



## With Rising Energy Prices, How Can Residents Benefit From Solar?

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Scott Fenton and Gemma Ypparila – Following National Grid's announcement on September 24 that its winter electrical rates will be 37 percent higher than last winter, customers are left wondering how to cope with this cost increase. According to National Grid, the rate increase, about \$33 to the average residential bill, is attributable to the inadequate natural gas pipeline serving the region. Because the pipeline is unable to carry sufficient natural gas to consumers, availability is decreased during peak demand causing the spike in pricing.

While some sources are calling for a more balanced approach to control prices after Governor Deval Patrick's delay in signing the New England governors' agreement, such a balanced approach is not a realistic solution to the immediate problems residents will face this winter. Renewable fuels, especially solar, just may be the immediate solution for rising electric prices.

For residents that want to lower their electric bills but do not want to install solar panels on their roofs, Community Shared Solar ("CSS") may be a possible solution. CSS improves access to solar photovoltaic ("PV") installations by providing an alternative for community members with feasibility issues, such as those who rent or have site issues such as structural instability, poor orientation, and shading, or face other barriers to on-site solar PV installations.

CSS business models vary significantly, however, the parties involved with a CSS project can be broadly categorized as follows:

- The Site Owner The owner of the property on which the CSS system is located. The site owner may be a public entity, such as a municipality, or a private entity;
- CSS Project Participants Community members who participate in a CSS project by purchasing the electricity generated from the PV system or net metering credits or take an ownership stake in the project. Participants may be individuals or businesses;
- The Aggregator Brings together the collective demand of the participants and administers the project. The aggregator also serves as the host customer of the PV system. Host customers apply for net metering services and



complete a Schedule Z with the utility company, which directs the utility how to allocate net metering credits;

- The System Owner Owns the CSS project. The system owner typically partners with a tax equity investor to monetize the solar investment tax credits and other available tax incentives; and
- The tax equity partner An investor with taxable passive income that is allowed to take advantage of the 30% solar investment tax credits and other tax benefits available to investors in solar PV systems.

See THE CADMUS GROUP, COMMUNITY SHARED SOLAR: REVIEW AND RECOMMENDATIONS FOR MASSACHUSETTS MODELS (2014) 12.

Participants may purchase the benefits of the energy produced by the PV installation in a variety of forms depending on the business model. For example, participants may buy the right to a specified share of the energy generated or net metering credits derived from the energy. In this context, the value of the energy is realized through credits that reduce utility electrical bills. Last week, Clean Energy Collective launched its SolarPerks program that grants all Massachusetts NSTAR and National Grid utility customers the opportunity to participate in its shared solar PV array. Alternatively, participants may buy an ownership interest in the project and receive a corresponding share of the profits from the sale of solar renewable energy credits, energy, or net metering credits. Massachusetts is working to launch a residential solar loan program this fall to encourage the growth of locally owned and financed solar projects. See THE CADMUS GROUP, COMMUNITY SHARED SOLAR: REVIEW AND RECOMMENDATIONS FOR MASSACHUSETTS MODELS (2014) 13-14.

For more information on the SolarPerks program please visit the Clean Energy Collective website. For a more comprehensive overview of CSS, DOER, as part of its U.S. Department of Energy SunShot Initiative Rooftop Solar Challenge grant work, hired The Cadmus Group to develop community shared solar recommendations and guidelines, which provide an extensive overview of CSS. See Cadmus, Review and Recommendations for Massachusetts Models.