

# Solar employee purchase programs: generating volume sales and improving operating efficiency

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## ABSTRACT

The U.S. residential solar market is poised for growth. For solar companies seeking to capitalize on the growth potential of this market, the keys to success will be sales volume and operating efficiency. Solar employee purchase programs (solar EPPs), which have been initiated by companies as diverse as SunPower, REC Solar, and SolarCity, represent a new and potentially important channel for increasing sales and improving sales efficiency. Driving these programs are increasing corporate sustainability initiatives and growth in voluntary employee benefit offerings, especially employee purchase programs and green benefits. This article provides an introduction to solar employee purchase programs, analysis of the business ecosystem, and discussion of an example program. It is based on the industry's first report to identify and analyse this emerging trend, which was published by AltaTerra Research in November 2008 [1].

## Value chain efficiency in the residential solar market

In the United States, residential solar is growing more economically attractive, especially in states with solar incentives, high electricity rates, and favourable regulations. In addition to these external conditions, the solar industry itself is developing a number of service delivery innovations to improve operational efficiency, lower the cost of sales, and spur higher rates of adoption. These include new financing mechanisms (such as municipal loans, power purchase agreements, and leasing) and new product and installation concepts (such as installation in new housing developments and building-integrated photovoltaics). There are also sales and marketing innovations such as aggregated volume discounts for existing homes (retrofits) by geographic area, new housing development construction installation, and system sales through large retailers, such as Home Depot and Costco.

Solar EPPs represent a new method of solar sales and marketing for the retrofit market that approaches the employees of a business as a pool of potential residential solar buyers, much like a neighbourhood or other community. Bringing ideas from neighbourhood aggregation programs together with the established concept of employee purchase programs, solar EPPs offer a way to inexpensively increase awareness by leveraging corporate education efforts and boost affordability by means of manufacturer, installer, and/or employer discounts. They can also be combined with consumer financing arrangements, including power purchase agreements and leasing.

## Corporate sustainability initiatives

Around the world, organisations are demonstrating their commitment to sustainability with a growing range of environmental initiatives, many of which are focused on saving energy and reducing carbon emissions. Investment programs are typically focused on internal company facilities and operations. Addressing and reducing the personal carbon footprints of employees are efforts that have been mostly viewed as 'out of scope,' except for general concerns regarding employee business travel and the commute to the workplace.

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Yet employee priorities and values are changing. Numerous volunteer green teams have sprung up in many corporations, working to reduce environmental impacts through changes to company infrastructure and policy and by influencing personal choices. As noted in a June 2008 AltaTerra report: “Green teams are a natural fit with this need, offering a personally meaningful way for employees to simultaneously contribute to their company, and to the broader community in which they live – and in

the process, reinforcing the employee/company relationship” [2].

Among human resources executives, there is a growing consensus that corporate concern for environmental sustainability is necessary to attract and retain high-value workers. A survey conducted by faculty members at Stanford University and the University of California at Santa Barbara found that 97% of graduates from 11 top U.S. business schools would give up nearly 15% of their anticipated first-year salaries to work for a company that demonstrates “exemplary environmental performance, ethical business conduct, and good employee and stakeholder relations” [3].

## Solar employee purchase programs

To date, there is no industry-standard term for solar EPPs. We use the phrase solar employee purchase program because the ‘employee purchase program’ phrase and concept are now established in the corporate marketplace.

A solar employee purchase program is a voluntary employee benefit organized by solar power companies to enable eligible employees of participating employers to purchase residential solar products and services at a reduced cost.

Through a solar EPP, a participating employer can reinforce its commitment to environmental sustainability and even gain increased employee loyalty, improved corporate image, and, ultimately, higher productivity. The value proposition for employees is similar to the value proposition for anyone installing residential solar: they can gain greater energy independence, feel good about doing their part to fight global warming, reduce their monthly electric bills, protect themselves from escalating

Company Name	Company Business	Employer Partners	Example Deal Structure	Results
<b>SunPower</b>	Manufacturing	~15 (e.g., HP)	Post-installation rebate; tiered (based on employer matching); volume-based performance bonuses	HP – one of most successful programs – over 200kW installed

Table 1. Summary of SunPower’s solar employee purchase program.

electricity rates, increase the value of their homes, and take advantage of federal and state incentives. However, solar EPPs add value, with employees benefiting financially to varying degrees, depending on the incentives offered by the employer and the solar company. Employees also benefit through the positivity gained from their employer’s social and environmental responsibility and the perks it provides.

