

Proposed Bill S.230 Changes to Avoid Economic Barriers to Future Community Solar Deployment

George Gross, Community Owned Solar
Cooperative Inc., Shoreham

How Do We Mobilize All Vermonters to Participate in Fighting Climate Change?



Community Solar Is the Catalyst That Can Engage Everyone in Climate Change

- The World War II “war bond” story:
 - **People bought war bonds from their own pockets because it connected them to a social project that served a higher good**
 - The Government could have simply taxed the money out of our checkbooks, but that would not have galvanized people to join a united cause
- People who directly invest in community solar become engaged in how do they create and use energy
 - *They are far more likely to embark on energy efficiency investments to reduce their usage*
 - *They talk to other people and become apostles for our common energy migration goals*

How Does 30 VSA § 8010 Threaten Community Solar Economic Viability?

- There is no cash revenue stream to pay for the solar project's operational expenses. The only two “income” streams are the net-meter credit benefit and the levying of annual membership maintenance fees.
 - Selling solar RECs or surrendering them to the Utility is **not** an option
- Vermont citizens are unlikely to invest in a community solar project unless:
 - They can honestly claim they are generating and consuming renewable energy. All RECs must not be sold or given away to the Utility for their claim of RES compliance.
 - The community solar project's return on investment must have a recovery time period of 10 years or less
- The 30 V.S.A. § 8010(c)(1)(H)(i) as currently written authorizes the PSB to make rules that penalize of a community solar project who elects to retain and retire their RECs
 - Draft PSB net-metering rule 5.100 proposes a \$0.06/kw-h penalty

How Does Draft PSB Rule 5.100 “As Written” Undermine Community Solar Economics?

- Operational expenses remain the same, yet the net-meter benefit is dramatically reduced by 38.2%
 - Assume 150 peak AC KW solar project generates 185,000 kw-h per year to the grid interface
 - Today: \$35,335 net-meter benefit = 185,000 * (\$0.191/kw-h current group net-meter rate); \$0.148 + \$0.043 adder
 - After PSB Rule 5.100: \$21,830 = 185,000 * (\$0.118/kw-h revised group net-meter rate when retaining RECs); \$0.148 – \$0.03
 - The net-meter credit reduction is \$13,505.
- Community solar investment ROI time period will increase to over 15 years

Proposed Solution Framework to the identified Community Solar Economic Barriers and supporting S.230 Legislative Language

What Is a *Qualified Group Net-Meter System*? (part 1)

A *Qualified Group Net-Meter System* (QGNMS) is a community solar, wind, or other RE generation technology group net-meter project having a peak power output in the range of 15KW to 500KW.

In addition, it legally satisfies the following conditions:

- The legal entity who operates and manages the QGNMS chooses at CPG application time to retain and retire the RECs that the project will generate.
- All of the project's investors who own in common the project's assets are also Utility ratepayers in the service territory of the utility connected to the project.

What is a *Qualified Group Net-Meter System*? (part 2)

- The QGNMS legal entity has entered into a perpetual service contract with a REC certification trusted third party who creates, tracks, audits, and verifies QGNMS compliance to the REC retirement requirement.
 - The State of Vermont PSB and/or DPS must select this vendor
 - Example: Green-e Energy program operated by the Center for Resource Solutions
- The QGNMS legal entity agrees as part of its CPG to annually file a “*Cost of Service*” affidavit filed with the DPS and the PSB substantiating its *Operational Cost Recovery* payments in the prior year.
- The QGNMS legal entity is incorporated as a non-profit or near no-profit corporation or consumer cooperative as part of its Articles of Incorporation filed with the State of Vermont Secretary of State.
- The management locus of control is vested in the project's participants, not the Utility

What Change(s) to Bill S.230 Can Mitigate the Cited Negative Economic Impacts on Community Solar and Similar Projects?

ANSWER: Introduce a new positive “*Operational Cost Recovery*” adjuster to the group net-meter credit, paid to the QGNMS as an “*Alternative compliance payment*”.

