



Comptroller of the Currency  
Administrator of National Banks

US Department of the Treasury

# Community Developments *Investments*

July 2011

## Investing in Solar Energy Using the Public Welfare Investment Authority



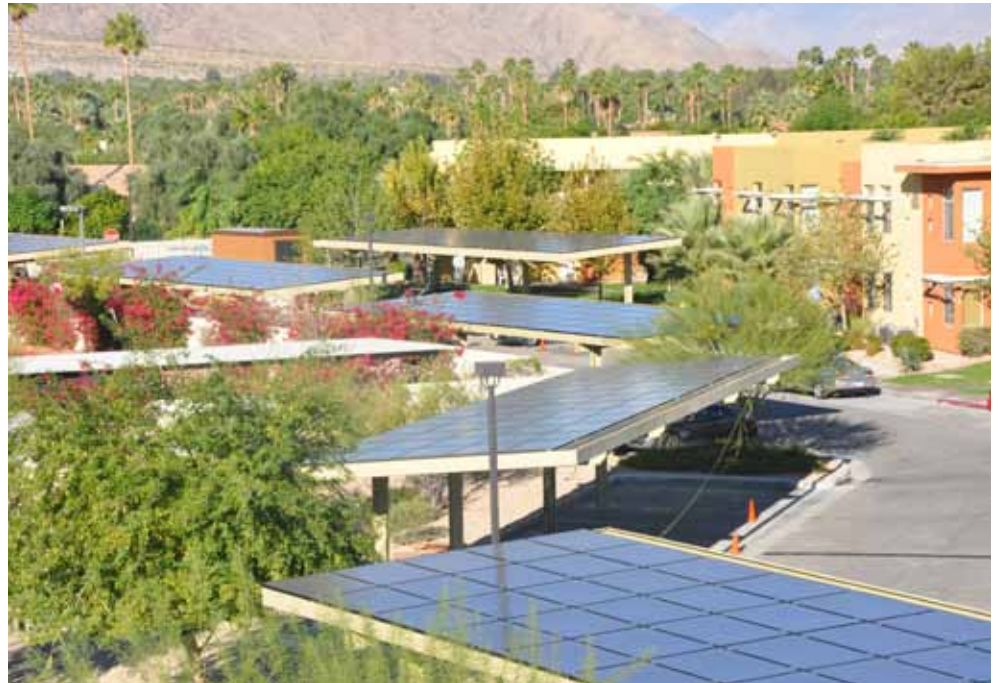
# A Look Inside ...

Barry Wides, Deputy Comptroller, Community Affairs, Office of the Comptroller of the Currency

National banks use their public welfare investment authority to invest in facilities that generate solar power, making them partners in the effort to increase the use of renewable energy. This partnership benefits communities as well as banks by

- providing financing for “green” renewable energy projects.
- creating critically needed jobs for a range of worker skill levels in local communities.
- bringing energy savings to consumers and businesses.

National banks can play a leadership role in spurring investment in energy-saving projects. Banks have authority under 12 USC 24(Eleventh) and 12 CFR 24 to make public welfare investments that



Sunwheel Energy Partners

**Solar panels are mounted on carports in this project where rooftop mounting is not feasible.**

primarily benefit low- and moderate-income individuals and low- and moderate-income areas, other areas targeted by a governmental entity for redevelopment, or in assessment areas where a bank would receive consideration of “qualified investments” under the Community Reinvestment Act. This allows banks to invest in and provide equity for affordable housing and other real estate development, small business, and revitalizing or stabilizing government-designated areas.

Banks that make public welfare investments help themselves as well as the communities they serve.

In addition, banks investing in solar energy-producing facilities can benefit by taking advantage of often-generous state and federal tax incentives or grants. These benefits make solar energy investments by banks a fitting topic for this issue of *Community Developments Investments*.

Rising energy costs and growing concern about global warming are spurring interest in renewable-energy production. In 2009, 8 percent of total U.S. energy consumption came from renewable energy sources, according to the U.S. Department of Energy.<sup>1</sup> Although solar power represents only

## Community Developments

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This and previous editions are available at  
[www.occ.gov/cdd/resource.htm](http://www.occ.gov/cdd/resource.htm).

### On the cover:

A worker installs solar panels on multifamily housing in San Francisco, Calif. Photo courtesy of Sunwheel Energy Partners.

### Disclaimer:

Articles by non-OCC authors represent their own views and not necessarily the views of the OCC.

## Using the Public Welfare Investment Authority to Make Solar Energy Investments

National banks may use the public welfare investment authority to invest directly in solar facilities or indirectly through a fund backed by interests in solar energy-producing facilities—if the investment meets the OCC’s public welfare requirements. Public welfare investments are governed by 12 CFR 24, the OCC’s regulation on community and economic development entities, community development projects, and other public welfare investments. Typically these investments in solar facilities are carefully structured to comply with legal requirements necessary to take advantage of available tax credits and grants.

The public welfare investment authority requires that a bank’s investment be designed primarily to promote the public welfare, such as by providing housing, services, or jobs. A bank’s investment must primarily benefit low- and moderate-income individuals, low- and moderate-income areas, other areas targeted by a governmental entity for redevelopment, or in

assessment areas where a bank would receive consideration for “qualified investments” under the Community Reinvestment Act.

Additionally, the investment must not expose the bank to unlimited liability. Also, the bank’s aggregate investments under the public welfare investment authority cannot exceed 5 percent of its capital and surplus, although this limit may be increased up to 15 percent with prior approval from the OCC.

For questions about whether specific investments may qualify as public welfare investments or for information on the process for notifying the OCC about these types of investments, contact Karen Bellesi at (202) 874-4930.

For more information, visit the OCC public welfare investment Web Resource Directory, available at [www.occ.gov/topics/community-affairs/resource-directories/public-welfare-investments/index-public-welfare-investments.html?submenuheader=0](http://www.occ.gov/topics/community-affairs/resource-directories/public-welfare-investments/index-public-welfare-investments.html?submenuheader=0).

a small portion—just 1 percent—of the renewable energy generated in the United States, solar power generation is growing. From 2009 to 2010, solar power generation grew 48 percent, with most of the increase occurring in California and Nevada.<sup>2</sup>

Photovoltaic or solar cells convert sunlight into electricity. When converted to thermal (or heat) energy, solar energy can be used to heat water

or buildings. Individual photovoltaic or solar cells can power small appliances, be arranged in panels to power buildings, or be assembled as power plants that generate electricity.

Although initial costs can be high, many developers are using solar energy technology and green building techniques to reduce future energy costs and decrease environmental impact over the life of the building.

## Does ‘Volcker Rule’ Affect Public Welfare Investments?

Section 619 of the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010, sometimes referred to as the “Volcker Rule,” has provisions that limit some types of private equity investments by national banks.<sup>3</sup> The provision explicitly exempts public welfare investments made by national banks under 12 USC 24(Eleventh).

The statute provides that an exemption does not apply if the public welfare investment would involve or result in a material conflict of interest between the bank and its clients, customers, or counterparties; result, directly or indirectly, in a material exposure to “high-risk assets” or “high-risk trading strategies”; pose a threat to the bank’s safety or soundness; or pose a threat to U.S. financial stability.

Together, the OCC, the Federal Deposit Insurance Corporation, and the Federal Reserve Board are defining the main terms in the statute (including material conflict of interest, high-risk asset, and high-risk trading strategy) in joint regulations to be issued in the coming months.

The provisions of the Volcker Rule become effective 12 months after the agencies issue implementing rules or July 21, 2012, two years after Dodd–Frank became law, whichever comes first.

