
Updated: January 2014
For questions regarding this guide please contact
California Interfaith Power & Light
In Northern California – (415) 391-4214
In Southern California – (310) 752-3436
www.interfaithpower.org
Table of Contents
Introduction.................................................................................................................. 3
The Faith Principles of Being Energy-Efficient......................................................... 4
Checklist for Energy-Efficiency.................................................................................. 5
How Solar Works: System Production and Savings.............................................. 7
• Net Metering on an Annual Basis
• Time of Use Savings
• Metric Analysis of Environmental Savings
Member Testimonials.................................................................................................. 8
• Our Lady of Guadalupe Catholic Church, Hermosa Beach
• Temple Sinai of Glendale
• Modesto Church of the Brethren
• First Congregational Church UCC, Bakersfield
• Tassajara Zen Mountain Center, Carmel Valley
• Vedanta Society of Southern California, Los Angeles
Tax Incentives for Installing a Solar Energy System........................................... 11
• Federal Tax Credits
• State Tax Rebates
Solar Job Growth: Economic and Community Development.............................. 14
Solar Related Companies – Referrals ........................................................................ 15
Introduction

Welcome to the world of energy efficiency and solar power! The purpose of this guide is to give a short overview of energy efficiency and solar/photovoltaic (PV) power and financing tailored to the needs of California congregations. This guide was originally conceived and written with solar power specifically in mind, but can apply to congregations looking to reduce their energy use through non-solar methods as well. This said, you will find a focus on resources for solar energy in the latter part of this guide.

In terms of solar energy, as non-profits with unique cash-flow concerns, congregations often face challenging questions when investigating the possibilities of installing a PV system. This packet will share with you some of the experiences of our congregational partners in their transitions to solar energy usage. Please note that this short guide is not meant to be expert advice, but as adjunct to information that you receive from solar professionals and your own research. In addition, the leadership of specific faith traditions or denominations may have policies regarding solar and other energy efficiency measures, and should be consulted as well before moving ahead with a solar installation.

This short guide explores both potential financing options and financial models our congregations are already using. It provides recommendations of solar installers and auditors based on researched, documented, and/or first-hand information. Please note that the ideal situation for any congregation is to have a “project manager” type of person or “solar task force” to gain as much information as possible, and to manage the bidding, sizing and solar installation process at every step of the way.

We want to help empower you in your journey to energy efficiency. As you consider, plan, and implement energy-saving methods, please call us. We are happy to work with you to address any problems specific to your congregation’s needs. Thank you for your interest in energy-efficiency and your involvement with California Interfaith Power & Light.
The Faith Case for Being Sustainable...It’s More than Money

Often, when a congregation is considering energy efficiency measures, the overriding concern is financial. It is crucial to explore the area of financing and to ensure that the decision to move ahead, especially with solar energy, is feasible. But the conversation ought not to stop there. There are several other important reasons to make such an investment.

First, installing energy-efficiency measures indicates that your house of worship is caring for the local and global community. Your carbon emissions will decrease, reducing the impact on air quality where your energy is produced, while decreasing the harmful emissions that contribute to global climate instability.

Second, you are looking ahead and making a commitment to treat the planet and future generations with respect and care by reducing your carbon footprint.

Third, your congregation is taking faith principles of environmental stewardship seriously. All major religions include teachings on caring for the Earth, from the “tikkun olam” of the Torah, to the hadith of the Prophet Muhammad, to the call to love our neighbor in the New Testament. You are enacting the religious understanding of conservation; being a steward of Earth’s resources not because they are “limited,” but living in life-giving harmony with all of Earth’s inhabitants because that is the purpose of the Creator.

Fourth, you are in solidarity with the global interfaith community. There is a growing recognition within the faith community that all of Earth’s inhabitants and resources are inter-connected. This solidarity of understanding is leading to practical commitments by world faiths in terms of carbon reduction, green strategies and environmental education.

