

Community Solar for New Mexico 2021



Agenda

- What and Why of Community Solar
- Community Solar nationally
- 2020 Community Solar Bill
- Importance of LI and LMI participation
- Senate Memorial 63 and working group
- Call to Action

What is community solar?

HOW COMMUNITY SOLAR WORKS

INCREASES ACCESS

You can't install solar panels if you have bad credit, the upfront cost is too much, you rent, or live in an apartment.



- In 2017, 32% of NM's households rented.
- 40% of New Mexican's have sub-prime credit scores.

CREATES JOBS

A solar developer builds a Community Solar Facility, up to 5MW in size, stimulating the solar market and creating jobs.



- There are currently 137 companies and 2,200 jobs in NM related to solar. Community Solar could double the amount of residential/commercial installations per year.

SAVES YOU MONEY

You subscribe to a portion of the Community Solar Facility. How much you pay for your subscription depends upon the offer you sign. **YOU GET A CREDIT ON YOUR ELECTRIC BILL**, in proportion to your share of the Community Solar Facility's generation.



- A typical subscriber may save \$100 per year on their electricity bill

IT SUPPORTS COMMUNITY CHOICE OF RENEWABLE ENERGY OPTIONS

Why Community Solar

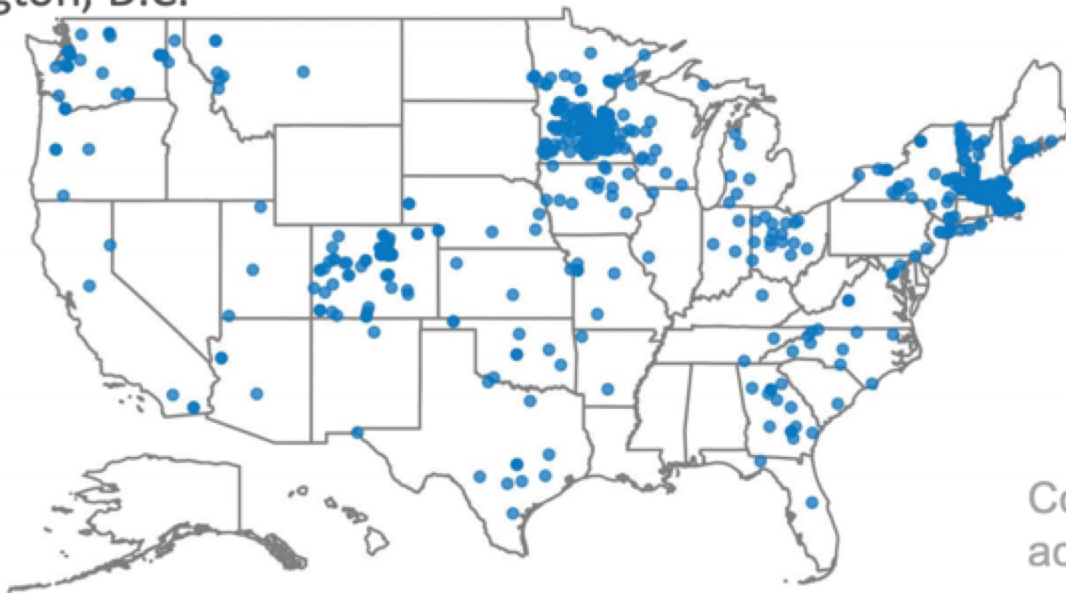
- **Multiple participants share** the cost-saving benefits of a single large-scale solar array.
- Individuals and businesses can **purchase subscription** for solar energy with energy produced **credited** to their utility bill.
- Can provide **immediate savings that will increase** with rising utility rates over time.
- Simple tool that provides **everyone**, regardless of income or property ownership, opportunity to choose cost-effective clean energy.
- Can **stimulate the solar market** for smaller, in-state solar developers, in comparison to utility-scale projects.
- It allows **competition to stimulate innovation** in the solar market.
- **Consumers want it!**

Challenges of Community Solar

- **IOUs oppose** rooftop solar and 3rd party community solar:
 - Reduced rate of return on invested capital
 - Lost customer purchases
 - Lost large customers (anchor tenants)
- **Rural Electric Cooperatives oppose:**
 - Contractual obligations
 - Small staffs, small budget
- **Some small solar installers oppose:**
 - Anticipate loss of rooftop customers to Community Solar
- **Rate payer advocates:**
 - Concerns for unseen costs for the utility passed on to non-participating customers
- **Tribal entities:**
 - Desire exemptions from many Community Solar constraints

Community solar is one of the fastest growing segments of the U.S. solar photovoltaic market.

