

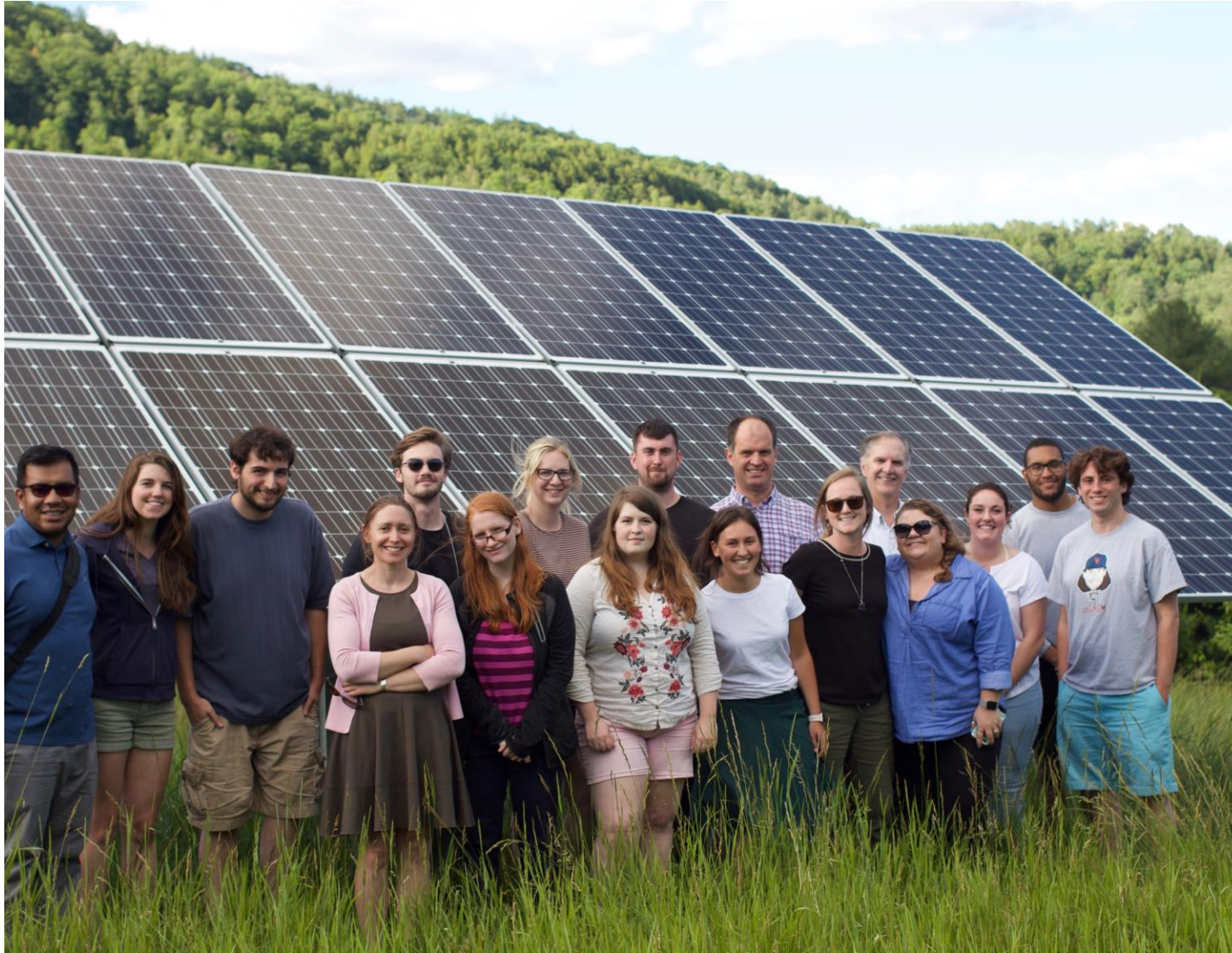


# COMMUNITY SOLAR – A TOOL FOR ENERGY JUSTICE

VERMONT LAW AND GRADUATE SCHOOL ENERGY CLINIC

OCTOBER 17, 2023





# THE VLGS ENERGY CLINIC

- Faculty and students
- Pro-bono legal, policy, regulatory, and technical support
- Communities exploring renewable energy options to reduce the community's carbon footprint.
- 5 VT community solar projects
- 4 NH ROC community solar projects



# WHAT IS COMMUNITY SOLAR?

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- A solar array that serves multiple electric customers – a “shared” solar array.
- May be owned by the community (turnkey) or by a solar developer/installer (power purchase agreement).
- Connected to the grid; enrolled in “group net metering”; participating households receive credits on their electric bill.
- Produces renewable energy credits (“RECs”)





# WHY DO A COMMUNITY SOLAR PROJECT?

1. Help to off-set community members' electric bills.
2. Contribute to the clean energy transition and the local economy
3. Reduce your community's carbon footprint by producing and consuming solar power (keeping your RECs).
4. Increase community education & involvement in clean energy solutions



# Who is a good fit for community solar?

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Homeowners and small businesses without a good solar site

Homeowners who think they may sell their homes - they can sell their shares!