Finally, your commitment to energy reduction will be an example to your congregational members as well as to your larger community. Your congregation will truly be a light to all, a statement of hope for a cleaner, healthier world, now and for future generations.
A Congregational Checklist for Energy Efficiency and Solar

I. Recognize the ways in which you use energy and alter behavior!

The first step to reducing your energy use (and energy bills!) is to recognize the way in which you use your energy systems: lighting, heating, water, and air conditioning. Are there ways you could adjust your energy use by using them less often, making sure to turn off lights, and setting your thermostat lower or higher, depending on the season? It is common that a congregation can lower their energy usage by 5%-15% just through education and recognition of smart energy usage. In fact, Trinity Episcopal Church in Menlo Park, before spending one penny on energy-efficient measures, reduced their electrical consumption by 11%, simply through an awareness campaign that focused on behavioral changes like turning off lights and computers. (Sounds simple, but this is often the most difficult change to implement.)

Before implementing behavioral changes, it is strongly recommended that you assess your baseline energy use by using a carbon calculator. To assess your current energy usage, go to www.coolcongregations.org. This calculator was designed specifically for the national Interfaith Power & Light (IPL) for houses of worship. It is important to understand your congregation’s starting point of energy usage. After behavioral changes and energy efficiency retrofits, you may use the calculator again to compare how much less energy you are using now compared to before.

II. Implement energy-efficiency measures, starting with the lower cost items first.

The second step to reducing energy usage and/or going solar is to reduce your energy consumption through energy efficiency (EE) measures, such as changing out lighting for more efficient CFLs and LEDs, upgrading old heating/ventilation/air-conditioning (HVAC) systems, and replacing older refrigerators and dishwashers with Energy Star approved appliances. If you are going to invest in solar, you want to ensure that you are doing everything possible to reduce energy usage, and thus, to size your system correctly.

You can use the following resources to assess what types of changes need to happen in your house of worship and to start the process of energy efficiency:

1. Do a self-audit on your facility(ies): A self-audit may, in some cases, be just as good as a professional audit. This method may work especially if you have a congregational member who is trained in energy issues and who is willing to do the audit with you. Cool Congregations, mentioned above, also has a self-audit form. Go to CIPL’s website, www.interfaithpower.org and look under the Resources tab to find self-audit forms from IPL/Cool Congregations and Kansas IPL.
2. Your local utility company may provide a free walk-through or discount energy audit. Call your local energy provider and ask for the audit they provide to small businesses and be sure to ask for an “in-person” audit. Contacts for some utilities are as follows:
   a. Southern California Edison – Troy Nguyen, Account Executive; (626) 302-1212, troy.nguyen@sce.com; information on audits, rebates and retrofit programs; for further info, go to www.sce.com
   b. San Diego Gas & Electric – Call the Energy Saving Center; 800-644-6133; information on audits, rebates and general energy conservation measures; www.sdge.com
   c. Pacific Gas & Electric – Business Customer Service Center;

e. Los Angeles Department of Water & Power – Valley Field Support; Darryl Gordon; 818-902-3486; www.ladwp.com

f. Please note that your local water utility may also provide a water audit and may have important information regarding water reduction measures, such as low-flow toilets. Call your water district for more information.

g. See the “Resources/Programs” tab on the CIPL website, www.interfaithpower.org, for more information, including programs for specific utility companies.

3. **Get a professional audit:** A professional energy auditing company may give you a more thorough picture of your congregation’s energy use in terms of electricity and natural gas. Practice smart consumer habits by asking for references, as well as contacting the Better Business Bureau to check business records. The CIPL website has some referrals based on previous work with faith communities.

4. **Energy Star for Congregations:** Due to the fact that, nationwide, there are hundreds of thousands of houses of worship, and they are often large energy-users, Energy Star for Congregations was set up. They have a great website, which will give you further information and resources on lowering the energy usage in your congregation. You can also sign up for their Portfolio Manager, which will help you trace your energy usage, and give you ideas for energy efficiency. See www.energystar.gov/congregations for more information.

