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CITY OF MILWAUKEE
MILWAUKEE.GOV/ECO



Common Council File 181436

*Communication on the Solar Now program and the
City of Milwaukee's own renewable energy initiatives*

CLIMATE CHANGE PRESENTS SERIOUS THREATS TO OUR ECONOMY



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- United Nations Intergovernmental Panel on Climate Change says: We have just 12 years to make massive and unprecedented changes to global energy infrastructure to limit global warming to moderate levels¹
- In Milwaukee, climate change increases the extreme storms and flooding
- We need a large scale transition to energy
- Cities can demonstrate leadership to other levels of government and to the private sector
- milwaukee.gov/climate-action.htm



¹vox.com/2018/10/8/17948832/climate-change-global-warming-un-ipcc-report

CITY RENEWABLE ENERGY AND CLIMATE CHANGE GOALS



- **25% renewable energy goal by 2025 (CC File 091066).** Once we have a pathway toward achieving these goals, ECO supports the City establishing higher renewable energy goals for electric power.
- The City has also adopted the principles of the **Paris Climate Accord** (CC File 170337).
- The Council directed ECO and DPW to “create an energy independence plan that will, among others, reduce reliance on WE Energies Corporation for the supply of electricity, natural gas and heat to operate City facilities and infrastructure.” (CC File 131576)
- *ReFresh Milwaukee*: Increase community resilience and customer choice by removing the regulatory and institutional barriers to distributed renewable energy projects

City needs about **15 MW** of Wind and Solar to meet 25% of our electric load for buildings, streetlights, and Water Works

HOW CAN CITY GOVERNMENT

influence an increase in renewable energy at a utility scale?

1 CITY GOVERNMENT

City government traditionally has limited influence on how investor owned utilities operate.

- Lead by example
- Leverage our Purchasing Power
- Advocate at State and PSC

2 PUBLIC UTILITIES

Public utilities are regulated monopolies that automatically connect homes and businesses to the power grid, which often comes from fossil fuels. To integrate renewable energy requires a change.

3 PUBLIC SERVICE COMMISSION

Also called Public Utilities Commission, the PSC approves rates, rules and regulations on public utilities, and balances affordability and profitability for the utility.

4 STATE POLICY

State government can influence utilities by creating state policy that emphasizes the use of renewable energies.

5 CUSTOMERS & ADVOCATES

Customers with a common message can put public pressure on the utilities company to use renewable energies.



Learn More at Milwaukee.gov/EnergyEngagement





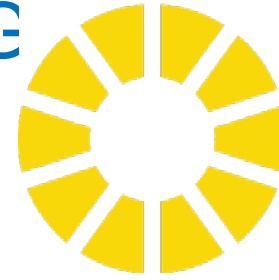
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Utility Scale Solar



ECO's FOUR-PRONG STRATEGY TO ADVANCE SOLAR IN MILWAUKEE



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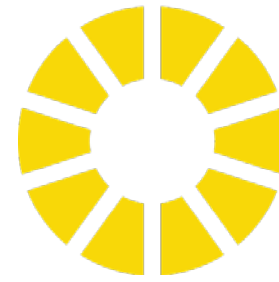
Reduce soft
costs of
solar

Advance
solar in low
income
communities

Install 1 MW
of rooftop
Solar on 6
City
Facilities

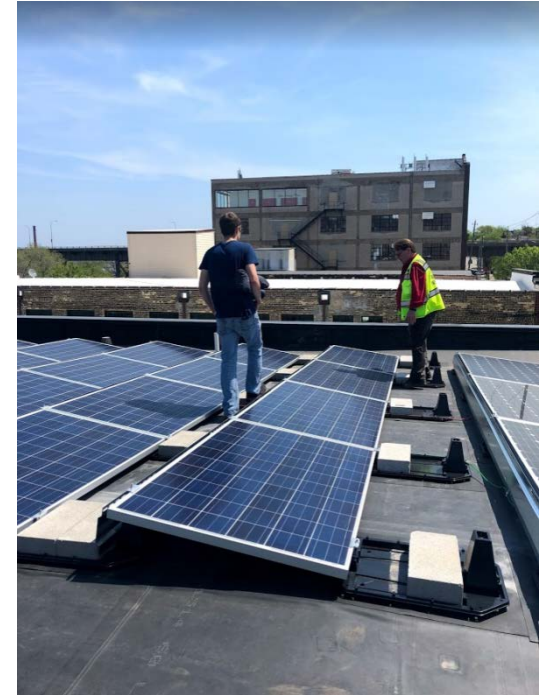
Utility Scale
Solar in
Partnership
with We
Energies