<sup>3</sup> See Section 619 (d)(1)(D), Public Law No. 111-203, July 21, 2010.

<sup>1</sup> U.S. Energy Information Administration 2009 data on renewable energy consumption in the nation’s energy supply, available at [www.eia.gov/cneaf/alternate/page/renew\\_energy\\_consump/figure1.html](http://www.eia.gov/cneaf/alternate/page/renew_energy_consump/figure1.html).

<sup>2</sup> U.S. Energy Information Administration January 2011 and 2010 data on net generation from solar, by census division by sector, available at [www.eia.gov/cneaf/electricity/epm/table1\\_20\\_a.html](http://www.eia.gov/cneaf/electricity/epm/table1_20_a.html).

National banks making solar investments may have in-house experts who evaluate and underwrite financing structures using these tax credits. These experts may help banks take advantage of the considerable resources, tax credits, and grants directed at spurring renewable energy generation. The American Recovery and Reinvestment Act of 2009 included more than \$80 billion for renewable energy projects and related energy saving initiatives, further spurring the development and use of alternative energy sources.

This issue of *Community Developments Investments* features articles describing the innovative investments national banks have made in solar energy-producing facilities using their public welfare investment authority. National banks are providing critical leadership and bringing creativity, expertise, and renewable energy financing to help communities. This issue of *Community Developments Investments* serves as a guide for banks interested in how renewable energy could fit in their overall investment strategies.

## For More Information About Solar Investments

### OCC Resources

#### **Public Welfare Investment Community Development Investments Fact Sheet**

[www.occ.gov/static/community-affairs/fact-sheets/Public\\_Welfare\\_Investments\\_FS.pdf](http://www.occ.gov/static/community-affairs/fact-sheets/Public_Welfare_Investments_FS.pdf)

#### **Solar Energy Investment Tax Credits and Grants Fact Sheet**

[www.occ.gov/static/community-affairs/fact-sheets/ITC\\_Solar\\_Investment\\_FS.pdf](http://www.occ.gov/static/community-affairs/fact-sheets/ITC_Solar_Investment_FS.pdf)

#### **Community Development Investment Letters**

Precedent-setting public welfare investments in energy investment tax credit facilities financed with solar energy tax credits:

##### **Community Development Investment Letter #2009-6, February 2010**

[www.occ.gov/static/interpretations-and-precedents/feb10/cdil09-6.pdf](http://www.occ.gov/static/interpretations-and-precedents/feb10/cdil09-6.pdf)

##### **Community Development Investment Letter #2009-1, November 2009**

[www.occ.gov/static/interpretations-and-precedents/nov09/cdil09-1.pdf](http://www.occ.gov/static/interpretations-and-precedents/nov09/cdil09-1.pdf)

##### **Community Development Investment Letter #2008-1, August 2008**

[www.occ.gov/static/interpretations-and-precedents/aug08/cdil08-1.pdf](http://www.occ.gov/static/interpretations-and-precedents/aug08/cdil08-1.pdf)

### Other Resources

#### **Section 1603 Program: Payments for Specified Energy Property in Lieu of Tax Credits**

DSIRE, Database of State Incentives for Renewables & Efficiency  
[www.treasury.gov/initiatives/recovery/Pages/1603.aspx](http://www.treasury.gov/initiatives/recovery/Pages/1603.aspx)

#### **North Carolina State University, N.C., Solar Center**

Comprehensive source of information on federal, state, local, and utility incentives that promote renewable energy and energy efficiency  
[www.dsireusa.org](http://www.dsireusa.org)

#### **U.S. Department of Energy**

Information about federal programs involving solar energy  
[www.energy.gov/energysources/solar.htm](http://www.energy.gov/energysources/solar.htm)

#### **U.S. Energy Information Administration**

Statistical information and analysis on renewable energy, including solar energy  
[www.eia.gov](http://www.eia.gov)

# U.S. Bank Invests in Solar Installations in Affordable Housing Communities

Darren Van't Hof, Director of Renewable Energy Investments, U.S. Bank

U.S. Bank, one of the nation's largest commercial banks, joined with developer McCormack Baron Salazar (MBS) to finance the installation of solar-energy systems on 11 existing affordable multifamily housing communities in various locations throughout California.

This transaction involved three main entities and their related affiliates:

- **MBS**, a for-profit affordable and market-rate housing developer with a focus on “green” architecture and sustainable design;
- **Sunwheel Energy Partners**, an MBS affiliate that finances, operates, and maintains photovoltaic solar systems; and
- **U.S. Bank**, the investor.

The financing structure used a combination of state rebates and federal tax credits under the new markets tax credit (NMTC) and investment tax credit (ITC) programs.

## *Solar Power Agreements*

Sunwheel installed solar panels on 11 rental housing communities in California. In separate financial transactions, MBS had previously developed several of the affordable-housing communities using low-income housing tax credits. The solar power generated by the solar panels lowers utility costs in the affordable housing community and, in some cases, the benefits are shared with the tenants, through reduced utility bills.



Sunwheel Energy Partners

**A worker installs solar panels in Richmond Village, a 202-unit complex in Los Angeles. A quarter of the solar electricity generated offsets 73 percent of the electricity used by the common areas in this California community. The remainder of the electricity savings reduces costs for tenants.**

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**The financing structure used a combination of state rebates and federal tax credits under the new markets tax credit (NMTC) and investment tax credit (ITC) programs.**

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An affiliate of Sunwheel entered into solar agreements with the host sites by which the affiliate would operate and manage the solar installation. “Due to differences in the local utilities’ solar programs around the state, the Sunwheel affiliate needed

to be flexible and had to tailor the solar agreements for the sites based on their location,” said Michael Steinbaum, Sunwheel’s Chief Operating Officer. In some areas, the host entered into a power purchase agreement. In other locations, they used a solar equipment lease. In all cases, the utilities provided a credit to the host site’s account based on the amount of power generated by the solar installation.

For the affordable housing communities in Northern and Southern California served by Pacific Gas and Electric and Southern California Edison, a power purchase agreement was used, in which the host site purchases the power generated at an agreed-upon price

## State Renewable Energy Programs and Requirements

In addition to the benefits that federal tax incentives offer, many states also offer renewable energy grants or state-level renewable energy tax credit programs. The U.S. Department of Energy maintains a database that provides information about the state, local, utility, and federal incentives and policies related to renewable energy.

One example is California's Multifamily Affordable Solar Housing (MASH) program. To lower electricity use and costs and to stimulate adoption of solar power in affordable housing, California enacted legislation requiring energy utilities to establish rebate programs.<sup>4</sup> MASH offers incentives for solar systems that are installed on existing properties qualifying as low-income residential housing. The MASH program offers two types of incentives: fixed,

up-front, capacity-based incentives, and a competitive program that offers higher incentives for providing quantifiable "direct tenant benefits."<sup>5</sup>

Some states have adopted targets for renewable energy generation, commonly referred to as renewable portfolio standards. These standards require utilities to generate a percentage of their electricity from renewable sources. Visit the U.S. Energy Information Administration site for a list of state requirements for renewable portfolio standards at [www.eia.gov/cneaf/solar.renewables/page/trends/table28.html](http://www.eia.gov/cneaf/solar.renewables/page/trends/table28.html).

Net metering, which is allowed in most states, permits customers who generate electricity using solar technology to transfer electricity to the electric grid and receive credit, usually in the form of kilowatt-hours that can be used to offset customers' electricity consumption when

insufficient energy is being generated by the customers. Meters measure the outgoing energy that is generated by the solar power panels and the incoming energy from the energy utility.