III. **Analysis of the property and roof for the bid process.**

You should begin by putting together a Request for Proposal (RFP.) This will be sent to various solar companies in your area and they will check out your location, roof and property to determine a bid/proposal for your installation. **It is highly recommended that you get at least three bids** and follow up on references from the solar companies. Make sure that possible installers are licensed and insured by checking with the Better Business Bureau.

IV. **Other Considerations**

1. Financing options – the financing section of this guide offers some overview of various forms of financing. Your congregation will need to make decisions about the best process for your particular situation. See pages 12 and following.

2. Rebates and Incentives – federal incentives are not available to non-profits/congregations because of their tax-free status. However, there may be state and local incentives available to you. The Database for State Incentives and Rebates at www.dsireusa.org is a comprehensive source of information on state, local, utility and federal incentives. See page 11 of this guide for more information.

3. Stay in touch with CIPL through your process. We like to keep a record of which congregations are installing solar so that we can provide assistance where possible and share your story with other congregations who are going through the process. We may also want to nominate your congregation for an Energy Oscar, our annual event in which we honor congregations working to care for Earth. Contact CIPL’s Northern California Outreach Director at 415-391-4214 or Southern California Outreach Director at 310-752-3436 for more information.
How Solar Energy Works

How Solar Energy is Produced: When sunlight hits the photovoltaic cells, direct current (DC) runs to an inverter, which converts the sunlight power (DC) to alternating current (AC.) The AC power either flows directly into the building if there is demand or to the grid. When the electricity is sent back to the utility grid, the electricity meter runs backward, and you are credited for the value of that electricity. Solar energy sounds complicated to many folks, but compared to other kinds of power systems, maintenance for solar systems is fairly easy; in most cases, all the upkeep needed is keeping the panels clean and free of dirt and dust. You can also include a monitoring system that will alert you immediately to any failure in the systems. The electricity meter on a solar system measures the system’s efficiency (i.e. power produced.) Solar panels lose about 0.5% of their efficiency every year so that after 20 years they should still be producing at least 90% of their original output.

Net Metering on an Annual Basis: Over the course of one year, your utility company will track the amount of electricity your solar power system has sent to the company’s electricity grid and credit this contribution to offset your costs of purchasing power from them when your system does not generate enough electricity to meet your needs, such as during cloudy days or at night. At the end of the year, the utility will factor together how much electricity it provided to you, and compare it to how much your system fed back to the utility grid. If you produced more than you consumed, your bill will be close to zero. If you used more electricity than you generated, you will only pay the difference.

Note: Utility rates have increased steadily at an estimated 6.7 percent per year over the past thirty years. Thus, installing solar will theoretically ‘lock’ in how much energy usage your congregation pays for over the course of one year. Therefore, with rising energy prices, this may prove to be a worthwhile long-term investment.

Time of Use (TOU) Savings: Electricity is either billed to customers on a flat-rate schedule where electricity costs the same all day, or on a TOU schedule, where cost is gauged by the time of day and year, respectively. A solar customer on a TOU schedule, producing power at a peak time period, will theoretically ‘sell’ power back to the utility during peak periods (for example, during sunny summer months) at a high rate and ‘buy’ back during off-peak hours (for example, when it is cloudy, or during the evening). The customer gets charged or credited for the value of the electricity when it buys or sells electricity, respectively.
**CIPL Member Testimonials**

When Father Ray Mallett became pastor of **Our Lady of Guadalupe Catholic Church in Hermosa Beach**, he saw the need for improvements and immediately embarked on and developed a 4 phase strategic plan to remodel all of the buildings on the OLG campus.

The project included: campus-wide energy site audits (2008); a remodel of the sanctuary (2009/2010); investigation of solar power (2010); and remodel of the rectory (2011.) With the invaluable assistance of Rick Lopez, a parishioner and head of a project management company, all phases of the project were completed. With a generous donation from a parishioner, the parish took advantage of the Southern California Edison rebate program and installed 252 solar panels in 2011. The 65-kilowatt system allows Our Lady of Guadalupe to provide an alternate source of utility power generation for the church, school, rectory and parish hall. Year-to-date the solar power system continues to meet and exceed the expectations and has saved the Parish thousands of dollars in energy savings and has generated 231 megawatts hours. The church has become a green building model in the Catholic Archdiocese of Los Angeles.

