Solar for All, LLC

A wholly owned subsidiary of the non-profit organization Solar Richmond

Business Plan & Financial Projections

Primary Contact:
Michele McGeoy
256 24th Street
Richmond, CA 94804
P: 510-253-2222
F: 510-439-2720
info@SolarRichmond.org
www.SolarRichmond.org

v1.2

Solar for All
Business Plan

Table of Contents

Appendices

I. Executive Summary

Introduction

The company Solar for All (S4A) brings the benefits of the green economy to low-income communities by offering stable electricity rates for non-profit organizations, reduced pollution and carbon dioxide emissions for cleaner air in the community, and green-collar career opportunities for local low income residents. Without new financing options, clean energy solutions remain out of reach for non-profits that cannot qualify for federal solar tax incentives or raise the capital needed to buy their own solar units. This mission-driven for-profit social enterprise leverages the power of the marketplace to provide returns to investors with a defined exit strategy and generates earned income for the parent non-profit, Solar Richmond.

S4A is raising $5 million in equity, debt and philanthropic investment to finance 54 solar panel installations. S4A owns and maintains solar rooftop units on the buildings of churches, non-profits, and community groups. The company provides solar energy under an arrangement that functions like a lease, called a Power Purchase Agreement (PPA). Customers make a monthly payment for the clean electricity generated instead of buying power from the local utility. This removes many costs and barriers to solar adoption in low-income communities and for non-profits. Customers do not pay for the equipment or installation. This model saves them money while reducing their environmental footprint. The work benefits the local community by providing jobs for Solar Richmond's training graduates, increasing property values in low-income neighborhoods, and fostering community pride for those often excluded from the coming green economy.

The company defines itself as a social enterprise, using market-based strategies to generate common good.

Values	Goals
Social: Reduce underemployment and related violence issues in low-income communities of color by providing sustainable opportunities **Environmental:** Rectify mounting problems, including long-term rising energy costs, CO_2 emissions, and pollution **Community:** Alleviate high costs for local community groups **Financial**: Increase income that supports mission-driven work, finances solar installations, and offers a reasonable return to investors	**Social:** *Green-Collar Job Creation & Advancement.* Bridge completion of training and permanent employment in the solar industry **Environmental:** *Solar Electricity Adoption.* Ensure solar power is a viable alternative, include low-income people in the green revolution. **Community:** *Nonprofit Expenses Stabilized & Reduced.* Bring utility savings to community groups so they have more money for their mission-driven work. **Financial:** *Revenue Generation & Investment Return.* Generate an income stream for Solar Richmond and provide reasonable return to investors.

Management

S4A is a for-profit company formed in 2010. It is a wholly-owned subsidiary of Solar Richmond, a green jobs non-profit based in Richmond, next to Berkeley, California. Solar Richmond provides hands-on solar industry training, transitional employment, staffing services, and consulting.

S4A is managed through a service agreement with the parent, Solar Richmond. This is an established arrangement in PPAs and in non-profit owned businesses. The service agreement generates mission-related income for Solar Richmond with safeguards in place to protect the 501(c)3 status of the parent, so grants and philanthropic capital are not at risk from this arrangement. Each installation creates a sustainable, recurring cash flow for the next 25 years.

Solar Richmond's Successful Track Record
Since 2006 the parent organization, Solar Richmond, has participated in more than 40 installations, trained 160 low-income residents, placed 29 graduates in temporary solar industry jobs, and realized 25 permanent job matches. In 2009, Solar Richmond graduates contributed to installation of over 800 kW of solar electricity, the equivalent energy to power 250 homes. It has received numerous awards for its innovation and successful accomplishments, including the Barbara Boxer Conservation Champion Award and the FBI Director's Community Leadership Award. Media attention includes Oprah's *O Magazine*, *TIME*, *USA Today*, *NPR*, the *San Francisco Chronicle* and the cover story in *Solar Today*.

S4A, as a subsidiary, accesses the expertise of an established leadership team with decades of experience:

- **Michele McGeoy**, *Founder*, BS Computer Science, Cal State University, previously built and sold a software company, excelled as a Solar Sales Engineer for Real Goods Solar, and launched a non-profit to address the digital divide
- **John Russell**, *Operations & Finance Manager*, MS Non-profit Management, New School University
- **Kandea Mosley**, *Sales and Marketing* Director, MBA, Johnson School, Cornell University
- **Mitchell Smith**, *Training and Placement Manager*, EdD, University of Massachusetts, Amherst

S4A is supported by a network of advisors including Van Jones, Gifford Pinchot and the Bainbridge Graduate Institute, Drew Tulchin of Social Enterprise Associates, Wall Street Without Walls, Bright Green Talent, and Duane Morris LLC. It also benefits from the Board of Directors of its parent entity.

Product

S4A provides Power Purchase Agreements (PPAs) to small commercial solar power installations ranging from 20 kW to 80 kW. The typical S4A customer is served with a 30 kW solar system. Non-profit customers, including churches, schools and community groups, cannot benefit from lucrative federal solar incentives and accelerated depreciation. S4A's accessing these incentives reduces installation costs by nearly 50%. S4A then owns the panels and provides solar electricity to the customer more cheaply and stably than the utility. Installation is free with customers saving money from day one.

As a PPA provider, S4A will own the systems and have local vendors work with Solar Richmond graduates on installations, scaling the parent organization program. This model creates dozens of green-collar solar jobs for low-income workers. It also helps the environment, benefits community, and provides long-term revenue for Solar Richmond to become less dependent upon donations. S4A's business activities are focused exclusively on PPAs, first these initial 54 and then more as additional funding is raised.

The Market

The solar photovoltaic (PV) market grew 37.5% in 2009, even as the rest of the U.S. economy shrank by 5%. The U.S. solar PV market is estimated to triple from 2009 and 2012, to $6 billion. Although unemployment is at its highest levels in decades, the solar installation market in California is growing. Over the next 20 years, 487,000 new jobs are projected to be needed in solar installation for the "green economy".

The San Francisco Bay Area is a hotbed for the clean energy; the greater urban area is home to 31% of the $1.64 billion worth of solar installed in the state. Many factors have come together to make solar accessible in this market, including tax benefits and other incentives, state legislation including the California Solar Initiative (CSI) and the Global Warming Solutions Act (AB32), and private investment interest. These factors specifically target the solar energy sector and are the most lucrative in the nation. Nearly 72% of nonresidential solar installations in 2008 were purchased via third-party financing and PPAs, in part because of this incentive landscape.

S4A's core target market is non-profits that own their own buildings. There are more than 45,000 non-profits in the Bay Area. Local county assessment data puts local total non-profit building owners at more than 9,222 for the nine counties. The market is accessible for S4A's growth to conduct 54 installations, less than 1% of the potential market. S4A already has a pipeline for customers to fill its first year of operations.

Competitive Advantage

The solar market is lucrative, large and growing, but it is competitive. S4A has extensive competitive advantage to operate in this market thanks to its social purpose, well-trained labor and niche solar installation size. Competitive advantages include:

- Existing competition does not seek out this size installation; nor focus on this non-profit market
- S4A, through its partnership agreement with Solar Richmond, carries few fixed costs
- Work is local with minimal transportation costs
- Solar Richmond generates media coverage and word-of-mouth marketing due to its mission

- Parent enjoys extensive relationships in the community with potential customers who want to work with a mission-aligned vendor

Growth

The $5 million in capital will finance 54 installations averaging 30 KW each. Four are planned for 2010 as infrastructure is put in place with financing finalized. Installations will be on-going and, after the 2010 ramp-up year, to be completed in 2011 and 2012. If installations go faster, new funds will be sought earlier. If efforts proceed more slowly, work is moved to 2013 with minimal impact given the variable cost structure of S4A through its service contract with Solar Richmond. Solar Richmond has current capacity to manage this work and can readily hire additional labor, if required.

Number of PPA Financed Installations				
	2010	*2011*	*2012*	***Total***
# Installations	4	18	32	**54**

Once this model is proven, S4A will seek additional funds to grow and replicate. Growth is envisioned both locally and nationally where solar incentives, interest in green efforts, and significant volume of clients exist.

Impact

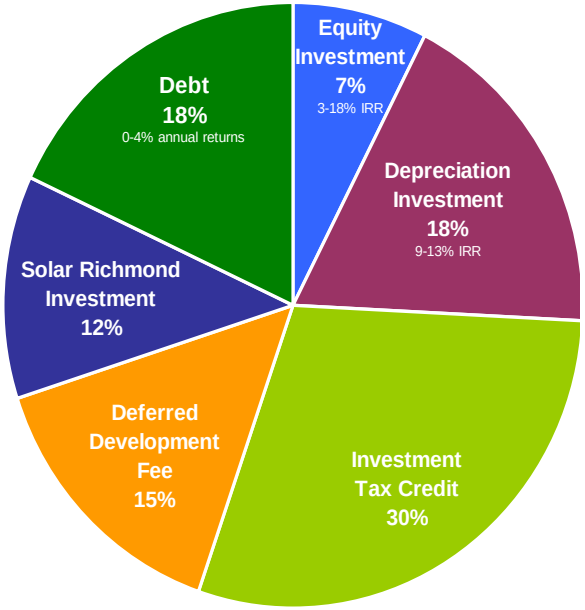
S4A calculated its impact for 54 installations based upon its "quadruple bottom-line". It will be tracking impact data and sharing metrics with investors and other stakeholders transparently.

Quadruple Bottom-Line Impact		
Impact Area	**Total Outputs**	**Projected Impacts**
Social	Transitional work experience to build trainee resumes and sustainable green job creation for low income people	729 internship work weeks will be created in the solar industry and 30 individuals will have full time employment in the green economy at least one year after graduation
Environmental	Solar electricity adoption and reduction of 677,534 metric tons CO_2, 6,103,500 lbs NO_2, 5,529,053 lbs SO_2 & 369,800 lbs particulates	Carbon dioxide reduction benefits equivalent to removing 426 cars from the road or planting 528 acres of pine trees
Community	Utility costs reduced for 54 non-profits	Each non-profit averages $4,500 annual savings and $101,313 in total 25-year savings
Financial	Debt re-payments amortized over 10 yrs Investor return with defined exit and income for Solar Richmond.	0-4% return to debt investors with 10 yr repayment, Equity investor buyout in Year 7 of each PPA offering 3-18% IRR, $3.4 million in income over 25-year life of PPAs

Finance

S4A is raising $5 million in its first round of capital to finance 54 solar installations. It offers investors debt, equity and philanthropic options with returns ranging from 3-18%. A defined equity exit is offered starting Year 7. Solar Richmond is an equity investor itself, with "skin in the game" and will also benefit from projected cash flows.

At full operations, PPAs are cash positive from Year 1. Total gross profits average $48,000 over the first 10 years. After debt repayment and equity holder exit, S4A and its parent Solar Richmond will retain all profit in years 11-25. The 54 installations generate approximately $3.4 million over the 25-year life of the systems.



II. Mission, Values and Goals

Mission

Solar for All (S4A) brings the benefits of the new green economy to low-income communities in the form of stable electricity rates for non-profit organizations, reduced pollution and carbon dioxide emissions for cleaner air in the community, and green-collar living wage careers for local low-income residents. S4A finances, owns, and maintains solar units on buildings owned by churches, non-profits, schools, and community groups.

Values

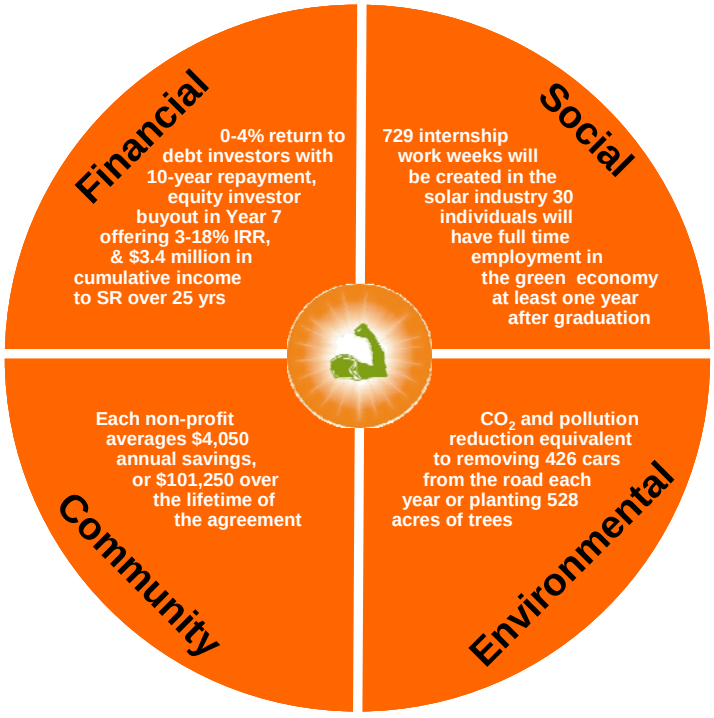
The mission is driven by the values of its parent organization, Solar Richmond (SR). S4A, a for-profit company, defines itself as a social enterprise, using market-based strategies to generate common good. The values central to the company's work ensure impact in four areas, a quadruple bottom line:

1. **Social:** Reduce chronic underemployment and related violence issues in low-income communities and communities of color by providing work opportunities and a support system to increase the likelihood that this population will stay in these jobs.
2. **Environmental:** Rectify the mounting environmental problems of the 21st century, including long-term rising energy costs, climate disruption caused by CO_2 emission increases, and pollution caused by fossil fuel refinement and consumption.
3. **Community:** Alleviate the strain of high operating costs for local community groups to enable more money to go towards their programs.
4. **Financial:** Generate income that supports SR's mission-driven work, finances more solar installations, and offers a reasonable return to investors.

Goals

The goals of S4A are also aligned along these four areas:

1. **Social:** *Green-Collar Job Creation & Advancement.* Bridge the difficult period between completion of training and permanent employment in the solar industry for SR program graduates.
2. **Environmental:** *Solar Electricity Adoption.* Ensure solar power is an affordable and accessible electricity alternative for consumers, particularly social organizations in lower income communities of color. This decreases use of nonrenewable sources overall and ensures low-income people are included in the green revolution.
3. **Community:** *Non-Profit Expense Stabilization & Reduction.* Bring financial stability and lower costs of solar power to community groups so they have more money for their mission driven work.
4. **Financial:** *Revenue Generation & Investment Return.* Generate a recurring, diversified earned income stream for the parent non-profit for years to come; and provide a reasonable return to investors with regular cash flows and defined exit.



*For more information on S4A's impact in these areas, refer to Section X: Impact and Measurement.

III. Parent Entity Profile

Solar for All (S4A) legally registered in California in 2010 as a limited liability corporation (LLC). It is a wholly owned subsidiary of Solar Richmond (SR), a non-profit. The non-profit provides green jobs for low-income people through hands-on solar industry training, transitional employment internships, staffing services, and consulting. Both entities are based in the City of Richmond, in the San Francisco Bay Area.

This subsidiary was created to enhance value for the parent entity and its mission-driven stakeholders. It serves as a stand-alone unit to raise capital and manage solar installations. All activities of S4A will be carried out through a service agreement with the parent organization. SR will take its compensation "below the bottom line". That is, after ensuring all expenses and investor responsibilities are fulfilled – essentially taking the profits after net income. This is a powerful financial incentive in implementation and a key safeguard for investors. SR also is an equity contributor with "skin in the game".

Successful Track Record

The parent entity has a proven track record of operational performance. Since 2006, SR has participated in more than 40 installations, trained 160 low-income residents, placed 29 graduates in temporary solar industry jobs, and accomplished more than 25 permanent placement matches. In 2009, SR graduates contributed to the installation of more than 800 kW of solar electricity, which is equivalent to the carbon emissions offset by 262 acres of pine forest.

Case Study: Graduate Daryl Horne

Daryl is a SR graduate who successfully moved into a permanent, family-supporting job. After receiving training from Solar Richmond, he began temporary placements at local solar companies. Daryl, a single father, recently secured a permanent placement at Berkeley-based Sungevity. He went from minimum wage before training as a Solar PV Installer to earning nearly $20 an hour, plus benefits and stock options.