An employer may launch a solar EPP in a subsidized or unsubsidized form. Some employers provide a modest cash incentive to their employees who purchase solar. This incentive is additional to the discount from the solar company and tangibly underscores the employer’s commitment to being a green company. Alternatively, the program can be launched with no employer cash incentive. Either way, it is expected that employers will facilitate employee communication and support marketing for the program. These are necessary elements of success. Furthermore, many solar EPP providers have agreed that solar EPPs are most effective when they are part of a larger solar deployment and green vision that provides education, generates enthusiasm, and drives activity. In addition to providing a discount, successful programs engage employees with information and education.

**Solar EPP business ecosystem**

There are three primary parties in any solar EPP:

- The solar power company that is providing the solar EPP – either a manufacturer (A) or an integrator/installer (B)
- The employer
- The employee beneficiary of the solar EPP.

Programs are being initiated by a few turnkey manufacturers (manufacturers/integrators), and by installers that may also be integrators.

“An employer may launch a solar EPP in a subsidized or unsubsidized form. Some employers provide a modest cash incentive to their employees who purchase solar.”

Participating employers are referred to as employer partners. This does not denote a legal partnership; rather it conveys the formation of an ongoing (multiple-transaction) arrangement

between the solar company and employer in offering the program to the employer’s employees. The term partner also reflects the ideal relationship, which involves a cooperative effort.

In implementing solar EPPs, manufacturers (A) arrange to have systems installed through their dealer network. Depending on a given manufacturer’s business model, distribution network, and vertical integration, there may be more or fewer players involved, from dealers to distributors, integrators, designers and installers.

System installers (B), who may be integrators as well, also offer solar EPPs. When installers offer solar EPPs, they sign up employers to participate and install the systems themselves.

Often, the solar power company offers an employee purchase program to the employer in the context of a bigger commercial solar project. However, some solar companies are also offering solar EPPs to employers that are not commercial customers.

The employer either manages the solar EPP directly or contracts its supervision to a benefit management company. When program administration is outsourced, the employer will typically provide an internal point of contact for the solar provider, usually from the human resources, sustainability, or environmental health and safety function.

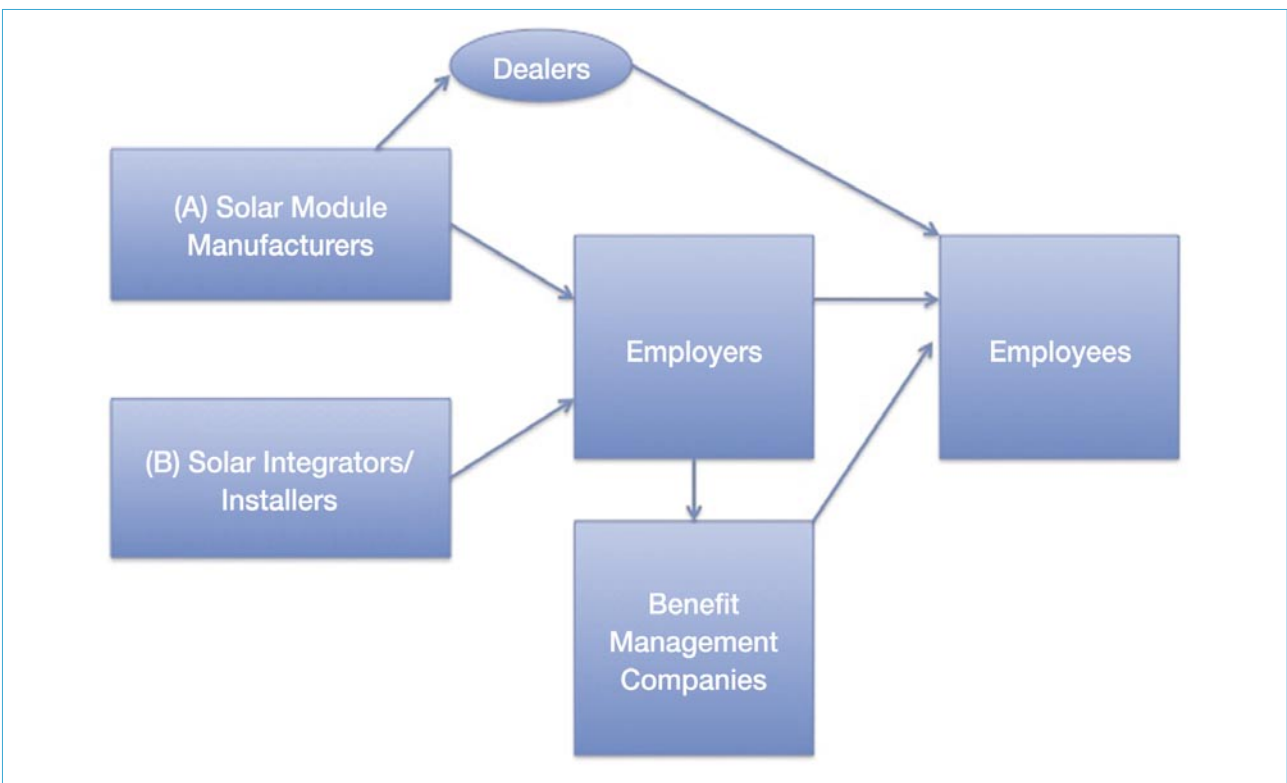


Figure 1. Solar employee purchase programs: business ecosystem (simplified).