By the end of 2018, we estimate that there were at least 1,184 MW-AC of community solar capacity distributed across 811 projects in 39 states and Washington, D.C.



Community solar projects
active as of end of 2018

States with Community Solar legislation

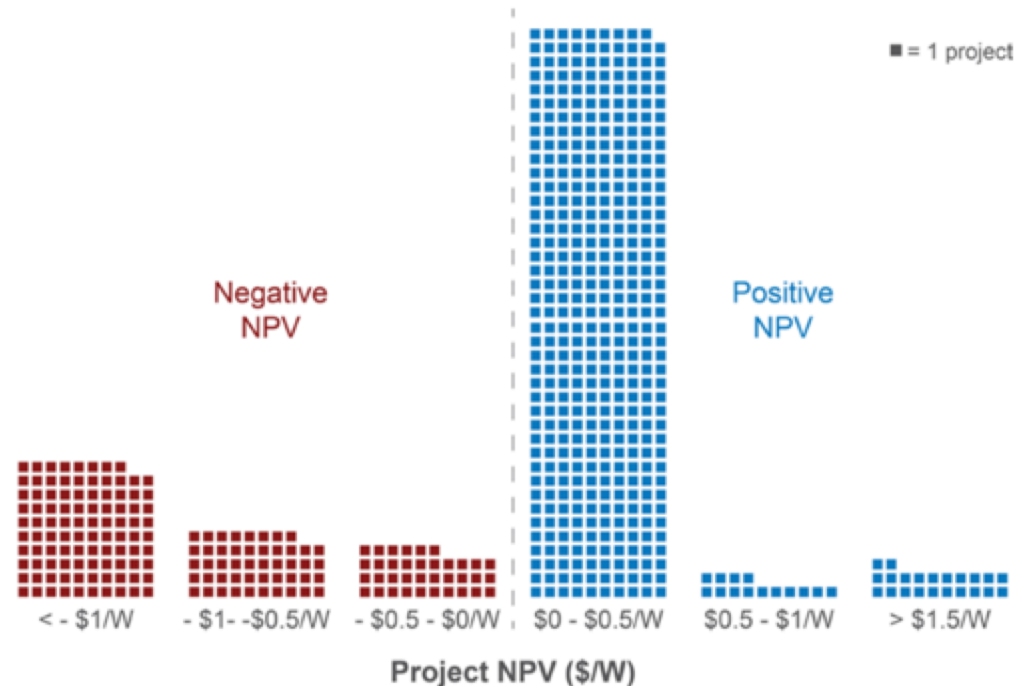
- 20 states and Washington, DC have passed some form of legislation enabling community solar, either through statewide programs or the authorization of a limited number of pilot projects.
- These programs vary in scope, but they generally all allow for some form of virtual net metering so that subscribers can benefit from their community solar subscriptions.



State-level community solar enabling legislation

More than 80% of Projects have a Positive Net Present Value (NPV) for Residential Subscribers

- To evaluate the community solar value proposition from the perspective of residential subscribers, we estimated the NPV under the various contracts offered by each project, where data were available. (See the Appendix for details on the NPV modeling assumptions.)
- The median project-level NPV is about **+\$0.37/W (sensitivity range: +\$0.20/W to +\$0.46/W)** and about **83% (sensitivity range: 74 - 86%)** of projects yield a positive NPV, meaning that most projects result in positive net benefits to the customers over the course of the subscription.



Distribution of Project-Level NPVs

THIS IS ABOUT SAVING MONEY!

Design Elements: 2020 NM Legislation

- Program **limited in scale** with comprehensive **evaluation** in 5 years
- Initial statewide **annual cap** of 50MW (.66% IOU's total sales, benchmarked to 2018 sales)
- **Facility cap** of 5MW, with minimum of 10 subscribers.
- 60% of program capacity for **residential customers and small businesses**.
- Targeted 30% participation by **low income** projects.
- **No single subscriber** can take more than **40% of project**.
- Project can be co-located with **battery storage**.
- **Utilities would recover** all reasonable interconnection and administration costs related to community solar.
- Qualifying utilities would **not be allowed** to participate.
- Rural electric cooperatives could **opt-out**.

Rulemaking: 2020 NM Legislation

- Required PRC to **solicit input**
 - from stakeholders and government agencies.
- Determination of **program participation**
 - through a competitive RFP process, ensuring 30% low income participation.
- Established a process to ensure **participation by tribal entities** in service territories of **rural electric cooperatives**
 - considering opt-out options only after a coop's self generation limits reached.
- Required PRC to adopt rules
 - to include **consumer protections** for subscribers.
- Required PRC to identify and allow **financial incentives**
 - to encourage diversity of subscriber types, especially low-income subscribers. (other states do this through the bill credit mechanism).

