

Dear Public Works Committee,

Executive Summary

I recommend that you reject the current airport landfill solar PV proposal to contract with the We Energies Solar Now program and work towards installing the proposed solar PV system through an alternative tariff arrangement that would have improved social and economic outcomes for both the City of Milwaukee and its residents. By voting to approve this Solar Now proposal, you are further burdening the most vulnerable in the community with even more expensive utility bills. There are more cost effective and equitable solutions to go solar in a way that will increase the system size by a factor of 4. The city of Milwaukee has an opportunity to be a leader and forge a path for others to follow. Please do not squander this opportunity.

As a consultant in the field of building energy efficiency and renewable energy, I have worked with a wide variety of institutions, building owners, solar developers and utilities as it relates to procurement of renewable energy. In addition to my professional role, I am also a Renew Wisconsin board member and Citizens Utility Board (CUB) member. I have been closely following the development of state renewable energy tariffs including Solar Now and am compelled to speak out against the proposed plan¹. The ideas shared here echo my sentiments expressed throughout the utility green tariff applications^{2,3}.

There are three compelling reasons why the Committee should reject the Solar Now proposal and pursue alternative tariff arrangements to build out the landfill project:

- 1) **Widespread Opposition to Solar Now:** The Solar Now program is derided by nearly all stakeholders including renewable energy advocates, consumer advocates, and nearly everyone else except for the utilities and misinformed hosts. The City should be a leader in developing equitable renewable energy procurement options and not jump on the first pilot program pushed by the utility. **The Solar Now program is not consistent with the City's values.**
- 2) **Dramatically Increase System Size:** Pursuing alternative tariffs would enable the project size to be increased significantly which would contribute towards meeting the City's renewable energy goals. Solar Now has a limit of 2.25MW but the site can support a much larger system if this artificial limit is removed. There would also be potential to partner with additional organizations to offtake excess energy such as the National Guard, the Mitchell Airport and/or the residents of the City of Milwaukee.

¹ This work is completed on personal time and not associated with my formal employment.

² <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=354327>

³ <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=361287>

- 3) **Overestimated Lease Payments:** The Solar Now lease payment document overestimates payments over the life of the program. Lease revenue would be 20% less over the life of the program based on MISO projected accredited capacity values⁴. Alternative tariffs will have improved economics over the life of the system and do not shift costs to nonparticipating ratepayers.

In lieu of the Solar Now program, **I recommend that the City work with their utility to go back to the drawing board on a renewable energy tariff that is consistent with the City's values and objectives.** The conclusion section of this document provides details on alternative procurement options that avoid the pitfalls of the Solar Now program, while exceeding the climate and economic goals that would be achieved through the Solar Now program.

Section 1: Widespread Opposition to Solar Now

As you are all likely aware, the Solar Now program has been derided by nearly all stakeholders including CUB, Renew, Vote Solar and the general public since the application was first submitted to the PSC⁵. We Energies' primary goal of the program is to stifle a vibrant rooftop solar marketplace and provide a utility-owned alternative that cash-strapped municipalities with lofty sustainability goals would have a hard time turning down. Due to the extensive cost shifting from hosts to non-participating ratepayers, the terms of the tariff would be considered too good to pass up. Hopefully the City of Milwaukee will not be fooled, and set a precedent for other organizations to follow by rejecting the Solar Now format.

We Energies continues to overreach their monopoly authority and attempts to interfere with the ability of their captive rate base to install solar PV on their roofs. Just this month, We Energies has attempted to deny a solar PV interconnection application to a Milwaukee area church that is working with a non-profit finance group to monetize the investment tax credit.

The Solar Now program could cost customers more than \$128 million over the next 30 years and increase rates by nearly \$8 million in the first year of operation⁶. These program costs are shifted from the hosts to nonparticipating ratepayers. **By having the City of Milwaukee enroll in Solar Now, you are further burdening the most vulnerable in the community with even more expensive utility bills.** There are more cost effective and equitable solutions to go solar. Solar Now benefits We Energies shareholders, not ratepayers. It should not be surprising that

⁴ <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=355777> , page 16

⁵ <https://energynews.us/2018/12/19/midwest/wisconsin-utilitys-rent-a-roof-pilot-would-give-it-solar-monopoly-critics-say/>

⁶ <https://cubwi.org/psc-endorses-128-million-rent-a-roof-pilot-for-we-energies/>

more opposition to these inequitable programs are voiced given the investor owned utilities savviness in strategically dispersing donations throughout the community⁷.

The resolution states that Solar Now program is an acceptable tariff in this application because “the City cannot build its own renewable energy on this site because it is not physically connected to a City building’s energy load.” While the site is not connected to an energy load, **there are other options for the city to build and own a solar PV system at this site** through a Public Utility Regulatory Policies Act (PURPA) project or similar tariffs to what is already being done in other Wisconsin IOU service territories, such as the Dane County Airport and City of Middleton airport installations being completed through MGE’s Renewable Energy Rider⁸. Per the referenced article, the savings to Dane County will exceed the Solar Now saving indicated in Exhibit E. If the County had owned the system, the savings would have been even larger⁹.

The policy landscape is changing rapidly, and the recent PSC vacancy will further accelerate the renewable energy procurement options available to Wisconsin utility customers¹⁰. The rush to build out the airport landfill site is premature and short-sighted.