State laws and regulations also govern the use of power purchase agreements. In areas that restrict the use of power purchase agreements, transactions can be structured using leases. Some states or local public utilities, however, prohibit independent entities from producing power. The Database of State Incentives for Renewables & Efficiency ([www.dsireusa.org](http://www.dsireusa.org)) provides information on state incentives and policies for renewable energy and energy efficiency.

<sup>4</sup> California Codes, Public Utilities Code, Section 2851-2852.

<sup>5</sup> *California Solar Initiative Program Handbook* ([www.cpuc.ca.gov/NR/rdonlyres/14CD3F07-7B87-49AB-8505-D5F09403A833/0/CSIPProgramHandbookJune2010v3\\_2.pdf](http://www.cpuc.ca.gov/NR/rdonlyres/14CD3F07-7B87-49AB-8505-D5F09403A833/0/CSIPProgramHandbookJune2010v3_2.pdf)) contains complete details on the program as does the California Solar Initiative-Thermal Program Handbook, available at [www.cpuc.ca.gov/PUC/energy/Solar/handbook.htm](http://www.cpuc.ca.gov/PUC/energy/Solar/handbook.htm).

from the Sunwheel affiliate. Because the agreement price is set at a lower price than the host's grid rate, the host's electric bill is reduced by the difference. Typically, provisions in a power purchase agreement establish (1) the length of the term, (2) the starting price and an escalator rate that predetermines the price over the course of the term, (3) an option for the host to purchase the solar power system at fair market value before the end of the term as well as at the end of the term, and (4) other contractual duties, such as which party maintains insurance.

Virtual net metering is an innovative feature offered under the California Solar Initiative's Multifamily Affordable Solar Housing (MASH)

program that was used in several of the affordable communities. With virtual net metering, the host can elect to allocate some of the solar energy production to tenant units, regardless of whether the units are physically connected to the solar installation, thus, the "virtual" part of virtual net metering.

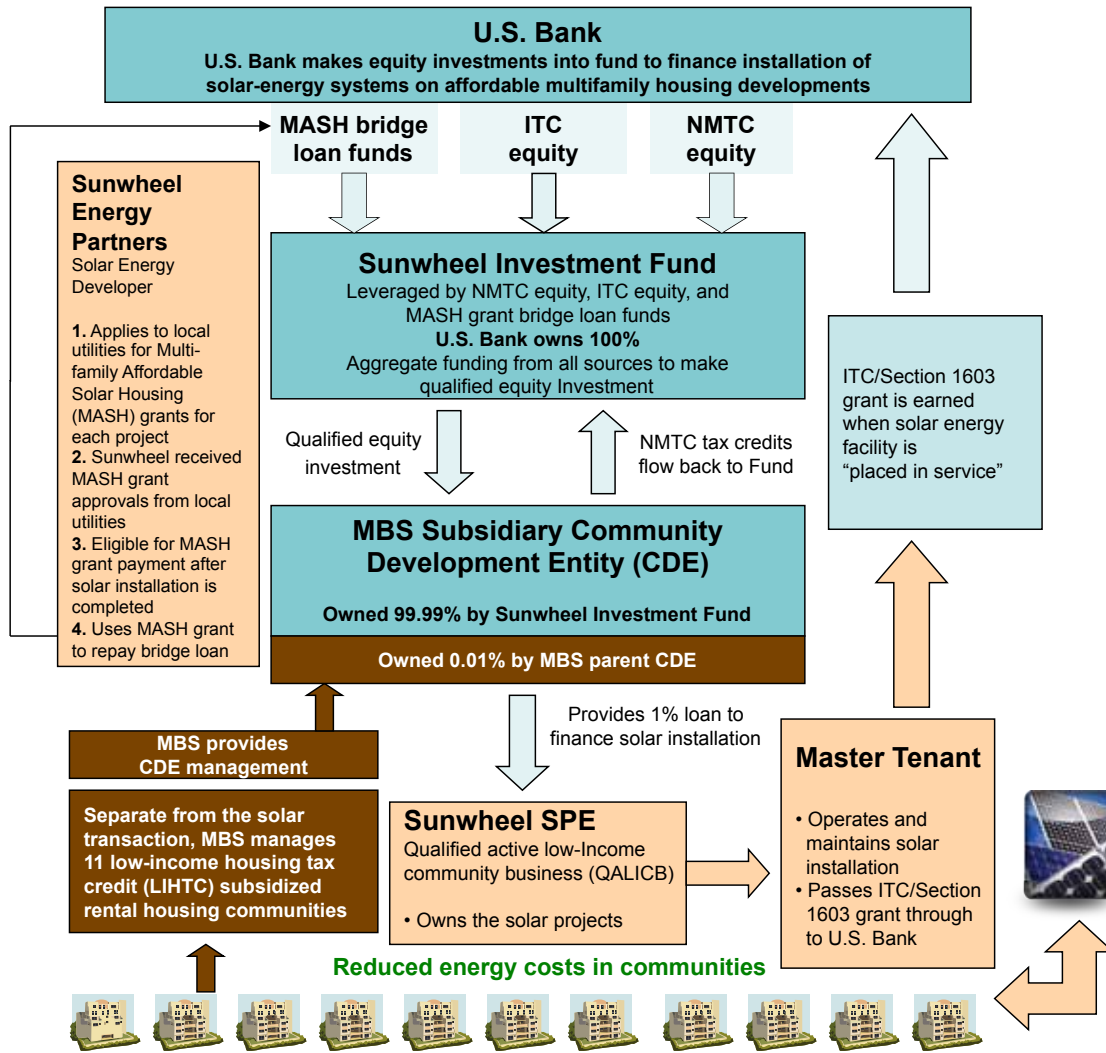
The host provides the solar energy benefit to tenants at no cost. The total amount of energy produced by the on-site solar system is measured before it is distributed to the electric utility. Then the utility adjusts the electricity bills for the individual tenants and common areas to reflect the credit for their portion of the solar energy produced, using a formula based first on the common area-tenant

allocation percentage, and then for each tenant, based on the number of bedrooms in the unit.

In some cases, the hosts allocated more than 50 percent of the solar energy produced at the site to tenants. This was made possible because the MASH rebates are greater for the tenant-allocated portions of the solar installation. In this way, the program provides incentives for companies to direct the benefits derived from solar power generation more toward tenants.

The size of the solar installation and number of panels installed depended on the size and configuration of the buildings' rooftops as well as the host's electricity usage. At one site

**Figure 1: Structure for Sunwheel Investment Fund Transaction**



Source: U.S. Bank and Sunwheel Energy Partners

the rooftops were not suitable for the solar installation, so Sunwheel designed systems mounted on carports. At this desert site the carports provided the added benefit of shaded parking for the tenants.

Four of the low-income housing tax credit communities, located in Southern California in the Los Angeles Department of Water and Power service area, used solar equipment leases. In these cases, the host site leased the solar installation from the Sunwheel affiliate at a predetermined price. The sites get

credit on their energy bills from the utility, and the predetermined lease rates, being less than the estimated credit, allow the sites to save on overall energy bills. Using this approach, the communities in Los Angeles have been able to cover about 90 percent of the electricity used by their common areas.

Sunwheel worked with the solar integration firm Real Goods Solar for the Bay Area installations. Residents from the affordable housing sites and local residents who had completed workforce training programs offered

by Solar Richmond and San Francisco City Build were hired by Real Goods Solar for the installation. "For some residents, this was their first job and first paycheck." Sunwheel's Steinbaum said, "Although these jobs were temporary, several of the workers were ultimately offered additional work after the installation was complete."

