

MODEL BRIEF

Employer-Sponsored Solar Benefits

Low- and moderate-income (LMI) households historically have been underrepresented in the solar photovoltaic (PV) market. Increasing LMI household participation may be facilitated through Flexible Financial Credit Agreements (FFCAs).

An FFCA is an innovative financial or programmatic product that addresses underlying financial barriers for potential LMI solar customers, such as long-term contracting requirements, nontransferable solar subscriptions, credit score hurdles, seasonal income fluctuation, product or vendor skepticism, and limited mechanisms for multiplying or leveraging benefits.

This brief focuses on businesses providing financial and structural support to allow their employees the opportunity to benefit from solar PV generation.

Model Description

An employee benefit plan relieves employees from needing to pay the upfront costs of solar panels, while still allowing them to benefit from renewable energy generation. The employer-sponsored solar benefit would establish a corporate benefit that provides solar PV energy to employees' homes. A solar PV benefit could be provided to employees directly, to subsidize the installation of employees' own PV systems, or indirectly, allowing employees to benefit from solar energy generated away from their homes. One promising iteration of this model is for corporations to offer subscriptions that would provide energy credits to employees' utility bills. This dynamic resembles a community solar model, where solar is installed at an offsite location—in this case, it could be the corporation's office or retail location. Employees can subscribe to the PV system and receive credits on their regular electric bill for the clean energy produced. Regardless of whether they rent or own their home, employees can save money on their electric bills through bill credits, which can be credited to their utility bill or distributed



through their employer payroll. Through subscriptions, employers can subsidize employees' standard utility bills, without employees needing to own their home or rooftop.

This model requires participation from the corporation, the owner of the solar PV system, the employee, and the employee's utility provider. If the employer owns the solar PV system, they may be eligible to claim the Solar Investment Tax Credit (ITC) for the cost of the PV system. Additionally, the bill credits applied to employees' bills may be eligible as tax deductions for the employer. This tax structure subsidizes the cost of the system for the owner, while providing a discounted, renewable energy source for the corporation's employees.

This type of employee benefit is also possible for nonprofits or companies that rent. Under current law, the ITC can only be claimed by residential and commercial entities. However, 501(c)(3) and other tax-exempt organizations can pass on the benefit of solar to employees through external ownership models and partnerships that offer power purchase agreements. If a nonprofit or charitable organization wishes to own and install solar PV, they will be responsible for the full cost of the system. If the organization rents their facility, their landlord can co-purchase the system and claim their share of the ITC.

Employer-sponsored solar benefits can incorporate charitable contributions into benefit plans. If the business is a nonprofit, third parties can purchase the solar PV system through the use of a limited liability company (LLC). Once the ITC recapture period ends, the LLC, as system owner, can sell or donate the solar system to the nonprofit. Another option is for the company to direct some of the bill savings from reduced carbon fuel purchases to a charitable entity serving low-income households.

Employees typically must be a customer of the participating utility provider in order to be eligible for the solar bill credit benefit. The corporation and system owner must sign an agreement with the participating utility company that links the system's energy generation with each of the participating employee's utility bills. This allows for uniform, seamless, adaptive continuation of service and bill credits.

Similar Examples

The Vermont Energy Investment Corporation (VEIC) is a nonprofit organization with a mission to reduce the economic

and environmental costs of energy use. To make solar energy more accessible, starting with their own employees, VEIC founded the Sun Shares program, which brings the concept of community solar to the workplace by partnering with employers, facility owners, and local electric utilities to offer solar energy as an employee benefit. VEIC began with solar panels on the roof of their Innovation Center, allowing many of the employees who work in the building to purchase shares of the system's energy output, which are credited against their home electric bills. Employees must be customers of the participating utility provider in order to receive the benefit and bill credits.

To establish the ownership model for the system, VEIC established an LLC, with itself as a 1% owner of the company and its building landlord as a 99% owner. VEIC's building owner provided 99% of the capital to purchase the PV system, and VEIC provided the final 1%. Using this arrangement, the building landlord, as a for-profit entity, was able to monetize the tax credits returned via the ITC, while VEIC, as the employer, monetized the employee bill credits as payments to the building owner.

