



## **Staff “Surge Call” – Monday, April 24<sup>th</sup>, 2023: DER Compensation in a Post-Net Metering World**

### **Synopsis**

Many states have or are considering implementing next-generation DER programs in a post-net metering (NEM) world. On this call, participants learned about what several states are doing in setting compensation rates and shared their questions and experiences on the topic. Brief summaries of each state’s comments follow. Note that our recording of the session to support creating these notes did not start until Hawaii’s presentation, so the summaries for Arkansas and Michigan are based only on brief notes taken by the moderator.

### **Arkansas**

Arkansas has very little distributed generation (DG). Utilities can choose to compensate DG using either an avoided cost or a "two-channel" grid charge.

### **Michigan**

Michigan noted that, relevant to this conversation, they allow utilities to own generation. In their view, DG looks like a power plant, so to determine the DG export rate they should look at power plants. They conducted a study in 2016 to more accurately represent the grid services DG customers used. DG is compensated using instantaneously net billing (aka “inflow/outflow rate”). Outflow is compensated based on the power supply component of the utility’s rate. Inflow is charged at the standard tariff. Related to this conversation and how other states may be looking at it, Michigan does not have the authority to include the value of avoided externalities in the compensation rate for DG.

### **Hawaii**

Hawaii has a good track record with rooftop solar and previously had a successful net metering policy. But, like many states, Hawaii looked for a successor to net metering. The state started interim programs to encourage more peak production and exports of those resources but is looking for a long-term DER program that is sustainable and that appropriately captures the value these resources provide to the system, particularly to address higher peak needs. They are developing a new framework with:

1. A base “Smart DER Tariff” with both a “non-export” version (for customers who largely intend to self-supply) and an “export” version (for customers who expect to have substantial excess energy to export).
2. They are also setting up a “Bring Your Own Device” (BYOD) program as an advanced grid service program that offers four increasing levels of control and dispatch: scheduled dispatch, direct utility control, advanced utility control (e.g., more frequent dispatch), and fast frequency response.

Hawaii is also implementing a new TOU rate to complement these new tariffs. Further objectives of these grid service DER programs are increasing rooftop solar but not overpaying for resources; not exacerbating inequities in terms of access and cost for low-income residential customers. Currently,

Hawaii is conducting modeling to assess the value of grid services and resources and how that translates into export rates.

### **South Carolina**

South Carolina has had a “1:1 system” of net metering that also provides the utility with cost recovery for the difference between the NEM rate and the value of DG calculated based on avoided costs. This is recovered in the fuel clause, not base rates. State law also sets a cap on net metering capacity for each utility; these caps have all been reached. The three main South Carolina utilities have increased solar penetration rates since utilizing this 1:1 system and have also begun offering TOU programs. There is a committee in the legislature that reviews recommendations from the Office of Regulatory Staff and considers updates to the laws.

### **Georgia**

Georgia Power had a small NEM pilot with around 5,000 customers. The utility eventually proposed to end NEM and require new PV customers to go on a TOU demand tariff. It also proposed a new outflow rate or “retail minus rate,” But this was not approved. The Commission decided that customers from the NEM pilot will be grandfathered for 15 years (e.g., keep full retail NEM). Other PV customers will receive payment for their net export at avoided cost plus 4 cents, netted monthly. The Commission also declined the newly proposed TOU rate from Georgia Power. After three years, the Commission will revisit including consideration of a minimum bill provision.

### **North Carolina**

North Carolina is a traditionally regulated market and only allows DER sales in a wholesale market context to its regulated utilities mostly as PURPA Qualifying Facilities. The Commission partnered with a North American Energy Standards Board and Lawrence Berkley National Lab committee on defining DERs for purposes of business practices at the wholesale level and is interested in revising its DER market standards and the possibility of a retail model. The Commission wanted to determine what may happen to the market if you change business standards to allow for more DERs at the retail level. But North Carolina has no market for DERs except for wholesale level where merchant plants or PURPA generators sell to the utilities.

North Carolina has had 1:1 NEM since the 1998s with credit carried from month to month, zeroed out once a year. In 2017 the legislature directed the Commission to adopt new NEM policies that eliminated cross subsidies. Earlier in 2023 they adopted a new NEM policy that includes a minimum bill and a TOU requirement. Net excess generation is paid each month at avoided costs, and there is no credit roll-over at the end of the month. There is also a 1 MW limit. Future NEM customers will have to be on a critical peak pricing rate, although some existing NEM customers will have the option to be grandfathered. These changes take effect on July 1, 2023. They also noted that their new approach is a compromise among stakeholders that is closely related to the activity in North Carolina because of the large presence of Duke Energy utilities in both states.

### **Minnesota**

Still a full net metering state for residential customers. But for their Community Solar Gardens (CSG) program they have a value of solar rate and have recently seen the externality values in this rate change

due to legislation (100% Carbon Free law), from 13 cents levelized cost up to 24 cents. This has a big rate impact. For Xcel Energy the CSG program accounts for about 20 percent of their fuel clause.

Older solar garden programs from different utilities use an average retail rate, but that has led to rate increases over time as more solar gardens drive the rate even higher, which attracts more participation, which drives up the rate, in a compounding fashion. Xcel Energy has a proposal to remove that impact and go to a levelized cost basis. Minnesota also utilizes recently allowed Attachment Six rate guidance, or compensation rates for 1 MW to 10 MW DER facilities, pending commission review. The goal of this rate is to change how the utilities are going to negotiate the rate, and what systems will be compensated for different types of services. So, in summary, changes to commercial and solar garden space, less so residential.

### **Q&A from participants:**

#### **Question on the process for calculating avoided costs. Which value streams are captured by your avoided costs? To what extent does modeling of avoided costs capture various value streams?**

Arkansas defined it as the 12-month average from the previous year of the applicable location of the marginal price in the MISO area. This is not an incremental value but an average. Legislative changes drove this approach. It may encourage more storage but undervalue some solar projects. Arkansas also allowed grandfathering (aka “rate structure lock”) up to 20 years for NEM. Georgia has a renewable cost development framework that looks at various factors to help determine an avoided cost rate for NEM and rooftop solar. For PURPA avoided costs, Michigan accepted an auction approach, e.g., if a utility goes out for an RFP for solar, the winning bid sets the avoided cost for the foreseeable future for other projects.

#### **Question about project size, where are the large NEM customers?**

Some states like Georgia only allow for NEM in smaller projects otherwise they are typically considered a qualifying facility under PURPA eligible for avoided cost rates. Other states like Michigan require the system to be on the property and limit it to only 1 MW. For Arkansas, any commercial system over 5MW is registered at the Commission, anything below that threshold is not for commercial NEM, residential NEM systems are not registered at the Commission.

#### **Question about stakeholder engagement and outreach for NEM, is it happening?**

Many states have had concerns about cross subsidization for residential solar, including Michigan and Arkansas. In Arkansas the Commission adopted a grid charge to help alleviate this, but it was struck down by the Courts, and the utilities ultimately went to the legislature to remove the 1:1 net metering. Georgia saw advocates organize customers to come speak to the Commission during public comment periods in support of monthly netting. In Michigan there is stakeholder engagement and the positions of these groups have not evolved much. For example, solar advocates and environmental NGOs support a Value of Solar rate or including externalities, which the Commission does not think they have authority to do, while the utilities advocate for wholesale compensation rates.

#### **Question about load management control for charging stations and EVs – cost recovery for these stations/load management?**

No response to this, but the EVSWG was offered as a potential source of information on this topic.