REDUCE SOFT COSTS OF SOLAR



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- Dramatically reduced permit fees for solar projects on commercial buildings (CC File 180285)
- Streamlined residential solar permit process in partnership with DNS



ADVANCE SOLAR IN LOW INCOME COMMUNITIES



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- Secured grant from Institute for Sustainable Communities to support solar in Lindsay Heights, in partnership with Walnut Way
- Solar being installed at four locations, including Alice's Garden, Fondy Market, Wellness Commons, and Walnut Way Center
- Making connections between solar installers and community residents



ECO COLLABORATES WITH HACM



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- Partnership between ECO and HACM through a US DOE project working to bring solar to underserved communities
- Will install 4 kW of solar on Westlawn Gardens Management building
- HACM will benefit from reduced utility bill
- Free trainings were held for City and HACM employees and HACM residents
 - Intro to Solar PV
 - Solar O&M

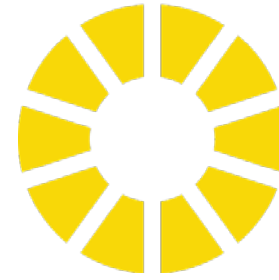


SOLAR
in Your Community
CHALLENGE



westlawn
gardens

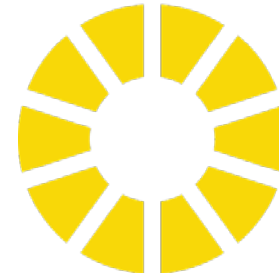
1 MW SOLAR PROJECT



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- Project planning initiated in 2017
- ~3,600 solar panels on six city properties
- Co-owned system partially financed through solar developer/installer to monetize federal solar tax credits
- Similar finance structures have been successfully used in Sauk County and Darlington School District
- Under PSC Rules, the incumbent utility approves interconnection of the system to the grid
- Our contract requires Eagle Point to get the interconnection approval; the technology of the system is fine

1 MW SOLAR PROJECT TIMELINE



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Planning

- Summer 2017: Identified suitable buildings and financing model using solar consultant
- Winter 2017: Applied for and Received \$211,000 Focus on Energy grant

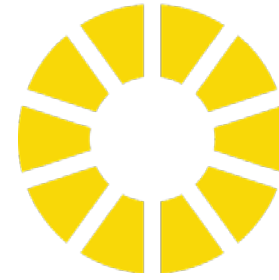
Contracting

- March 2018: PW Committee approves rebate and project process
- Project RFP'd; Eagle Point Solar selected
- July 2018: PW Committee approves project
- September 2018: Contract signed

Inter-Connection

- October 26, 2018 We Energies denies first Interconnection Request
- City informs PSC and amends contract. Eagle Point re-submits application
- November 6th PSC letter to City and We Energies-
- November 29th, We Energies denies 2nd Request