In Fr. Mallet’s words, “This project has proven successful in many ways - spiritually, environmentally and financially. It has encouraged the families of our parish to consider the possibility of green projects within their homes, and allowed us to increase what is really important in our parish and our ministries. I’d encourage other parishes, synagogues, houses of worship and all those who consider God’s creation to be sacred to consider what you can do to become more environmentally friendly. As St. Francis would say: ‘While there is time, let us do good!’”

*************

After reducing their monthly electrical rates by about 25% through a series of energy-efficiency measures, **Temple Sinai of Glendale** took a serious look at renewable energy. After thoughtful discussion and deliberation, the congregation decided to enter into a lease with Moore Solar. After a capital campaign raised $25,000 for a down payment, Temple Sinai was able to negotiate a seven-year contract and installed a 30 KW solar photovoltaic rooftop system.

In its first full twelve months, the system produced over 45% of the power the congregation used and saved an average of about $200 per month -- even while paying the lease and dealing with more extreme heat over that summer. In about 6 years when the lease is paid off, savings will jump to $850/month, at current rates (and rates tend to rise). Since it was installed in February 2012, Temple Sinai reports saving over 128,000 pounds of CO2 as well as many pounds of other harmful pollutants such as sulfur and nitrogen oxides.

*************

After several months of study and consideration early in 2012, **Modesto Church of the Brethren** decided to install a 57 kilowatt ground mounted solar system that would provide a complete offset of the church’s electric usage. The church raised contributions in the amount of $40,000 and commitments of loans for up to 10 years from members totaling $215,000, allowing the church to purchase the system. It is expected to provide for the church’s electrical needs for at least the next 30 years. Working with local solar provider JKB Energy (Turlock, CA) the church gained a
A deeper understanding of how they are charged for electric power and the system was installed in just over a month. JKB Energy helped with the rebate application to the Modesto Irrigation District (MID) and the church is receiving a rebate of 10 cents per kWh produced for the next 10 years, an amount expected to be $100,000.

In the first year the system generated just over 97,000 kWh and was an even offset of the church’s usage. Demand charges to MID were half or less of the prior year, and the church saw a savings of over 75% of prior year utility payment costs, providing the funds needed to begin repaying the loans from church members. The church should pay the system off within 10 years and then be facing only hookup and demand charges for the remainder of the life of the system.

Over the next 25 years, the project will prevent 3.4 million pounds of CO2 from being released, and 681 lbs of asthma causing particulates. The pollution savings is equivalent to planting about 30 acres of trees. The system now covers 100% of the church’s electricity consumption. Russ Matteson, co-Pastor of the congregation, said “The solar panels which we see whenever we come to the church are a visual reminder of the call of faith to care for the planet. Using the sun’s renewable energy is a great way to do that, and to remind ourselves to look for other ways we can grow in our environmental stewardship.”

After undergoing an energy-efficiency retrofit and forming a solar committee, (naturally called a “Solar Panel”), First Congregational Church of Bakersfield became the first – and only, so far - house of worship in that city to employ solar energy. The church went with Bland Solar at a cost of $199,000, which they are financing in three ways: $80,000 pledged from parishioners over three years; a loan from UCC Cornerstone Fund, the financial arm of the United Church of Christ; and a “self-loan” that the church is making to itself to be paid off by the expected $50,000 rebate from Southern California Edison over five years.

In the first nine months of the system’s operation, the church estimated a savings of $7,700 – an average of $865 per month. They produced 54,472 kwh, or 69% of total electrical usage. It is further estimated that the system will have paid for itself within five years of its 2011 installation date. The Pacific Gas & Electric rebate at the time helped - $0.15 per kwh for five years.