Case Study: St. John's Episcopal Church

To date, SR has provided solar consulting services to 30 entities that have gone solar. For St. John's Episcopal Church of Oakland, SR assisted in usage assessment, array design, bidding, and contractor selection. The St. John's installation was completed in early 2010 with a SR partner integrator, Sun Light & Power, who used SR graduate labor. The integrator was so impressed with one graduate that they hired him on permanently.

Parent Entity's Activities

Green Job Training

SR, the parent entity, has a solar installation training program and established services:

- *Instruction.* SR provides local disadvantaged residents with 14 weeks of full-time job training, refined over years to serve students' experiential learning style. Twenty students per class gain hard-skills training, including on a mock-roof to practice physical installations. All trainees complete two installations on residences of local low-income people, providing affordable clean energy in the community as they learn. Training includes soft skills and professional development. A full-time Case Manager provides front line support, including financial counseling, anger management, grief support, housing aid and transportation assistance.

- *Transitional Employment Internships.* Internships pay $15 an hour, increasing work experience and job readiness. The internship program is a bridge into the workforce, offering:
    1. Paid hands-on work allowing program graduates to work side-by-side with potential employers.
    2. Professional development and case management providing "wraparound" support services.

Participants attend professional development classes, four hours per week, to learn:

Job Search Skills	*Interview Preparation*	*Employee Rights*
Computer Classes	*Anger Management*	*Industry CEO Guest Speakers*
Resume Writing	*Workplace Expectations*	*Advanced Solar Training*

Staffing
Another service is temporary staffing for solar installers. Companies pay SR an hourly fee to use its training graduates on installations. SR then pays the graduates market wages and covers workers' compensation, insurance and payroll taxes. This win-win model helps companies to secure trained workers. Temporary positions provide a "foot in the door" for graduates. Those that perform well can move to permanent positions. Local partners include Sungevity, ThinkSolar, SolarCity and Sun Light & Power.

Successful Track Record: Green-Collar Job Creation				
	2007	*2008*	*2009*	*March 2010*
# Job Placements per Year	**6**	**21**	**27**	**5**

Solar Energy Consulting
SR will continue solar energy consulting, which strengthens industry relationships and generates leads.

- *Analysis.* Consulting begins with high-level overview of how solar works, financial basics, system sizing, pricing, and environmental impact. Follow-up services assist throughout the solar installation process: collecting bids, group purchasing with One Block Off the Grid (1BOG), presenting financing options, and comparing different solar PV systems. A major focus of the marketing and consulting process is explaining "socially responsible" solar with customers expressing interest in using their installation as a way of creating social value.

Partnership Example: St. Paul's Episcopal Church of Walnut Creek
St. Paul's and SR partnered to create a solar financing model that would engage the church's dedicated and generous congregants and keep the installation's $187,000 cost off the church budget. Thanks to this innovative financing, a 28 kW system was installed in 2008 with SR training graduates.

Partnership Example: 1BOG
All Bay Area homeowners who go solar through a group purchasing campaign, called One Block Off the Grid (1BOG), can sponsor a SR graduate. Those who opt in provide a graduate with 2-3 days of hands-on solar work. To participate, consumers agree to a tax-deductible donation of $112, which 1BOG and the integrator match – working together so that small resources go further.

- *Municipal Consulting.* SR has a contract for solar assessments and consulting to the City of Richmond, under the Federal Energy Efficiency and Conservation Block Grant. This contract includes helping the city solicit large scale proposals for commercial solar installation. The City is supportive of contract requirements for installing companies for local hires to benefit SR's trainees.

Financing
SR's solar financing efforts will be operated through Solar for All (S4A). Many interested non-residential building owners, including those with mission alignment to SR, lack sufficient capital to purchase solar. S4A provides this lease-like service to non-profit building owners including community groups, private and charter schools, churches and YMCAs. This structure is called a Power Purchase Agreement (PPA) and is a common vehicle for solar installations. Batch financing for S4A will enable SR to do more of its mission-driven work.

This model does more than create a pipeline for more green-collar solar jobs for low-income workers; it also helps the environment, benefits the community, and provides a long-term revenue stream for SR to become less dependent on donation dollars. S4A has an initial pipeline, including Richmond-based Rubicon Programs, YMCA, Chamber of Commerce, and East Bay Center for the Performing Arts.

IV. Management

S4A is led by a seasoned team. The company is managed through a service agreement with the parent company, Solar Richmond (SR). This is an established arrangement in PPAs and in non-profit owned businesses. S4A adopted the model based upon extensive review of industry best practices. The service agreement generates mission-related income for SR, so grants and philanthropic capital are not at risk from this arrangement. Each installation brings a sustainable, recurring cash flow to the organization for 25 years.

Leadership

Michele McGeoy, *Founder and President*. Michele is a longtime entrepreneur who has built and sold a software company. She later founded a non-profit to address the digital divide and has sat on several boards, including United for a Fair Economy and Responsible Wealth. She gained solar experience as a Solar Sales Engineer for Real Goods Solar. McGeoy began SR in 2006 to serve her own community. She was honored with the 2009 Duane Morris Leadership Award and as a "Change-Agent-in-Residence" at the Bainbridge Graduate Institute. McGeoy holds a BS in Computer Science from California State University.

John Russell, *Operations and Finance Manager*. John adds solar industry, financial experience and operational management. Prior to his time at SR, he served as Project Coordinator for a solar installer, where he designed, permitted and put in place small solar units. Before that, he worked for community development nonprofits focused on asset-building strategies to help low-income Americans succeed financially. He has built numerous financial projections and managed budgets. He is fluent in Spanish and holds an MS in Nonprofit Management from New School University.

Kandea Mosley, *Director of Sales and Marketing.* Kandea contributes professional marketing with experience in the solar industry, including consulting at AES Eletropaulo, eSolar and EI Solutions. Kandea holds a BA from UCLA in African American Studies, Cum Laude, and an MBA from the Johnson School of Management at Cornell University with a focus on sustainability.

Kumari Fabio, *Case Manager*. Kumari has over 25 years of experience at social service agencies. She focuses on developing practices that empower clients and create a strong support networks. Kumari received her B.A. in Holistic Health Education from San Francisco State University. She is a graduate of the Coaches Training Institute in Marin and a Certified Peer Counselor from SFSU.

Mitchell Smith, *Training and Placement Manager*. Mitchell is a lifelong teacher, mentor of urban youth, and a solutions-oriented sales strategist. He has worked in educational sales and marketing capacities for Jostens Learning Corp, McGraw-Hill and NovaNet Learning. He served as Project Manager and Training Coordinator with ComREZ Construction Company and more recently served as a Solar Sales & Training Manager for NET Electric & Solar, Inc in Rodeo, CA. Mitchell holds a Doctor in Education (Ed.D.) from the School of Education at University of Massachusetts Amherst.

Professional Partners

Legal: Duane Morris LLP
Duane Morris LLP, a full-service law firm of more than 650 attorneys, offers innovative solutions across diverse industries in the United States and internationally to address the legal and business challenges of today's evolving global markets. In 2009, Michele McGeoy was honored as a community leader and environmental entrepreneur with the Duane Morris Leadership Award. This award included a $25,000 charitable contribution and pro bono legal assistance.

Solar Integrator Partner Network
In the solar industry, integrators do the solar panel installation, often through subcontracts. S4A's Solar Integrator Partner Network currently has six vetted, reputable companies using SR graduate labor. By contracting with these integrators, S4A ensures high-quality work, supports local businesses, and connects its graduates with employers.

Community Non-Profit Organizations, Schools & Churches
S4A is uniquely positioned in the PPA sector with deep existing relationships with community centers, municipalities, churches, social service providers and schools. S4A maintains a steady pipeline, which currently has more than 35 active leads. The pipeline includes local groups Rubicon Programs, YMCA, Chamber of Commerce, and East Bay Center for the Performing Arts. These groups collaborate with SR to serve local residents and the surrounding region. Thanks to SR's community work and media attention, individual organizations and coalitions including California Interfaith Power and Light members regularly approach S4A for solar advice.

Mechanic's Bank
Founded in 1905, Mechanic's Bank is a regional bank with 33 offices across Northern California. It is the largest bank headquartered in California's East Bay region, serving tens of thousands of individual customers and thousands of small and middle-market businesses. Giving back to the community is an integral part of Mechanics Bank's culture, and it is consistently one of the Top 50 local corporate philanthropists. Mechanic's Bank is S4A's financial institution and has provided charitable support to SR.

Wall Street Without Walls
As a finalist in the William James Foundation Sustainability Business Plan Competition, S4A recieves free consulting from Wall Street Without Walls to have seasoned financial professionals support and advise S4A on the business model, transaction, and connection to investors.

Professional Advisors

Van Jones, a founding advisor of S4A, is a globally recognized pioneer in human rights and the clean energy economy. He grew up in rural west Tennessee but left to become a 1993 graduate of the Yale Law School. Jones emphasizes that work, innovation, and entrepreneurship in the clean energy sector are keys to solving the nation's economic and environmental problems. He helped pass the Green Jobs Act, part of the 2007 Energy Bill and served as the green jobs advisor in the Obama White House in 2009. He is the co-founder of several non-profit organizations, including the Ella Baker Center for Human Rights, Color of Change and Green For All. He authored the *New York Times*-bestselling book, *The Green Collar Economy*.

Gifford Pinchot III is Co-Founder and President of Bainbridge Graduate Institute. Pinchot is a well-known author, speaker, and consultant to billion dollar corporations. He has built four companies; selling three. One generated 100 times return for investors. He is Partner in Alacrity Ventures, an angel investing firm.

Drew Tulchin, Managing Partner of Social Enterprise Associates, brings nearly fifteen years of experience spanning the for-profit, non-profit, public, and banking sectors. He has launched 15 start-ups. His consulting spans the U.S. and more than 30 countries. His work has led to more than $100 million generated for triple bottom line efforts. Previous positions include Director of a U.S. microfinance organization and Program Officer for Grameen Foundation, founding staff person of the Capital Markets Group. Tulchin holds an MBA from University of Washington (Seattle) and BA, Cum Laude, from Washington University (St. Louis).

Board of Directors

As a wholly owned subsidiary, S4A is overseen by SR's Board of Directors. SR's board meets monthly to review program initiatives, monitor progress, and assist the organization to achieve its goals. The Board of Directors includes:

- **Madan Kumar,** *Board Chair***,** Co-Founder and Vice President of Operations, Arda Technologies
- **Gary Bell***, Treasurer,* President and CEO, Cooperative Center Federal Credit Union
- **James Hatfield**, Bay Area Regional Residential Sales Manager, SolarCity
- **Giselle Vigneron**, Legal Counsel, Chevron Energy Solutions
- **Marvin Wilcher,** Management Consultant, Business Strategies Network
- **Toney Wright,** Owner, L & A North East Property
- **Andrew Young**, former Compliance Supervisor, National Labor Relations Board

Refer to Appendix B for resumes of the senior management team and complete board member biographies.

V. Products and Services

S4A is a solar electricity provider specializing in installations for commercial buildings, especially those owned by non-profits. Clients include churches, YMCAs, non-profit affordable housing, private schools and other community-oriented structures. Clients do not pay for equipment or installation. Instead, these institutions buy this clean electricity in monthly service payments. This saves them money, decreases their environmental footprint, and reduces pollution.

The arrangement, called a Power Purchase Agreement (PPA), functions similarly to a lease, removing the costs and risks of solar panel ownership for these non-profits. The service contract extends up to 25 years. Thereafter, clients have the option to renew the agreement, purchase the panels, or have them removed.

Technical Description

System Size and Placement

S4A specializes in PPA financing for small commercial solar power installations ranging from 20 kW to 80 kW. A typical household in California consumes 587 kilowatt hours (kWh) per month, which can be supported by a 3 kW system in an energy efficient structure. The average commercial building in California uses ten times that electricity and can be served with a 30 kW solar system.[1] Such an install covers 2,200 sq. ft. of rooftop space with roughly 150 panels, each measuring 3 ft. x 5.4 ft. They are ideally placed on shade-free flat or South-facing roofs, tilted near 22°.



S4A was created for the sole purpose of providing PPA financing. Related and complementary solar power services, including non-PPA financed installation partnerships, residential solar assistance, consulting, and solar installer staffing, will be referred to the parent entity, SR. This ensures the company focuses on its core product while still allowing capture of the net positive benefits of the relationship.

Grid-Tied Solar

The company provides grid-tied solar electricity, the most common type of solar power. When roof top panels generate more electricity than needed, energy flows into the grid – the meter runs backward, up to a client's total annual usage. At night and on rainy days, if energy is required beyond what panels produce, electricity is drawn from the grid.

Monitoring and Payment

S4A continuously monitors solar panel condition online. Every month, S4A provides energy analysis and savings information to each customer along with a monthly bill. It charges a lower electricity rate than the local utility company, providing savings from the first month for clients.

Warranty and Repair

Because S4A owns the solar panels, customers avoid warranty and repair issues. The company handles repairs, inverter replacement, and system problems. Production checks are easy due to online monitoring. If a system underperforms, S4A visits the site to remedy the situation. Solar panels come with 25-year manufacturer warranties; the service agreement is matched to that. Inverters are covered by a separate 10-year warranty. Over the 25-year agreement, reserves from income generated by the PPA are set aside to cover any inverter and other component replacement out of warranty.

[1] U.S. Energy Information Administration, *Electric Sales, Revenue, and Average Price 2008*, Table 5. Average Monthly Bill by Census Division, and State 2008 (2010), http://www.eia.doe.gov/cneaf/electricity/esr/table5.html

Product Example: *Richmond Non-Profit Organization*

Current Electricity Cost

S4A has been working with a Richmond based non-profit that provides social services to establish a PPA. This non-profit currently pays 13.65¢ per kilowatt-hour of electricity to the local utility company, PG&E. Its average monthly bill was $500, with annual electricity costs nearly $6,000. Since 1970, utility rates have risen more than 6% annually. If increases continue, the non-profit will pay nearly $24,000 for electricity in 2035.

Appropriate Solar PPA

S4A conducted an assessment and utilization review. It found that the non-profit's electricity usage requires a 30 kW installation costing roughly $200,000. By signing a PPA with S4A, this customer pays nothing up front and only 13¢ per kilowatt-hour, for an immediate savings of 5%. The PPA locks in better pricing stability over utility companies. Raises are limited to 3% per year to match inflation. This generates even greater savings when compared to future utility rates.

PPA Benefits for Customers

No Capital Costs

For non-profits, a significant barrier to installing clean energy is the high upfront cost of buying a system. Very few organizations have the capital, which can be hundreds of thousands of dollars. S4A offers customers an attractive choice for generating savings right away through the PPA: "leasing" energy, switching to clean power for a monthly rate, lower than their current utility bill.

No Maintenance or Monitoring

Most schools, community centers, churches, fire stations, and affordable housing associations lack expertise or ability to maintain solar energy systems. S4A provides all monitoring and maintenance. Via SR's pool of qualified training graduates, S4A affordably cares for and repairs its installed units.

Low, Stable Electricity Prices

Clean energy remains out of reach for most non-profits, as they do not qualify for solar tax incentives and accelerated depreciation. Such incentives function similarly to low-income housing tax credits and benefit for-profit entities which have gains to offset. As a corporate entity, S4A takes advantage of these tax incentives, which cover up to 30% of installation costs. Further, S4A finances accelerated depreciation, which offsets up to 30% more of total costs. Through PPAs, S4A passes benefits from these incentives back to its customers in lower, stable electricity prices. Clients save money on electricity from day one, realizing increased savings as conventional utility rates rise.

Lowered Pollution and CO_2 Emissions

The environmental advantages of solar are unquestionable. Switching reduces global carbon dioxide emissions that contribute to climate change and also diminishes local smog and pollution caused by electricity derived from fossil fuels – oil, coal and natural gas. This fosters cleaner air and healthier communities, particularly in low income communities that often bear disproportionately bad environmental conditions. Non-profits installing solar demonstrate their social and environmental leadership through their operational choices as well as in their programs, classes and services.