To participate in this benefit, employees enrolled through their utility provider, which allowed for seamless bill payment and crediting through employees' utility accounts. Each month, the credits accrued from energy savings were deposited into each account, and one week later, their bill was deducted—ensuring that employees never saw a lapse of income on their account. This model is seamless, flexible, and portable within the utility partner's service area.

FFCA Rubric

The National Renewable Energy Laboratory (NREL) designed an FFCA evaluation rubric composed of four high-level metrics—locational flexibility, financial flexibility and stability, attractiveness, and impact—with fifteen sub-metrics. Stakeholders can evaluate FFCA concepts by rating the sub-metrics, which have maximum scores of 5 or 10, depending on the sub-metric's level of importance. Total scores have a maximum value of 100. These scores are subjective and depend on individual FFCA program design; however, they provide a general framework for judging the merit of a program. Below, the authors rate the Employer-Sponsored Solar Benefits concept.

Portable

●●●●●●●●●● (5/10)

Limited to the service area of company

Universal

●●●●●●●●●● (5/10)

Limited to employees of participating companies

Applicable

●●●●●● (5/5)

Removes financial barrier from LMI employees

Transferable

●●●●●●●●●● (10/10)

Company can reassign benefit with change in staff

Investable

●●●●●● (2.5/5)

Depends on the corporate program and what they will support

Accessible

●●●●●● (2.5/5)

Only accessible to employees

Secure/Transparent

●●●●●● (5/5)

Backed by employers and utility

Equitable/Desirable

●●●●●●●●●● (5/10)

Depends on employee profiles of participating companies

Strengthens Community

●●●●●● (5/5)

Location-specific

Leverages Partners

●●●●●● (2.5/5)

Siloed with corporate relationships

Mitigates Risk

●●●●●● (2.5/5)

Depends on corporate program

Provides Financial Benefits to LMI

●●●●●●●●●● (5/10)

LMI households can benefit from financial strength of company

Provides Non-Energy Benefits

●●●●●● (2.5/5)

Depends on corporate program

Impacts Grid Flexibility/ Stability

●●●●●● (2.5/5) Depending on PV facility, could also provide benefits to grid

Scalable

●●●●●● (5/5)