According to Pastor Rev. David Stabenfeldt, two important reasons guided the decision to install the solar system: “It is a legacy gift to our congregation long-term, since we will be saving close to $20,000 a year in energy production costs. We have also significantly reduced our carbon footprint and are living more lightly on Earth. Both are wise investments for the future.”

Nestled in the Santa Lucia mountain range, inland from Big Sur, lies Tassajara Zen Mountain Center, the winter monastery, retreat center, and hot springs resort of the San Francisco Zen Center. The natural hot springs supply not only water for the baths, but all the hot water and heating for the facility, which hosts thousands of visitors a year. Being off the grid, electricity production and use has been an on-going issue and a major focus for the past four years, as Tassajara has endeavored to shrink its carbon footprint. Initially dependent on diesel and propane generators combined with a small PV array, the monastery spent the last several years educating its community in conservation,
taking measures like turning off the ice machine and investing in efficient lighting. These measures reduce energy consumption by 22 percent.

In 2010, in conjunction with Sun Light and Power, a PV system comprised of 51 panels was mounted 300 feet off the valley floor to maximize sun exposure, with only 6 footings in order to minimize the impact on the ecosystem. Because of the center’s remote location, engineers, residents and workers had to carry and install 5000 pounds of steel, 340 bags of concrete, and 2000 pounds of cabling by hand up the winding mountain steps to the site. Now, with its 21 kilowatt-strong system, Tassajara generates 100% of its electricity from the sun – and is a visible inspiration for the people who live, practice, and pass through the center throughout the year.

Tassajara Zen Mountain Center is completely off the energy grid and was therefore not eligible for the state rebates distributed through the utility companies. The Zen Center is also a religious non-profit and so is not eligible for the 30% federal tax rebate. As a result, the project was completely self-financed by community members and donors.

The Vedanta Society of Southern California, located in Hollywood has greened its buildings as a way of living out the Hindu belief that the earth, like all of Creation, has a spiritual life force and must be protected. Before going solar, carbon-reduction and water-saving measures were put into place in all eight of Vedanta’s buildings including LED lighting in the Main Shrine Temple; increased insulation; the installation of low-flow shower heads and faucets; Xeriscape; and drip irrigation around the facilities.

In 2013, a 7.8-kilowatt solar system placed on the roof of their convent went on-line. The system, leased with Solar City, is designed to meet 80% of that building’s electricity needs. A solar rebate from the Los Angeles Department of Water & Power, helped to finance this. The Vedanta Society is now looking into installing a solar carport that will not only reduce the facility’s energy needs, but also provide shading for cars in an area of Los Angeles that receives more than its fair share of extreme heat days.
Incentives for Installing a System

**Check with your local utility provider and installer for a more complete understanding of rebates and incentives available.**

**Federal Tax Credits:** There are several government incentives to promote the use of solar energy in commercial, industrial, and residential systems. Unfortunately, those which are tax-based incentives do not benefit religious organizations. Congregations enjoy non-profit status and thus are not eligible for federal tax credits or the federal tax grant.

A comprehensive list of federal incentives and state programs can be found at the website: 
www.dsireusa.org

**State Tax Rebates:** California has offered solar rebates as part of its California Solar Initiative, administered through utilities. Unfortunately, this rebate is being exhausted and is no longer available for non-residential systems in PG&E territory, but check to see if there are other incentives in place. The rebate may still be available for SCE and SDG&E customers. Systems that are smaller than 30kW (i.e. most of CIPL member congregations) receive incentive payments up-front, based on their expected performance. Systems under 30kW can opt for either the Performance-Based Incentive (PBI) or the Expected Performance-Based Buy-Down (EPBB) rebate. The rating and rebate of systems takes into account equipment evaluations and installation factors, such as geographic location, tilt, and shading. Please note that utilities that are not investor-owned have their own schedule of rebates. Further, some utilities have stopped guaranteeing California Solar Initiative rebates for non-residential customers because they have run out of rebate money. State tax rebates come and go in your area. Your local utility company and your chosen solar installer will know if there is any availability.