See 30 VSA § 8005(b)(4)(A)(ii)

Or alternatively, legislate that the QGNMS *Operational Cost Recovery* payments from the Utility be made in cash on a quarterly basis

Why Should the Utility Ratepayers Pay for *Qualified Group Net-Meter System* Operational Costs?

ANSWER: *Qualified Group Net-Meter Systems*
are societally beneficial grid infrastructure
investments made by Vermont citizens and
businesses.

Reasons Why the Utility Ratepayers Should Pay for QGNMS Operational Costs

- They provide all the Societal benefits of a Utility financed Distributed Generation grid system asset plus some benefits the Utility can not offer.
- Unlike the Utility, a QGNMS does not ask ratepayers to pay a *Return on Equity* (ROE) profit of 9% to 10% profit on its *Cost of Service* (COS). A QGNMS is either a non-profit or a near-zero profit business entity.
- QGNMS contributes renewable energy production towards the State of Vermont's *Renewable Energy Standard* (RES) by subtracting from the Utility's "*Retail Electric Sales Revenue*" used to calculate the Utility's required amount of renewable energy as a percentage of that revenue.
 - Every net-meter megawatt-hour generated by the QGNMS has its associated *Renewable Energy Credit* (REC) retired by the QGNMS
 - There is no need to give the Utility the RECs because they are trackable and certified to have been retired by an independent trusted third party.

Reasons Why the Utility Ratepayers Should Pay for QGNMS Operational Costs

- The QGNMS investment opportunity mobilizes the potential investment capital of environmental minded citizens and businesses who do not own South-facing roofs or their roofs are shaded by trees or adjacent buildings
 - DoE estimates 75% of all property owners do not have access to a solar site on their property or else they are renters who can not install a solar system on their leased property.

What Are the QGNMS “*Cost of Service*” Components Eligible to be Paid by Utility Ratepayers?

- Property lease payments
- Property taxes
- Renewable Energy Credit certification and tracking service
- Business liability insurance
- Legal and accounting expenses
- Service road snow clearing service
- Solar array field lawn mowing service
- Administrator wages and benefits
- Internet service for remote operation and security monitoring
- Reserve fund contributions:
 - Equipment repairs and replacements
 - Decommissioning
 - Replacement vegetative screening for dead plants

What are the details of the proposed changes in the S.230 language?

- A new 30 VSA § 8005 sub-section shall define the term “*Qualified Group Net-Meter System*” and specify that they are eligible for PSB rule making to specify an “*Operational Cost Recovery*” paid in either cash or as an adjuster to the group net-meter credit rate per kilowatt-hour
- Amend “30 VSA § 8005 RES Categories (a) Categories (2) Distributed renewable generation (B) Definition” to have a new sub-section (iii) that reads:
 - (iii) The annual total net-meter megawatt-hours generated by Qualified Group Net-Meter Systems shall reduce the Utility's annual retail electric sales quantity used to calculate the Utility's RES Required Amount by the retail electric sales value of those net-meter megawatt-hours.

What are the details of the proposed changes in the S.230 language?

The amendment would have to replace the existing 30 V.S.A. § 8010(c)(1)(H) and split it into three sub-cases:

- 1) the customer retains the attributes and they register with the PSB by an affidavit that they will use the State's trusted environmental attributes certification service for the life of the CPG. The PSB can verify any individual environmental attribute has been retired by consulting the certification service (usually a web database visit) and the certification service can at any time audit the customer to affirm the customer does not secretly sell their environmental attributes.
 - On a provisional basis until the Board approves and funds the State's trusted environmental attributes certification service, an officer of the customer will swear in their CPG application's affidavit they shall not sell their project's environmental attributes.
- 2) the customer retains the attributes yet they do not register with the PSB to use a trusted environmental attributes certification service enabling the PSB to verify the customer's environmental attributes have been retired. The language for this sub-case would be similar as exists in 30 V.S.A. § 8010(c)(1)(H)(i) today except it would say the customer did not register with the PSB an environmental attribute certification service.
- 3) The language for this sub-case would be the identical as already exists in 30 V.S.A. § 8010(c)(1)(H)(ii) today.