The community benefits were threefold:

- Energy costs were reduced for affordable housing operators and tenants;

- Jobs were created in low-income areas; and
- Renewable energy resources were created.

## ***Tax Credit Financing Structure***

U.S. Bank joined with MBS's affiliated community development entity, which used a portion of its NMTC allocation, and Sunwheel and its affiliated special purposes entities, which own and manage the solar systems. U.S. Bank used a "twinned" tax credit financing structure, in which the NMTC and ITC benefits ultimately flowed to the bank.

By blending the federal tax credits and the utility rebates, the twin structure provided an acceptable rate of return and created enough net equity in the project to reduce the debt service requirement to one percent, making the solar installation financially viable.

U.S. Bank provided equity to an investment fund that, in turn, invested in the community development entity (CDE) with an NMTC allocation. Simultaneously, an entity was set up as a master tenant to receive and pass-through the Section 1603 benefits (cash in lieu of energy investment tax credits) to U.S. Bank. With this twinned structure, virtually all of the benefits from both the NMTC and ITC transactions flowed through to U.S. Bank as the top-end investor.

U.S. Bank contributed bridge financing to the investment fund in an amount equal to the anticipated MASH solar rebates from the local

utilities. Sunwheel had previously applied with the local utilities and been approved for MASH rebates for each solar project. (MASH rebates are not paid out until projects are complete, and the utilities approve and commission the installations.) Once the rebates were received, the bridge financing was reimbursed.

To further magnify the tax benefits, the modified accelerated cost recovery system allows five-year, straight-line depreciation for eligible energy investments, including solar installations. The depreciation benefits and any losses are allocated through the ITC entity, with 51 percent going to the managing partner and 49 percent going to U.S. Bank. This transaction structure is shown in figure 1.

Although both tax credit transactions are priced and bid as stand-alone deals, U.S. Bank analyzed the combined benefits when deciding to make this investment.

At the end of the seven-year NMTC compliance period, U.S. Bank has the put option to sell its remaining interests in the investment fund and the ITC entity to Sunwheel at a fixed price or Sunwheel can exercise a fair market value call right to purchase the solar power system. When that option is exercised the financing structure will collapse. At that point, Sunwheel will acquire all rights to the solar installation.

## ***Due Diligence Important***

When the bank is underwriting a tax credit investment, sponsor quality and strength are important. The bank conducted due diligence on both MBS

and Sunwheel to evaluate their ability to finance, install, and manage solar projects. Sunwheel and its affiliate are responsible for proper installation as well as ongoing maintenance, such as cleaning and repairing the panels. There also may be manufacturer and integrator warranties to evaluate. U.S. Bank's underwriting analysis also focused on standard elements, such as projected cash flows, construction cost estimates, engineering reports, appraisals, feasibility studies, and marketing plans.

This due diligence is particularly crucial in an NMTC transaction. For the full seven-year NMTC compliance period, if MBS loses its the Community Development Financial Institution Fund's certification as a CDE, or if less than 85 percent of the proceeds were deployed in qualifying low-income investments, then the NMTC benefits would be fully recaptured. U.S. Bank ensures that both of these scenarios are highly unlikely by choosing strong partners that will exercise appropriate controls over project selection, development, and completion.

This investment provides a triple bottom-line benefit that offers community impact and energy sustainability, while making the solar system investment profitable for both the developer and the bank," Steinbaum said. "The low-income housing community lowers its operating costs, while the high cost of installing energy saving equipment is offset by the combined tax credits and the utility rebates."



# Bank of America Teams With Solar Power Partners

*Brian Tracey, Community Development Lending and Investments Executive, Bank of America*

**B**ank of America invested in a fund that financed the development of solar installations in 24 locations across California. The investment benefited both Bank of America, which received the energy investment tax credit, and a variety of commercial and public entities now enjoying lower electricity costs.

Bank of America joined with Solar Power Partners (SPP) of Mill Valley, California, for this transaction. SPP installed the solar technology and manages and operates the solar facilities and the energy sales revenues on an ongoing basis. Bank of America committed equity of \$34.5 million and, as the investor member, receives 99.99 percent of the federal energy investment tax credit benefits.

SPP is an independent solar-power producer that develops, owns, and operates facilities that distribute and sell solar-generated electricity through power purchase agreements (PPA). A PPA obligates the host customer to purchase the power generated by the solar installation at a given price over a period of time—usually 20 to 25 years.

SPP installed both ground-mounted and roof-mounted systems. Although solar-energy systems are generally placed on the rooftops of existing structures, some installations are constructed as elevated shade structures over parking lots or as free-



Solar Power Partners

**SPP Fund II provided financing for the installation of solar energy systems on 18 stores in California for a leading national grocery chain. The project used solar power purchase agreements.**

standing structures. Many systems have stationary solar panels, while others maximize power generation by mechanically tilting panels to face the sun.

“The typical customer for a solar installation is one that uses a lot of power, supports ‘going green,’ and understands the savings that will accrue over the useful life of the facility,” said David Kunhardt, SPP’s Vice President for Structured Finance. For this fund investment, the sites hosting solar power installations include schools and universities, grocery stores, hospitals, and water

districts.

Bank of America’s investment enabled SPP to install solar panels for a wide range of energy users throughout California, including schools, universities, hospitals, retail sites, and water utilities. Not only are the solar installations serving different types of public and commercial users, they also are geographically diversified, which is critical to ensuring the positive performance of the bank’s investment.

“Geographic and economic diversity are important when selecting host sites for a fund,” Kunhardt said. “The

host sites should represent different sectors of the economy, various types of retail, hospitals, public institutions, and private businesses.” Geographic diversity is important to ensure steady overall fund performance, because weather variations affect energy output. Some interested potential customers approached SPP about having solar power installed. SPP also approached other potential customers with facilities that appeared to be ideal for hosting solar installations.

The PPA is negotiated separately for each host site. PPA provisions typically establish the length of the term, the starting electricity rate, an escalator clause to set a limit on the amount that the electricity rate can rise, and contractual duties, such as which party maintains insurance on the facility.

The contract also governs what happens to the solar facility at the end of the term. Solar equipment generally has a 25- to 35-year life span, although efficiency decreases somewhat over time. Therefore, the parties must decide when and how to end the contractual relationship. In this case, SPP could remove the solar installation, the host could choose to purchase the solar panels at fair market value, or SPP could negotiate another PPA with the host.

A chief benefit of PPAs is managing the market volatility of energy costs. “Users benefit from a steady and predictable energy rate and can even tailor their contracts to their own unique circumstances,” Kunhardt said. “For example, schools can take advantage of net metering by selling energy generated during peak hours in the summer months to cover the schools’ utility costs later during the school year.”



Solar Power Partners

**The solar installation for California's Lagunitas School District provides an estimated 70 percent of the school district's annual power needs. Over the term of the contract, it is expected to provide more than \$110,000 of savings to the school district.**

SPP is responsible for installing and maintaining the solar panels; the site host makes no initial or ongoing capital outlays. Depending on the level of electricity demand from the site host, the solar installation covers from 10 percent to 70 percent of the electricity needs for the host sites.

