

## Local Governments and Bulk Purchasing of Solar Energy Systems

### What is Bulk Purchasing?

As with most consumer goods, the bulk purchasing of solar energy equipment and installation services provides an opportunity for homeowners, businesses, and local governments to drive down the cost of their investment. In recent years, local governments across the U.S. have increasingly made use of two bulk purchasing models with great success.

#### *Collaborative Procurement*

By coordinating solar procurement efforts across public agencies, educational organizations, and jurisdictions within the same region, local governments can reduce the up-front cost of solar energy systems installed on public structures or other properties. In addition to providing an opportunity to negotiate volume discounts, collaborative procurement also allows for bundling sites together based on the size of the system to be installed at each location. Such bundling can reduce solar installation labor costs, as installers can more efficiently allocate their time.

#### *Solarize Campaigns*

Local governments can also help promote and aggregate demand for solar among residents and business owners within their jurisdiction by using community interest to negotiate volume discounts for “Solarize” program participants. To date, there have been several examples of successful Solarize campaigns that have developed a simplified solar purchasing process at reduced costs for participants. These campaigns typically consist of five main phases: (1) *Installer Selection*, during which the local government solicits competitive bids from installers and selects the firm(s) with which it wishes to partner; (2) *Marketing & Enrollment*, in which local government representatives, community members, opinion leaders, and installers hold open workshops to educate the community on the program and its benefits; (3) *Enrollment*, in which interested consumers sign up for the program; (4) *Site Assessment*, wherein the installer determines which enrollees’ properties are suitable for solar, and; (5) *Decision & Installation*, where the property owner makes a final decision whether to purchase a system and the system is installed.<sup>1</sup>



Through the Solarize campaign in Beaverton, Oregon, bulk purchasing together with federal and state incentives saved participants as much as 80% on the cost of going solar.<sup>11</sup>  
*Photo courtesy of Beaverton, Oregon*

### What are the Benefits?

The benefits<sup>2</sup> of *Collaborative Procurement* center primarily on providing significant cost reductions in the following areas:

- 1) Energy Costs – Bundling sites together based on scale can provide program participants with discounts on system equipment and installation services of between 10 and 15 percent
- 2) Administrative Costs – When a number of communities or agencies work together to procure solar, the amount of time (and therefore cost) required from each participant is reduced. One collaborative procurement program in California’s Silicon Valley cut administrative costs for its participants by between 75 and 90 percent.

The benefits of *Solarize Campaigns* include:

- 1) Lower Upfront Costs – Combining volume discounts with federal and local incentives can deliver significant cost savings. In addition, Solarize Campaigns can reduce customer acquisition costs, which account for nearly 11 percent of a PV system’s non-hardware soft costs.<sup>3</sup>
- 2) Reduce Process Complexity – Solar customers may be overwhelmed by the various options when considering the installation of a solar PV system. Solarize campaigns are designed to simplify the process and vet potential installers, which offers participants at least some level of consumer protection.<sup>4</sup>
- 3) Overcome Customer Inertia – Enrollment periods typically last between three and six months. Making participation in the campaign a limited-time offer encourages consumers to “act now” to take advantage of program cost savings.
- 4) Leverage Community Involvement – Much of the success of these campaigns is due to the grassroots nature of the Solarize model. Involving local officials, community members, and opinion leaders can greatly increase participation, which in turn lowers acquisition costs.
- 5) Improve Access to Information – Despite record solar industry growth and increased popularity, there is still confusion among the general population regarding the economic and environmental benefits of solar energy, and on the existing incentives and programs that make it easier for people to go solar. The educational workshops included in many Solarize campaigns help reduce these solar information gaps.<sup>5</sup>