**California’s ‘GO SOLAR’** campaign is a joint effort of the California Energy Commission and the California Public Utilities Commission. The goal is to encourage Californians to install 3,000 megawatts of solar energy systems on homes and businesses by the end of 2016, making renewable energy an everyday reality. The program also has a goal to install 585 million therms of gas-displacing solar hot water systems by the end of 2017.

The Go Solar California website provides California consumers a "one-stop shop" for information on solar programs, rebates, tax credits, and information on installing and interconnecting solar electric and solar thermal systems. Check out their website at www.gosolarcalifornia.ca.gov.

Please note, also, that there may be rebates for going solar from individual cities. Check with your local city government and with your chosen installer.

**Local Incentives and Rebate Programs:** Many local municipalities have similar incentive programs; it would be impossible to list them all here. For a comprehensive listing, check out www.dsireusa.org and click on California on the map to see all of the current local programs.

Many local incentive programs have great components in which you can get several thousand dollars back for employing graduates of green job programs. These local incentives not only add up to significant savings, they also help fulfill congregational goals of social justice. Check out www.dsireusa.org and get in touch with your city and county government staff to find out more.
Financing Your Solar Energy System: Models for Non-Profits

Solar Endowment

One model proposed by Peter Bergstrom, former Director at Camp Stevens, Julian, sees investing in a solar system as a creative way to approach a congregational endowment. With the net savings in electricity costs per year, solar systems may return on an initial investment at a rate higher than that of an already-established endowment fund. If a congregation already has a fund, it can withdraw the principal to pay for the installation of the solar system and use the net savings in electricity costs to pay back the fund over 20-25 years, depending on the size of the system. If the net savings on energy bills yield a higher rate of return than the interest earned on the permanent endowment, the solar system could pay back the principle investment and interest lost as a result of liquidating the fund.

Split-Interest Gift

A wealthy member of a congregation may be interested in pursuing a Charitable Lead Trust to help a congregation install solar. Under this model, the donor gives an asset (i.e. a given amount of appreciated stock valued at the amount the congregation requires to complete the solar deal after state rebate) and the congregation sells the stock to purchase the solar system. The congregation tallies its electricity savings in a given amount of years. When it reaches the initial cash value of the ‘gifted’ stock, it returns the ‘gift’ to the donor (i.e. the initial cash value of the stock.) This option benefits both parties: the donor avoids a capital gains tax on the sale of the appreciated securities and receives a tax deduction for the value of the interest/dividends he or she could have made on the investment; the congregation now has a solar array, has paid off its ‘gift,’ and owns the system outright.

Sponsor a Panel

This is a form of financing that is being used more often, in which members of the congregation buy a full or partial solar panel. Plaques or memorials to family members involved in the congregation may encourage participation in such fundraising campaigns. This model has been used successfully, most recently at Claremont United Church of Christ to finance their 49-kilowatt system, installed in 2013.

Refinance a Mortgage

This model draws from the example of Christ the King Lutheran Church, where a congregation refinances the mortgage on their building and uses the freed-up capital to invest in a solar system. The longer payoff on the mortgage increases cash-flow for the congregation to use for other programs, and the energy savings may, in fact, pay for the repayment on the refinanced mortgage.
**Solar Lease Financing**

Some solar companies offer the option (based on a successful credit check and a series of other prerequisites like system size, etc.) of leasing the solar system back to a congregation. Under this model, the solar installation company pays for the upfront capital required to install and maintain the system, and the congregation pays a fixed monthly price to the solar installer over the course of the lease agreement. This protects the congregation from the inevitable annual increase in energy costs. It is important that the system be sized correctly so that the congregation is not paying a large power bill to its utility in addition to the lease payment to the solar installer. An increasing number of member congregations have installed solar through a lease program and CIPL staff will be able to refer you to contacts at these congregations. See the list of solar installers for those that offer lease options.

