

Before the Council of the City of New Orleans In

**Re: RULEMAKING PROCEEDING TO ESTABLISH RULES FOR COMMUNITY SOLAR PROJECTS DOCKET NO. UD-18-03, FILED PURSUANT TO RESOLUTION NO. R-23-130**

### INTRODUCTION or The Good, The Bad and the Ugly

ProRate (PRE) asserts that there is lots of good in the Community Solar Rules (CSR) but those gems are obscured by major defects in its presentation. For example: the attempt to formulate a fully AVOIDED COST approach to provide remuneration for solar without burdening other ratepayer is laudable, apparently unique in the US and was accomplished, but the way it has been presented, is still published and currently calculated, makes that gem almost too rough to see and thus, almost worse than useless.

The CSR are extremely hard to read and therefore hard to deeply understand because :

- They are not published anywhere in computer readable format.
- The CSR has numerous grammatical errors, and not so few logical errors.
- The worst logical errors are found in the AVOIDED CAPITAL COST part of the Bill Credit explanation which may be the key linchpin of the CSR.
- The mere fact that the CSR has these many defects undermines the credibility or competence of all who participated in the 2018-2019 process.

PRE observed that there are rules for macro community solar generating facilities (CSG) which are allowed to be as big as 2 to 5 MW and different rules for micro CSG that could easily sit on a single home and, nevertheless, that these rules are fundamentally interdependent. Namely, defects in one create roadblocks for the other, and solutions to one help to support the other.

All of this was developed within on-going dubious assumptions that:

1. A ratepayer should never get either real or effective negative electricity bills even though an owner of a CSG will receive monthly net income.
2. NEM obviously creates negative cross subsidies against other customers even though PRE demonstrated in its June 20<sup>th</sup> submission to this docket that proper application of the Bill Credit rules for non-low-income customers pays better than retail.
3. It is a bad thing for rooftop solar customers to easily convert solar investments from rooftop solar to CSG and back despite the fact only a rule change can make this possible, i.e., there is no fundamental impediment nor rationale for such an impediment.
4. The Community Solar issue is separate from promoting a) energy efficiency (EE), b) load flexibility and orchestrated demand response, c) reliability and d) resilience, when in fact these are also interdependent problems and solutions, and when solved together the solutions are much cheaper and effective.
5. Solving the macro CSG problem can and should be done without concern for the micro CSG problem when in fact they are interdependent.

PRE disagrees with these assumptions and asserts that these problems and their solutions layout a game plan about what we can and should do going forward. But to get there, we present short set of recommendations to improve the current Community Solar Rules (CSR) .

## PRE's PRESCRIPTION FOR HOW TO IMPROVE THE CSR

PRE's WHOLE prescription for improvements germane to this docket is:

1. Improve the CSR in these ways:
  - a. Remove the requirement found on the second page of the SCR that requires a solar farm be "individually metered,"
  - b. Rewrite the section on Bill Credits in the exactly the way Together New Orleans' June 15, 2023, submission to this docket renders of it,
  - c. Correct the many technical and grammatical errors in the CSR, and
  - d. Let low-income customers be paid at the higher value between the way NEM pays and the way the Bill Credit is calculated for non-low-income ratepayers.
  - e. Do not discriminate against between micro CSG's that may often be rooftop installations that may have substantial on-site consumption of most of the annual solar electricity output of each panel and macro community solar that has little to no on-site consumption; let them compete.
2. Publish the CSR as a Computer Readable PDF at both of CURO's and Entergy's websites, which will allow the actual words to be accurately and trivially copied and pasted into another document without the tedious and error-prone use of Optical Character Recognition software document extraction from of a set of pictures of a printed copy of the CSR.
3. Similarly publish this, PRE's July 7, 2023, submission to UD-18-03, (namely this document) or a much simpler version that explains how these tiny changes will unleash many benefits that are outlined at the bottom of this document.
4. Let any ratepayer request and receive a bi-directional AMI meter at no more than the cost of labor to replace it and not be required to pay the cost of the materials.
5. Apply the assertions for optimally calculating Avoid Capacity Cost that PRE provided in its June 20, 2023 submission in this docket: i.e., pair a Macro CSG with a matching size Virtual Peaking Plant (VPP) that is very easily financed by converting rooftop solar installations into Micro CSG's that will, in pursuit of very negative effective electricity bills, equip these homes with all the remotely controllable distributed energy resources for a sizeable VPP. And thereby, obtain 100% resource adequate, paired solar resource and VPP at the only out of pocket cost that is needed to build and maintain a macro CSG.

A glimpse of what you get with PRE's recommended improved CSR.

Because of time constraints and today's deadline, only a few of these are explained herein. However, an after the deadline supplement will soon be provided.