## Examples

### *Collaborative Procurement*

The **Silicon Valley Collaborative Renewable Energy Procurement Project (SV-REP)** resulted in the installation of over 14 megawatts (MW) of solar energy capacity across 70 sites - including rooftop, carport, and ground-mounted solar photovoltaic (PV) systems located at fire stations, libraries, and office buildings.<sup>6</sup> Following SV-REP’s success, the U.S. Environmental Protection Agency and the Metropolitan Washington Council of Governments partnered with Optony, Inc. (the technical adviser for SV-REP) to develop the **Metro DC Clean Energy Collaborative Procurement Initiative**. Still in development, this program has attracted nearly three dozen participating entities representing approximately 176 potential solar sites.<sup>7</sup> In addition, Meister Consultants Group, Inc., is developing a collaborative procurement program for the **Merrimack Valley Planning Commission** in Massachusetts.<sup>8</sup>

### *Solarize Campaigns*

**Solarize Portland** served as the model for many subsequent campaigns. Started as a grassroots effort in Portland, Oregon, this recurring campaign has added over 1.7 MW of PV systems to 560 homes, while driving down prices by more than 30% and creating over 50 clean energy jobs. The number of non-Solarize installations also increased in the city, demonstrating that the program has helped create sustained local demand for solar beyond the Solarize Campaign.<sup>9</sup> More recently, The Massachusetts Clean Energy Center launched the **Solarize Mass** program, which resulted in 162 installations across four Massachusetts communities. A unique feature of this program was its tiered pricing structure - when more customers participated in the program, cost savings increased. This tiered pricing system provided an incentive for participants to encourage their neighbors to join. The successful initial pilot program expanded to seventeen additional communities in 2012.<sup>10</sup>

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- <sup>1</sup> More information about this process is available from the *Solarize Mass* website, at [www.solarizemass.com/index.cfm/page/About-Solarize/pid/12858](http://www.solarizemass.com/index.cfm/page/About-Solarize/pid/12858)
- <sup>2</sup> These are discussed in greater detail in *Purchasing Power: Best Practices for Collaborative Solar Procurement* [http://pdf.wri.org/purchasing\\_power.pdf](http://pdf.wri.org/purchasing_power.pdf)
- <sup>3</sup> More information on soft costs can be found in *Benchmarking Soft Costs for PV Systems in the United States*, available at [www.nrel.gov/docs/fy12osti/54689.pdf](http://www.nrel.gov/docs/fy12osti/54689.pdf)
- <sup>4</sup> Benefits #1-#4 are discussed in greater detail and using a number of examples in *The Solarize Guidebook*, available at [www.nrel.gov/docs/fy12osti/54738.pdf](http://www.nrel.gov/docs/fy12osti/54738.pdf)
- <sup>5</sup> Solar Beaverton's "Solar Basics" presentation explores the benefits of going solar: <http://livelightenergy.com/solarbeaverton/wp-content/uploads/2011/06/Solar-Beaverton-Basics-Presentation-on-line.pdf>
- <sup>6</sup> Learn more in *Purchasing Power: Best Practices for Collaborative Solar Procurement* [http://pdf.wri.org/purchasing\\_power.pdf](http://pdf.wri.org/purchasing_power.pdf)
- <sup>7</sup> More information is available in the National Association of Regional Councils' *Regional Profiles in Solar Planning* (available at <http://narc.org/wp-content/uploads/DOE-Solar-Handbook.pdf>) and on the U.S. EPA's website for the program ([www.epa.gov/greenpower/initiatives/cecp/index.htm](http://www.epa.gov/greenpower/initiatives/cecp/index.htm))
- <sup>8</sup> See the "Merrimack Valley Clean Energy Action Plan" for more, available at <http://mvpc.org/wp-content/uploads/Final-2012-MVPC-Clean-Energy-Plan.pdf>
- <sup>9</sup> See *The Solarize Guidebook*, available at: [www.nrel.gov/docs/fy12osti/54738.pdf](http://www.nrel.gov/docs/fy12osti/54738.pdf), for more.
- <sup>10</sup> The Solarize Mass campaign is discussed in more detail here: <http://www.solarizemass.com/masscec/file/Solarize%20Massachusetts%20Pilot%20Overview.pdf>
- <sup>11</sup> See the website for Solar Beaverton for more information: <http://livelightenergy.com/solarbeaverton/pricing>