S4A Product Impact: PPA Electricity Rate Savings				
	2010	*2011*	*2012*	***Total***
PG&E Rate (¢ per kwh)	13.65	14.47	15.34	**55.27**
PPA Rate (¢ per kwh)	13.00	13.39	13.79	**26.43**
Savings	5%	8%	11%	**109%**

Overall Benefits and Impact

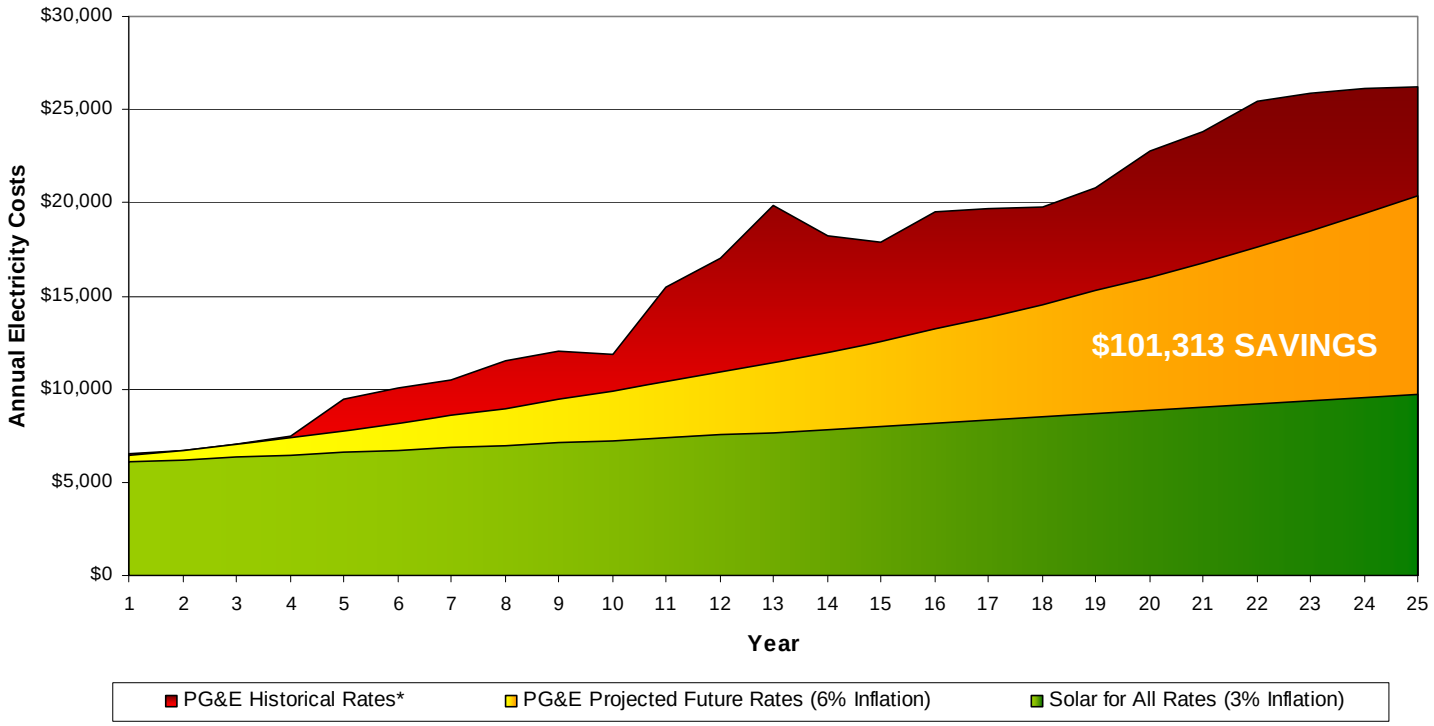
The benefits and positive impact of the PPA towards S4A's quadruple bottom-line include:

1. Social: Two SR training program graduates participate in 8-week paid internships, gaining installation experience and professional development. This dramatically increases their chance of permanent hiring.

2. Environmental: 550 tons of CO_2 emissions avoided, equal to removing five cars from roads for 25 years.
3. Community: Energy cost savings for the non-profit begins immediately; total $101,313 over 25-years.
4. Financial: S4A generates a constant income stream totaling $63,564 over the agreement. These funds are cycled back to support more solar installations and to fund other mission-driven programming.

S4A Product Impact: PPA Energy Cost Savings				
	2010	2011	2012	***25-Year Total***
Accumulated Non-Profit Savings	$285	$468	$663	**$101,313**

The difference between the client's future energy expenses if energy is purchased from the utility (PG&E) versus rented from S4A is shown graphically below. Historical PG&E rates, based on data from 1970-2001, are included in red to illustrate the instability of conventional utility charges over time. Rate spikes have occurred for a variety of reasons, including corporate misconduct (e.g. Enron), natural disasters (e.g. Hurricane Katrina), and supply and demand shifts (e.g. California summer rolling black-outs in the early 2000s).[2]



*Approximated historical data shown for comparison only. Based upon PG&E historical rates 1970-2001.

[2] www.cpuc.ca.gov/PUC/energy/Electric+Rates/ENGRD/ratesNCharts_elect.htm

VI. The Market

Solar Industry

Market Growth

The solar photovoltaic (PV) market grew 37.5% in 2009,[1] even as the rest of the U.S. economy shrank by as much as 5%. U.S. solar PV is estimated to triple between 2010 and 2012 to more than $6 billion.[2] Although unemployment in many industries is at its highest levels in decade, the solar installation market is much better off and growing. Over the next 20 years, 487,000 new jobs are projected to be needed in solar installation.[3]

Solar employment is a great opportunity for low-skill workers to build family-sustaining careers. Although installation jobs do not require advanced degrees, they cannot be readily outsourced. The industry is young; entry-level workers can rapidly scale a career ladder. Wages in the solar sector offer higher than average earnings for people from low-income communities. The 2008 median annual salary for entry-level solar work was $31,200; experienced installers received $52,000, and project foremen earned $72,800 or more.[4]

California Market and Incentives

The California Bay Area is a hotbed for solar installation. Strong federal and state incentives, good weather, numerous local companies, and high consumer green consciousness contribute to robust growth. According to NorCal Solar, in 2007 and 2008, California installed 17,245 PV systems producing over 178 megawatts (MW) of power at a cost of $1.64 billion. Out of this total amount, the Bay Area installed 6,904 PV systems producing over 55 megawatts (MW) of power at a cost of $514 million –31% of the solar installed in the state.[5]

Supportive legislation has fueled the industry. In 2006, California passed the California Solar Initiative (CSI), providing $3.3 billion to install 3,000 MW of grid-connected solar, enough to power a million homes. The goal was to transform the solar energy market by reducing cost. Installers state the initiative has had "tremendous impact, giving solar companies a much longer planning horizon to work with greater confidence in making investments, as well as more volume and market growth."[6] The program is linked to electric utilities, funded by electricity ratepayers, and protected from California's budget crisis.

Another piece of 2006 California legislation, the Global Warming Solutions Act (AB 32), requires cutting greenhouse gas emissions 25% (to 1990 levels) by 2020. As the California Air Resources Board (CARB) implements this, the solar industry benefits as businesses and consumers adopt clean energy to meet state-mandated goals. Because of AB 32, several government jurisdictions are requiring a minimum level of state electricity come from renewable sources, generating even higher demand for solar. This has set up a market to trade what are referred to as renewable energy credits (RECs), or the "greenness" of each unit of renewable electricity, on an open market, like a commodity. In March 2010, the California Public Utilities Commission issued a ruling laying the groundwork for the trading RECs. In the foreseeable future, projected by 2012, S4A will sell the environmental benefit of the solar installations it finances in voluntary carbon offset markets and a new REC marketplace.[7]

Additional municipal and regional incentive programs and subsidies across California have made solar even more attractive. Private investment has fueled industry growth. *The New York Times* reported, "In 2007, seed investors put $654 million in 33 solar-related deals, up from $253 million in 16 deals in 2006. California received roughly half of these investments."[8]

---

[1] GTM Research, Exec. Summary to *The United States PV Market: Project Economics, Policy, Demand, and Strategy Through 2013*, p.19, www.gtmresearch.com/report/the-united-states-pv-market-project-economics-policy-demand-and-strategy
[2] ibid.
[3] Roger H. Bezdek Ph.D., *American Solar Energy Society's Estimating the Jobs Impacts of Tackling Climate Change*, www.ases.org/pdf/ASES_TCCJobs_Summary.pdf
[4] Centers of Excellence, *Emerging Industry & Occupations Report (2008)*, p.8, www.coeccc.net/solar/documents/Emerging_solar_08.pdf
[5] www.norcalsolar.org/index.php?option=com_content&task=blogcategory&id=47&Itemid=172
[6] Ibid.
[7] Barken, Lee. "T-RECs Invade California Utility Market." *Greentech Media*. www.greentechmedia.com/articles/read/t-recs-invade-california-energy-market, March 12, 2010.
[8] Matt Richtel and John Markoff, "A Green Energy Industry Takes Root in California," *New York Times*, February 1, 2008, www.nytimes.com/2008/02/01/technology/01solar.html?_r=1, Cleantech Group data, which tracks investments in alternative energy.

Using PPAs to Overcome Solar Installation Challenges
A number of factors have limited growth of solar power. The Bay Area institution SolarTech identified industry challenges: high installation costs, no industry-wide standards, cumbersome governmental and rebate processes, limited financing tools, and the lack of certified trained workers.[9] Further policy and regulation barriers include subsidized electricity rates in the "traditional" market. Last, public expectations for the PV industry are for products to get increasingly efficient and cheap, like high tech advances. Some customers continue to hold out for the next thing, despite the attractiveness of current solar products and the lack of evidence that more huge breakthroughs in efficiency will occur in the near future.

For these reasons, nearly 72% of the nonresidential solar market in 2008 was purchased via third-party financing and PPAs.[10] Solar for All has been established with specific focus to overcome these challenges.

Target Market

S4A was created to serve a specific market niche. It seeks to build upon SR's mission activities for people living in poverty to achieve green collar jobs, earning living wages to escape poverty while accessing the green economy for low income communities. In maximizing this equation, S4A caters to underserved target markets with historically limited access to solar power – non-profit organizations seeking small scale commercial installations. S4A's first round of $5 million in capital will finance 54 installations averaging 30 kW. This is small number of the total potential market.

The nine counties of the San Francisco Bay Area constitute a total population of approximately 7.4 million within one hour drive of S4A's offices in Richmond, CA.

Bay Area Non-Profit Owned Buildings
Nationally, nearly 12% of non-profits own buildings – core potential customers for S4A.[11] The Bay Area has more than 45,000 non-profits. Analysis of tax assessment and county level assessor data provided a pool of candidates of 9,222, roughly 20%. The Total Universe of Potential Customers from Surrounding Counties within one hour of Richmond includes:[12]

County	Population (2009)	# of Non-Profits	# Non-Profits that own*
Alameda	1,556,757	9,589	2,205
Contra Costa	1,060,435	5,161	955
Marin	258,618	2,679	327
Napa	137,571	931	214
San Francisco	845,559	8,198	1,915
San Mateo	745,858	3,876	828
Santa Clara	1,857,621	9,569	1,516
Solano	426,729	1,833	422
Sonoma	486,630	3,350	840
Total	**7,375,778**	**45,186**	**9,222***

* Detailed analysis and complete numerical breakdown of the market study is provided in Appendix D.

[9] Centers of Excellence, *Emerging Industry & Occupations Report (2008)*, p.8, http://www.coeccc.net/solar/documents/Emerging_solar_08.pdf
[10] "Solar PPA's Can Help Solar Get Past Reccesion," *RenewableEnergyWorld.com*, December 12, 2008, http://www.renewableenergyworld.com/rea/news/article/2008/12/solar-ppas-can-help-solar-get-past-reccesion-54298
[11] Guidestar data.
[12] Sources: Total population: California State of Association of Counties; # of NGOs from TaxExemptWorld.com (www.taxexemptworld.com); # of NGOs with their own buildings: from Assessor's Offices of Contra Costa, Marin, San Francisco Counties or estimates

Of these 9,222 non-profits that own their own buildings, SR's experience is that approximately 25% are removed from consideration due to physical location, roof condition, already having solar and other site factors. *This provides a potential universe of 6,900 ideal S4A customers.*

Schools and Churches
Private schools, churches, synagogues, and temples have been the strongest customer base for SR. More than half of these organizations own their own facilities. They seldom move, so are interested in and capable of long-term planning. Solar installations are particularly valuable to the growing number of these organizations that have embraced environmental stewardship in their missions. They value working with a mission-driven vendor to do this work. Congregation members and parents are also potential donors to this initiative and generate new sales leads – potentially becoming or referring solar customers themselves to S4A or SR.

S4A has done and continues to do market analysis to explore potential customers more deeply. There are more than 1,600 private school buildings in the Bay Area (some schools have more than one building). The table below provides additional detail on private schools and religious institutions in the region.[13]

County	# of Private Schools[14]			# of Religious Institutions[15]
	Grades 9-12	Grades PK-8	Total	
Alameda	54	198	252	742
Contra Costa	43	131	174	477
Marin	12	44	56	128
Napa	16	22	38	76
San Francisco	42	101	143	408
San Mateo	23	99	122	310
Santa Clara	58	214	272	687
Solano	16	44	60	213
Sonoma	38	66	104	238
Total	**302**	**919**	**1,221**	**3,279**

Richmond Market
S4A leverages its parent's relationships, particularly in Richmond, CA and in the surrounding communities nearby. Further detailed analysis was conducted of the Richmond market. More than 560 tax-exempt entities are located in that city alone. Tax assessment data analysis reveals:

Richmond Market	
Hospitals	1
Religious Institutions	118
Schools (Non-Collegiate Private & Parochial)	19
Social Service / Welfare Organizations	60
Tax-exempt organizations owning buildings	**198**

Therefore, S4A's growth strategy to conduct 54 installs over three years appears feasible. It represents less than 1% of the total potential market, with many clients very close to S4A's office location.

[13] Association of Bay Area Governments (www.abag.ca.gov)
[14] Private School Review (www.privateschoolreview.com)
[15] The Association of Religion Data Archives (www.thearda.com)

VII. Competitive Analysis

Although the market is lucrative, large and growing, it is competitive. Barriers to entry are significant, but the attention on green energy, environmental jobs, and financial subsidies draws entrants. This section details direct competition for S4A, as well as indirect competition that challenges business. The section concludes with enumeration of S4A's competitive advantage – offering a mission-driven approach to collaborate with local installers in less pursued market segments. A Five Forces analysis was conducted; available in Appendix E.

Direct Competition – PPAs

PPAs are a proven financing tool. The model is increasingly being used, particularly given current incentives. Nearly 72% of the nonresidential solar market in 2008 was purchased via third-party financing and PPAs.[1]

Competitor	Description
AMSOLAR	Provides solar for educational institutions and select commercial enterprises. Minimum installation size has been 75 kW. Contracts with local integrators for installations.
SolarCity	Provides residential, non-profit, and large-scale PPAs. Wide range of PPA and lease options. Offers financing, integration services and performance monitoring. Clients include Intel, British Motors, and eBay – larger, more institutional entities
Solar Power Partners	Provides solar for water districts, hospitals, universities, airports and detention centers. Third largest solar developer in the U.S. Completed more than 40 projects. Large average installation size (350 kW). Minimum size has been 100 kW. Contracts with local integrators for installations.
SunEdison	East Coast-based company. More than 300 installed large-scale sites with average size of 300 kW. Minimum installation size has been 80 kW. Offers PPA financing and integration services.

Indirect Competition

There are indirect competitors offering customers alternatives to solar PPAs, including:

Source	Description	S4A's Advantage
Energy Efficiency Retrofit Contractors	Reduce energy expenses by making buildings more energy efficient	• Many improvements face cost/benefit calculations, frequently deemed 'too expensive' • Often cite solar electricity in their recommendations for improvements • Solar offers more subsidies
Rooftop Wind Turbines	New companies like WindTerra offer small rooftop systems	• Wind systems are less frequent with: higher costs, lower reliability, environmental requirements (i.e. bird protection), and complaints regarding noise
Solar Installation Direct Sales	Solar providers sell installations outright direct to consumers	• Encourage customers to acquire debt financing with bank loans • PPAs offer more services, particularly monitoring and on-going maintenance • Non-profit customers do not qualify for all of the subsidies themselves

Above all, the greatest indirect competition is inaction and disinterest. However, motivation to go green is consistently rising. Despite the economic climate, the financial benefits of a PPA make the decision easier.