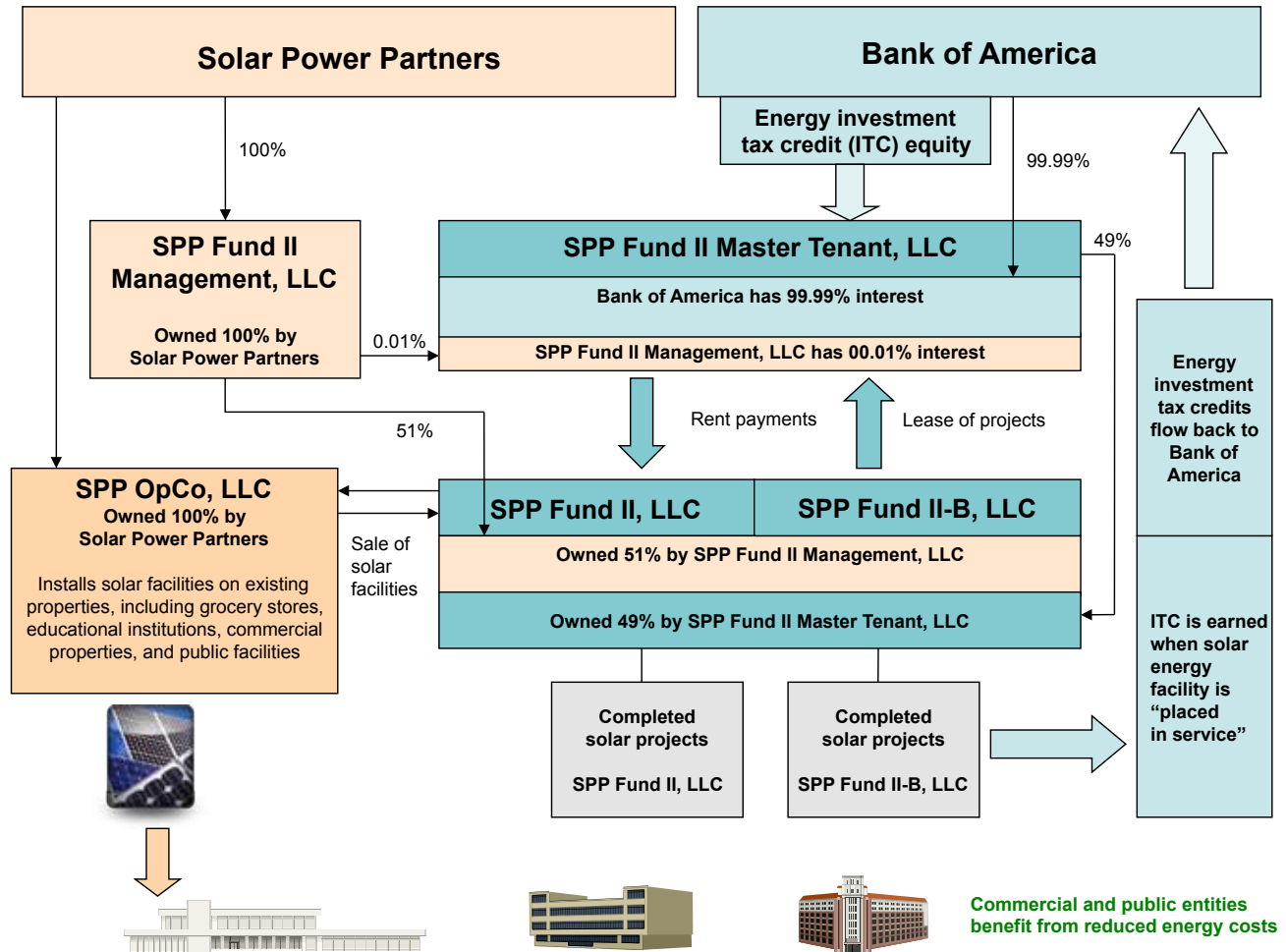
### **How the Investment Is Structured**

The transaction was put together using a “master lease” structure. Four special-purpose entities were established to manage the flow of contractual rights and responsibilities: the SPP Fund II LLC and SPP Fund II-B LLC (the owner funds), the SPP Fund II Master Tenant LLC (the master tenant to both funds), and the SPP Fund II Management LLC (the managing member and tax matters partner for both of the funds and the master tenant).

Bank of America made a \$34.5 million equity investment in the Master Tenant Fund. As the investor member, Bank of America holds a 99.9 percent interest in the Master Tenant Fund and the master tenant, in turn, owns a 49 percent interest in SPP Fund II and SPP Fund II-B. The managing member of these entities is a subsidiary of SPP. As the managing member, Solar Power Partners holds the residual 0.01 percent interest in the master tenant and a 51 percent interest in the SPP Funds. Figure 2 shows the flow of rights and responsibilities.

During the construction phase for the various installations, SPP secured construction financing and a bridge loan until the permanent financing was in place. Both SPP and Bank of America contributed equity to SPP Fund II and SPP Fund II-B; a 15-year loan from another bank provided the

**Figure 2: Structure for Solar Power Partners Transaction**



Source: Bank of America and Solar Power Partners

balance of the long-term financing. A combination of municipal and utility subsidies available from the California Solar Initiative and receipts from the PPAs cover the debt service on the long-term financing.

The SPP Fund executed a 10-year master lease on the project and is responsible for debt service on the portfolio (construction loans were fully repaid by 2009). The tax credits flow from the SPP Fund through the Master Tenant Fund and then to Bank of America. In return for its equity investment, Bank of America also receives a preferred return, tax

priority, and any residual cash, as well as, a share of the profits and losses.

The benefit of a master lease structure is that the tax equity investor can obtain all of the tax credits while effectively managing its exposure to losses. When properly structured as a “true lease” in compliance with Section 50(d) of the Internal Revenue Code, virtually all of the tax credit benefits pass through to the tax credit investors. The master tenant can also shift strategies to accommodate changing needs, such as different

depreciation schedules. Bank of America, as the master tenant, was able to insulate itself from liability on the long-term financing because the loan is non-recourse, and SPP consolidated the assets and liabilities on the balance sheet of SPP Fund II, a separate legal entity.

At the end of the five-year energy investment tax credit compliance period, Bank of America can exercise its option to exit the transaction, having exhausted the tax benefits, and SPP can become the sole owner of the solar installations—after making a balloon payment to its lender for

the outstanding principal balance. SPP set aside reserves for both the anticipated buyout and for six months of scheduled debt service.

As the managing member, SPP holds a 0.01 percent interest and is obligated to manage and operate the solar facilities and administer the energy sales revenues on behalf of the Funds.

## Qualifying for Public Welfare Investments

To qualify its investment under the public welfare authority, Bank of America identified properties located in low- and moderate-income areas. Bank of America projected the number of jobs that would be created for low- and moderate-income workers to install and maintain the solar technology. Both the number and experience level of the jobs were evaluated. As figure 2 illustrates, Bank of America projected that most of the jobs would be for entry-level workers, either laborers or workers with specialized certificates.

Generally, more highly skilled workers are needed during the construction phase and, to some degree, for ongoing maintenance. Solar installations also create permanent jobs because the solar panels must be maintained and cleaned two to three times a year. These maintenance jobs primarily involve basic laborers and mid-level supervisors.

