

MEMORANDUM

To: Missouri Public Service Commission Official Case File,
Case No. EW-2017-0245

From: Geoff Marke, Economist
Office of the Public Counsel

Subject: OPC Comments regarding Working Case to Explore Emerging Issues in Utility
Regulation.

Date: May 5, 2017

What is the Commission’s role in shaping the solar landscape?

As Public Counsel has consistently argued in recent CCN cases, solar generation is a good thing in many respects: it can be used to provide electric service to customers, to comply with Missouri’s Renewable Energy Standards (“RES”), and it has the potential to reduce carbon emissions. Furthermore, Missouri’s Renewable Energy Standards require electric utilities to include solar as a component of their resource plans. Importantly, because any additional generation in utility plant will call for increased rates, the Commission must scrutinize carefully a utility’s construction of any additional generating plant. Whenever evaluating a company’s decision to add generation the Commission should ask certain questions about the utility’s plans. First, whether the additional cost is necessary for the provision of safe and adequate service? If so, is the solar generation the least cost option to meet the needs of customers? If the project is not necessary for providing service to customers the Commission should determine whether the additional generation is necessary to comply with Missouri RES requirements. In answering these questions, the Commission should be mindful of its primary purpose to ensure ratepayers pay no more than necessary for their utility service. These considerations have, in part, caused OPC to oppose Certificates of Convenience and Necessity (“CCN”) for certain solar projects that may increase customer rates unnecessarily. One instance is Ameren Missouri’s “Solar Partnership CCN” that Public Counsel is currently appealing. Notably, Public Counsel participated in Ameren Missouri’s recent solar subscriber tariff application (Case No. EA-2016-0207) and did not oppose the plan wherein the company would solicit voluntary participants who will pay additional money on their utility bills to

support construction of new solar facilities. Once the company has enough customers signed up under the program, it will petition for a CCN to construct the facility. This is a project that can support the company's desire to build a distributed generation solar facility while taking reasonable steps to increasing rates only on those customers willing to pay more for the service.

OPC is unaware of any "standard" Value of Resource ("VOR") methodology (almost all VOR studies have been Value of Solar "VOS" studies). There are also different types of "valuation" studies available such as EPRI's *Integrated Grid Benefit-Cost Framework*.¹ OPC would insist that any future cost-benefit analysis (regardless of the specific framework utilized) should also inform the Commission as to *which* customers would benefit from the results. That is, a valuation analysis needs to be tied to a rate impact analysis to examine what an increase in solar would mean in terms of the overall impact on bills for non-solar customers. Ideally, this would include both the long-term change in customer rates as well as the year-to-year impacts.

It would be an understatement to say that there are *many* potential hurdles that would need to be overcome before a credible study could begin. The transaction costs in actual money, labor and perhaps most importantly, time, cannot be understated. Moreover, any study would need to account for the dynamic policy, legal and regulatory landscape at both the state and federal levels as well as changes to the energy markets.

What is the Commission's role related to the installation of advanced metering infrastructure?

As a general concept, a plausible economic case may be made for the deployment of AMI technology coupled with an easily understood and accepted time-of-use ("TOU") rate design. However, according to the Brattle Group, about a third of all U.S. households are now receiving electric service through AMI but only 2% are buying the energy portion of

¹ EPRI (2015) The Integrated Grid: A Benefit-Cost Framework.
<https://energy.gov/sites/prod/files/2015/03/f20/EPRI%20Integrated%20Grid%20Benefit-Cost%20Framework%2008%2029%202014.pdf>

their electric bill on a TOU plan.² Absent a TOU rate design it becomes more difficult to cost justify the infrastructure on a stand-alone basis. Moreover, it is important to factor in the additional complementary costs that would necessitate successful full-scale AMI deployment such as modified or new customer information systems (“CIS”), consumer education and marketing, as well as security and privacy liability concerns. Any definitive answer on the appropriateness of full deployment would need to be judged on the individual merits and unique circumstances of the utility involved.

Timing, as it relates to the current useful life of meters presently in place would also need to be considered. Over a long enough timeline, AMI meters (or some more advanced technology) may prove to be the default option. Automatic meter reading (“AMR”) technology could very well become obsolete in the future. However, today, Missouri stakeholders can observe lessons learned from other states farther along in this process and be prepared to act accordingly if the situation merits further consideration.

For Missouri investor-owned utilities, the time for an open and robust dialogue about expectations and parameters will likely begin in the near future presumably as the KCPL and GMO finishes its system-wide AMI and CIS installation and Ameren Missouri and Empire consider moving forward with such deployment.

What is the Commission’s role in shaping the availability of Property Assessed Clean Energy (PACE) and Pay as You Save (PAYS) programs?