[1] "Solar PPA's Can Help Solar Get Past Reccesion," *RenewableEnergyWorld.com*, December 12, 2008,www.renewableenergyworld.com/rea/news/article/2008/12/solar-ppas-can-help-solar-get-past-reccesion-54298

S4A's Competitive Advantage

S4A and its parent entity, SR, have extensive competitive advantage to operate in this market. An in-depth SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats) was conducted – provided in Appendix E – to identify organizational competitive advantage.

Social Purpose
As the first organization in the Bay Area focused on making the solar industry more diverse and inclusive, S4A has a lead in building relationships with community organizations, and a positive reputation. This mission is attractive to the customer base, providing a key value add over exclusive private sector vendors. S4A benefits from media attention of SR's green-collar job training. Media 'hits' include the *New York Times*, *NPR*, *SolarToday*, *O Magazine*, the *New Yorker* and *USA Today.* More information can be found online at www.SolarRichmond.org.

Solar Installation Size
S4A has a niche market. It focuses on smaller (~20-80 kW) installations. The projected average will be 30 kW. The average PPA installation is ten times larger than a target S4A customer.

Non-Profit Organizations
S4A specializes (although not exclusively) on providing PPAs to non-profit and community organizations. Some installers and PPA providers do not know how to work with non-profit organization decision-making bodies such as vestries, boards of trustees and collectives; some refuse outright to do so.

Well-Trained Labor
S4A works with well-trained "roof-ready" graduates. This ensures installers always have sufficient labor. Comprehensive support and wraparound services continue for these workers even after full time placement.

In Communities Others Aren't
S4A works in and understands communities that are not known for their environmental interests. While many companies focus on San Francisco, Berkeley and Silicon Valley, S4A is in communities like Richmond, where others aren't. The company and its parent entity are familiar with the people, government, and needs of such communities.

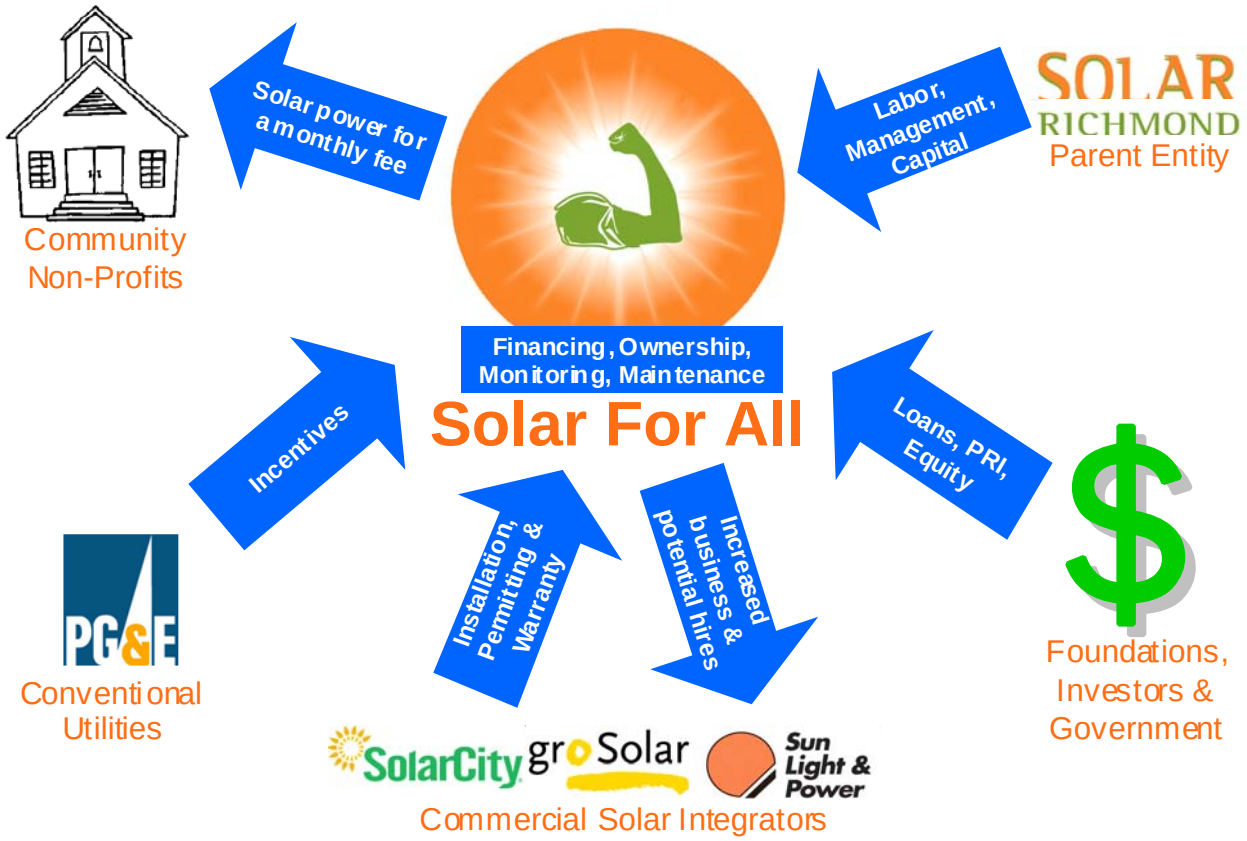
VIII. Operational Plan

Structure

Entity
S4A is registered as an LLC in Richmond, California, in the San Francisco Bay Area. It is a wholly owned subsidiary of the non-profit Solar Richmond (SR).

Service Agreement
S4A is a shell company. All of its activities are carried out through a fee-for-service agreement with the parent entity, SR. Necessary labor and activities are charged on an as-needed basis. The structure enables the PPAs to benefit from the financial incentives offered for solar installations, which a non-profit entity cannot utilize. It also provides a legal separation for the non-profit from business activities, safeguarding SR's 501(c)3 status.

Thanks to this structure, S4A's day-to-day fixed expenses are minimal, and continue as such while S4A scales. Existing SR staff and trained graduates have capacity to manage administration of S4A and the planned growth in number of installations. S4A supports SR's operations with cash flows, increasing job placement of trainees, and solar adoption in the community. The diagram below clarifies the operational relationships.



All work will be performed from SR's offices in Richmond, CA. S4A will not require separate facilities or equipment. If S4A growth exceeds projections, SR can readily hire additional staff to bolster PPA activities and raise the next round of capital sooner. Slower sales simply mean projections are pushed back. Customer requests for complementary services, like consulting and staffing, are completed by SR.

Legal
The legal firm Duane Morris provides pro bono assistance and charitable contributions to SR, including for S4A. SR President Michele McGeoy received the Duane Morris Leadership Award for her community leadership and

environmental entrepreneurship. The firm has assisted and will continue to be involved with incorporation, investment legal structuring, offering documents including term sheets, and PPA contracts.

Operational Steps

S4A's operational steps correspond with the phases to complete and then implement a power purchase agreement (PPA), before and after sales. Operations are "modular" – phases are set for every agreement. As the company grows, it will complete more PPA cycles per year, but the following steps remain the same:

Operational Steps						
1 Outreach	2 Assessment	3 Pricing & Underwriting	4 Contract Signing	5 Bidding & Installation	6 Monitoring & Maintenance	7 Financial Upkeep

1. Outreach

S4A already has significant existing sales prospects through SR's work in the community and relationships with community centers, municipalities, churches/temples, social service providers and schools.

The sales team is led by Kandea Mosley, Director of Sales and Marketing, with support from the Executive Director. The team is in the community regularly. The team tracks prospects and status through SalesForce. New prospects are brought in from community relationships such as St. Vincent de Paul, Goodwill and YMCA. Membership organizations like California Interfaith Power and Light (CIPL), Interfaith - San Ramon Valley (ISRV), and the North and East Richmond Homeowners Association provide word of mouth; they have highlighted S4A at numerous events. A member church from CIPL that shares S4A's activities with its peers is great exposure. PR and other media attention for SR have also generated sales leads.

2. Assessment

The first step for parties interested in going solar is a solar analysis of energy usage and rooftop assessment. This is provided for free. S4A works with decision-makers to identify appropriate rooftop locations and collects historical usage data with rate information for all meters linked with a site. Initial assessment is led by Kandea Mosley, with assistance from Michele McGeoy and SR Sales and Marketing Associate Jennifer Williams.

Key qualification criteria gleaned from the assessment period are:

1. **Current Utility Costs:** Clients current energy costs must be assessed. Those with low utilization will realize lower financial savings.
2. **Energy Usage:** Potential clients need sufficient volume for cash flows to best work. S4A specializes in solar systems that generate between 20 and 80 kW. It is difficult for customers to achieve significant financial savings with systems smaller than 20 KW.
3. **Physical Location:** Some willing and interested customers lack the right location. They may not have enough sun exposure, or their small building is surrounded by taller ones.
4. **Roof Condition:** Roofs need to be in good condition. Repairs often require panel removal. If reroofing is imminent, S4A suggests this occurs prior to solar installation. Installed panels partially protect a roof.

Approximately 70% of potential customers progress past this phase. Some customers, for example St. Stephen's Church in Berkeley, use initial assessment information to garner support for the solar project among decision-makers. They then make roof repairs and other preparatory steps before returning to the pipeline after 6-12 months. These "paused leads" are included in the 30% who don't immediately advance.

3. Pricing and Underwriting

Based upon a successful assessment and client interest, S4A draws up a Scope of Work and Service Contract Proposal. Customer energy usage undergoes a deeper analysis to determine what size system will save them the most money and what price S4A can offer. The report outlines environmental impact and details future financial savings for the client. It also explains key steps in the installation process and lays out risks and

responsibilities for all parties. Pricing and underwriting is completed by Kandea Mosley with assistance from John Russell, Operations and Finance Manager.

At this stage, S4A reviews customer ability to fulfill their contractual financial obligations – that they will pay. This financial screening is completed by researching credit history, loan repayment history, funding diversification and building ownership status. Analysis includes likelihood to remain in the buildings. If a client sells the building, the PPA contract can be transferred to new owners. The panels can also be transferred to the new location for a cost.

Key qualification criteria during this phase include:

1. **Client Financial Stability:** S4A considers customers' financial standing. Despite weak current economic conditions, non-profits that own their buildings are stronger institutions who have demonstrated successful budget management. Houses of worship, schools, social service providers and community centers are preferred customers.
2. **Mission and Value Fit:** S4A emphasizes its social and environmental values when discussing solar with customers. This establishes a stronger bond than can be offered by a typical vendor.

Approximately 40% of the total population of initial leads progress pass this phase.

4. PPA Service Contract Signing
Once a potential customer is verified to have financial stability and solar installation makes sense on their property, S4A works with them to sign a PPA service contract. S4A meets with key decision-makers in the client's organization to help with internal education. S4A also develops more detailed financial projections. The company supports clients in discussing the contract with legal counsel and accountants so that stakeholders are clear on long-term implications and supportive. The signing is closed by Kandea Mosley.

Approximately 25% of all initial leads progress through this stage. Most of those who do not complete the phase are "paused leads", not lost. There may be internal barriers or other priorities slowing decision-making. They maintain interest and contact with S4A, returning later. "Lost leads" typically buy a system outright, wait for potential future incentives, have internal disagreements, and/or make energy efficiency improvements.

5. Contractor Bidding and Installation
Once the client signs the PPA service contract, S4A issues a Request for Proposals (RFP) to its Solar Integrator Partner Network. This installation phase is led by the Operations Manager. This transparent, competitive process fosters fairness and ensures good pricing. By working with local companies, S4A values high-quality work, supports local businesses, and connects its trainees with solar employers. John Russell leads the process of contractor bidding and installation.

A component of the RFP is the use of SR graduates on the project. Vetted local installers are invited to join the partner network. Interested partners submit bids including pricing, array design and labor needs. S4A compares these estimates, chooses the best option, and oversees installation scheduling. This includes coordination with roof repairs, energy efficiency improvements, or other building activity.

For each installation, S4A works with the hired firm to match qualified training graduates with crews. Solar Richmond actively ensures graduates' success by meeting frequently with crew leads as well as graduates.

6. Monitoring and Maintenance
After installation, S4A monitors system performance remotely through an online tool from the solar monitoring company FatSpaniel. John Russell is responsible for maintaining relationships with FatSpaniel and reviewing monitoring reports. This ensures regular, but efficient, oversight. Energy consumption is documented through monthly bills. Problems or irregularities are noted and investigated immediately.

Panel short-comings are covered by 25-year warranty. Inverters, another costly component, are covered by the manufacturer for 10 years. Integrators warranty their installations for 10 years. S4A works with the customer concerning any and all minor repair or system troubles.

7. Financial Upkeep
The financial upkeep of PPAs is highly important. Led by John Russell, S4A centralizes this activity. All clients are billed monthly. Invoices are sent out promptly at the same time. Payments are established via electronic or other recurring automatic payment methods, whenever possible. This reduces paper transaction waste, but also increases likelihood of on time payment. Solar Richmond has the administrative systems in place for accounting and tax periods. The financial projections provide for a bad debt allowance. Late pays are contacted immediately. Visits are scheduled. If necessary, financial arrangements can be worked out. In the event of non-payment, the PPA documents provide recourse through legal means. S4A maintains ownership of the equipment throughout.

Growth Plan

Installations are on-going and, after first year ramp up, continuous. Four installations are planned for 2010 as setting up the infrastructure and finishing fundraising limit capacity. The first round of financing is structured to complete 54 installations of average of 30 kW each.

S4A Operational Impact: Non-Profit Solar with PPA Financing				
	2010	*2011*	*2012*	*Total*
# Installations	**4**	**18**	**32**	**54**

If growth in number of customers (sales) or project size (volume) increases more rapidly than projections, more labor is added by Solar Richmond and first round financing is spent more quickly. If fundraising or customer acquisition is slower than projected, S4A's variable cost structure through its management agreement with SR provides minimal risk and negligible financial impact. The timeline on installations can be extended. PPAs are essentially modular, with some economies of scale in management and purchasing.

This model is scalable and replicable. S4A will seek additional funds for future PPAs after the first round of financing and installations is successfully completed. Further market analysis will be done before any expansion is undertaken. Organizational growth is considered along two axes:

1) **Local Growth**
   a. Sourcing more installations with Bay Area non-profits. This includes working with buildings occupied by non-profits, but potentially owned by mission-motivated land-lords and minority-owned small businesses.
   b. Going further afield in Northern California, particularly extending to the Central Valley and Sacramento.

2) **National Replication**
   a. Geographic expansion is already being considered. The decision will be based upon lucrative state incentives, population interest in green efforts, and significant volume of potential clients. Enquiries have come in nation-wide. Southern California, Denver/Boulder, Phoenix, and New Jersey (outside New York City) are leading prospects.
   b. In terms of structure, S4A will explore different models for replication, starting with the most basic of consulting to other community organizations, but also considered offering franchises, and even opening branch offices directly (with potential for replication for Solar Richmond, as well).