1. Greatly improve communication about community solar and these related objectives.
2. Allow a community solar farm to be created in hours (if you ignore the host of RED TAPE chores heavily built into the CSR).
3. Unleash highly cost-effective energy efficiency (EE) investments in most of the very buildings where the owner has is more than adequate ability to act but because of over-investment in rooftop solar and the remuneration restrictions of Net Energy Metering (NEM), EE opportunities are totally thwarted because once comfort is obtained, there is no possibility for payback that returns the investment at all, much less with a profit.
4. EE improvements/upgrades can be expected in rental property because landlords have the capital and tax burden so they can use federal tax credits to increase rental income because tenants can be expected to see more than 50% drops in energy bills.
5. Unleash the full set of Distributed Energy Resources (DER) investments in most of the very buildings where there is more than adequate capital and tax liability to act quickly.
6. Pay customers to invest in technologies that allow remotely controlled air conditioners, water heaters, EV charging, etc... which we will call, hereinafter, Demand Response (DR) ready.
7. Provide hard to dispute proof that Net Energy Metering (NEM) underpays for rooftop and Community Solar whenever solar is paired with an adequate amount of DR ready technology.
8. Speed up the growth of our nascent, green workforce.
9. Greatly improves reliability and resilience.
10. Pay back the City's \$80 million investment in Smart meters via lower electricity bills.
11. Unleash Time-of-Use Rates in New Orleans and beyond.
12. Unleash Bi-directional payments to ratepayers in the same month the value is generated and thereby make 200% decreases in high to moderate income ratepayers bills quite feasible and 80% decreases in utility bills of low-income ratepayers even more likely.
13. Rapidly unleash and spend the multi-trillion-dollar windfalls provided by the 2022 congressional Bipartisan Infrastructure Bill and Inflation Reduction Acts which are desperately needed to address the imminent threat of Climate Change forthrightly and expeditiously. Democrats are worried that access to these potential assets will be shut down when and if we get a Republican-Controlled Congress and Presidency. And that these congressional acts may be the last and best chance to save New Orleans from the long-term threat of sea level rise in the future.
14. Grow both micro and macro CSG's in New Orleans and throughout the US. Although the Council's decided in 2022 to revisit this docket specifically on the request of Madison Energy Industries to build macro solar farms, a solution to both will work much better and faster because of these synergistic effects.

## DISCUSSION about the changes in the CSR

PRE's 1.a. recommendations says delete “(xv) **is individually metered;**” found in II.DEFINITIONS

PRE's 1.b. and 1.c recommendations are about the key section on remuneration or bill credits for avoided capacity cost called **VIII. SUBSCRIPTION CREDITS, E. , (3)**, which should be changed from

The corresponding avoided capacity cost, will be expressed in \$/kWh and based on the MISO Cost of New Entry ("CONE") value for the planning year that corresponds to the month in which the credit is provided and shall be calculated as follows:

avoided capacity cost =  $(CV * 0.5) / AEE$  where:

- o CV is equal to the CONE value in \$/kW-yr for MISO Local Resource Zone 9 for the planning year that corresponds with the month in which the credit is provided.
- o **0.5 represents the adjustment used by MISO for solar resources in determining the initial Resource Adequacy value for the purposes of the Planning Resource Auction ("PRA");**
- o AEE is equal to the annual estimated energy in kWh from a 1 kW<sub>DC</sub> solar PV installation in New Orleans as calculated by the National Renewable Energy Laboratory's PVWatts Calculator for a standard fixed array system with an tilt and orientation typical for New Orleans.
- o The appropriate credit to be applied to the bill of each Subscriber that does not qualify as a Low-Income Subscriber will be a dollar amount credit determined by multiplying the Subscriber's kWhs from Section VIII.D. by the value of each CSG per kWh credit from Section VIII.E.

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The corresponding avoided capacity cost, will be expressed in \$/kWh and based on the MISO Cost of New Entry ("CONE") value for the planning year that corresponds to the month in which the credit is provided and shall be calculated as follows:

avoided capacity cost =  $(CV * \text{Solar Resource Adequacy Percentage}) / AEE$ , where:

- o CV is equal to the CONE value in \$/kW-yr for MISO Local Resource Zone 9 for the planning year that corresponds with the month in which the credit is provided.
- o **The Solar Resource Adequacy Percentage refers to the proportion of the solar project's installed capacity that can be relied upon to contribute to system peak demand.**
- o AEE is equal to the annual estimated energy in kWh from a 1 kW<sub>DC</sub> solar PV installation in New Orleans as calculated by the National Renewable Energy Laboratory's PVWatts Calculator for a standard fixed array system with a tilt and orientation typical for New Orleans, **where AEE is expressed in units of kWh/kW-yr.**
- o The appropriate credit to be applied to the bill of each Subscriber that does not qualify as a Low-Income Subscriber will be a dollar amount credit determined by multiplying the Subscriber's kWhs from Section VIII.D. by the value of each CSG per kWh credit from Section VIII.E.

