

**From:** [Wufoo](#)  
**To:** [Staff, CAO \(PUC\)](#)  
**Subject:** Submitted Public Comment Form  
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Provide the docket's number. *	E 015/CI-18-254

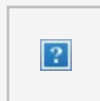
Leave a comment on the docket. \*

I am a member of a local citizens group that began collaborating with Grand Rapids Public Utilities 4 years ago with a goal of implementing a local community solar program. Early in 2018 GRPU hired a consultant to research the optimal solar program for our area, and it became apparent that battery storage could add a lot of value to the program in terms of reducing demand charges. In November 2018 GRPU was about to enter into a contract with the consultant to develop an RFP for construction of a 1 MW solar array with battery storage. At this point MP asserted that GRPU's contract with MP did not allow GRPU to purchase power from a third-party solar developer, and stated that they were prepared to take legal action if GRPU proceeded as planned. Instead, they offered to lead the RFP process and sign a PPA with the solar developer themselves, and to sell the power from the solar array to GRPU on a pass-through basis. MP staff told us that this would benefit MP, as they wanted learn how solar-plus-storage systems work. GRPU Commissioners decided to accept MP's offer, rather than to start an expensive legal battle. Currently MP and GRPU are in the final stages of negotiations with one of the RFP respondents, with a go/no go decision expected very soon.

Given this history, I do not understand why the Grand Rapids project is not mentioned in the IDP. The language on page 39 in item 4, Solar/Storage Applications, is very generic. Certainly there should have been some lessons learned over the past year of MP's involvement in our project, and those should be noted.

The attached a press release about the Grand Rapids project has been carried by local newspapers.

Attach a File



[press\\_release\\_final.docx](#)

495.90 KB · DOCX

## Solar-Plus-Storage Program Coming to Grand Rapids

Grand Rapids Public Utilities (GRPU), in partnership with Minnesota Power and a local citizens group known as the Itasca Clean Energy Team (ICET), is in the process of contracting for construction of a community solar garden within the City of Grand Rapids. Bids were received from solar developers<sup>i</sup> at the end of August and are now under review. If the GRPU Commission approves moving forward with the project, a contract to build and operate the system will be in place by the end of January 2020, with construction and program launch to be completed in 2020.



A community solar garden is a large array of solar panels, typically at a single location, that generates electricity. Customers of the local utility can subscribe to get some or all of the electricity they need from this clean, renewable energy source. Community solar is becoming increasingly popular in Minnesota, growing from a total of 1 MegaWatt (MW) of operational capacity in January, 2017 to about 600 MW today. One reason is economies of scale: Construction and operation of a single large array costs less per MW than building lots of small rooftop systems. Community solar also takes the hassle out of “going solar.” Subscribers don’t need a south-facing property or an adequate rooftop; they may even be renters. They don’t need to bother with building permits, inspections, maintenance, or complicated tax returns. Subscribers can transfer their program membership to another address if they move, or withdraw from the program altogether without any penalty. They can also take some pride in supporting a long-term source of locally produced clean energy.

The proposed GRPU solar garden would be paired with a battery storage system, so that energy produced by the solar array can be released onto the local electrical grid at times when the demand for power is highest. The wholesale price of electricity varies greatly, depending on the amount of overall grid demand at any given time. Using the energy stored in the batteries at these times will allow GRPU to reduce the amount of high-cost energy it would otherwise need to purchase during those “peak hours,” and to pass the savings along to their customers at large. This is a major reason why GRPU Commissioners have supported the proposed project: All of their customers would benefit from the program, whether or not they choose to become a subscriber.

The solar array is expected to cover about 7 acres, and would generate 1 MW of electrical capacity. The batteries would provide about 5 MW-hours of energy storage. Site plans incorporate a bee-friendly “pollinator garden,” as pictured above. ICET is exploring opportunities to collaborate with Itasca Community College and the local School District, with a goal of maximizing educational opportunities tied to renewable energy and the associated jobs of the future. Site plans include an online portal, with easy-to-read, real-time information about the solar array’s performance. ICET is also working with local partners to find ways to make solar power available to lower-income customers.

### Subscription Costs

Community solar subscription plans vary around the state and across the country. Seeking help to design a program tailored to NE Minnesota, GRPU contracted with Cliburn and Associates, a widely respected solar consulting firm. Based on the consultant’s analysis and some community survey results, “pay as you go”

pricing was determined to be the best fit. Subscribers would sign up for Shares (blocks of solar power), delivered to the local grid from the solar array. While the subscription rate per kilowatt-hour (\$/kWh) for the Solar Plus program cannot be finalized until a contract is signed with the solar developer. Cliburn and Associates' economic analysis suggests that the new solar rate would add about *one cent per kilowatt hour (kWh)* on top of the standard rate.

Example: Assume that a single Share of the project is defined as 130 kWh per month. Under the Solar Plus Rate, the first-year cost of this Share would be \$1.30 more per month than the cost for standard electricity. Households wishing to solarize a greater percentage of their electric bill could subscribe to multiple Solar Plus Shares, resulting in greater total benefits over time. The average GRPU residential customer uses about 650 kWh of electricity per month. Converting all of that to renewable solar power would require five Solar Plus Shares, so the solar premium would be  $5 \times \$1.30 = \$6.50/\text{month}$ . That's less than the cost of lunch at your favorite restaurant!

### **Community Benefits**

The majority of the Solar Plus program's local, clean energy benefits would be shared with GRPU ratepayers as a whole. Cliburn and Associates' analysis shows that, over the 25-year life of the solar-plus-storage project, the utility could save much more on energy and peak-demand charges than the total project is expected to cost, with savings adding up year after year. These savings could be used by GRPU to improve service and infrastructure and/or to reduce the need for future rate increases.

For subscribers, the Solar Plus rate (\$/kWh) would be slightly more expensive than standard electricity *at first*. But the Solar Plus rate would be fixed over the long term, while due to inflation and market pressures, the standard rate is likely to rise. Within 6 to 8 years, the Solar Plus rate is likely to be lower than the standard rate, and Solar Plus savings would begin to add up. GRPU plans to review the program in Year 10, to ensure that ongoing costs are covered. Projections show that the program would provide savings for another 10 years or more. Thus, this program would help keep GRPU financially strong—and more able to modernize service community-wide for years to come.

### **Next Steps**

A contract with a solar developer to build and operate the system is slated to be in place by the end of this year, with actual construction and program launch to take place in 2020. It is important to note that up-front costs for constructing and maintaining the solar array and the battery storage system would be paid for by the developer. The developer receives compensation for this investment over the long term, through sale of the power produced by the system. Minnesota Power and GRPU would sign a Power Purchase Agreement with the developer as part of the upcoming contract.

### **What about your community?**

ICET members are convinced that community solar plus battery storage is a good fit for municipal utilities across the Range. It has been over 4 years since they first began promoting the idea to GRPU and other local decision-makers, and they have learned some hard-won lessons along the way—lessons that they hope to share with others. If you are interested in learning more about making community solar a reality where you live, check out ICET's website, [grandcsg.com](http://grandcsg.com), or find them on Facebook @ **Community Solar Garden**

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<sup>1</sup> Solar developers are private firms specializing in solar project construction and maintenance. They partner with private investors who are able to take advantage of Federal solar tax incentives. Currently these are worth up to 30% of the project cost, but will start to phase out next year. Public entities like GRPU do not qualify for the tax credits, as they have no Federal tax liability.