Project Gantt Chart – Installation of One PPA

Workstream			Owner	Month 1				Month 2				Month 3				Ongoing
				1	2	3	4	1	2	3	4	1	2	3	4	
I	**Outreach**															
	1	Community Info Sessions and Events	MM, KM, AC													
	2	SalesForce Lead Tracking	JW, KM, TW													
II	**Assessment**															
	1	Gather Usage & Roof Data	JW													
	2	Complete Initial Analysis for Client	JW													
		A Analyze Historical Usage & Costs	JW													
		B Analyze Roof & Location	JW													
		C Complete Financial Analysis	JW, JR													
	3	Follow-Up Meeting with Client	KM, JW													
	4	Secondary Meeting with Client	MM, KM, JW													
III	**Pricing and Underwriting**															
	1	Draw up Scope of Work & Contract Proposal	KM, JW, JR													
	2	Verify Client Financial Stability	MM, KM, JR													
	3	Pricing & Underwriting Meeting with client	MM, JR													
IV	**PPA Service Contract Signing**															
	1	Final Meetings with decision makers	MM, JR, KM													
	2	Legal and Accounting Approval	MM, JR													
	3	Contract Signed	MM, JR, KM													
V	**Contractor Bidding and Installation**															
	1	Contractor RFP	JR, KM, JW													
		A Complete RFP Details	JR, KM													
		B Contractor check-in / Project Q&A	JR, JW, MS													
	2	Compare Bids	MM, JR, JW													
	3	Notify and schedule winning bidder	JR													
	4	Choose SR graduates on installation	JR, MS, KF													
	5	Meet with crew lead / HR	JR, MS													
	6	Oversee Installation	MM, JR, KM													
VI	**Monitoring and Maintenance**															
	1	FatSpaniel Monitoring	JR													
		A Oversee setup during installation	JR													
		B Routine monitoring	JR, JW													
		C Notify client of any irregularities	JW													
	2	Oversee Monthly Billing	JR													
	3	Oversee Routine Maintenance & Cleaning	JR													
	4	Oversee Repair & Warranty Issues	JR													
VII	**Financial Upkeep**															
	1	Document invoices	JR													
	2	Tax preparedness	JR													
	3	Meet with accountants	JR													
VIII	**Other**															
	1	Media (success stories, ribbon cuttings, interviews)	MM, JR, KM													
	2	SR labor follow-up	JR, MS, KF													
	2	Project documentation for collateral and website	JW, KM, JR													

*AC = Akeele Carter, JR = John Russell, JW = Jennifer Williams, KM = Kandea Mosley, MM = Michele McGeoy, MS = Mitchell Smith, TW = Troy Williams

IX. Risks

As with any new venture, there are risks. S4A has categorized risks in three areas and identified mitigation.

Capital Source Risks

Risk	Mitigation
State of California goes bankrupt	State solar incentives are through the California Solar Initiative; rebates are ratepayer-funded, linked to utility end-user electricity bills, not state budget. If the State goes under, it does not affect solar incentives.
S4A raises less capital than in plan	S4A set its capital goals from market analysis and measured growth. The modularity of solar installations maintains flexibility. If fewer funds are raised, installations can still be done. Margins remain consistent; total income is reduced. SR's service agreement is compensated 'below the bottom line', based upon performance and efficient operations. The parent has a direct incentive to operate effectively to maintain its income.
Investors want to exit	All investors are provided exit options. To exit early on (first 10 years), the option provides lower returns and requires advance notice, but is possible. Financial projections detail scenarios in greater detail.

Product Risks

Risk	Mitigation
Customer's roof leaks or needs reroofing	If the roof leak is caused by the solar panels, it is covered by the installer under a 10-year comprehensive installation warranty. After 10 years, S4A will be responsible for any installation maintenance. If a customer requires reroofing, panels may be temporarily removed. A rooftop evaluation is completed before solar installation to assess roof health and minimize reroofing likelihood.
Solar panels are damaged or stolen	Insurance on a building extends to solar panels. S4A requires customers to notify their insurance carriers before contract signing to ensure coverage. S4A installs security systems on all systems to protect customers from theft.
Solar inverter malfunctions	Inverter malfunction is covered by manufacturer 10-year warranty. If replacement is required thereafter, it is done at no cost to the customer. Depreciation expenses assumed in S4A's financial projections set aside replacement funds for all material replacements.

Revenue Source Risks

Risk	Mitigation
Conventional utility rates decrease	Utility rates have increased >6% since 1970. Current legislation and increasing procurement costs for utilities indicate this will continue. S4A's lower base rates cushions customers from unforeseen rate drops. The PPA contracts protect customers from paying more than they would to the utility. In that scenario, savings may decrease and project returns may be adversely affected.
Customer lags in payment	S4A has a bad dept cushion in its financial projections to protect itself against this risk. In the very unlikely case of continued nonpayment, S4A can "turn off" the solar panels. A collections process is followed, detailed under Operations
Customer closes or moves	S4A is protected in the case of building vacancy because the panels are grid-tied. Although revenue is lower in this situation, PG&E buys the power sent to the grid through an agreement called a feed-in tariff.
Renewable energy credit (RECs) markets take years to implement	S4A projected REC revenue starting only in Year 3, with minimal carbon credit revenue the first two years. California's Global Warming Solutions Act of 2006 (AB 32) and a Proposed Decision from the California Public Utilities Commission point to tradable RECs as soon as 2010. Until this market matures, carbon credits will be sold on the voluntary market and generate less income.

X. Impact and Measurement

Solar Richmond (SR), the parent, is a non-profit organization. The mission benefits of this undertaking are central to the company's purpose. S4A measures value creation and has key indicators. The company will report on its performance to investors, donor, clients, and other stakeholders. This follows the company's mission and goals listed under Section I, above: social, environmental, community and financial impacts combine for a quadruple bottom line, expanding upon the conventional triple bottom line.

Social Impact

Social Impact in the form of job creation and living wage sustainability for low income people is a primary driver. S4A tracks its green-collar job creation, defining them as paying living wages and affording basic economic security. Solar Richmond monitors the status of training program graduates during the program and after graduation. The focus is on helping people from Richmond and other low income communities. The program goal is to get low-income people out of poverty and keep them out.

Key measures of social impact are:

1. Trainees: the number of trainees contributing to S4A installations
2. Solar internships: placements (number of graduates)
3. Solar internships weeks: number of weeks of employment provided
4. Permanent hires: number of trainees in permanent employment at least six months after graduation who are from the at-risk target population identified

In order to gauge this, S4A will track the following performance indicators on an ongoing basis.

S4A Social Performance Indicators (Annual Figures)				
	2010	*2011*	*2012*	***Total***
1. # Trainees from target population	60	60	60	**180**
2. # Solar internships	6	30	54	**90**
3. # Internship weeks	54	243	432	**729**
4. # Permanent Placements	3	10	17	**30**

Environmental Impact

S4A measures its success in making solar power an affordable and accessible electricity alternative for consumers – particularly non-profit organizations – by monitoring the volume of solar installed and its environmental benefits. Reducing the carbon footprint of customers is a core S4A mission.

To estimate its environmental impact, S4A draws upon published research: each kilowatt (kW) of solar energy provided results in an emissions reduction of ~18 metric tons of carbon dioxide ($C0_2$), 170 lbs of nitrous oxide (NO_X), 154 lbs of sulfur dioxide ($S0_2$), and 10 lbs of particulates.[1] Carbon dioxide is a leading cause of global climate change, while nitrous oxide, sulfur dioxide, and particulates contribute to smog, acid rain, and asthma, respectively, which disproportionately affect low income communities like Richmond.

An S4A typical installation generates an average 30 kW clean energy. By year three, 2012, S4A's environmental impact will be equivalent each year to removing 426 cars from the road or planting 528 acres of trees.

The table below details S4A's environmental impact as the company scales.

[1] OnGrid Solar Founder and solar energy consultant Andy Black

S4A Environmental Impact Metrics					
Benefit	*Metric*	*2010*	*2011*	*2012*	**25 Year Total**
Emissions Reduction	Carbon Dioxide (metric tons)	2,259	12,401	30,348	**677,534**
	Nitrous Oxide (lbs)	5,100	111,996	274,076	**6,103,500**
	Sulfur Dioxide (lbs)	4,620	101,455	248,281	**5,529,053**
	Particulates (lbs)	309	6,786	16,606	**369,800**
Equivalent Carbon Impact	Cars off the road / yr	8	174	426	**9,478**
	Acres of pine forest / yr	10	216	528	**11,762**

Community Impact

S4A generates value for the community. Community benefits are tangible, such as by saving non-profit clients money or enabling a solar installation to take place through a PPA when it couldn't be done through conventional financing. There are also intangible outcomes such as increased property values, civic engagement, and community pride.

S4A measures its tangible success lowering and stabilizing energy costs for community groups that would otherwise be unable to go solar by tracking completed installations and the 25-year savings these installs will provide to the non-profits.

S4A Community Impact Metrics (Cumulative Figures)				
	2010	*2011*	*2012*	***Total***
# Community Installs	4	18	32	**54**
25-Yr Savings for Non-Profits	$405,254	$1,823,642	$3,242,030	**$5,470,925**

Financial Impact

The company also has its eye on the financial bottom line. The motivation for starting this company is to generate revenue for its parent. S4A measures its financial success in income cycled back to SR's mission-driven work and finance more community solar efforts. It also tracks the financial return it has generated for social investors, important partners enabling the company's activities to come about, who demonstrate that by earning financial returns they can "do well by doing good".

S4A Financial Impact Metrics			
	Years 1-10	*Years 10-25*	***25 Year Total***
Cumulative Income for SR	$48,463	$616,013	**$3,432,504**

Measurement

Each of these four bottom lines will have impact measurements tailored with relevant indicators. This data will be tracked and displayed transparently.

The social value created by S4A's work includes greater economic security for people gaining green collar jobs, but also potential reductions in public expenditures on welfare, healthcare and law enforcement. There will also be positive changes in property values, health, educational attainment, family stability and personal dignity compared with what would have happened otherwise. These can be tracked and in 'monetized' to reveal the "social return on investment" (SROI). For example, the incremental new income of graduates can also be measured in the new taxes raised to state and federal government. Or, moving someone off welfare also generates social savings. S4A may coordinate with local universities to conduct a study of and calculate such impacts.

XI. Financials

This section provides details on the financial projections included in Appendix A. Below is a narrative explanation that defines and details the assumptions for the financial statements. In addition, financial projections are provided that detail sources and uses, as well as cash flows both for an individual PPA and the total financing package. Last, investor return scenarios are documented.

The financial model for Solar for All (S4A) details revenue from selling power plus government incentives, the expenses needed to manage PPAs and repayment to lenders and return to investors. Financial projections project sufficient capital to repay investors and provide exit opportunities starting Year 6. Thereafter, for the remainder of the 25-year system life, each PPA generates increasingly cash flows for the parent entity. The attached financials combine years 11-15 and 16-25 into single columns. Because of built-in annual escalators, totals are not exact multiples of the annual totals in the first ten years.

Appendix A1: Sources and Uses

Sources
Investment Tax Credit – Solar installations are eligible for a 30% federal credit known as the Investment Tax Credit (ITC). As part of the American Recovery and Reinvestment Act, the ITC has been converted to a grant from the U.S. Treasury, payable within 60 days of a system placed into service.

Depreciation Investor – In addition to the ITC, solar installations are eligible to apply accelerated depreciation. Investors with sufficient passive income will provide up-front capital in exchange for benefiting from the depreciation.

Debt – Solar for All will attract debt investors at a blended rate of 3% fully-amortized over 10 years.

Solar Richmond Investment – The parent will contribute equity to this first round. SR has commitments from private foundations for its mission driven work. This funding is non-restrictive and have been verified by lawyers and accountants to not risk SR's 501(c)3 status. Future funding rounds will seek to replace additional grants with 0% interest Program Related Investments (PRIs).

Equity Investor – Solar for All offer an equity stake in this first funding round. It is structured to safeguard a minimum return with potential 'upside' and defined exit. S4A has structured equity involvement. Investors have the option to exercise an exit after Year 6 with a 3% IRR. S4A also maintains a "call" option to buy out investors after Year 6. In the event that environmental returns increase either through the sale of carbon offsets or the Renewable Energy Certificate market, S4A will share these proceeds with equity investors. If neither the Call or Put option is exercised, the Equity Investor may opt to receive 45% of net profits starting in Year 10. Projections provided in Appendix A estimate annual returns of 3% to 18% depending on exit strategy and REC values.

Deferred Management Fee – To provide an additional financial cushion to the project, Solar Richmond will defer receipt of its project management fees, pending profitability. Fees are booked as an expense in Year 1 for tax purposes and paid out over the life of the system. Since this is a non-cash project contribution, it is not included in Year 1 revenue totals.

Uses
Equipment – The two largest capital expenditures are modules and inverters, priced by $/Watt of rated production. S4A assumes $2.00/Watt for modules and $0.76/Watt for inverters. This is 15% higher than wholesale prices listed on SolarBuzz.com, a respected industry research entity, providing financial cushion in the event of price fluctuations.

Design/Integration – S4A engages a licensed contractor to do the solar installations. That company is paid a fee based upon $/W. It, in turn, carries the 10-year California-mandated warranty on the installation.

Labor – Solar Richmond provides 75% of labor for installations. The balance is supplied by the installation partner. (See "Project Management" below)

Appendices A2 & A3: Project Snapshot and Revenue and Expenses

Revenues
Power Sales – Solar installations totaling 120 KW in Year 1 will generate 25 years of power sales. By signing the PPAs, customers agree to purchase the power generated at a flat rate with 3% annual escalator.

CA State Rebate – The California Solar Initiative provides a Production-Based Incentive (PBI) payment during the first 5 years. The incentive is $0.15/kWh and projected to decrease to $0.09/kWh at end 2010. All PPAs signed prior to the end of 2010 receive the higher rebate.

Renewable Energy Certificates (RECs) and Carbon Credits – RECs are the quantifiable and marketable environmental benefits of renewable energy production. Utilities like PG&E in Northern California seek to meet government renewable energy production requirements. RECs allow them to purchase the renewable attributes of power produced outside their facilities. The California Public Utilities Commission has a draft ruling to create a RECs market. Prices are estimated between $0.00 and $0.05/kWh. Through a contract with PG&E, Solar for All will sell RECs created through its solar installs, fostering an additional revenue stream. S4A financial projects assume the RECs market will not generate revenue for S4A until Year 3. Until that time, S4A projects a smaller revenue stream through sales of its solar production as Carbon Offsets, priced at..7 cents/kWh.

Expenses
Management Fee (SR) – Solar Richmond staff provide project management and oversight for all aspects of S4A operations. In exchange, the entity receives a management fee. The fee is tied to system production. It is higher in the first five years of system life to account for additional up-front work on installation and investor relations. Payment is made contingent upon performance, safeguarding investor participation.

Inverter – Solar panels have a 25-year useful life. The equipment that transfers solar power into usable electricity is projected to need replacing starting Year 12. In anticipation of this expense, S4A adds an annual reserve one twelfth of inverter replacement cost.

Maintenance – This total includes annual costs to maintain the system such as cleaning modules and routine repairs. All maintenance work is contracted to Solar Richmond and completed by its graduates.

Insurance – S4A carries its own commercial general liability. Liabilities related to the energy systems are covered by the building owner's insurance, manufacturer warranties, or the installers' warranties.

Accounting – Professional accountants are engaged to handle required annual tax documents.

Bad Debt – The reserve account is 3% of power sales.

Debt Service: Interest – Interest payments on 10 year debt.

Debt Service: Principal – S4A projects cash flow to cover debt payments amortized over 10 years.

Appendix A4: Investor Returns

Depreciation Investor
Depreciation – While not a direct expense, the Depreciation Investors receive tax benefits in the first six years of each PPA. Since they are non-cash, these distributions are included in this line-item to show their value and benefits, but are not part of total distributions calculated in the projections.

Profit Allocation – The Depreciation Investors receive a share of the remaining profits in the first 6 years of each PPA.

Exit Taxes – Upon leaving the transaction the Depreciation Investor will be responsible for the tax liability created when they are no longer responsible for repaying the S4A debt.

Equity Investor
Equity Investor Call – Equity Investors have a call option after Year 6. Solar for All may generate higher yields for equity investors if it is possible to monetize environmental benefits of solar installations – through sale of carbon offsets or the REC market. (See Appendix A5)

Debt
Debt Service Interest and Principal
Financial projections allow for both interest and principal payments over 10 years. Debt terms for each individual lender may vary, but the overall cost of capital will average 3%.

Solar Richmond
Solar Richmond Buyout – S4A provides a variety of defined exit opportunities for equity investors. These financial projections assume the Equity Investor will exercise their Put in Year 7 for a 3% annualized return. This buyout will be financed through accumulated Management Fee revenue during the first six years.