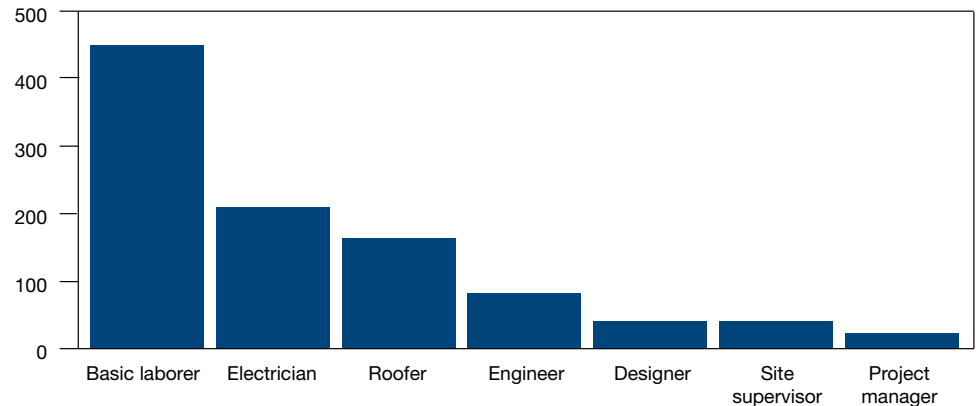
Community colleges and several public utilities in California offer solar training programs and workshops to help workers become more highly skilled in this specialized field. In Los Angeles,



Solar Power Partners

**At the Marshall Medical Center in Cameron Park, California, the solar panel system was installed as part of the hospital's parking structure.**

**Figure 3: Number of Jobs Generated by Bank of America's Solar Investment**



Source: OCC and Bank of America

the International Brotherhood of Electrical Workers has an active solar installation and maintenance training program. Some municipalities offer solar installation job training, as well.

“Bank of America worked closely with the Office of the Comptroller of the Currency (OCC) to ensure

that this investment would qualify under the public welfare investment authority,” said Barry Wides, the OCC’s Deputy Comptroller of Community Affairs. “The bank carefully documented the location and job creation potential for this investment.”

# Solar Manufacturing and Installation Generate Jobs

Sharon Canavan, Community Relations Expert, OCC

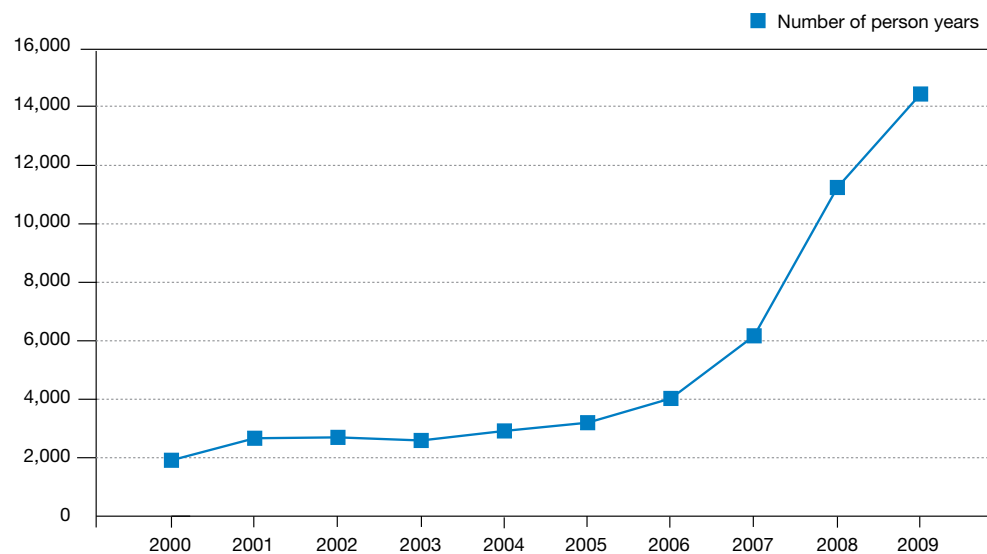
For banks planning to invest in solar energy-producing facilities under the public welfare investment authority, one important factor in qualifying the investments is the potential for generating jobs for low- and moderate-income people. Increased employment in solar manufacturing and installation may help banks make that case.

The U.S. Department of Energy reports that “among the renewable energy technologies, solar photovoltaic (PV) creates the most jobs per unit of electricity output.”<sup>6</sup> Today, these jobs are concentrated in businesses manufacturing and installing solar energy systems.

A recent Energy Information Administration (EIA) report noted: “Corresponding to the strong growth in PV shipments, employment in photovoltaic-related activities increased more than 28 percent, from 1,245 person-years in 2008 to 14,443 person-years in 2009.”<sup>7</sup>

Figure 4 does not reflect the number of jobs related to installing and maintaining solar facilities. As the number of PV installations increases, jobs will shift more heavily to ongoing operation and maintenance over the 20- to 25-year typical lifetime of a solar facility. Installation

Figure 4: Employment in the Photovoltaic Manufacturing Industry, 2000–2009



Source: U.S. Energy Information Administration, Form EIA-63B, “Annual Photovoltaic Module/Cell Manufacturers Survey,” Solar Photovoltaic Cell/Module Manufacturing Activities 2009, table 3.16, January, 2011.

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**The Solar Energy Industries Association estimates that the solar industry and its supply chain support roughly 46,000 jobs in the United States. That number is likely to surpass 60,000 by the end of 2010, the association says.**

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requires a trained work force with varying skill levels, including engineers, installer/technicians, solar system designers, general contractors, roofing contractors, welders, and pipe fitters.

The Solar Energy Industries Association estimates that the solar industry and its supply chain support roughly 46,000 jobs in the United States. That number is likely to surpass 60,000 by the end of 2010, the association says.<sup>8</sup>

<sup>6</sup> 2008 Solar Technologies Market Report, p. 40, U.S. Department of Energy, January 2010, and at [www1.eere.energy.gov/solar/pdfs/46025.pdf](http://www1.eere.energy.gov/solar/pdfs/46025.pdf).

<sup>7</sup> Solar Photovoltaic Cell/Module Manufacturing Activities 2009, January 2011, U.S. Energy Information Administration, p. 3, and at [www.eia.doe.gov/cneaf/solar.renewables/page/solarphotv/solarpv.pdf](http://www.eia.doe.gov/cneaf/solar.renewables/page/solarphotv/solarpv.pdf).

<sup>8</sup> US Solar Energy Year in Review, April 15, 2010, p. 4, and available at [www.seia.org](http://www.seia.org).

# Federal Energy Investment Tax Credit and Grant Incentives for Solar Investments

Sharon Canavan, Community Relations Expert, OCC

The federal government offers energy investment tax credit and grant incentives to encourage banks and other investors to finance solar energy installations. Before banks invest, however, they should carefully examine the implications of each option.

Section 48 of the Internal Revenue Code (IRC) authorizes the energy investment tax credit (ITC) for “equipment which uses solar energy to generate electricity.” Originally, the energy ITC provided a 10 percent tax credit, but the tax credit was increased to 30 percent by the Energy Policy Act of 2005.

To promote the growth and stability of the solar industry, the Energy Improvement and Extension Act of 2008 extended the energy ITC through December 30, 2016. The American Recovery and Reinvestment Act of 2009 further enhanced the energy ITC by eliminating the requirement to reduce the amount to which the energy ITC applied by the value of any subsidy received by a project.

The 30 percent energy ITC credit is calculated using the total cost of a solar installation, including both equipment and labor—but excluding

the building or structural components on which the solar equipment is placed, such as a carport or roof.

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**To date, the energy ITC has supported 1,179 solar projects with total investments of over \$1.3 billion.**

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The full value of the energy ITC is earned when the solar facility is ready and available for its intended use (i.e., placed in service). For the first five years, however, the tax credit is subject to recapture if either (1) the property ceases to be a qualified energy facility or (2) a change in ownership interest occurs. The rate of recapture of the tax benefit is 100 percent in the first year and declines by 20 percent each year thereafter until the compliance period expires.