## Case study

For the purposes of this article, one solar EPP is discussed in depth, as an example of what can be expected in this space. In the full report, four additional companies are profiled, all of which are installers and each of which has experienced varying degrees of success.

## SunPower Corporation

SunPower is a publicly owned company that designs, manufactures, and delivers solar electric technology for residential, commercial, and power plant applications. It is one of the most vertically integrated companies in the solar industry – from cell and module manufacturing to system design and integration. For residential installations, SunPower works with more than 400 dealers in the United States and Europe.

As of November 2008, SunPower had solar EPPs with 15 employers in the U.S. and was in talks with other prospective partners. Employer partners include Hewlett-Packard Company and other Fortune 500 companies, some of which were large-scale system customers, some of which were not.

Under SunPower's programs, an incentive, in the form of a post-installation rebate, is determined for each employer, using a standardized, tiered rebate matrix. During an initial promotional period, the amount of the rebate may be increased if a predetermined kilowatt volume threshold is met.

Programs can be run at no cost to the employer. However, SunPower encourages employer investment by offering dollar-for-dollar matching. It positions the program as a long-term benefit to its employer partners rather than as a limited-time offering.

From SunPower's perspective, its vertically integrated business structure and national dealer network position it to effectively administer solar EPPs for corporate partners.

With dealers in 29 states, SunPower is able to offer semi-national coverage in the United States and additional coverage in certain other countries. Moreover, SunPower handles all marketing, administration, and infrastructure needs for implementation of EPPs, allowing the dealers to focus on design, installation, and customer service.

## Hewlett-Packard's solar EPP

Hewlett-Packard (HP) had not thought of offering a solar EPP when it began working with SunPower on a power purchase agreement for its 1.2MW commercial system in San Diego. However, when SunPower proposed an employee program, HP agreed that it would be beneficial. It was a natural extension of HP's sustainability network, which was already hosting meetings on residential solar, and Live Green, a formal employee engagement program for the environment, which has presented lectures from climate scientists, film reviews and discussions with producers, and Earth Day celebrations [4].

With no contribution from HP, SunPower was prepared to offer a rebate. With dollar-for-dollar matching, SunPower agreed to increase its rebate for a combined rebate of up to US\$4,000 per employee until HP funds ran out. The program started in December 2007.

Employees reserved the money for their rebate from HP by submitting an application. They then had two weeks to enter into a contract with a SunPower dealer and would receive the rebate after the installation was complete. By April 2008, HP's matching funds had been depleted, but SunPower continues to provide a rebate.

HP outsourced administrative management of the program to the voluntary benefit management company, Beneplace. However, there is still an internal contact person at HP who receives monthly reports from SunPower and meets with one of its representatives every two weeks.

To market the program, SunPower had a booth at HP headquarters' Earth Day fair and participated in events at other locations. HP regularly distributed information through its intranet, and SunPower and HP co-hosted a series of virtual 'brown-bag' presentations.

HP has been one of SunPower's most successful solar EPPs, with enthusiastic employees providing positive feedback. High interest among employees was readily apparent to HP and SunPower when attendance at the first virtual brown-bag presentation far surpassed either company's expectations – more than 200 employees signed in to the online conference room. According to HP in September 2008, that initial interest has resulted in the installation of more than 200kW, with 54 employees and two retirees installing systems or currently under contract and 160 people engaging in the evaluation process.

## Assessment and outlook

The solar EPP approach to sales and marketing in the U.S. residential market is being developed and evaluated by a small number of companies. While there is extensive EPP experience in other industries to draw on, this model has had limited experience in the solar industry.

For those solar companies that are public about their solar EPP efforts, assessments range from cautiously optimistic to highly enthusiastic. The consensus (not yet backed up with large, established programs and extensive quantitative data) is that for a small cost to the solar provider, solar EPPs provide significantly higher visibility and can generate sales volume driven by employer partners, which can reduce cost of sales and increase the rate of residential solar adoption.

It may be that solar EPPs are at their most powerful when they link residential and non-residential sales, each channel serving as a marketing communications conduit for the other. The question is: how

much is that marketing communications connection worth? Or perhaps more importantly, what is the value of solar EPPs to sales and operations in particular?

## References

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- What type of company is in the best position to offer solar EPPs? What is/will be the role of benefit management companies?
- What types of employers, other than large corporations, might solar power providers target for solar EPPs?
- What makes a program successful?
- What are the steps to implementing and building out solar EPPs?