Appendix A. Financials

Sources and Uses

	Single PPA	Years 1-3
Sources		
Investment Tax Credit	$ 50,175	$ 2,709,456
Depreciation Investor	$ 31,250	$ 1,687,500
Debt	$ 30,675	$ 1,656,444
Solar Richmond Investment	$ 20,000	$ 1,080,000
Equity Investor	$ 12,500	$ 675,000
Deferred Development Fee	$ 25,000	$ 1,350,000
Total	**$ 169,600**	**$ 9,158,400**
Uses		
Equipment	$ 96,900	$ 5,232,600
Labor	$ 25,200	$ 1,360,800
Design/Integration	$ 22,500	$ 1,215,000
Development Fee	$ 25,000	$ 1,350,000
Total	**$ 169,600**	**$ 9,158,400**

Solar Project Snapshot

30KW Installation

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	AVERAGE 2020-2024	AVERAGE 2025-2034
REVENUE												
Power Sales	$ 5,694	$ 5,806	$ 5,921	$ 6,037	$ 6,156	$ 6,277	$ 6,401	$ 6,527	$ 6,656	$ 6,787	$ 7,199	$ 8,343
CA State Rebate	$ 3,942	$ 3,903	$ 3,864	$ 3,825	$ 3,787	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Carbon Credits/RECs	$ 307	$ 304	$ 2,146	$ 2,189	$ 2,232	$ 2,276	$ 2,321	$ 2,366	$ 2,413	$ 2,460	$ 2,610	$ 3,025
Subtotal	$ 9,943	$ 10,012	$ 11,931	$ 12,051	$ 12,175	$ 8,553	$ 8,722	$ 8,893	$ 9,069	$ 9,247	$ 9,808	$ 11,367
TOTAL REVENUE	**$ 9,943**	**$ 10,012**	**$ 11,931**	**$ 12,051**	**$ 12,175**	**$ 8,553**	**$ 8,722**	**$ 8,893**	**$ 9,069**	**$ 9,247**	**$ 9,808**	**$ 11,367**
EXPENSES												
Operating Expenses												
Staff	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Inverter	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ -
Maintenance	$ 300	$ 309	$ 318	$ 328	$ 338	$ 348	$ 358	$ 369	$ 380	$ 391	$ 428	$ 536
Insurance	$ 300	$ 309	$ 318	$ 328	$ 338	$ 348	$ 358	$ 369	$ 380	$ 391	$ 428	$ 536
Accounting	$ 500	$ 515	$ 530	$ 546	$ 563	$ 580	$ 597	$ 615	$ 633	$ 652	$ 714	$ 893
Bad Debt	$ 171	$ 174	$ 178	$ 181	$ 185	$ 188	$ 192	$ 196	$ 200	$ 204	$ 216	$ 250
Subtotal	$ 2,271	$ 2,307	$ 2,345	$ 2,383	$ 2,423	$ 2,464	$ 2,505	$ 2,549	$ 2,593	$ 2,639	$ 2,786	$ 2,215
Capital Expenses												
Debt Service - Interest	$ 920	$ 920	$ 920	$ 920	$ 920	$ 920	$ 920	$ 920	$ 920	$ 920	$ -	$ -
Debt Service - Principal	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ 3,067	$ -	$ -
Subtotal	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 3,988	$ 0	$ 0
TOTAL EXPENSES	**$ 6,259**	**$ 6,295**	**$ 6,332**	**$ 6,371**	**$ 6,410**	**$ 6,451**	**$ 6,493**	**$ 6,536**	**$ 6,581**	**$ 6,627**	**$ 2,786**	**$ 2,215**
GROSS PROFIT	**$ 3,684**	**$ 3,717**	**$ 5,598**	**$ 5,680**	**$ 5,764**	**$ 2,102**	**$ 2,228**	**$ 2,357**	**$ 2,488**	**$ 2,621**	**$ 7,023**	**$ 9,152**
Management Fee (SR)	$ 2,434	$ 2,382	$ 2,330	$ 2,279	$ 2,228	$ 2,102	$ 2,053	$ 2,005	$ 1,957	$ 1,909	$ 4,492	$ 4,538
NET PROFIT	$ 1,250	$ 1,336	$ 3,268	$ 3,401	$ 3,536	$ -	$ 175	$ 352	$ 531	$ 712	$ 2,531	$ 4,614

Revenue and Expenses by Year
Solar for All

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-2024	2025-2036
Number of Installs	4	18	32									
REVENUE												
Power Sales	$ 22,776	$ 125,717	$ 310,401	$ 316,516	$ 322,752	$ 329,110	$ 335,593	$ 342,204	$ 348,946	$ 355,820	$ 1,887,048	$ 5,114,023
CA State Rebate	$ 15,768	$ 86,566	$ 211,845	$ 209,726	$ 207,629	$ 190,557	$ 121,173	$ -	$ -	$ -	$ -	$ -
RECs	$ 1,226	$ 6,733	$ 23,860	$ 57,103	$ 117,009	$ 119,314	$ 121,665	$ 124,062	$ 126,506	$ 128,998	$ 684,125	$ 1,854,022
Subtotal	$ 39,770	$ 219,016	$ 546,106	$ 583,346	$ 647,390	$ 638,982	$ 578,432	$ 466,266	$ 475,452	$ 484,818	$ 2,571,173	$ 6,968,045
TOTAL REVENUE	**$ 39,770**	**$ 219,016**	**$ 546,106**	**$ 583,346**	**$ 647,390**	**$ 638,982**	**$ 578,432**	**$ 466,266**	**$ 475,452**	**$ 484,818**	**$ 2,571,173**	**$ 6,968,045**
EXPENSES												
Operating Expenses												
Inverter	$ 4,000	$ 22,000	$ 54,000	$ 54,000	$ 54,000	$ 54,000	$ 54,000	$ 54,000	$ 54,000	$ 54,000	$ 190,000	$ -
Maintenance	$ 1,200	$ 6,636	$ 16,435	$ 16,928	$ 17,436	$ 17,959	$ 18,498	$ 19,053	$ 19,624	$ 20,213	$ 110,533	$ 326,124
Insurance	$ 1,200	$ 6,636	$ 16,435	$ 16,928	$ 17,436	$ 17,959	$ 18,498	$ 19,053	$ 19,624	$ 20,213	$ 110,533	$ 326,124
Accounting	$ 2,000	$ 11,060	$ 27,392	$ 28,214	$ 29,060	$ 29,932	$ 30,830	$ 31,755	$ 32,707	$ 33,688	$ 184,222	$ 543,541
Bad Debt	$ 683	$ 3,772	$ 9,312	$ 9,495	$ 9,683	$ 9,873	$ 10,068	$ 10,266	$ 10,468	$ 10,675	$ 56,611	$ 153,421
Subtotal	$ 9,083	$ 50,104	$ 123,574	$ 125,565	$ 127,614	$ 129,723	$ 131,893	$ 134,126	$ 136,424	$ 138,789	$ 651,901	$ 1,349,210
Capital Expenses												
Debt Service - Interest	$ 3,681	$ 20,245	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 75,460	$ -
Debt Service - Principal	$ 12,270	$ 67,485	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 251,534	$ -
Subtotal	$ 15,951	$ 87,730	$ 215,338	$ 215,338	$ 215,338	$ 215,338	$ 215,338	$ 215,338	$ 215,338	$ 215,338	$ 326,994	$ 0
TOTAL EXPENSES	**$ 25,034**	**$ 137,834**	**$ 338,912**	**$ 340,903**	**$ 342,952**	**$ 345,061**	**$ 347,231**	**$ 349,464**	**$ 351,762**	**$ 354,127**	**$ 978,895**	**$ 1,349,210**
GROSS PROFIT	**$ 14,736**	**$ 81,182**	**$ 207,195**	**$ 242,443**	**$ 304,438**	**$ 293,921**	**$ 231,201**	**$ 116,802**	**$ 123,690**	**$ 130,691**	**$ 1,592,278**	**$ 5,618,835**
Management Fee (SR)	$ 9,736	$ 53,340	$ 130,083	$ 127,276	$ 124,498	$ 121,443	$ 117,352	$ 112,235	$ 109,607	$ 107,005	$ 976,265	$ 2,845,382
NET PROFIT	**$ 5,000**	**$ 27,842**	**$ 77,112**	**$ 115,166**	**$ 179,940**	**$ 172,478**	**$ 113,849**	**$ 4,568**	**$ 14,083**	**$ 23,686**	**$ 651,901**	**$ 1,349,210**

Investor Returns - Year 1

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Depreciation Investor										
Initial Investment	$ (125,000)									
Depreciation	$ 45,304	$ 52,569	$ 43,492	$ 26,095	$ 26,095	$ 13,047	$ -	$ -	$ -	$ -
Profit Allocation	$ 5,000	$ 5,342	$ 13,072	$ 13,604	$ 14,143	$ -	$ -	$ -	$ -	$ -
Exit Taxes	$ -	$ -	$ -	$ -	$ -	$ (116,835)	$ -	$ -	$ -	$ -
Total	**$ (74,696)**	**$ 57,911**	**$ 56,564**	**$ 39,699**	**$ 40,238**	**$ (103,787)**	**$ -**	**$ -**	**$ -**	**$ -**
IRR	13%									
Equity Investor										
Initial Investment	$ (50,000)									
Investor Call	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,500			$ -
Total	**$ (50,000)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 60,500**	**$ -**	**$ -**	**$ -**
IRR	3%									
Debt										
Initial Investment	$ (122,700)									
Debt Service - Interest	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681	$ 3,681
Debt Service - Principal	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270	$ 12,270
Total	**$ (106,749)**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**	**$ 15,951**
IRR	3%									
Solar Richmond										
Management Fee	$ 9,736	$ 9,527	$ 9,321	$ 9,116	$ 8,913	$ 8,408	$ 8,212	$ 8,018	$ 7,827	$ 7,637
Solar Richmond Buyout	$ -	$ -	$ -	$ -	$ -	$ -	$ (60,500)	$ -	$ -	$ -
Total	**$ 9,736**	**$ 9,527**	**$ 9,321**	**$ 9,116**	**$ 8,913**	**$ 8,408**	**$ (52,288)**	**$ 8,018**	**$ 7,827**	**$ 7,637**
Net Revenue	$ 26,215									

Equity Investor Exit Scenarios

	IRR	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Years 10-12	Years 13-25
Initial Investment		$ (675,000)			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Investor Put at Year 7	**3%**	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,500	$ 272,250	$ 484,000	$ -	$ -
Call at Year 10												
RECs @ $0.10	**6%**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,260,649	$ -
RECs @ $0.15	**10%**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,761,395	$ -
RECs @ $0.20	**12%**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,262,141	$ -
Dividend Years 11-25*	**4%**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 56,201	$ 1,267,469
Investor Dividend Years 11-25	**4%**	$ (675,000)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 56,201	$ 1,267,469

* Assumes REC value of $0.05/kWh

Investor Returns - Total

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Depreciation Investor										
Initial investment	$ (1,687,500)									
Depreciation	$ 45,304	$ 256,436	$ 642,481	$ 642,358	$ 491,455	$ 339,235	$ 267,473	$ 104,380	$ -	$ -
Profit Allocation	$ 5,000	$ 27,842	$ 77,112	$ 115,166	$ 179,940	$ 172,478	$ 113,147	$ -	$ -	$ -
Exit Taxes	$ -	$ -	$ -	$ -	$ -	$ (116,835)	$ (525,756)	$ (934,678)		
Total	**$ (1,637,196)**	**$ 284,278**	**$ 719,593**	**$ 757,524**	**$ 671,395**	**$ 394,878**	**$ (145,135)**	**$ (830,298)**	**$ -**	**$ -**
IRR	9%									
Equity Investor										
Initial Investment	$ (675,000)									
Investor Call	$ -	$ -	$ -	$ -	$ -	$ -	$ 60,500	$ 272,250	$ 484,000	$ -
Total	**$ (675,000)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 60,500**	**$ 272,250**	**$ 484,000**	**$ -**
IRR	3%									
Debt										
Initial Investment	$ (1,656,444)									
Debt Service - Interest	$ 3,681	$ 20,245	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693	$ 49,693
Debt Service - Principal	$ 12,270	$ 67,485	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644	$ 165,644
Total	**$ (1,640,493)**	**$ 87,730**	**$ 215,338**	**$ 215,338**	**$ 215,338**	**$ 215,338**	**$ 215,338**	**$ 215,338**	**$ 215,338**	**$ 215,338**
IRR	3%									
Solar Richmond										
Management Fee	$ 9,736	$ 53,340	$ 130,083	$ 127,276	$ 124,498	$ 121,443	$ 117,352	$ 112,235	$ 109,607	$ 107,005
Solar Richmond Buyout	$ -	$ -	$ -	$ -	$ -	$ -	$ (60,500)	$ (272,250)	$ (484,000)	$ -
Total	**$ 9,736**	**$ 53,340**	**$ 130,083**	**$ 127,276**	**$ 124,498**	**$ 121,443**	**$ 56,852**	**$ (160,015)**	**$ (374,393)**	**$ 107,005**
Net Revenue	$ 195,825									

Appendix B. Management

MICHELE MCGEOY

5706 San Jose Avenue | Richmond, CA 94804 | 510.858.6885 | Michele@SolarRichmond.org

EDUCATION

1981-1985 B.S. Computer Science, California State University — Northridge, CA

WORK EXPERIENCE

2005-Present Founder/Executive Director, **Solar Richmond** — Richmond, CA
Responsible for strategic vision and direction, built strong relationships with solar vendors, molded strategic alliances with partners and directed fundraising efforts

2004-2007 Solar Sales Technician, **Real Goods Solar** — East Bay, CA
Designed and implemented customer needs assessment tool based on electrical usage and available space to provide customer with professional sales packet including both economic and environmental analysis, determined appropriate panels and inverter, developed outreach and presentation strategy, and managed San Francisco, Alameda and Contra Costa territory
**Leading Northern California Sales Representative*

2002-2004 Fundraiser, **Generation Five** — Oakland, CA
Implemented database for donor tracking, managed major donor campaign, designed and managed direct mail campaign and raised money to support a $400,000 budget

1997-2000 President, **RH Solutions** — Berkeley, CA
Developed investment strategy appealing to the socially responsible investor, secured $750,000 in investment capital, supervised VP of Sales/Marketing, VP of product development and CFO, developed relationships with law firm partners and law school deans, presented papers and workshops at national conferences and designed web strategy

1998-2000 Chair, **Responsible Wealth** — Boston, MA
Worked with staff to develop national public relations strategy to highlight injustices in the tax system, spearheaded shareholder resolution efforts to contain CEO wages and promote living wages, spoke on over 20 national radio and television shows regarding economic justice, including CBS This Morning

2000-2001 Founder/Interim Executive Director, **A.S.A.P.** — Berkeley, CA
Managed staff in marketing and implementing web development business employing urban youth, secured over $500,000 in grant funding over three years and developed major donor development strategy

1985-1997 Founder/President, **Tailored Solutions** — Berkeley, CA
Developed of business strategy, completed fiscal responsibility for all operations, managed software development of law school administrative databases, built sales and marketing strategy and team and negotiated sale of business to West Publishing Inc.