Another technical error is that the following sentence is missing “without”:

#### IV. COMMUNITY SOLAR GENERATING FACILITY ELIGIBILITY

##### B. CSG Facility Limitations

7. To the extent that the analysis performed in the Utility's processing of the CSG Facility application as described in VIID of these Rules reveals that a proposed CSG Facility would have a negative impact on the reliability of the Utility's system, either the CSG Facility must be reduced in size to . mitigate such negative impact, or the CSG Facility developer may choose to incur the costs of necessary upgrades to the Utility's system to enable the CSG Facility to be interconnected with but **[without]** jeopardizing the reliability of the system.

A very abbreviated DISCUSSION about the benefits of the changes in the CSR

The following is just the beginning of the explanation of the why and how PRE's recommended changes in the CSR were chosen and how they accomplish the objectives found at the beginning of this document.

**Allow a community solar farm to be created in hours (if you ignore the host of RED TAPE chores heavily built into the CSR).**

With the recommended CSR changes, any existing rooftop solar customer, ERTSC, who we assume is receiving NEM remuneration and therefore must have a bidirectional AMI meter, can sign up at least 2 or 3 subscribers and otherwise follow all the rules. Each of those subscribers will be assigned a fixed percentage of ERTSC's exports to the grid and receive most or all the Bill Credits described in the CSR thereafter for the term of their subscription.

Notice that if the ERTSC does this, (s)he will no longer receive future bill credits at retail value but instead will receive a stream of income from the contracts (s)he will make with each subscriber at a fee structure something like "you pay me 4 cents a kWh for each kWh my array exports to the grid and is allocated to you via ENO's bill credit mechanism". This can work because the 4 cents is less than what ENO will credit to the subscriber for the same kWh. By this method, there will rapidly be many thousands of kWh's sold to subscribers around the city via Community Solar and the ERTSC will receive timely cash in the same month it is generated. Moreover, as explained in the section on Energy Efficiency, this can easily become a net money-making opportunity for the ERTSC. Notice 4 cents is just a guess at what may become the "going rate" for the Price of Community Solar Subscription Energy (PCSSE) energy. There will quickly be created a free market in the value or price of PCSSE and it will result in competition, all to the benefit of both ERTSC's and Subscribers.

Note that without the first rule change, an ERTSC will have to pay as much as \$10,000 to individually or separately meter those panels that (s)he has, in excess of consumption.<sup>1</sup> But, with PRE's recommended change, i.e., no electrician need be hired, no wires need be moved or installed. All that is needed is paperwork. With that much of a financial barrier to doing this in the current CSR, there should be no wonder why there are no micro community solar farms in New Orleans. But without that barrier there could easily be hundreds in a month and thousands in a few years.

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<sup>1</sup> Brian McGraw, a licensed electrician working in New Orleans, rapidly estimated/quoted this price for Myron Katz in a cellphone discussion on July 6<sup>th</sup>, 2023. He estimated the cost of adding a 100 AMP service and moving key wires from the solar array to that service at \$10,000.

**Unleash highly cost-effective energy efficiency (EE) investments in most of the very buildings where the owner has is more than adequate ability to act but because of over-investment in rooftop solar and the remuneration restrictions of Net Energy Metering (NEM), EE opportunities are totally thwarted because once comfort is obtained, there is no possibility for payback that returns the investment at all, much less with a profit.**

Consider the following example of *Solar Lipstick on an Energy Hog* described at this website: <https://bigpivots.com/solar-lipstick-on-an-energy-hog/> wherein a \$7000 EE investment grossly outperforms over \$30,000 spent on two rooftop solar arrays. This should not be expected to be an uncommon situation in New Orleans' homes. Thus, the owner of this home is an ERTSC and once comfort is obtained, (s)he could free up solar exports to the grid far more cheaply, as measured in \$/kWh, than the cost to install more solar panels in either a micro or macro solar farm. In most of the US, there is no payback, because NEM does not create a payback, neither in dollars nor lowered future electricity bills when production consistently exceeds consumption. But with the upgrades to the CSR recommended by PRE, this homeowner can keep investing in increasingly cost-effective EE that will return dollars that more than repay such retrofit costs.

**EE improvements/upgrades can be expected in rental property because landlords have the capital and tax burden so they can use federal tax credits to increase rental income because tenants can be expected to see more than 50% drops in energy bills.**

There are many barriers to this but anything that can help a landlord get more rent is a normal and customary business practice of a landlord. Consider that a landlord may also be an ERTSC and will be delighted to subsidize the electricity bill of her/his tenants. Such activities are tax-deductible for the landlord and help both landlord and tenant. Consider the possibility that the rental property itself receives solar panels to its roof. If this is done, one of the recent Federal Acts will allow an extra 10% tax credit if the tenants are low-income. The amount of solar power exported to the grid increases with increasing EE of the building and/or the willingness of the tenant to conserve consumption which also becomes an additional economic incentive for the tenant. This landlord can expect the tenants' electricity bills to be less than half of similar tenants on the same block in almost identical housing stock. This marginal effect can be used to request and receive higher rent but still lower the total cost of living for the tenant. This is a win-win.