**Power Purchase Agreements (PPAs)**

A Power Purchase Agreement (PPA) is a contract between a solar power company (often involving a group of investors) and a congregation, in which the solar power company installs and owns the system, and the congregation agrees to buy the electricity generated on a monthly basis over the long term. Essentially, a house of worship is able to pay for solar as a service, rather than paying the high upfront costs of the solar panels themselves. Under a power purchase agreement, the solar power company is responsible for providing the upfront capital to fund the installation of the solar array. It serves as the owner-operator of the system, covering insurance and fees for operations and maintenance, and offers a money-back guarantee that the system will produce the contracted amount of electricity over the long term. The solar power company receives the federal investment tax credit (ITC) and accelerated depreciation as a for-profit entity, and is thus able to pass on significant savings to the congregation over the long term vis-à-vis an outright system purchase or low-interest financing, where the ITC and depreciation cannot be utilized by a non-profit entity.

**Community Financing:**

This is a financing alternative that provides congregations with solar power, but does not require that the congregation itself buy or lease the solar facility. Instead, the solar equipment is paid for by aggregating investment from congregants. Under this approach, interested congregants can invest (typically amounts ranging from $1,000 to $25,000.) into a company created for the sole purpose of owning the solar asset (“NewCo”). The investors can typically expect a return of between 3 to 8 percent, depending upon their tax status. The congregation buys the electricity generated by the solar equipment that NewCo has purchased, and these funds serve to repay the investors. Ultimately, once the investors have been repaid, with interest, ownership of the solar facility would pass to the congregation. In some circumstances, outside investors typically individuals or financial institutions who are committed to investing in opportunities that are both financially and socially rewarding, will supplement the investment made by the congregants.
Solar Job Growth: Strengthening the Economy, the Environment and Local Communities

Community Stewardship: The advantages of installing solar power are not only financial and environmental. Going solar also supports community development and job growth. According to the California Green Innovation Index, from Next 10, a nonprofit research group, “Jobs in California’s Core Clean Economy had a stronger recovery than the California economy as a whole from the recent economic crisis, with a 2.8 percent increase in employment compared to 2.3 percent decrease in the total employment between January 2008 and January 2011.”

Jobs in solar are prime “green-collar” positions in that they pay family-supporting wages, provide a career path of upward mobility, and benefit the environment. Solar jobs require education beyond high school, a promising career option for many hard-working low-income workers as long as they can gain access to quality training and get experience on the rooftop with employers. Your congregation can advocate for green-collar jobs by asking if your solar installer employs trained workers, especially from green jobs training programs, such as Solar Richmond and Homeboy Industries in Los Angeles. If not, you can ask them if this is a possibility.

St. Paul’s Episcopal Church in Walnut Creek’s partnered with Solar Richmond, a nonprofit solar installation training program, to ensure that their solar initiative would help the community as well as the environment. Graduates of Solar Richmond’s training program performed the labor portion of their 28-kilowatt system.

“I learned to install solar on my neighbor’s roof and now I’m out in Walnut Creek working on a system ten times as large. I’m excited to be giving back to my community, the planet, and making a good living at the same time,” said Angela Greene, a Solar Richmond graduate who later became the training manager for the organization. The installation at the church provided experience for these workers on a large array with other professionals from Real Goods Solar, the company awarded the installation contract. Setting up the system was an opportunity for these graduates to move the interview with a potential employer from the desktop to the rooftop, where they could earn a living wage and their technical skills could shine.

St. Paul’s Reverend Sylvia Vásquez saw the partnership as an important part of the solar installation, stating, “We are proud to have these folks from Richmond working on our solar system. We are committed to being good stewards of the earth and that is not just about caring for nature, but also caring for our neighbors who struggle with the realities of a challenging urban life. We want to inspire our church members and our community to look for creative ways of showing our love for God’s earth and one another.”
Solar Installation and Auditing Companies

The following companies have worked directly with CIPL congregations and/or come highly recommended. Ask about solar financing and/or leases offered.