There are currently multiple legal cases pending that could significantly alter the renewable energy landscape in Wisconsin, including the most recent We Energies rate case appeal by Earthjustice, Sierra Club, ELPC, Vote Solar and Renew Wisconsin in which the capacity payment valuation of customer owned resources is being challenged¹¹.

I would encourage the city to ramp up its efforts with groups like Renew Wisconsin, League of Wisconsin Municipalities and other organizations with renewable energy goals to expand the renewable energy procurement options in the state, including customer owned off-site projects.

Section 2: Dramatically Increase System Size

Pursuing alternative tariffs would enable the project size to be increased quite significantly which would go much further in meeting the City’s renewable energy goals. Solar Now has a limit of 2.25MW but the site can support a much larger system once that artificial limit is removed. There would also be potential to partner with additional organizations to offtake excess energy such as the National Guard, the Mitchell Airport or residents of Milwaukee. **We Energies is currently the only Wisconsin investor owned utility that does not offer a**

⁷ <https://www.nytimes.com/2020/01/05/business/energy-environment/naacp-utility-donations.html>

⁸ https://madison.com/wsj/news/local/environment/dane-county-expands-airport-solar-farm-project-will-supply-of/article_0ead90f7-368a-5e14-9f36-450c634d10fb.html

⁹ <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=366145>

¹⁰ <https://www.utilitydive.com/news/early-utility-regulator-retirement-gives-wisconsin-opportunity-to-move-on-t/570429/>

¹¹ <https://earthjustice.org/news/press/2020/clean-energy-orgs-appeal-psc-discrimination-against-customer-owned-renewable-energy>

community solar program to its customers! The City of Milwaukee can and should do more to change this situation.

Typically, a solar PV system connected to the distribution system can support up to 10MW of solar PV without upgrades. The landfill site could physically support over 10MW. I would recommend that the City work with the utility to determine the maximum solar PV system size that could be supported by the grid in this location. If the answer is less than 10MW, I would suggest that the City contract with a third party to review We Energies analysis. As the project manager for the City of Madison's 100% Renewable Energy Plan¹², I worked extensively with the City to locate a suitable plot of land to develop a large offsite solar PV system. In the end, no suitable City owned land was identified, and a project was located on private land through MGE's Renewable Energy Rider. **There are likely very few suitable sites owned by the City of Milwaukee; whatever sites are found should be built out to the maximum.**

Section 3: Overestimated Lease Payments

The Solar Now lease payment document overestimates payments over the life of the program. As indicated in Exhibit E, the capacity accredited by MISO is subject to change annually and was indicated as 50% in year 1. The capacity accreditation is a measure of the amount of the solar generation that overlaps with the system peak. Over the next 10 years there is going to be an unprecedented build out of solar PV resources in the state¹³.

The assumption that the capacity accreditation is going to remain at or above 50% is pure fantasy and not supported by MISO's own projections¹⁴. When using the actual projected MISO capacity accreditation values, the lease payment over the 20-year project is reduced by over 20%. **All the risk of the Solar Now program is shifted from the utility to the host.** The lease payment could potentially even go to \$0/yr based on MISO rules which the City of Milwaukee has no control over.

Alternative tariffs will improve economics over the life of the system and do not shift costs to nonparticipating ratepayers. From a societal perspective, Solar Now is among the worst approaches to building out solar capacity.

¹² <https://www.madison100renewableenergy.com/>

¹³ <https://www.renewwisconsin.org/wi-generation-interconnection-queue/>

¹⁴ <http://apps.psc.wi.gov/pages/viewdoc.htm?docid=355777>, page 16

Conclusion

In lieu of the Solar Now program, I would recommend that the City work with their utility and the PSC to go back to the drawing board on a renewable energy tariff that is consistent with the City's values and objectives.

As discussed, there are already alternative approved tariffs available that better align with the City's goals. MGE's Renewable Energy Rider is a sleeved tariff that allows an offsite solar PV system to be dedicated to a customer and renewable energy produced from that system to directly offset grid energy while receiving a credit equal to the retail cost of electricity. **Dane County, City of Madison and City of Middleton all have projects that have been approved or are in the process of approval using this format¹⁵.** As the policy landscape continues to evolve through continued advocacy, customers will also be able to own these systems.

We Energies could submit an RER type program for approval to the Public Service Commission tomorrow and it could be approved within 6 months. If We Energies rejects Milwaukee's request to submit on an alternative tariff, there are other means to move this forward, such as a generic PSC docket on distributed energy resources.

Alternatively, PURPA enables non-utility parties to build renewable energy installations and sell that power directly to the utility. Traditionally, utilities have been able to minimize PURPA buy back rates, but there is an active appeal that would compensate solar PV's capacity value in the same way that capacity value is compensated in the Solar Now tariff¹⁶.

In closing, I implore the City and the Public Works Committee to tap the brakes on this project and more fully explore alternative arrangements that do not utilize the Solar Now program. The landfill site is going to be covered with solar power in the near future with or without Solar Now. **Delaying the project 6 months for a system with a much larger capacity and greater financial benefits is in the best interest of the City of Milwaukee and its residents.**

Sincerely,

Michael Barnett, PE
2748 Kendall Ave
Madison, WI 53705
mike.s.barnett@gmail.com
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¹⁵ https://madison.com/wsj/business/panel-solar-array-may-be-coming-to-middleton-mge-will/article_9ec6b00a-3019-58ec-8be1-8211669535fa.html

¹⁶ <https://earthjustice.org/news/press/2020/clean-energy-orgs-appeal-psc-discrimination-against-customer-owned-renewable-energy>