

**In The Matter of the Board's Investigation of Capacity Procurement and  
Transmission Planning  
Docket No. EO11050309  
Hearing of June 17, 2011**

Comments of Comverge, Inc. - Troy Anatra,  
Senior Director of Strategy & Business Development

Comverge, Inc. (Comverge) respectfully submits these comments in the above docket. Comverge manages demand response (DR) services in PJM and throughout the organized markets in the United States. Comverge directly provides DR in wholesale markets and also manages Direct Load Control (DLC) programs for electric utilities and other load serving entities. Comverge offers its comments based on years of direct experience as a market participant, as a utility service provider, and as a participant in the PJM capacity market.

Comverge does not appear today to argue against any the reliance on any capacity resource but rather to urge the Board to consider the issue before it from the perspective of a portfolio approach to capacity. The questions this points to are about how to spread and mitigate risk across a variety of valid technologies. Accordingly, as a national provider of DR services, Comverge focuses on two sets of questions from the Board's May 27, 2011 Notice. These two questions address impediments to construction of generation and to transmission interconnection and delivery. Each of these is followed by a query regarding how these obstacles can be overcome. Comverge observes that the two issues are similar if

not identical. Our answer is that you can avoid these obstacles, to some extent, through the use of DR programs.

For both significant generation assets and larger transmission upgrades, construction delays and impacts can be significant. For generation, PJM depends on the market to supply needed results.<sup>1</sup> In terms of transmission expansion, PJM's authority is broader. Of particular importance is the potential for any resource, including generation and demand response, to substitute for transmission projects. Comverge focuses its comments on this model and urges that the Board take a broad view in selecting an approach to meeting capacity needs at the most reasonable price.

With regard to impediments to construction of new capacity resources, Comverge observes that complex permitting, land use restrictions, limited areas within which construction is appropriate (existing infrastructure and developed areas, proximity to transmission) frequently make the development of larger generation projects difficult. This is particularly true in densely settled areas of PJM like New Jersey. Far easier and quicker to develop are distributed resources. These including smaller, behind-the-meter generation, energy efficiency projects – whether efficiency measures or construction of efficient buildings – and demand response.

Many behind the meter assets offer environmental benefits that compare favorably to even the latest generating technologies. In particular, demand response, operates best when demand and prices are highest. Often, high demand days cause older, less efficient, and more polluting generating assets to run. The result is high cost and significant

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<sup>1</sup> While the RPM system recognizes, through the backstop option, the possibility that it may need to take a more active role in promoting construction of generation, the mechanism for doing so is not designed for either a quick or an efficient solution.

environmental impact. Of particular concern is that high demand days normally coincide with the worst air quality. Substituting DR for generation produces both economic and environmental quality benefits.

Direct load control (DLC) is a specific use of DR that offers direct benefits to smaller consumers while satisfying PJM's capacity requirements. Utility deployment of DLC, for example through air conditioning cycling, makes it possible to immediately reduce load as needed but without causing significant customer dissatisfaction. We base this assertion on our ongoing work in New Jersey under which DLC devices are being installed at 42,000 customer locations. Parenthetically, I want to emphasize that these programs can be voluntary in the sense that controls are installed and activated only where a customer chooses to participate.

DLC programs create opportunities for geographic targeting of DR so that operational needs, as well as capacity procurement requirements, can be met. For example, utilities can concentrate DLC devices where the transmission system is most vulnerable to overloads. If carefully coordinated, these programs can also be used to avoid stress on the distribution system. The land use and siting delays that often plague transmission expansion projects can thus be avoided. The result is a reliable solution that can be in place much quicker than for transmission upgrades and distribution system improvements.

The most pressing concern for New Jersey and other states is the cost of capacity. Comverge submits that the capacity price for DR is generally below the comparable cost of new generation. Our message is that procuring capacity from DR in place of capacity from generation can lead to lower clearing prices.

The capacity construct has existed in PJM for decades as a means for ensuring reliability yet the lag between identification of need and construction is a constant source of concern. The obstacles to construction cited above can add years to a projects on-line date. In contrast, DR and other behind the meter resources have very short lead times. DR programs can be implemented in a matter of a few months and even DLC, with an approach that uses controls installed at numerous customer sites, can be operational in well under a year. If a broader impact is wanted, Comverge is confident, given its knowledge of the potential DR opportunities in New Jersey that it can deploy at least 500 MW of residential and small commercial capacity within the state over 3 to 5 years.

In this context, Comverge points to the potential for flexible business relationships that it can use in establishing DR programs. Our company has direct relationships with some utility companies under which we install DLC devices, the communications infrastructure, and the control technologies and then turn the systems over to the utilities. In other cases, we install the systems, operate the DLC program, and are compensated based on our performance against the utility's goals. We also act as an independent CSP in every ISO/RTO, providing DR products and selling the resulting capacity and energy into the wholesale market. This demonstrates that Comverge can respond to a variety of regulatory mandates.

Finally, we believe that DR is a source of long-term employment. For example, Comverge employs between 20 and 25 permanent employees for every 100 MW of DLC. For us, long-term is at least 10 years and as much as 15 years. The nature of our services will require that these staff be on-site, in New Jersey.

Looking ahead, the potential for DR is expanding and will offer additional incentives for customer participation. For example, the FERC recently mandated full LMP payments for DR participation in energy markets. (Docket No. RM10-17-000) Comverge sees this as a strong incentive that will attract additional DR participation by customers. This further strengthens DR as a potentially cost-competitive source of capacity.

Demand response is a reliable, reasonably priced capacity alternative that can be brought on line quickly and efficiently. Demand response provides direct consumer benefits as well as satisfying capacity procurement requirements. Demand response represents avoided construction costs, avoided environmental impacts, and avoided processing delays for consumers and government. For these reasons, Comverge urges the Board to consider satisfying capacity needs through distributed resources.

Comverge thanks the Board for allowing it to participate in this forum. The issue of capacity prices is important to all electricity consumers in New Jersey and, indeed, throughout PJM. Comverge supports the Board's objective of determining how reasonably priced capacity can be secured so that reliability is protected in a cost-effective fashion.