THE ISSUE IS THIRD PARTY SOLAR FINANCING



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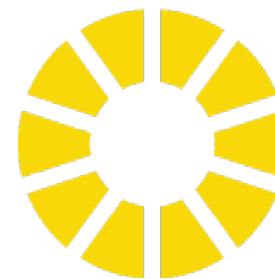
- Value of Third Party financing: 30% Federal Tax Credits, which decline after 2019
- Wisconsin State Legislature has no laws that expressly prohibit or allow Third Party financing
- We Energies' contends that third party owned and financed systems are acting as "public utilities" infringing on their service territory
- PSC has refused to take a categorical position on this issue on several occasions
- Utilities under PSC rules have to interconnect solar energy systems to the grid based on established criteria, which our project meets. The PSC's Chief Legal Counsel has written, *"The Commission's rules do not allow an incumbent utility to refuse to connect a distributed generation resource because the utility knows or has reason to believe the customer may not own the resource."*
- The PSC can review a utility's interconnection determination on a "case-by-case" basis.
- Facts of our case put us on strong legal footing
- Our Partner, Eagle Point Solar, won an Iowa State Supreme Court decision on this issue.

EAGLE POINT SOLAR IS NOT A UTILITY



- Co-Ownership Model, not full third party financing
- SSA has fixed payments (like equipment lease), not variable based on energy production
- Not selling energy to the general public
- System is on our own property, tied to a specific meter
- System sized to serve building energy load, not provide excess to the grid
- Precedent from other projects
- Case law

SOLAR ON TWO TRACKS



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	Q3-4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
1 MW Roof-top Project	Project Planning	RFP Developed	RFP out	Contract finalized	We Energies Denies Interconnections
We Energies engagement for Utility-Scale solar (DRER)	“M-6” Sustainability Directors collaborate, interested in MGE model	Joint Executive Letter to We Energies, 1 st meeting	We Energies requests Non-disclosure agreement; Placed on File	October: WEC requests PSC docket for DRER and <i>Solar Now</i>	PSC fast tracks docket and approves proposals; ECO submits qualified support letter; WEC asks City to use <i>Solar Now</i>

WE ENERGIES: NEW SOLAR OFFERINGS



Dedicated Renewable Energy Resource (DRER) Pilot Program

- Offers Utility Scale Solar (up to 150MW)
- Structure approved by PSC but requires companion Service Agreement
- Customer pays WEC for solar but also receives revenues
- Customer gets RECs
- Does not affect general rate payer

Solar Now Rooftop Lease Program

- Utility makes lease payment to customers to put solar on their roof. Payments can vary over time
- Utility owns and operates the solar system
- City gets the Renewable Energy Credits (RECs)
- Funded by rate payers

WE ENERGIES: NEW SOLAR OFFERINGS: CONCERNS

Dedicated Renewable Energy Resource (DRER) Pilot Program

- Revenues from system can fluctuate over time
- System must be sized correctly to not exceed customer's hourly electric load
- WEC addressed concern about RECs

Solar Now Rooftop Lease Program

- No regulatory “guard rails” to maintain competitive rooftop solar market
- Funded by rate payers
- WEC addressed concerns about RECs

COLLABORATION IS OUR MIDDLE NAME



- We can't meet our 25% x 2025 goal with rooftop solar alone.
- We support more utility renewable energy options *and* a robust private market for rooftop solar
- We are encouraged that We Energies now understands that its customers want them to provide more renewable energy options to meet their sustainability goals
- We Energies should be a willing partner in electrification of our transportation infrastructure, powered by renewable energy.
 - Streetcar expansion
 - Electric vehicles



POLICY OPTIONS FOR NEXT STEPS

We are still under contract with Eagle Point for the 1 MW system

1. Pursue PSC/Legal Action on 1MW system
2. Self-finance solar system to get project constructed in February
3. Use *Solar Now* (or use *Solar Now* later)
4. Hybrid

FINANCIAL COMPARISON



Financing Approach	Year 1 Benefit	Maintenance	Other Considerations
Co-Ownership	+\$15,000*	Eagle Point	Legal Challenge & Delays
City Owned	+\$12,000**	City	Clean interconnection and Install in February
<i>Solar Now</i>	+\$40,000	We Energies	Energy dependence; lease payment can vary over time

*Savings include approximately \$131,000 on first year We Energy bills.

+ Would require contingent borrowing resolution; Assumes 20 year term and 4% interest rate. BMD needs to review.

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refreshmke.com