OTHER EXPERIENCE

- Commissioner, **Richmond Economic Development Commission** — Richmond, CA
- Change Agent in Residence, **Bainbridge Graduate Institute** — Bainbridge, WA
- Speaker, **Alternative Staffing Alliance 2009 Annual Conference** — Minneapolis, MN
- Keynote Speaker, Interfaith Perspectives, **Jewish Community Relations Council** — Oakland, CA
- Recipient, **Duane Morris 2009 Leadership Award** — San Francisco, CA
  Received $25,000 and pro bono legal assistance
- Founding Board Member, **Green Sangha** — San Rafael, CA
  Green Sangha is a spiritual community committed to environmental activism
- Board Member, **United for a Fair Economy** — Boston, MA
  UFE raises awareness that concentrated wealth and power undermine the economy, corrupt democracy, deepen the racial divide, and tear communities apart. We support and help build social movements for greater equality
- Board Member, **Resourceful Women** — San Francisco, CA
  Resourceful Women helps wealthy women spend, invest and donate their money towards meaningful social change

KANDEA MOSLEY

87 Uptown Road Apt. A-207 Ithaca, NY 14850
607-262-0602 km288@cornell.edu

Education

CORNELL UNIVERSITY, Johnson Graduate School of Management — **Ithaca, NY**
Master of Business Administration, May 2009
Sustainable Global Enterprise Immersion
Forté Fellow, Energy Club, Marketing Association, Black Graduate Business Association

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA) — **Los Angeles, CA**
Bachelor of Arts, African American Studies, July 1998 Cum Laude
Philosophy Concentration, Honors Program
UCLA Undergraduate Student Body President, Outstanding Senior Award

Experience

Summer 2008 — **eSOLAR** — **Pasadena, CA**
Marketing Intern
- Conducted market research for a new product and service; identified sub-segments for product entry; research used to hire Director of Sales to develop the market
- Collaborated with marketing and engineering staff and outside experts to develop a high-level estimate of technological requirements for new service delivery

EI SOLUTIONS — **Pasadena, CA**
Marketing Intern
- Collaborated with an internal energy specialist, the VP of Marketing, and the design team to redesign the "Frequently Asked Questions" section of the website
- Researched 10 years of consumer poll data concerning solar energy

Spring 2008 — **CONSULTANT** — **Ithaca, NY**
AES Eletropaulo
- Analyzed factors contributing to illegal electricity consumption and weak market penetration in urban slum communities
- Created innovative business development strategy to increase market penetration in these locations, including the potential use of renewable energy systems
- Presented business development strategy to company leaders in Sao Paulo, Brazil

2004-2007 — **CORNELL UNIVERSITY PUBLIC SERVICE CENTER** — **Ithaca, NY**
Coordinator of K-12 Outreach
- Developed strategic partnerships to support low-income students in three school districts; collaboration led to the SciFair program with 150 students and teachers
- Researched grants to support project ideas; received a $ 1M U.S. Department of Education grant for an Upward Bound Project that is now fully operational
- Managed nine education-outreach programs involving 300 Cornell students per semester who worked or volunteered in 47 schools and community agencies
- Cornell University (CU) Student Organization 2005 Outstanding Advisor Award
- CU 2007 Employer Recognition Award

2003-2004 — **AMERICORPS, VILLAGE AT ITHACA** — **Ithaca, NY**
VISTA (Volunteers in Service to America) Volunteer
- Proposed and planned first strategic planning retreat; resulted in the development of year-long goals, team work plans, and executive board development
- Managed programs by coordinating event planning, marketing, and outreach

2001-2003 — **THE ITHACA JOURNAL** — **Ithaca, NY**
Daily Staff Reporter
- Reported all major stories and breaking news in six Tompkins County towns

Personal

- Tompkins County Action Board of Directors, Finance Committee
- Worked as a Freelance Reporter and Fact-checker, 2000-2001
- Completed two semesters of graduate work at NYU in American Studies, 1999-2000
- Completed Fellowship and Internships with reporters at the Village Voice, 1998-1999

Kumari Renee Fabio

5557 Marshall Street
Oakland, CA, 94608
(510) 735-1661

Qualifications Summary

- Effective in developing programs and reaching project goals
- Over fifteen years experience counseling adults and teens with behavioral, health and substance abuse issues
- Highly creative and intuitive problem solver with excellent people skills
- Excellent verbal communication, public speaking, team building and organizational skills
- Holistic Health Educator specializing in stress reduction and transformational therapy

Professional Experience

Program Development, Coordination and Management

- Managed and supervised program staff
- Provided women and youth with job effectiveness and leadership skills
- Developed positive mentor, role model and public speaking within Oakland and Berkeley Community
- Facilitated support groups and seminars in self esteem
- Developed and implemented programs for adults and youth

Counseling

- Motivated individuals to recognize and understand personal needs and problems
- Counseled adults and teens on behavioral problems, health issues concerns and personal crises
- Completed all reports and client case load files on schedule

Facilitator/Educator

- Family Conference Facilitator/Trainer
- Meeting Facilitator

Employment History

Case Manager/Resource Specialist	*Solar Richmond*	2008-Present
Edgewood Children & Family Services	San Francisco/San Carlos	2007-Present
Life Coach Private Practice	Oakland/Berkeley	2003-Present
Demo's By Design	Marin/Bay Area	2005-2007
Home Health Care	Oakland/Berkeley	2004-2006
Coordinator of Holistic Center	*San Francisco State University*	2001-2002
Program Developer/Case Manager	*College of Alameda WTW*	2000-2001
Counselor/Case Manager	*Compass Family Services*	1998-2000
Counselor/Case Manager	*BAART Methadone Clinic*	1995-1997
Assistant Program Developer	*Mtn. View Transitional House*	1993-1995
Youth Counselor	*South Berkeley YMCA*	1991-1993
Instructor/Facilitator	*Global Resources Institute*	1989-1994

Education

BA in Holistic Health Education, *San Francisco State University*
Certificate in Peer Counseling, *San Francisco State University*
California Certified Hypnotherapist

Volunteering

SYDA Foundation

Amrit Restaurant	Cashier, Server	1991-Present
Bookstore	Sales	1993-1996

John Russell

3700 20th Street, Apt. 12 • San Francisco, CA 94110 • jgrussel@gmail.com • (415) 578-5488

Summary of Qualifications: *Master of Science in Nonprofit Management with experience in business planning, financial modeling, sales, project management, fundraising, and volunteer recruitment and training. Conversant in Spanish.*

SELECTED PROFESSIONAL EXPERIENCE

PROJECT COORDINATOR – OWENS ELECTRIC AND SOLAR, 2008, San Mateo, CA
Solar electric sales and installation company.
- Designed residential and commercial solar electric systems up to 30kW including single and three-line diagrams using Microsoft Visio.
- Managed all aspects of system installation including permitting, materials, scheduling and inspections.

SALES CONSULTANT – OWENS ELECTRIC AND SOLAR, 2007-2008, San Mateo, CA
Solar electric sales and installation company.
- Generated, qualified and closed sales leads for residential and commercial solar electric systems.

MEMBERSHIP MANAGER – CREDIT BUILDERS ALLIANCE, 2007-2008, Washington, DC
Alliance of community development organizations promoting credit-based asset development products/services.
- Developed marketing plan to recruit clients/members for CBA Reporter credit reporting system. Generated 29 memberships and $22,000 in revenues in 6 months.
- Using Salesforce CRM software, provided customer support and technical assistance to microlenders.
- Assisted in the development of a Credit Builders Toolkit for community development organizations interested in using credit-based asset development strategies.

ENTREPRENEURSHIP PROGRAM DIRECTOR – ASTRACOR, 2007, Alexandria, VA
Training and certification of residential construction workers.
- Developed business plan and sought start-up financing for a worker-owned cooperative labor leasing company providing skilled tradesmen to the commercial construction industry.
- Designed and presented a series of Spanish-language workshops for potential construction subcontractors attended by 54 low-income, Hispanic construction workers.
- Provided one-on-one technical assistance to potential construction subcontractors including estimating, loan packaging, minority certification and marketing.

WARD 7 LEAD – DC CASH COALITION, 2007, Washington, DC
Network of free tax preparation sites serving Southeast Washington, DC.
- Managed 30 volunteers across three sites totaling 475 hours.
- Sites prepared taxes for 605 low-income clients totaling $687,000 in refunds, a 15% increase over 2006.

LOAN OFFICER – ECDC ENTERPRISE DEVELOPMENT GROUP, 2006-2007, Arlington, VA
Microfinance & financial services non-profit serving the unbanked in the DC Metropolitan Area
- Prepared car and business loan packages and presented them for review by the loan committee. Funded eight car loans worth $56,000 and three businesses worth $45,000 in two months.
- Managed free tax preparation clinics serving 140 low-income people resulting in $70,000 in refunds.
- Coordinated credit counseling services for three tax preparation clinics serving an additional 85 clients.
- Marketed loans and savings products through presentations to community groups and the development of partnerships with local banks and nonprofit organizations.

PROGRAM COORDINATOR – ASPEN INSTITUTE, 2005-2006, Washington, DC

Promotion of research and dialogue around the nonprofit sector and philanthropy

- Tracked and categorized federal expenditures of interest to the nonprofit sector and co-authored three separate reports using the data findings.
- Oversaw feasibility study of possible transformation of monthly email newsletter into a fee-based or advertising-supported publication.
- Directed $1.2 million annual budgeting process including program and grant-reporting budgets.

RESEARCH ASSISTANT – NATIONAL COMMITTEE FOR RESPONSIVE PHILANTHROPY, 2004,Washington, DC

Reform and oversight of private foundations

- Collected a sample of 4,000 grants made to evangelical Christian organizations from 40 foundations previously identified as politically conservative. Based on research of each grantee, the sample was categorized by project focus and political impact.
- Authored *Funding the Culture Wars: Philanthropy, Church and State*, which was published and distributed to over 1,000 foundation executives, nonprofits and the media.

PROGRAM ASSOCIATE – CENTER FOR VOTING AND DEMOCRACY, 2002-2003, Takoma Park, MD

Advocacy organization specializing in voting system reform

- Initiated an effort to form a coalition of electoral reform organizations called Democracy USA. Conducted outreach, wrote media releases and designed a website for the program, which led in part to a national conference attended by over 600 activists and academics. The website design and my implementation of a blast faxing system saved the organization $10,000.
- Assisted the director in the design of a new fundraising strategy. Created a foundation database and calendar to streamline this effort, researched prospective donors and produced direct-mail fundraising pieces. The strategy resulted in 25% more individual donations and 20 proposal submissions over a three-month period.

INTERNSHIP DIRECTOR – PROJECT VOTE SMART, 2001-2002, Philipsburg, MT

National, nonpartisan voter's research library

- Developed an internship recruitment strategy that included developing contacts with university faculty, designing brochures and posting on internet job sites. Resulted in double the previous organizational record for interns.
- Facing the arrival of 40 interns in a single day, created an orientation program that combined job-training and team-building activities. This allowed for the integration of the interns with a minimum of staff time expended.

EDUCATION

MS in NONPROFIT MANAGEMENT – NEW SCHOOL UNIVERSITY**,** 2005, New York, NY

- Business planning consultant to One-Stop Senior Services and FairVote
- Policy consultant to New York City Council Speaker and Seedco

BA in POLITICAL SCIENCE AND SPANISH – UNIVERSITY OF IOWA, 2001, Iowa City, IA

SOLAR INDUSTRY TRAINING

- Advanced Code-Compliant PV System Design and Installation, Bill Brooks, Instructor
- PV 101, Solar Living Institute
- Green Home Energy Retrofits, California Building Performance Contractors Association

SKILLS AND INTERESTS

- Languages: Conversant in Spanish
- Computer Proficiency: Excel, Access, Quark XPress, Microsoft Visual Studio, SalesForce
- Volunteering: Latin-American Youth Center, Arriba Juntos

Appendix B2: Solar Richmond Board of Directors

Madan Kumar (Chair) is co-founder of Arda Technologies and serves as the Vice President of Operations. He has also been an independent consultant to a major bio-tech company and to a manufacturer of semiconductor test systems. Before becoming a consultant, he was the Vice President of Technical Marketing at 3MTS, a provider of semiconductor test systems. He also served as the Managing Director of 3MTS Pvt. Ltd., a subsidiary corporation that he established in India. Prior to joining 3MTS, Madan was the Chief Technical Officer at HPL, a provider of software for yield optimization in wafer fabrication facilities. Madan earned a Ph.D. in Electrical Engineering from Stanford University for his work on a CAD tool for the automated generation of test chips and test programs for silicon foundries.

Gary Bell (Treasurer) brings more than 20 years of executive experience in the financial services industry and Richmond civic affairs. Gary is currently President and CEO of Cooperative Federal Credit Union in Berkeley and of his own start-up mortgage financing company, First Bankers Mortgage. Gary has also been very active in Richmond politics and community life. He served as a member of the Richmond City council for eight years and on a number of local government bodies including the Richmond Redevelopment Agency and the Joint Powers Financing Authority. Gary holds an MBA from JFK University.

James Hatfield is currently a Solar Design Consultant for Sun Light & Power. He is a Richmond resident, solar industry employee, environmentalist and father. James combines his experience in workforce development and the solar industry to assist Solar Richmond in achieving its goals. He enjoys piña coladas, getting' caught in the rain, he's not into yoga and he has half a brain.

Giselle Vigneron is an environmental attorney who joined the New York City Environmental Law Leadership Institute in February 2008 and developed a legislative proposal to promote green jobs in New York State. Prior to this pro bono work, Giselle worked for a number of environmental non-profits, the private sector and California State Government. In 2002, Giselle was appointed by former California Governor Gray Davis, to serve as Assistant Secretary of the California State and Consumer Services Agency. In this position, Giselle launched and implemented California's first state-run energy efficiency education program and directed a broad network of public and private partnerships to deliver energy efficiency education and facility improvements services to hundreds of schools in the underserved Central Valley. Giselle is the author of two published law review articles on compliance issues with international environmental law and co-authored articles on climate change, particularly the European cap and trade program, and green collar jobs. She earned her law degree at the University of Paris in France and an LL.M. in International Environmental Law at the University of Washington in Seattle. Giselle currently serves on the board of Solar Richmond, a non-profit organization dedicated to the use of solar energy and green collar jobs for the local community.

Toney Wright: Tony is the founder of ErthPort.com, an energy efficiency auditing company, and cofounder of Tuition Academy, a private tuition and back office management company for private schools. He also owns and operates L&A North East Property, a residential property investment firm. Anthony was formerly a Business Analyst at Lockheed Martin, where he was one of the lead analysts in the San Francisco municipal revenue installation. He also served as Senior Customer Service and Operations Manager at Hertz Rent-A-Car for the San Jose and San Francisco divisions, where his duties included overseeing the operations and profitability of seven profit centers. He was also the Customer Service Manager at the dot.com start up CommerceFlow.com, where he oversaw customer acquisition and vendor management.

Andrew Young is a lifelong resident of Oakland. He retired in May 2007, after serving for over thirty years as the compliance supervisor for the Oakland Regional Office of the National Labor Relations Board. Since then he has been active in a number of community organizations. He learned of Solar Richmond when he and his wife, Sylvia, had a photovoltaic system installed on their house, one of the first projects in which Solar Richmond partnered with a solar contractor to provide a work opportunity for graduates of its training program. Andy is very pleased to be on the Solar Richmond board, supporting efforts that are of particular interest to him--education, community development, and the environment.

Appendix C. Sample Media

SFGate.com

Job-training partnership for solar installers

Tom Abate, Chronicle Staff Writer

Wednesday, March 24, 2010

Clifton Broussard climbed onto a rooftop in Richmond and clipped his retractable harness to a catch bolt as he prepared to help install a solar energy array.

"Safety first," said the 20-year-old trainee, who was getting paid for the work through an innovative program that matches novices with solar-installation veterans.

Broussard recently completed a series of construction, energy-efficiency and solar training programs that culminated with his graduation from Solar Richmond, the nonprofit group that arranged his on-the-job training opportunity.

What makes the program innovative is that homeowners Richard and Barbara Sandow and the two companies involved in the transaction - the solar shopping site One Block Off the Grid and its installation partner groSolar - each contributed $112 to cover the $15-per-hour cost of paying Broussard.

"It's part of an experiment in community-building," said Michele McGeoy, executive director of Solar Richmond, who conceived the on-the-job training component to give trainees a better chance of finding a job in a tough economy. "We're hoping that the homeowner will be excited about having Clifton up on his roof."

The theory behind the program is that homeowners who install solar arrays, and the companies that are profiting from this green trend, will want to give a little extra to help trainees from their communities get jobs.

Homeowner Richard Sandow stood on the sidewalk, watching the work with the satisfaction of knowing that the $13,600 installation would cut his electricity bill close to zero.

"The $112 was like nothing," said Sandow, who was pleased that his extra payment would help Broussard, a Richmond native, gain paid experience toward a job in his chosen career.

Scaling up efforts

Dave Llorens, chief executive of One Block, said his San Francisco firm, a consumer education site that refers interested homeowners to selected installers, started offering the Solar Richmond partnership as a pilot project in December but is now ready to scale up its efforts.