Solar Installation:

Absolutely Solar - Greater Los Angeles Region
Elizabeth Rollins, cell (323) 942-8039, elizabeth@absolutelysolar.com
www.absolutelysolar.com

Altadena Energy & Solar LLC – San Gabriel Region
Hans Rosenberger, (818) 201-4206, hans.rosenberger@altadenasolar.com
www.altadenasolar.com

Golden Gate Power - Bay Area
Noah Cooms, (808) 220-2177; main (800) 463-8122, ncooms@goldengatepower.com
www.goldengatepower.com

Luminalt Solar – Bay Area (Grace Tabernacle, San Francisco; First UU San Francisco)
Jeanine Cotter, (415) 641-4000; mobile (415) 740-8082; email: Jeanine@luminalt.com
www.luminalt.com

Moore Solar & Green Construction – Greater Los Angeles Region (Temple Sinai of Glendale)
Veronica Zerman, (323) 221-1260; mobile (213) 760-3820; email: vzerman@mooresolar.com
www.mooresolar.com

Run On Sun - Los Angeles Area (Westridge Academy, Pasadena)
Jim Jenal, CEO, (626) 793-6025; jjenal@runonsun.com
www.RunOnSun.com

Solar Richmond, East Bay – Synagogue Kol Shofar, Marin (Tiburon)
Cheryl Vaughn, Cheryl@solarrichmond.org, (510) 253-2211
www.solarrichmond.org

Sun Light and Power – East Bay (Tassajara Zen Mountain Center and St. John’s Oakland) - lease
Michael Charters, (510) 845-2997 ext 115; mcharters@sunlightandpower.com
Kristin Broussard kbroussard@sunlightandpower.com social media and marketing coordinator
www.sunlightandpower.com

SunPower Corporation – statewide
Cynthia Khatib, (415) 715-4994; email cynthia.khatib@sunpowercorp.com
www.sunpowercorp.com

Solar Financing:

GroupEnergy - statewide – works with large groups of homeowners to bundle solar packages
Kevin Armstrong, (510) 350-3734, email: kevin@votesolar.org
www.votesolar.org
RE-volv - Bay Area – crowdfunds to finance solar systems in congregations and community centers
Andreas Karelas, (415) 314-7719, email: andreas@re-volv.org
www.re-volv.org

Solar Mosaic – Bay Area – connects investors to solar projects in need of financing
Billy Parish, (203) 887-7225, email: billyparish@gmail.com
www.joinmosaic.com

Village Power Finance – statewide – aggregates congregants and third-party investors for solar
David Simpson, Chief Operating Officer, (415) 570-1011, email: dsimpson@villagepf.com
www.villagepowerfinance.com

Wiser Capital – statewide - evaluates solar potential and explores investment and payment methods
Stephen Honikman, (805) 899-3400, email: sch@wisersolar.com
www.wisercapital.com

Auditors:

Dave Troesch, Energy Auditing, Educator - Southern California (Resurrection Church, L.A., St. Gregory’s Catholic Church, Whittier)
(714) 502-4069, email: davetroesh@hotmail.com

Peralta Energy Group - Oakland (St. Mark’s Episcopal Church, Berkeley; First UU Church, Oakland)
Ben Thompson (510) 459-0827
www.PeraltaEnergy.com

The Building Doctors - Los Angeles (Mary Immaculate Church, Pacoima)
Dan Thomsen, (323) 646-2534
www.thebuildingdoctors.com

Related Resources:

Balanced Projects, Real Estate & Project Mngmt Services (Our Lady of Guadalupe, Hermosa Beach)
Rick Lopez, mobile (310) 614-2719; rickwlopez@hotmail.com
www.balancedproj.com

By Dave Troesh
77 Ways to Save Money and Energy at Your Church or School – handy for all houses of worship
300 Ways to Save Money and Energy In Your Home, available in both English and Spanish

Golden Gate Electric Vehicle Association – a non-profit organization supporting electric vehicles
Dale Miller, President, dalemiller@gmail.com
www.ggeva.org

Review pages 5 and 6 for information on energy-efficiency resources and audits