In 2008, as the economy slowed, demand for tax credit investments declined. The American Recovery and Reinvestment Act of 2009 provided an alternative option to receive an amount equal to the energy ITC as a direct cash grant payment from the U.S. Department of the

Treasury. Section 1603 grants are available for qualifying properties placed in service during 2009, 2010, or 2011, for solar construction projects that begin before December 31, 2011, and projects placed in service by the end of 2016. Grant applications must be received by the Treasury Department by September 30, 2012.

In 2009 and 2010, Section 1603 cash grant awards for solar projects totaled \$416 million, representing 7.5 percent of the total awards granted. To date, the energy ITC has supported 1,179 solar projects with total investments of over \$1.3 billion.<sup>9</sup>

While the cash grant program has proven to be popular with investors, banks should evaluate other considerations before choosing that option. For example, an investor’s corporate alternative minimum tax can be reduced by the amount of the energy ITC, but not by the dollar value of the grant. In deals involving tax exempt or “non-qualified” participants with *any* direct ownership interest, the tax credit is the appropriate approach because these types of participants are excluded from the cash grant program. The bank must evaluate its projected

<sup>9</sup> Greentech Media, December 17, 2010, at [www.greentechmedia.com/articles/read/senate-passes-extension-of-1603-tax-grant-program](http://www.greentechmedia.com/articles/read/senate-passes-extension-of-1603-tax-grant-program).

taxable income. The full value of the energy ITC is earned immediately when a project is placed in service, so the taxpayer's ability to absorb the entire amount of the energy ITC in the first year should be analyzed (although unused tax credits can be carried forward for up to 20 years). Therefore, the cash grant program may be more suitable for very large projects.

Also, the risk of a tax benefit's recapture is lower under the cash grant program. Cash grants are subject to recapture only if: (1) there is a change in use of the facility in the first five years; (2) the project is shut down; or (3) the project or a partnership interest is transferred to a governmental agency or tax-exempt entity.

Another tax consideration for investments in solar equipment is the benefit from the modified accelerated cost recovery system, which provides accelerated depreciation over a five-year period, using the straight-

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line 20 percent declining balance depreciation treatment under Section 168 of the IRC. Under Section 50 of the IRC, however, the dollar amount of the project that can be depreciated must be reduced by 50 percent of the energy ITC amount.<sup>10</sup>

Banks should consult their own tax planners for advice about these tax provisions, and their applicability to

specific transactions, as well as the consequences that may apply to their own transactions.

For more information, see the OCC's *Community Developments Fact Sheet*, "Solar Energy Investment Tax Credits and Grants," at [www.occ.gov/static/community-affairs/fact-sheets/ITC\\_Solar\\_Investment\\_FS.pdf](http://www.occ.gov/static/community-affairs/fact-sheets/ITC_Solar_Investment_FS.pdf).

<sup>10</sup> For a detailed analysis of the interaction between the energy ITC and accelerated depreciation, see *Financing Non-Residential Photovoltaic Projects: Options and Implications*, at <http://eetd.lbl.gov/EA/EMP/reports/lbnl-1410e.pdf>, Mark Bolinger, Lawrence Berkeley National Laboratory, January 2009, p. 6.

# How ‘Green’ Investments May Qualify for CRA Consideration

*Karen Tucker, National Bank Examiner and Acting Director for Compliance Policy*

Loans and investments financing “green” buildings, energy-efficiency improvements, solar panels, or other renewable energy systems do not in and of themselves qualify for positive consideration under the Community Reinvestment Act (CRA). Neither the CRA nor its implementing regulations specifically address these types of activities. If, however, the activity has a primary purpose of community development as defined in the regulation, the activity would receive positive consideration—as long as the geographic requirements are also met. Bankers should consult with their OCC supervisory offices to discuss the facts and circumstances of specific activities for which CRA consideration is desired.

Qualified investments and community development loans must have community development as their primary purpose. CRA defines community development as:

- (1) Affordable housing (including multifamily rental housing) for low- or moderate-income individuals;
- (2) Community services targeted to low- or moderate-income individuals;
- (3) Activities that promote economic



Sunwheel Energy Partners

## **A worker installs solar panels on multifamily housing in San Francisco, Calif.**

development by financing businesses or farms that meet the size eligibility standards of the Small Business Administration’s Development Company or Small Business Investment Company programs (13 CFR 121.301) or have gross annual revenues of \$1 million or less;

(4) Activities that revitalize or stabilize

- (i) Low- or moderate-income geographies;
- (ii) Designated disaster areas; or
- (iii) Distressed or underserved

nonmetropolitan middle-income geographies designated by the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, and the OCC.

(5) Loans, investments, and services that

- (i) Support, enable or facilitate projects or activities that meet the “eligible uses” criteria described in Section 2301(c) of the Housing and Economic Recovery Act of 2008 (HERA), Public Law 110-289, 122 Stat. 2654, as amended, and are conducted in designated target areas identified in plans approved by the



U.S. Department of Housing and Urban Development in accordance with the Neighborhood Stabilization Program (NSP);

(ii) Are provided no later than two years after the last date funds appropriated for NSP are required to be spent by grantees; and

(iii) Benefit low-, moderate-, and middle-income individuals and geographies in the bank's assessment area(s) or areas outside the bank's assessment area(s) provided the bank has adequately addressed the community development needs of its assessment areas.

Examples of activities for which banks may receive positive CRA consideration as community development activities include loans to:

- Borrowers for affordable housing rehabilitation and construction, including construction and permanent financing of multifamily rental property serving low- and moderate-income persons;
- Not-for-profit organizations serving primarily low- and moderate-income housing or other community development needs; and

- Borrowers to construct or rehabilitate community facilities that are located in low- and moderate-income areas or that serve primarily low- and moderate-income individuals.

The loan or investment's primary purpose remains the key consideration for determining if an activity meets the requirements of the CRA regulation and whether the loan or investment may receive positive CRA consideration. Thus, the installation of energy-efficient equipment is not a qualified activity—it does not provide affordable housing; is not a community service; does not revitalize or stabilize low- or moderate-income geographies or other specially designated areas; does not promote economic development through the financing of small businesses/farms; and does not support, enable, or facilitate “eligible uses” projects conducted in designated NSP target areas.

Loans and investments used to construct or rehabilitate affordable housing for low- or moderate-income individuals are qualified CRA activities. A construction or rehabilitation project might also include the installation of energy-efficient heating and cooling systems

or other “green” components. The inclusion of the “green” components in a project that meets the primary purpose of community development would not affect CRA consideration. While examiners are required to evaluate activities based on their primary purpose, they would not give additional consideration for or discount a loan or investment because it also funded a “green” component.