Long-term renters who want to be part of the green energy transition

Unfortunately, though, for LMI residents in Vermont, only PPA projects offer any chance of being affordable.

# Why Subsidize Low and Moderate Income Community Solar?



Democratize green energy ownership. Promote energy justice. Lower energy burden.

Federal energy subsidies through tax incentives go to for-profit and non-profit corporations and wealthier individuals, but LMI individuals and families are locked out.

Create broader acceptance of the need for renewable energy and to meet goal of 100% renewable energy.





Vermont Community Solar

# Vermont Community Solar

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Vermont's once progressive net metering rates made Vermont a leader

Vermont's net metering program made solar affordable for many households

Decreasing net metering rates and increasing PUC & DPS hostility toward net metering are making Community Solar difficult in Vermont

Since 2017 the maximum net meter rate has declined 6 cents from the statewide average blended rate

Prior to 2017 there was no penalty for customers who wanted to retain their RECs to reduce their own carbon footprint



# Net Metering Rates 2017 v 2019

	2017	2022
Maximum rate –Up to 150 kWh	Statewide blended rate <b>plus</b> 4¢	Statewide blended rate <b>minus</b> 2¢
Minimum rate –Up to 150 kWh	Statewide blended rate <b>minus</b> 6¢	Statewide blended rate <b>minus</b> 10¢
Maximum rate – Over 150 kWh- 500 kWh	Statewide blended rate <b>plus</b> 2¢	Statewide blended rate <b>minus</b> 5¢
Minimum rate - Over 150 kWh- 500 kWh	Statewide blended rate <b>minus</b> 6¢	Statewide blended rate <b>minus</b> 10¢
<p><i>Maximum and minimum rates are influenced by size, preferred siting, and retention or transfer of RECs</i></p> <p><i>No low income adder</i></p>	<p><i>Source: PUC Rule 5.100 pp. 48- 49</i></p>	<p><i>Source: PUC Rule 5.100 2022 Biennial Update p.48</i></p>

# Strafford Community Solar Example

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150 kW AC Project on a preferred site, keeping its RECs:

- ❑ \$0.17141/kWh (blended residential rate)
- ❑ -\$0.04/kWh REC adjustor
- ❑ -\$0.02/kWh Category II Siting adjustor
- **\$0.11141/kWh**





New Hampshire Community Solar



# THE NEW HAMPSHIRE DIFFERENCE

## NH DEPARTMENT OF ENERGY GRANT FOR LMI COMMUNITY SOLAR

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**Department of Energy's Renewable Energy Fund:** Grants for “low-moderate income community solar projects.” Can fund up to 100% of a project's upfront costs.

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**To Qualify:** At least 50% of residents must be low-moderate income (“LMI”) to qualify. Full funding normally requires 75% of the project's benefits be allocated to LMI households.

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**Competitive bid:** the more LMI households a project serves the better the chances of getting grant funding.

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**Timeline:** November request for proposals; January application deadline.



