BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of an Investigation into the Coordination
of State and Federal Regulatory Policies for Facilitating
the Deployment of all Electric Customers of File No. EW-2010-0187
All Classes Consistent With the Public Interest

COMMENTS OF ENERGYCONNECT, INC.
INVESTIGATE IMPLEMENTATION OF VARIOUS DEMAND-SIDE PROGRAMS

INTRODUCTION

EnergyConnect, Inc. (ECI) is a Demand Response provider for commercial, industrial, and institutional customers. EnergyConnect delivers industry-leading Smart Demand Response technologies and services to commercial, educational, municipal and industrial consumers enabling them to better manage their use of electricity in response to market prices or regional power shortages. The EnergyConnect technology platform provides a scalable, cost-effective, clean technology to enhance the grid's efficiency and reliability. The majority of facilities (such as college campuses, high-rise office buildings, shopping centers, manufacturing and industrial plants) already have the potential to realize economic benefit from the energy used in their facilities every day.

ECI would like to thank the Missouri Public Service Commission ("MoPSC") for providing the opportunity to address, in advance of the February 22, 2010 Workshop, the questions raised by the MoPSC. ECS respectfully submits the following comments to the twenty-six questions propounded by the MoPSC.

COMMUNICATIONS

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CONCLUSION

In conclusion, ECI respectfully thanks the MoPSC for the opportunity to submit our comments in the above captioned proceeding.

Respectfully submitted,

/s/ Bruce Campbell

1. Does the term "energy efficiency" include shifting demand to off-peak periods? See Section 393.1124.2(4). Does "modify net consumption" as used in Section 393.1124.2(3) include shifting demand to off peak periods? See Section 393.1124.2(2).

   Energy Efficiency should be limited to measures that are not subject to operational control. For example, a facility with a cooling system can increase efficiency by installing equipment that is more efficient than the original equipment. The same facility can increase ***engineering*** *efficiency by installation of thermal storage equipment that allows cooling to operate during cooler nighttime hours. Such thermal storage equipment can also contribute to* ***economic*** *efficiency as well. This is because thermal storage will allow energy consumption for cooling to take place during low cost nighttime hours. In some situations, increased off- peak cooling could result in increased energy use, but reduced costs of electricity. But in all situations involving thermal storage there remain operational decisions about configuration and operations that clearly fall in the realm of Demand Response.*

   We can conclude that "energy efficiency" can include shifting demand to off-peak periods. The term "modify net consumption" as used in Section 393.1124.2(2) clearly includes shifting demand to off-peak periods. Indeed, Section 393.1124.2(2) incorporates the defined term "Demand Response" which is shifting demand to off-peak periods.

2. What does "load management" as used in Section 393.1124.2(3) mean? *No Comment.*
3. What is "demand savings"? How should "demand savings" be determined? See Section 393.1124.4

   "Demand Savings" refers to reduced cost of electricity to consumers. The reference section reads:

   > *Recovery for such programs shall not be permitted unless the programs are approved by the commission, result in energy or demand savings and are beneficial to all customers in the customer class in which the programs are proposed, regardless of whether the programs are utilized by all customers.*

   The intent of the language is clearly aimed at both reduced energy use and reduced energy cost.

4. How should "energy savings" be determined? See Section 393.1124.4. Should there be a regular, standard process for determining whether a utility program achieves "cost-effective measurable and verifiable efficiency savings"? See Section 393.1124.3(3). If "yes," what should be that regular, standard process? *No Comment*
5. What is meant by the term(s) "rate design modifications" / "rate design modification" as it appears in Section 393.1124.5? *No Comment*
6. How does a "customer" "notify" the "electric corporation" that the customer elects not to participate in demand-side measures offered by an "electrical corporation"? See Section 393.1124.7. *No Comment*

7. Is there any significance to the fact that the term "electric corporation" appears in SB 376 in addition to the term "electrical corporation," and the term "electric corporation" is not a defined term in Section 386.020? *No Comment*
8. What is the definition of the term "customer" as that term is used in SB 376?

   "Customer" means a retail, end use customer.

9. What is meant by the term "corporation-specific settlements" which appears in Section 393.1124.11? *No Comment*
10. How does, or how should, an electrical corporation propose a demand-side program pursuant to Section 393.1124? See Section 393.1124.4. How does, or [s]how should, the Commission approve demand-side programs proposed pursuant to Section 393.1124? See Section 393.1124.4. *No Comment*
11. How should the determination be made whether a demand-side program is beneficial to all customers in a customer class regardless of whether the program is utilized by all customers? See Section 393.1124.4. *No Comment*
12. Does any Missouri statute, case law, or regulation prohibit or restrict electric utility customers from participating directly or indirectly through aggregator of retail customers (ARCs) in demand response bidding programs, as discussed in FERC's Order Nos. 719 and 719(A)? *No Comment*
13. Does a single retail customer or an ARC act as a public utility subject to MoPSC regulation under Missouri statute, case law, or regulation if it bids demand response into SPP's or MISO's organized energy market?

    A single customer or ARC is not a utility if it bids Demand Response into organized energy markets. A single customer is merely agreeing to reduce consumption in certain situations. An ARC acts as an agent for the customer.

14. Does the right to furnish retail electric service under Section 393.170 give a certificated utility an exclusive right to "benefit" from demand response activities of its retail customers either directly or indirectly through an ARC?

    Section 393.170 merely specifies that the Commission may grant a franchise. It does not specify any rights for the franchised corporation.
    There are three issues implicit in this question. The first relates to whether a certificated utility should benefit from the demand response activities of a retail customer. The answer to this is clearly no. A utility has no right to added revenue resulting from the mere act of a customer reducing demand. The second issue is whether the utility has such a right because of action through an ARC. If an ARC advises a customer on when to reduce demand, that also would seem to clearly be not a cause for exclusive rights. The utility has no right of added revenue resulting from the mere act of a customer reducing demand. The third issue is whether such activity results in compensation from an organized wholesale market for that reduction. We have established that such reductions cannot harm other retail customers. It is difficult to establish a valid rationale for utility "rights".