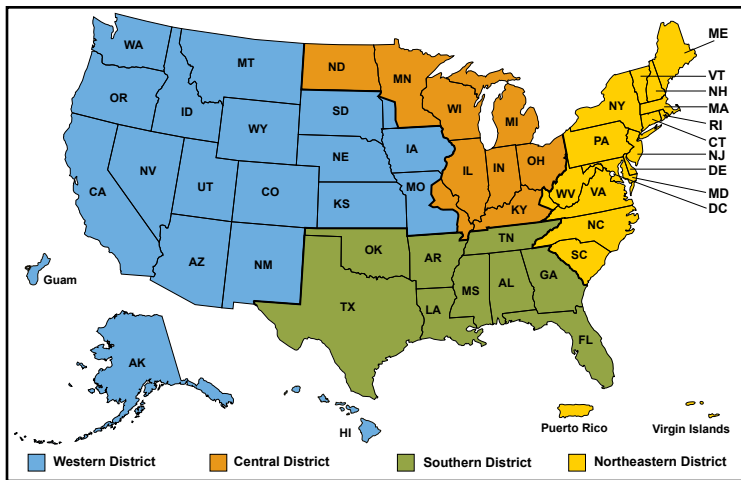
Small loans to businesses that manufacture, install, or maintain solar equipment may receive positive CRA consideration under the review of a bank's retail lending activities, particularly if they are made to businesses that have gross annual revenues of \$1 million or less. To the extent that loans to such businesses also meet the definition of community development, examiners may discuss the community development aspects of the loans in the narrative portion of the bank's public performance evaluation.<sup>11</sup>

Bankers should refer to the Interagency Questions and Answers Regarding Community Reinvestment<sup>12</sup> ([www.ffiec.gov/cra/pdf/2010-4903.pdf](http://www.ffiec.gov/cra/pdf/2010-4903.pdf)) for more examples of qualifying community development activities.

<sup>11</sup> Intermediate small banks making qualified community development loans to small businesses can opt to have the loans reviewed under the OCC's lending test or the community development test. Large banks making loans qualifying as small business loans as well as community development loans can only report them as small business loans. Intermediate small banks have the option of having small loans to businesses that also meet the definition of community development loans considered under either the lending test or the community development test. For large banks, if a small loan to a business meets the definition of “small business loan” as well as the definition of “community development loan,” it may be reported only as a small business loan.

<sup>12</sup> 75 FR 11642 (March 11, 2010).

# This Just In ... OCC's Four Districts Report on New Opportunities for Banks



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## New Hampshire State Tax Credits

The New Hampshire Community Development Finance Authority was created in 1983 to support affordable housing, economic development, and community development activities targeting low- and moderate-income citizens in New Hampshire. To achieve its mission, the authority uses several programs, including the Community Development Investment Program, which is a state tax credit program that provides for-profit businesses (including banks) opportunities to support community development projects throughout the state.

Under the Community Development Investment Program, qualified nonprofit organizations and municipalities engaged in community development activities apply for state tax credit awards through the New Hampshire Community Development Finance Authority. Organizations receiving tax credit awards must raise money for their specific projects within certain time frames. For-profit businesses can invest cash, securities, or property to help fund these various housing, economic, or community development projects. In exchange for these donations, the businesses receive a 75 percent state tax credit. Examples of recent tax credit opportunities include funding to construct a community center to provide programs and services for at-risk families and youth; funding to support the expansion of a state-wide food bank; funding for the construction of a community health center; and funding for a program providing foreclosure prevention assistance.

To learn more, call Chris Conlogue, Community Development Operations Manager, at (603) 717-9111, or visit the New Hampshire Community Development Finance Authority Web site at [www.nhcdfa.org/web/index.html](http://www.nhcdfa.org/web/index.html).



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## Investments in Habitat for Humanity Loans

Krambo Corporation is a San Francisco-based registered broker-dealer (a Financial Industry Regulatory Authority/Securities Investor Protection Corporation (FINRA/SIPC) member) that privately places securities with institutional investors. In 2009, Krambo began arranging opportunities for investors to purchase either whole home mortgage loans from nonprofit Habitat for Humanity (HFH) affiliates or securities backed by those loans.

These loans and securities are frequently purchased by banks seeking earnings and Community Reinvestment Act consideration. HFH affiliates use cash from the sale of the loans or the securities to build more affordable housing. The affiliates typically retain servicing rights along with the right and obligation to replace a loan in severe default with a comparable but current loan or to repurchase the nonperforming loan.

HFH has about 1,500 affiliates operating in all 50 states, building affordable homes and working with lower-income families to prepare them for home ownership. The affiliates then provide purchase mortgage financing to those families at 0 percent interest. Based on 5,294 sales in 2009, The Wall Street Journal recently ranked the HFH network the eighth-largest homebuilder in the United States.

Since 2009, when it began offering this service to HFH affiliates, Krambo has arranged the placement of loans or securities for four HFH affiliates in two states; Krambo has 10 more HFH placements in process in three additional states. For HFH affiliates, these transactions yield a high percentage of the face amount of the mortgages. For bankers, they offer earning assets that have the potential to provide Community Reinvestment Act consideration.

For more information, visit Krambo's Web site at [www.krambo.com](http://www.krambo.com) or e-mail Merrill Burns at [mburns@krambo.com](mailto:mburns@krambo.com) or call (415) 281-4100.



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### **New Tennessee Revolving Loan Fund for Economic Development**

Pathway Lending and the state of Tennessee recently announced the creation of the \$25 million Tennessee Small Business Jobs Opportunity Fund to provide access to capital for small businesses in all 95 Tennessee counties.

This revolving loan fund is intended to enhance current economic development efforts by maximizing statewide job creation and business expansion. The fund provides below-market rate loans with flexible financing options. The fund is designed to enhance the existing financial services available to small businesses in the state.

The Tennessee General Assembly appropriated \$10 million to create the Small Business Jobs Opportunity Fund in the 2010–2011 fiscal year budget. Pathway Lending, formerly known as Southeast Community Capital, administers the fund and is raising an additional \$10 million to \$15 million in capital from financial institutions.

The Tennessee Bankers Association has assigned “Endorsed Product” status to Pathway Lending for its member banks as a Community Development Financial Institution providing Community Reinvestment Act qualified investments. Specifically, financial institutions that invest in the Tennessee Small Business Jobs Opportunity Fund receive a 10 percent annual franchise and excise tax credit for 10 years from the state of Tennessee, based on the investment amount. The program is designed so participating banks can receive 100 percent of their invested capital back through the tax credit.

For more information, e-mail Clint Gwin at [clint.gwin@pathwaylending.org](mailto:clint.gwin@pathwaylending.org) or Hank Helton at [hank.helton@pathwaylending.org](mailto:hank.helton@pathwaylending.org) or call (615) 425-7171.



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### **San Joaquin Valley Small Business Partnership**

Wells Fargo Bank, the Fresno Regional Foundation, and the Valley Small Business Development Corporation have entered into a partnership to support economic development and jobs in California’s Central San Joaquin Valley. The partnership provides capital for small businesses and farms in an area that extends north to Sacramento.

Seeking to leverage funding, Wells Fargo provided a \$1 million equity-equivalent (EQ2) investment to the Fresno Regional Foundation, an organization in existence since 1966 that provides leadership and a strong balance sheet for philanthropic efforts in the Central Valley. The foundation in turn invested the funds in the Valley Small Business Development Corporation, one of California’s 11 Small Business Financial Development Corporations, to further capitalize its Direct Small Business Loan Program. The program provides loans to small businesses and farms throughout the Central San Joaquin Valley and in Sacramento, Monterey, and eastern Los Angeles counties.

For more information, visit Valley Small Business Development Corporation ([www.vsbdc.com](http://www.vsbdc.com)) or call Stan Tom at (559) 438-9680.



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## What's Inside

- U.S. Bank Invests in Solar Installations in Affordable Housing Communities . . . . .5**
- Bank of America Teams With Solar Power Partners . . . . .9**
- Solar Manufacturing and Installation Generates Jobs. . . . .13**
- Federal Energy Investment Tax Credit and Grant Incentives for Solar Investments . . . .14**
- How “Green” Investments May Qualify for CRA Consideration. . . . .16**
- This Just In ... OCC’s Four Districts Report on New Opportunities for Banks . . . . .18**