Any company could participate

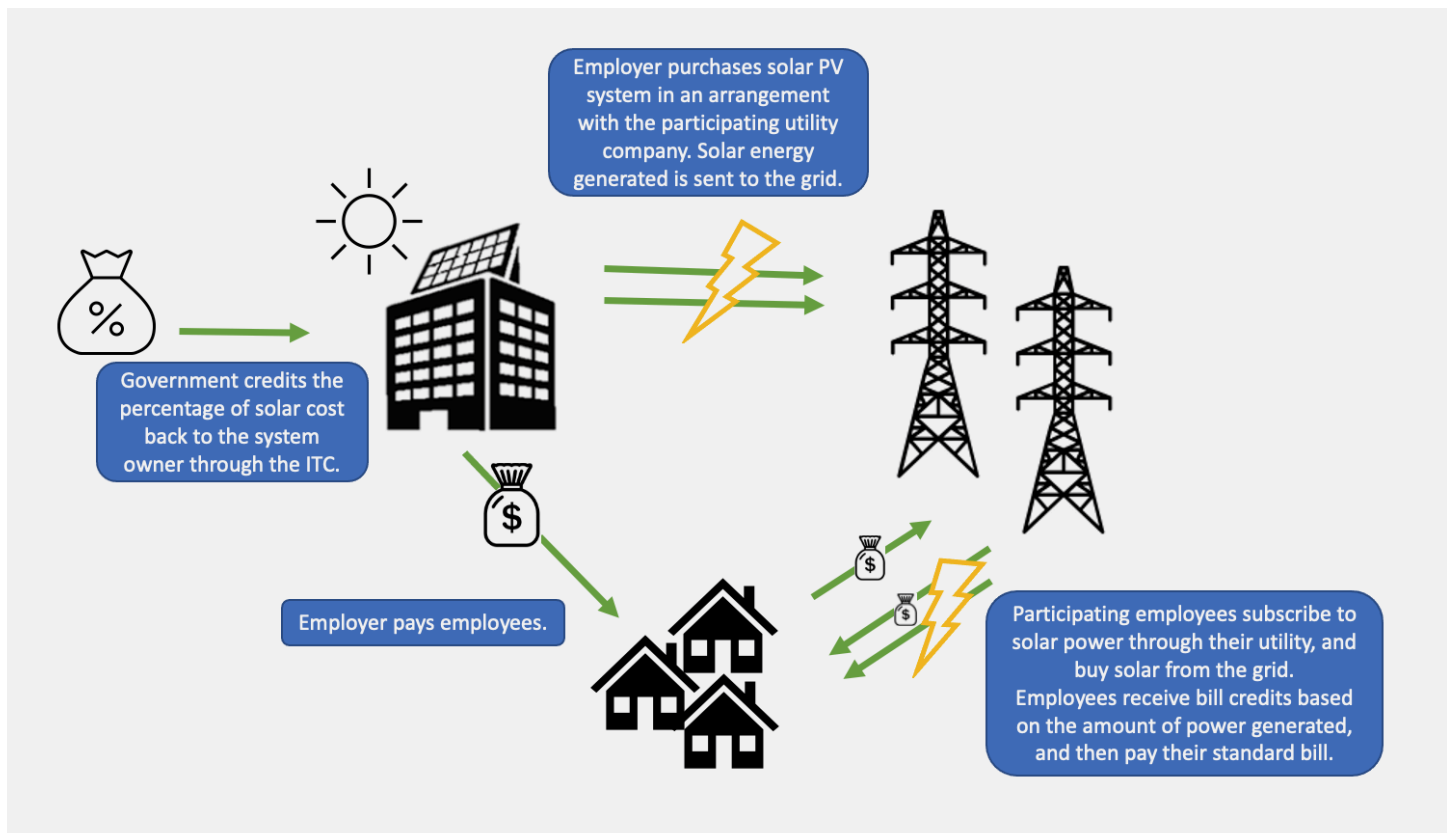


Diagram: Example of an employer-sponsored solar benefit program

Discussion

An employer-sponsored benefit for solar energy is a hyperlocal method of delivering energy affordability and resiliency to LMI and non-LMI employees of a company that involves little regulatory change. Employers can either facilitate employees purchasing solar for their homes or help direct offsite solar benefits to employees' homes—for example, by working with a participating utility provider to distribute bill savings. The rate of credits and the method of distribution in the latter example is a consideration of the system owner. This rate, and the energy savings associated, are dependent on the quality of the installation, the size of the system, and the local climate and sun exposure.

The degree to which this model supports LMI accessibility depends on the employee makeup of the corporation and any ancillary programs they might undertake. For LMI individuals who have access to energy assistance programs, the energy credits offered through the employer solar should be able to work on top of their public benefit. Employees who receive utility services from a different provider won't be eligible to subscribe to the benefit. Similarly, the system cannot be transferred if the employer moves to a location outside of the utility footprint.

States are expanding regulations that require regulated utilities to offer community solar arrangements. Employers may have limited access to this option based on their state and local utility. The participating utility provider in an employer-sponsored benefit needs to manage the distribution of the energy shares, as well as integrating the transfer of energy credits and utility bill payments.

Next Steps

The impact of an employer-sponsored solar benefit is dependent on the scale of adoption. An employer-sponsored solar benefit may be an attractive option for individuals who rent their home. Community solar is growing in popularity, and as more utility providers offer this arrangement, corporations with large office spaces and roof capacity should consider investing in a solar system installation. Depending on the number of employees that choose to participate, the corporation may apply additional credits to their own operating costs. Interested businesses should speak to their utility provider to determine if the option is available, and work with their building owner to determine the possibility and size of a potential solar PV installation.

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Full Overview of FFCA Products

www.nrel.gov/solar/market-research-analysis/flexible-financial-credit-agreements.html