15. How would a certificated utility and its other retail customers be affected if a single retail customer or an ARC bid demand response directly into SPP's or MISO's organized energy market?

A prime goal of the creation of wholesale power markets with visible prices was to enable retail customers to make informed decisions on energy use in response to these prices. It is undeniable that any decision by a customer to reduce use response to wholesale prices will result in reduced demand and reduced prices for all consumers. Similarly, decisions that reduce peak demand will reduce the need for new capacity resources for all consumers. Thus the commission can confidently support Demand Response programs that act in response to price and know that all customers will benefit.
Nonetheless, the impact of a single customer's participation into an organized market is highly dependent on the organized market design. For example, in PJM, market designs are such that, the utility revenues are neutral as a result of such participation, assuming the utility is actively participating in wholesale spot markets. Proposed designs in MISO would have a similar outcome. Many knowledgeable participants agree that for price responsive Demand Response (reductions in response to real time or near real time energy prices) benefits to non-participating customers are dependent on the price. For example, a reduction at very high prices has a much greater impact than reductions at prices closer to the average price.
On the other hand, participation in peak reduction programs have incontrovertible benefits to all customers due to the price reducing action at high real time prices and the value of deferring construction of new central stations and accelerating retirement of older, polluting stations.
The utility could benefit from avoiding investment in new generation capacity. Utility rate base growth would be reduced.

16. What would be the effect on utility rate design if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

There need be no impact on utility rate design. An ARC typically charges a fee to facilitate the retail customer's participation. In EnergyConnect's experience, customers are happy to participate in this fashion. It is likely that the utility will incur a nominal administrative expense for a few hours per year per customer, but this is far outweighed by the benefits. The customers involved tend to be large commercial and industrial customers that can utilize economies of scale.

It is nonetheless true that there may be nominal administrative costs for the utility in areas regarding registration with the RTO and in some cases communication of meter data. Energy Connect believes that these costs are small relative to benefits.

17. What would be the effect on utility revenue collection if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

Utility revenue collection will be dependent on the organized market design as well as utility rate design. In the case of a customer responding to price, there may actually be an increase in utility revenue. For example if an industrial customer reduces demand during higher priced periods, that customer may increase use during lower priced periods to maintain overall output. But there may be

increased use of electricity due to production inefficiency. A commercial building manager might pre-cool a building in the summer in anticipation of high prices, using more but cheaper energy in the early morning hours. The effect for a customer on a fixed retail rate could easily be an increase in revenue for the utility.

If the utility has a demand charge, there may be no reduction in revenue. Demand is typically determined by the highest use hour or half hour in month. This peak might be shifted, but is seldom avoided.

18. How would utility's long-term load forecasting process change if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

A single customer's activity will not change utility forecasting at all, unless that customer is very large. However, if such participation becomes widespread, the utility and commission may wish to assure that demand response is included as a resource for planning purposes. A properly designed organized market will be structured so that this participation is predictable. Moreover, Demand response lends itself to short term intervention. Loads are always there. This means that should load growth or classic generation planning result in a short fall reliability needs, then demand response can be encouraged in fairly short order. What is lacking is the incentive to curtail. Some states such as New Jersey have actively supplemented demand response capacity payments in reliability markets via rate surcharges, finding the supplements far cheaper than construction of new generation.

19. How would utility's budgeting process change if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

No Comment

20. Are there any other consequences of allowing participation in demand response programs by a single retail customer or an ARC?

No Comment

21. How would customers' demand rates be estimated if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

Demand rate treatment should be a function of the methodology for charging for reliability resources used to meet system peak demand. In general there are two approaches. First, Demand Response can be treated as an overall reduction in system demand, i.e. a reduction in system load. In this case, there should be no estimate of demand charges. The usual billing methodology applies. Alternatively, Demand response can be treated as a resource. In this case, it may be appropriate to add back a portion of any reduction of demand attributable to accreditation as a resource. Care should be taken to assure that such an add back provision does not act as a penalty by imposing more charges than would otherwise reasonably have occurred. It is EnergyConnect's experience that

customers subject to demand charges need no adjustment to retail charges as a consequence of capacity resource treatment. This is because in general, demand response activity is targeted the system peak while the customer's peak monthly demand is not reduced.

22. How would demand sales be transacted from an operation standpoint if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

    This will be function of the organized market design.

23. Would existing or planned demand response programs, and the costs associated with implementation of these programs, be undermined or cause a loss in benefits to retail ratepayers if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?

    The benefits to all customers of existing demand response programs may be enhanced by participation of single customers or ARC bids into organized markets. This is because pre-existing demand response programs already have administrative functions in place. Because organized energy market participation does not require incentive payments to participating customers, the only potential cost is a slight increase in administrative overhead.

24. If the MoPSC has the authority to do so, what conditions would the MoPSC place on a single retail customer or an ARC if it bids demand response directly into SPP's or MISO's organized energy market?

    EnergyConnect recommends that no conditions be placed on such participation. Such conditions only increase the cost of participation and deny the related benefits to both the participating customer and non-participating customers.

25. How are efforts to encourage demand response by MoPSC jurisdictional electric utilities implicated if a single retail customer or an ARC bids demand response directly in SPP's or MISO's organized energy market?
26. How are efforts to encourage energy efficiency programs by MoPSC jurisdictional electric utilities implicated if a single retail customer or an ARC bids demand response directly into SPP's or MISO's organized energy market?