

November 20, 2017

**EMERGING ISSUES IN UTILITY REGULATION,  
MISSOURI PSC FILE NO. EW-2017-0245**

**Summary of Comments of Maurice Brubaker  
on behalf of the Missouri Industrial Energy Consumers**

Thank you for the opportunity to be here today to discuss these important matters.

Consistent with the subject of this panel, I will discuss the following topics:

1. Distributed energy resources (“DER”) and demand response (“DR”) in Integrated Resource Plan (“IRP”) planning.
2. The need for consumer education on rates and utility services.
3. The importance of rate design to these issues.
4. Avoided costs.

**DER and DR**

As to the question of whether changes need to be made in IRP to accommodate increased use of DER (and DR), I think the answer is no. The IRP framework is broad and flexible and can accommodate many resource choices, including DER and DR. A review of the forecasts of the utilities suggests that they are forecasting, and planning for, a substantial increase in the amount of both. This is part of the utilities’ effort to understand and forecast customer preferences and adoption rates and how that may affect utility system operations, and be economically integrated into system planning and operations.

In this regard, it is important to recognize that arbitrary targets or incentives created for the purpose of artificially incenting customer behavior is something to be avoided. A look to the West, namely Arizona, California, Nevada and Hawaii, clearly demonstrates the problems that are created when customer incentives are not aligned with market conditions and rate structure. Utilities in these states incented massive amounts of behind-the-meter (“BTM”) solar panel

installations and they got a lot of them. The end result was a substantial shifting of cost recovery among customers, and challenges in system operations because of the intermittent nature of these resources.

Missouri has avoided being too prescriptive in planning and design, and has wisely shied away from preapproval of resources, and from excessive incentives.

### **Consumer Education and Rate Design**

The subjects of consumer education and rate design go hand in hand. As more and more choices are available to customers as a result of technological innovation in such areas as media, personal communications, appliances and transportation, use of the utility system will change, and for reasons of fairness and stability, rate designs must keep up. For most consumers, the electric generation and distribution process is somewhat mysterious. Flip the switch and the light comes on. That was good enough in the past, but with increases in technological choices and complexity of the customer/utility interface, there is a need for education, focused on an understanding of the difference between the generation of electricity on the one hand and the delivery system on the other.

The addition of DER in a BTM configuration reduces the number of kilowatt hours required to be provided by the utility, and that is a good thing for the customer with the BTM. However, residential and many small commercial rate designs do not clearly distinguish between (1) generation of energy and (2) delivery of energy and provision of grid support services. The result is that when DER is installed in situations where the rate faced by the customer has only a small customer charge, and no separately stated demand charge, the customer effectively gets paid for the avoided generation at the full retail rate, when in fact none (or very little) of the delivery service and grid support services are avoided. This causes a revenue erosion, and ultimately a shifting of costs to other customers.

As part of a customer education and rate modification effort, an unbundling of the rates so that customers can see the key elements should be considered. Showing both the cost of generation and the cost of the distribution grid and grid support services would aid customers in understanding the components of electric service. At a minimum, this would entail showing two charges in addition to the customer charge. (Plus, of course, the FAC and EE charges.)

For larger customers, and for advanced applications, consideration could also be given to time-of-use rates and to rates with customer charges, demand charges and energy charges, similar to the pricing for large customers.

### **Avoided Costs**

Much has been said about avoided costs and suggestions have been made to modify Commission rules and procedures. The thought apparently is that higher avoided costs and more flexible contract language would bring forth additional DER. To the extent that such changes would artificially inflate avoided costs, they should be avoided. If it isn't cost-based, it shouldn't be considered.

In Missouri, we are fortunate in that market energy prices are generally relatively low, and capacity is ample. This means that avoided costs will be relatively low, in relation to other states that may face different conditions with respect to the need for capacity, generation mix, fuel cost, portfolio standards, etc.

On the enforcement side, if DER is compensated for avoided capacity costs, there must be adequate contractual provisions to ensure deliverability for the term of the contract. This includes a clear delivery obligation, adequate credit support, liquidated damages, cancellation provisions, etc. – all of which are conventional commercial terms and conditions.

Thank you for the opportunity to participate. I will be happy to address any questions that you may have.

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