages the development of new generation, very little of the payments for ICAP credits goes to new generators. Most goes to existing generators that have no incentive to use ICAP revenues to build new generation. In fact, additional generation makes it more difficult to extract market power in an ICAP market construct, so incumbent generation has an economic incentive to discourage the development of new generation.

# A More Effective Solution

Instead of making ICAP payments to all generators, direct ICAP payments only to new generators for the first five years of operation.<sup>1</sup> In general, a charge to all retail customers of \$0.015 - \$0.020 per kilowatt-hour is enough to pay new generation \$50 per kilowatt of supply.

Importantly, policy makers could help focus this "Directed ICAP" payment to support the desired generation mix, potentially raising the amount of support for renewables and distributed generation like fuel cells and reducing support for the type of generators that are more likely to be built regardless of any additional incentive.

# THE PROPOSAL

Instead of an ICAP construct, we propose "Directed ICAP" with the following characteristics:

- Establish a uniform Directed ICAP charge, equally charged to all LSEs regardless of their ownership of generation. It will be charged based on each megawatt hour based upon the volumes scheduled to end-users.
- Each Regional Transmission Organization ("RTO") should collect the fees and administer a fund that would be disbursed in a fashion to ensure supply adequacy. Based upon a planning analysis to determine the highest and best use of the funds, each region could decide to provide appropriate incentives for new generation, provide for the development of renewable generation, or provide for load response and conservation development. The Coalition believes that adequate generation planning will ensure that de-listing will occur less often and the consequences will be less severe than under the current regime.
- FERC should declare that all energy is subject to recall by the Regional Transmission Organization ("RTO") in an EMERGENCY SITUATION, meaning that, if not for the recall, the risk of blackout is great.<sup>2</sup> This provides appropriate market incentives

<sup>&</sup>lt;sup>1</sup> Incumbent utilities might argue that they don't receive ICAP payments – that they are simply using their own generation to serve native retail customers. However, ICAP is usually built into their retail rates, so they receive ICAP payments indirectly from their retail customers.

<sup>&</sup>lt;sup>2</sup> Generators may argue that such a recall would be an unconstitutional taking, but avoiding an uncontrolled, widespread blackout is very serious and worthy of a Governor's or President's Emergency order. However, the understanding and nature of an emergency is better understood by the RTO, which

to buyers and sellers. Sellers would have to consider the risk of their energy being recalled when pricing an export sale of Firm Energy. The shorter the supply in the region, the more likely the export would be curtailed. To maintain delivery to the buyer, the seller would have to purchase supply at the delivery point in the hourly energy market. To cover this risk, the seller would add a premium to the price. The result is that it would cost more to buy power from a region that has short supply, and the shorter the supply, the greater the premium.

• Directed ICAP should only be charged when reserve margins threaten to fall below 15% for there is no reason to encourage new supplies when reserve margins are adequately high.

### Conclusion

Competitive markets can work and robust competition should be encouraged at both the wholesale <u>and</u> retail levels. If implemented well, economic efficiency will be achieved and innovation will be encouraged to the advantage of all producers and consumers of electric power. The implementation of an ICAP market construct seriously threatens retail competition, but Directed ICAP will promote reliability without destroying emerging competition at the retail level. In addition, Directed ICAP eliminates most, if not all, of the ugly issues that surround ICAP market constructs including the abominable issue of market power in ICAP markets.

This new structure to ensure reliability can be put into place immediately. Operationally, Directed ICAP is much simpler than ICAP, so quick implementation is easily achievable. Work must be done to determine the appropriate distribution of Directed ICAP funds if policy makers would like to use Directed ICAP to encourage a desired mix of energy sources. Other questions must also be answered, such as "Do generators currently under construction qualify for five years of Directed ICAP payments?" and "How might load-reduction efforts qualify for Directed ICAP payments?"

These important implementation issues are far simpler than the serious problems facing the ICAP market construct. The important point to remember is that Directed ICAP encourages reliability by encouraging the development of new generation when reserve margins threaten to fall below comfortable levels, and it does this more effectively than the ICAP construct can, and at a MUCH LOWER COST to end-users.

could report to elected officials when an emergency is declared. Essentially, this would delegate emergency powers to the RTO, but the RTO would be responsible for satisfying officials that the emergency declaration is justified. This is currently the practice in most of the country.