# ROCs: AN OPPORTUNITY TO OVERCOME BARRIERS TO LMI SOLAR

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## (1) Financial Barriers

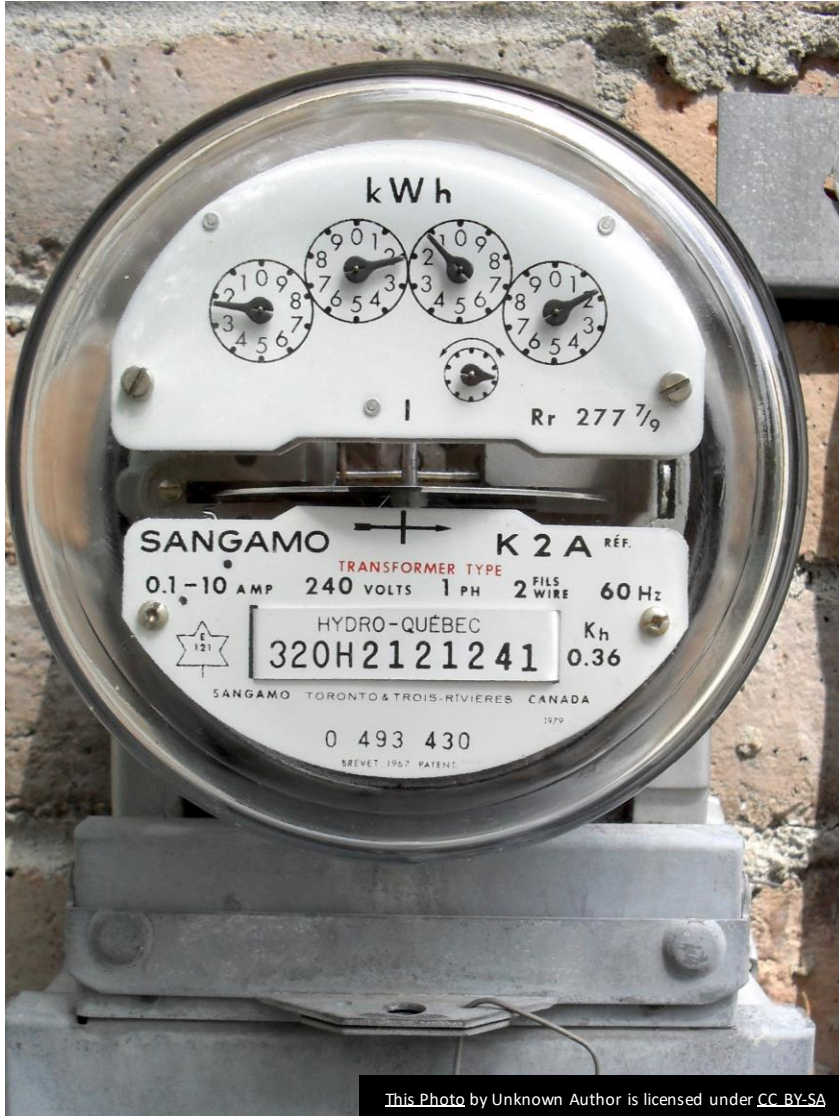
- New Hampshire Renewable Energy Fund Grants
- Group Net Metering plus Low-Moderate Income Adder
- Access to low interest loans through partnerships with NH Community Loan Fund and ROC-NH
- Partnerships with impact investors

## (2) Siting Barriers

- ROCs own land for siting community array
- Leverage Group Net Metering program for community array

## (3) Informational Barriers

- Partnerships and collaboration are key! ROC USA, ROC-NH and Community Loan Fund, Clean Energy NH, DOE Renewable Energy Fund, Energy Clinic.
- Community champion(s) helps spread the word, motivate, and facilitate development process.
- ROC network helps inspire other ROCs (seeding)



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# NET METERING RATE IN NH

RSA 362-A:9 and PUC 903.02: The Net Metering Rate STRUCTURE is set by the PUC

- ❑ Small Customer Generators up to 100 kW
  - 25% of Distribution Charge
  - 100% of Transmission Charge
  - 100% of Default Service Rate
  
- ❑ Large Customer Generators 100 kW < 1 MW
  - 100% of the Default Service Rate



RATE ADDERS?

PENALTIES?

**Keep RECs with no  
penalty**

**No siting adjustors.**

**2.5 cent LMI Adder.**

□ *ACTUAL* net metering rate in NH for a specific project depends on 2 things:

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- 1) Your utility and their tariff (i.e. that specific utility's distribution, transmission, and default service rates); and
- 2) Your customer class (e.g. residential, business, etc.)  
*\*Community solar projects fall under "general rate" not "residential" rate.*



# PINE HILL EXAMPLE

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- Small customer generator: Eversource utility (has a declining block rate)
- Rate Class G
- Qualifies for LMI Adder.

25% of Distribution Rate: \$0.0047 kWh

100% of Transmission Rate: \$0.0084 kWh

100% of Default Service Rate: \$0.076 kWh

LMI Adder: \$0.025 kWh

**TOTAL RATE: \$0.11 kWh**

*\* Compare to Residential Net Metering Rate with LMI: \$0.144 kWh*

# Future Opportunities to Jumpstart Community Solar and Other Renewable Energy Opportunities for LMI Residents

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## Solar for All - Inflation Reduction Act \$

- Intended to benefit both homeowners and renters.

Increased openness to including solar in financing for new affordable housing projects (e.g. Salisbury Square, Randolph VT)

Others?