

## Competition Heats Up in Demand Response – Who Will Prevail?

By

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The year 2011 has been good for the grid management strategy known as Demand Response. This summer validated its importance as a grid resource as heat waves triggered record-level load shedding dispatches in the Northeast and Texas. July 22<sup>nd</sup> alone witnessed PJM Interconnection and New York ISO shedding 2,300 megawatts and 1,743 megawatts, respectively. Demand Response prevented rolling blackouts in Texas on August 4<sup>th</sup> as the Electric Reliability Council of Texas (ERCOT) called on 1,150 megawatts of responsive reserves. The earnings potential from participating in Demand Response also took a major step forward this year with Ruling 745 issued by the Federal Energy Regulatory Commission (FERC). Ruling 745 codified Locational Marginal Pricing, requiring wholesale market operators to pay the same price for demand response capacity as they would pay for capacity from other generating assets. Even the U.S. Green Building Council played its part to advance the market by incorporating Demand Response into its LEED rating system, thereby creating a much needed incentive for commercial office building participation.

The current leaders in the demand aggregation space – EnerNOC and Comverge – have done yeoman’s work in helping Demand Response evolve into a grid imperative. EnerNOC has secured over 10,700 commercial, industrial and institutional sites and has aggregated over 6,650 megawatts of capacity available for dispatch. Comverge, its business weighted more heavily towards the residential market, has aggregated over 3,778 megawatts of capacity available for dispatch. Both companies pulled significant weight in resolving this summer’s grid events.

A first blush assessment would suggest that EnerNOC and Comverge (and, to a lesser extent, Servidyne and privately-held Energy Curtailment Specialists) are well positioned to capitalize on the maturing opportunity in Demand Response. A closer look, however, suggests that these companies risk falling prey to the first-mover curse; *i.e.*, having their pioneering efforts usurped by larger competitors who have been patiently waiting, observing and learning until the time to strike was ripe.

Speculation about the long-term viability of these demand aggregators is not new. An early theory was that EnerNOC, Comverge and the other demand aggregators would ultimately be disintermediated by the utilities. The thought was that the utilities would tire of paying a “middleman” for something they were positioned to do themselves. The acquisition of CPower, an early Demand Response player, in 2010 by Constellation Energy lent credence to this theory. However, we find it hard to envision this acquisition being a harbinger of utility-driven market consolidation. After all, utilities are hampered by restrictive tariff structures, have limited expertise working “behind the meter”, and maintain organizational cultures that historically haven’t been entrepreneurial and market-driven.

From our perspective, the recent competitive moves by the large building efficiency service providers are significantly more threatening. In the past 18 months, Johnson Controls, Inc. (JCI) completed a \$32.3 million deal for Energy Connect (July 2011), Siemens acquired Site Controls (October 2010) and Honeywell acquired Akuacom (May 2010).

All three of these acquired companies provide technologies that will enable the building automation systems of their respective acquirers to connect and communicate with the grid. JCI states that Energy Connect's GridConnect platform combines the power of building automation with easy-to-implement demand response technology. Siemens touts Site Controls' SureGrid Intelligent Load Management Platform as being able to convert thousands of commercial and industrial buildings into virtual power plants where real-time software replaces new carbon-based generation plants. And Honeywell describes the Akuacom Demand Response Automation Server as providing utilities and independent systems operators (ISOs) two-way communication with Honeywell's energy management systems to enable automated Demand Response.

All three have already been putting their acquisition theses to work. Siemens announced in June that it is leveraging the SureGrid platform to be one of the first participants in the Demand Response Wholesale Market Pilot in San Diego Gas & Electric's service territory. Honeywell is coupling the Akuacom technology to build an OpenADR-based system with Southern California Edison, funded in part by its \$11.4 million grant from the Department of Energy. And JCI and EnergyConnect are working with utility West Penn Power to deliver Act 129 Peak Load Reduction in Pennsylvania.

Interestingly, review of the SEC filings of both EnerNOC and Comverge suggests that both companies seem to be more concerned with competition from advanced metering companies than from the large building efficiency service providers. Although the Echelons, Itrons and Toshiba's of the world are threats, there are multiple reasons why the building efficiency players are equally, if not, more formidable: (1) they enjoy large installed bases of customers already using their building automation systems and energy management services; (2) they have strong reputations and brand equity built by years of working "behind the meter"; (3) they maintain "boots on the ground" with large sales and service fleets; (4) they can bundle design, engineering, construction, maintenance, M&V, and automation with Demand Response; and (5) they can leverage their strong balance sheets to provide the financial assurances necessary to enter into utility contracts and participate in open market bidding.

The threats to their core businesses clearly are not lost on EnerNOC and Comverge. Both companies have moved aggressively to build a greater diversity of service offerings around energy efficiency and energy management. Both companies have also moved into overseas markets to try to insulate themselves from the growing domestic competition. The challenge will be moving fast enough before the new entrants eat their lunch. For example, EnerNOC reported that in 2010 about 94 percent of its revenue came from Demand Response and, of that, 63 percent was from PJM. In recognition of this concentration, EnerNOC cites that it will target reducing Demand Response revenues to 80% of total revenues by 2013 and lessening its

reliance on PJM to 50 percent of those revenues. Unfortunately, these still represent very large concentrations that are vulnerable to competitive threat.

How will this all play out? Our point of view is that the large building efficiency service providers will prevail in the Demand Response market. We predict that Comverge, with a depressed market capitalization currently around \$50 million, will be acquired – perhaps by Schneider Electric. EnerNOC, with a current market capitalization around \$270 million, may be too big of a bite for a strategic acquirer. However, there is no doubt that EnerNOC will face stiff competitive headwinds in Demand Response and we believe will ultimately move away from the capacity markets to morph into a cloud-based information and analytics company providing energy intelligence to its customers under a subscription model. Let's see what the next year brings!

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