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Importance of LI & LMI Participation

- Low Income (LI) and Low-moderate Income (LMI) households have **most to gain** from utility bill cost reductions.
 - 15% of New Mexican households earn less than \$15,000 per year and spend more than 7% of their budgets on electricity
 - households earning more than \$50,000 per year, spend less than 1.5% of their budget on electricity.
- LMI customers face **more obstacles** to obtaining solar energy (lower credit scores and insufficient tax burden to be eligible for state and federal tax incentives).
- **Solar panel installation** requires home ownership, good roof, good credit ratings, while much of LMI community are renters with limited access to capital.
- Community Solar developers can **offer greater discounts** for participating LI households with a fixed 15% -20% discounts on their electric utility bills (e.g. visit: <https://www.forefrontpower.com/md-cs-costs-explained>)

Senate Memorial 63

Sponsors: Sen Stefanics and Rep Roybal Caballero

- Creates a **process for a working group** of stakeholders on community solar.
- **Composition:** representatives from EMNRD, PRC, State Land Office; utility companies; rural electric cooperatives; renewable energy industry representatives; environmental organizations; Native American nations, tribes and pueblos; low-income service providers; local governments, cities, counties; and interested community members from throughout the state.
- **Inclusive** and open to those who wish to participate.
- NM Legislative Council arranged for **third-party facilitator** to convene working group, to review statewide community solar initiatives and develop recommendations for the implementation of those initiatives.
- **Paul Biderman** was confirmed as the third-party facilitator.
- The working group will **report** its findings and recommendations to the appropriate interim legislative committees in November.
- **Inaugural meeting: July 16, 2:00-4:00.**

Understanding stakeholder preferences and best practices

		Colorado--Solar*	Delaware Comm	Hawaii Communi	Illinois Communi	Maine Net Energ	Maryland Comm	Massachuse
CATEGORY	CRITERION	Community Solar	Host Customer/N	Regulatory Policy SB1050--Community based renewable energy tariff--Signed into law in June 2015. Phase 1--Effective July, 2018				
General Program Details	Overview			Each electric utility in the state to file a proposed community-based renewable energy In Phase I, 40% of the total output of each projec'ts total CBRE capacity shall be reser				
	Aggregate Capacity Limit	X	Utilities are au	Capacity allocation in Phase I limited to 5 MW.		X		X
	Tracking & Reporting Requirements				X			
Generation Systems	System Size	Section (2)(b)(I)(C)	System capacity c Non-residential C	X	X		X	
	Subscription Size	Each subscriptio Is designed to produce no more than 110% of the Host Customer's expected aggregate electrical cor						
	Facility Subscription Allocation			In Phase I, 40% of the total output of each projec'ts total CBRE capacity shall be res				
	Aggregate Capacity Limit (NEM Programs)		5% of Electric Supplier's aggregated customer monthly peak demand (utilities may incre					
s and Subscriptions	Eligibility		Before Net Meter - A list of individu	Any person or entity may own or operate an eligible community-based renewable en				
	Portability--Does the program explicitly permit portability (i.e., allow participants to move within the utility service territory and take their subscription with them)?	Section (2)(b)(II):	N/A	Subscriber may change the premis	X			X
	Transferability--Does the program explicitly permit transferability (i.e., allow							

Working Group Stakeholder Categories

- Citizen
- Consultant/Technical expert
- IOU
- Rural Electric Cooperative
- Government: EMNRD, SLO, Governor's Office, Legislators, Dem party, etc
- LMI: Housing Authorities, Homewise, etc
- LMI and Immigrant NGOs: Prosperity Works, NM Voices for Children, NM Cen for Law and Poverty, Immigrant NGO Somos Un Pueblo Unido, etc.
- Tribes
- Tribal NGO: Western Leaders, NAVA, Five Pueblos Coalition, etc
- Green NGO: 350.org, CVNM, Sierra, NRDC, WRA, NEE, Env NM, SF Green Chamber, Renewable Taos, etc
- Other NGOs: CSCNM, Vote Solar, CCSA, EarthCare
- Industry

Call to Action

- Outreach to legislators
- Community outreach
- Organizational support either as 350SF or individually

References:

- See NREL's Community Solar 101 presentation:
<https://www.nrel.gov/docs/fy20osti/75982.pdf>
- NREL's summary of community solar subscription/deployment models: <https://www.nrel.gov/docs/fy20osti/75438.pdf>
- [Community FAQ](#) from 2020 legislative session