PACE financing does not fall under the Commission’s oversight. Missouri enacted PACE legislation in 2010 (HB 1692) that authorizes the formation of clean energy development boards by one or more municipalities for the purpose of establishing PACE programs (Section 67.2800 – 67.2835 RSMo). PACE programs allow property owners to fund energy efficiency and renewable energy projects with little or no up-front costs. With PACE, eligible property owners living within a local government area that has adopted PACE can finance up to 100% of their project and pay it back over time as a voluntary

² Farugui, A., R. Hledkicik & N. Lessem (2014) Time-varying rates from the get-go—not just by opt-in. Smart by Default. *Public Utilities Fortnightly*. <https://www.fortnightly.com/fortnightly/2014/08/smart-default>

property tax assessment through their existing property tax bill. Rather, PACE financing can best be understood as a complementary financing tool to promote utilities Commission-approved energy efficiency programs—primarily for commercial and industrial customers.³ Where available, OPC supports the use of this financing option and has been a vocal advocate for its ability to enable upgrades in energy efficiency related activities. It has been OPC’s experience that this perspective is shared amongst stakeholders and is optimistic that PACE financing will enable more future cost-effective savings moving forward. OPC has no formal recommendations to the Commission regarding PACE financing.

However, OPC has taken a lead in researching and investigating the appropriateness of offering a PAYS tariff to ratepayers. PAYS is an on-bill loan, tariff-based financing system that utilities can use to enable ratepayers to have control over their electric bills through energy efficiency upgrades. Discussions are currently taking place to develop a financial feasibility study with one electric utility which, if successful, may be extended to other utilities if appropriate. OPC believes that the upfront capital costs are a major impediment to deep energy and demand savings on the residential side. This is especially true for low- and middle-income homeowners and renters. As articulated at a recent Commission Agenda, The PAYS tariff program has had quantifiable success for both utilities and ratepayers alike in economically-depressed regions of Kentucky, Kansas and Arkansas. If these results are transferable to Missouri it would help mitigate cost shifting expenditures for families that can least afford further electric burdens. As it stands, OPC plans to continue the investigation into this program with an acute focus on ensuring that appropriate consumer protections are maintained. OPC has no formal recommendations to the Commission regarding the PAYS tariff as it pertains to Missouri’s electric investor owned utilities at this time; however, OPC has been actively promoting 3rd party- feasibility analysis for each of Missouri’s electric investor owned utilities to inform dialogue moving forward.

What is the Commission’s role in implementing modified rate design proposals?

³ It is OPC’s understanding that PACE financing is largely unavailable to residential properties unless said property is wholly owned by the resident.

OPC has filed extensive testimony regarding modified rate design proposals in previous rate cases before this Commission. As it stands, OPC takes no formal position over this question (and sub-questions) as specific rate design proposal need to be examined on a case-by-case basis. We reserve the right to comment on this issue in greater detail in the workshop.

What is the Commission’s role in promoting a competitive market for plug-in electrical vehicles?

Whenever competition is feasible it is, for all its imperfections, superior to regulation as a means of serving the public interest.⁴ OPC maintains its original position of supporting free market competition and believes that government intervention is not warranted and inhibits EV promotion. Both ratepayers and drivers are best served by a competitive market for charging services rather than a regulated monopoly. There is no reason why Missouri cannot have a competitive market in EV charging and Missouri’s electric investor owned utilities *non-regulated* services should be allowed to participate in that market.

Missouri’s electric investor owned utilities *regulated* services can best enable the promotion of EV adoption by offering well-formed, time-of-use (TOU) rates on an opt-in basis that encourages charging during low-cost, off-peak hours. At this initial stage, this can best be promoted by educating customers and vehicle dealers on the value proposition of current and future rates. The deployment of EV charging infrastructure should be left to non-regulated services and to free market competition.

Both Missouri’s electric investor owned utilities and free market EV charging stations *can* and *should* provide a symbiotic force for ratepayers and consumers alike moving forward assuming vehicle choice and technological advances favor this path. If electric vehicle advocates are to be believed, that serious penetration of EVs is just around the horizon as range anxiety is eased by longer battery life and reduced automobile costs, then demand should increase and the market will respond accordingly with both EV cars and EV charging stations as appropriate. Under this favorable scenario, the risks of

⁴ Kahn, Alfred. (1994) Can Regulation and Competition Coexist? Solutions to the Stranded Cost Problem and Other Conundra. *The Electricity Journal* 7(8). October 1994.

stranded assets are eliminated and consumers, shareholders and the economy as a whole benefit from fair, efficient competition.

OPC supports the use of a specialized plug-in EV rate to better reflect the real price of electricity.