"It's something we can do right now to help some of these kids get jobs," Llorens said.

Jeff Wolfe, chief executive officer of groSolar, a national installation firm with a Bay Area presence, said the idea of homeowners and solar companies teaming up to give trainees experience is a novelty.

"I think we'll see more programs like this springing up in the next 12 months," he said.

McGeoy said that since Solar Richmond started training in August 2007, about 90 graduates have sought careers in solar installation. Of these, 23 have landed permanent jobs. The group has found temporary work for another 32 trainees who have been hired as extra hands by solar-installation companies.

"Our plan is that they'll end up wanting to offer them full-time jobs," she said.

On the rooftop in Richmond, groSolar employees James Rudolph, 39, and Craig Clements, 24, were delighted to show Broussard the tricks of the trade.

"He's a quick learner," said Rudolph, who has been doing solar installations for about three years.

Broussard said he has been out on several temporary jobs and made contact with a couple of installation firms.

"Something is going to open up for me," he said.

Long-term opportunity

Wolfe, with groSolar, said that while hiring may be slow now, there is a long-term opportunity for graduates of training programs because installers are only scratching the surface in terms of market potential.

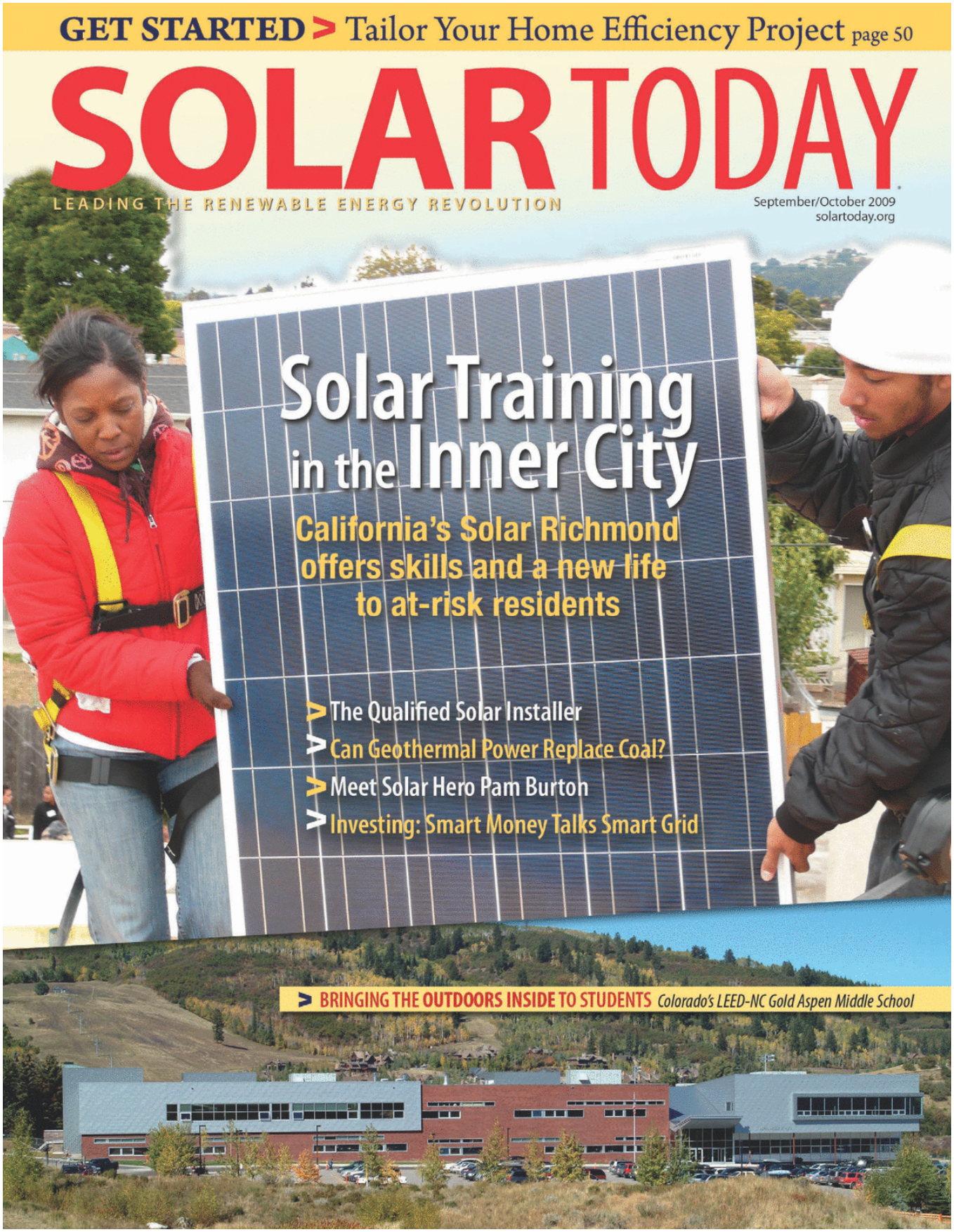
He said about 22,000 home systems were installed in the United States last year. During the same period, he said 4 million roofs were installed. Roofs, like solar arrays, have a 25-year lifespan, said Wolfe, who envisions that, over time, rooftop solar will become a market capable of sustaining millions of new or replacement units per year.

"There might not be a job when they get out," Wolfe said of today's trainees, "but there will be a job in the future."

E-mail Tom Abate at tabate@sfchronicle.com.

http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2010/03/24/BURA1CK509.DTL

This article appeared on page **D - 1** of the San Francisco Chronicle


GET STARTED > Tailor Your Home Efficiency Project page 50
SOLAR TODAY
LEADING THE RENEWABLE ENERGY REVOLUTION
September/October 2009
solartoday.org
Solar Training in the Inner City
California's Solar Richmond offers skills and a new life to at-risk residents
> The Qualified Solar Installer
> Can Geothermal Power Replace Coal?
> Meet Solar Hero Pam Burton
> Investing: Smart Money Talks Smart Grid
> BRINGING THE OUTDOORS INSIDE TO STUDENTS Colorado's LEED-NC Gold Aspen Middle School

FEATURES

SOLAR RICHMOND

SOLAR ENERGY INTERNATIONAL

COURTESY OF SANTA CLARA'S 2007 DECATHLON TEAM

Solar Training and Credentialing

ON THE COVER, with guidance from Solar Richmond Project Manager Angela Greene, program trainee Clifton Broussard gains hands-on experience installing a photovoltaic array on a low-income house in Richmond, Calif. See "Solar Training in the City," page 32. PHOTO BY TIBOR KNOWLES, SOLAR RICHMOND **Bottom, through sustainable building design, generous lighting and mountain views, Aspen Middle School teaches students environmental appreciation. Story on page 54.** PHOTO © 2007 FRED J. FUHRMEISTER/TIME FRAME IMAGES

coming in October: *Get Started 2010*
Completely updated and expanded, *SOLAR TODAY's Get Started* bonus issue returns. Don't miss our annual homeowners' guide to solar energy installations, including the Solar Buyers' Guide you'll want to keep handy year-round.

Articles appearing in this magazine are indexed in Environmental Periodicals Bibliography and ArchiText Construction Index: afsonl.com.

SOLAR TRAINING IN THE CITY

ZOEY BURROWS, SOLAR RICHMOND

For the past year, Daryl Horne has been gaining installation experience working transitional jobs at SunPower, SunWater Solar and now as an installer at SunEdison. Horne is a graduate of the 12-week RichmondBUILD Pre-Apprenticeship Construction Skills & Solar Installation Training program.

Daryl Horne was shot when he was 14 years old. He's been stabbed, sold drugs, and, at 16, he went to prison. Life wasn't always so chaotic for Horne. He was raised in a strict religious household with a father who was a successful businessman. But when his parents divorced, Horne's life began to unravel. Of his dad's seven children, five have been to prison and three have been shot. Horne's story, though unique, exemplifies the struggle that many black men living in urban settings face.

Now in his early 30s and the father of two, Horne is a graduate of a pioneering green-collar job-training program offered by the city of Richmond, Calif. As a program graduate, Horne is gaining experience installing solar systems with many of Northern California's leading solar firms.

The 12-week RichmondBUILD Pre-Apprenticeship Construction Skills & Solar Installation Training program includes hands-on training in construction, math, energy efficiency and photovoltaic (PV) and solar thermal skills. The city offers the program in conjunction with several green 501(c)3

SOLAR TODAY
SEPTEMBER/OCTOBER 2009
VOL. 23, NO. 7

In Richmond, Calif., a solar training and placement program offers skills and a new life to at-risk residents.

By **ZOEY BURROWS**

nonprofits, including Solar Richmond (solarrichmond.org), which brought solar training to the curriculum. Solar Richmond has staged the five-week solar training module three times per year since August 2007.

Executive Director Michele McGeoy founded Solar Richmond in 2006 to bridge the eco-divide that she observed while working at Real Goods Solar (realgoodssolar.com), an installation firm in Hopland, Calif. It was a gap similar to the digital divide she had witnessed during her years in Silicon Valley. McGeoy believed that it shouldn't be just white, relatively wealthy people who cared about and could afford things like solar energy, Priuses and global warming, but everybody. That's when she coined her personal mantra: "Solar is one great antidote to pollution, and jobs are one great antidote to violence."

Tailoring Training to Low-Income Residents' Needs

In 2006, McGeoy approached the mayor of her city, Richmond, often known for its polluting industries and high rates of violence and unemployment. Together they established three green goals for 2010: to get 5 megawatts (MW) of solar PV installed in Richmond; to offer training by way of 50 affordable solar installations for low-income homeowners; and to secure 100 new solar jobs for Richmond residents. Next she approached the employment and training department's new RichmondBUILD program and proposed bringing solar to the construction-oriented program, a proposal that was accepted.

JEN WILLIAMS, SOLAR RICHMOND

Since its founding by Michele McGeoy (center) in 2006, Solar Richmond has installed eight low-income home installations and created 35 green-collar jobs. Sen. Barbara Boxer (D-Calif., left), shaking hands with Solar Richmond Project Manager Angela Greene, visited in June, praising Solar Richmond's pioneering work.

Zoey Burrows (zoeyburrows@solarrichmond.org) manages development and communications at Solar Richmond, which serves the community through solar job training, creation and placement. Read more about Solar Richmond's groundbreaking work in *The Green Collar Economy*, the best-selling book by Van Jones.

"Solar is one great antidote to pollution, and jobs are one great antidote to violence."

— Michele McGeoy, founder and executive director of Solar Richmond

In January Solar Richmond persuaded the city to pilot a solar thermal rebate program. The program awards Richmond building owners $1,000 if they hire a Solar Richmond graduate on the installation job.

SOLAR RICHMOND

SOLAR RICHMOND

With so many people competing for green jobs, McGeoy's technique is to "move the job interview from the conference room to the rooftop, where our graduates will shine."

Partnership Helps St. Paul's Overcome Cost Barrier

For a growing number of church congregations, living out their values means incorporating energy efficiency and renewable energy in their places of worship. Parishioners at St. Paul's Episcopal Church in Walnut Creek, Calif., for years talked about going solar. Their goals: to reduce utility costs over time, offset greenhouse gas emissions and provide locals with meaningful work. But the cost was far outside of St. Paul's means.

In 2007, the church partnered with Solar Richmond to install a 135-panel rooftop system that supplies nearly all of the church's energy needs without adding any of the solar initiative's $187,000 cost to the parish budget. Although the 500-member church secured some donations, the bulk of financing was made possible through deposits from congregational investors. Led by the chair of St. Paul's environmental committee, investing parishioners banded together and formed a private company to take advantage of solar rebates and tax incentives. They named their limited liability corporation Sonlight Solar Power.

After the investments were secured, Sonlight and St. Paul's forged a power purchase agreement (PPA). Under the PPA, Sonlight owns the solar arrays and provides solar electricity to the parish at a fixed rate competitive with utility power. The funds that the church once spent on Pacific Gas & Electric bills now go to Sonlight to reimburse investors. The investors plan to transition ownership from Sonlight Solar to the church once all tax benefits are realized and their investments are repaid. The Rev. Sylvia Vásquez estimates that St. Paul's will begin to see considerable savings in 10 years or less and continue to benefit long afterward, as the panels are under warranty for 25 years.

Solar Richmond was able to secure *pro bono* assistance from a San Francisco law firm, Hanson Bridgett LLP, to represent the church throughout the PPA process. Although complicated, the model is one that Solar Richmond hopes to replicate.

CLICK: Access an autobiographical video of Solar Richmond training graduate Daryl Horne: solartoday.org/burrows

SOLAR RICHMOND

In 2006, Solar Richmond proposed adding solar to the city's new RichmondBUILD construction-training program. The solar training began as a one-week course, but as interest grew, it increased to five weeks, including a week of solar thermal training.

Each cohort includes 25–30 trainees, about 75 percent of them male. Roughly half of the trainees are black, 15 percent Latino and 10 percent comprise Asian and other low-income minority groups. All are residents who may not otherwise have a chance to break into the emerging green economy. Solar Richmond seeks to make the green economy an inclusive one, healing not only this planet, but our broken communities as well.

The solar training began as a one-week, 25-hour course, but as interest grew, it increased to five weeks, including a week of training in solar thermal technology. Initially, Solar Richmond trainers worked with the solar curriculum from the Hopland-based Solar Living Institute (solarliving.org). But participants complained that it was too much talking and not enough doing. So Solar Richmond has worked to tailor its training to its audience, focusing on hands-on installation while also touching on broader points like system wiring and sizing.

In addition to providing the training, Solar Richmond helps graduates like Daryl Horne break into the solar field. That's easier said than done, despite all the sunny forecasts about renewable energy and solar. Solar Richmond has created a solar bid-evaluation service that appeals to home and business owners with a slightly different pitch. By going green through Solar Richmond, McGeoy says, "Not only are you doing something good for the planet and your pocketbook, but for the *people* in your community, as well."

Placing Program Grads, Serving Local Firms

With so many people competing for green jobs, McGeoy's technique is to "move the job interview from the conference room to the rooftop, where our graduates will shine." In 2008, Solar Richmond set up its own staffing agency, which gives Bay Area solar companies incentives to hire its training graduates temporarily. These incentives include paying employee taxes, liability and insurance that the employer would typically owe.

For the past year, Horne has been gaining installation experience working transitional jobs at SunPower (sunpowercorp.com), SunWater Solar (sunwatersolar.com) and now as an installer at SunEdison (sunedison.com), where he hopes to be hired full time. At SunEdison, Horne helped install a 912-panel system at the

Blazing a Trail for Female Installers

ZOEY BURROWS, SOLAR RICHMOND

As the only female crewmember in all of SolarCity's West Coast crews, Sara Vergara encourages more women to get into the field.

SARA VERGARA, 20, a graduate of Solar Richmond's training, has been working as an installer at Solar City (solarcity.com) since late 2008 and loves it. As the only female crewmember in all of Solar City's West Coast crews, she encourages more women to get into the field.

When Vergara was interviewing for jobs as a new training graduate, prospective employers kept asking how much weight she could carry. But she notes that her success depends more on willpower, desire and hard work than physical strength. "Every day I work hard to prove them wrong," she says.

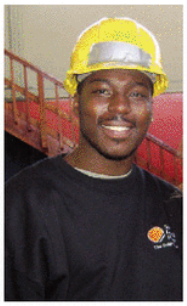
Long term, Vergara wants to study criminal justice and become a cop.

Show Your Support

Here's how you can help Solar Richmond trainees and share this training model nationwide:

1. Hire a program graduate for your installation crew or as a temporary installer.
2. Throw a house party, show Daryl Horne's video (solartoday.org/burrows) and inspire others.
3. Make a tax-deductible donation at solarrichmond.org.

Finding a Career, Not Just Another Job



ZOEY BURROWS, SOLAR RICHMOND

RichmondBUILD training graduate Wayne Gatlin

WAYNE GATLIN grew up an ambitious and curious kid in the projects around Fillmore, Calif. Despite earning the equivalent of an associate degree in psychology and criminal justice and working hard, he found it tough to land better than low-wage service-industry jobs. Now in his early 20s, his life changed when his mother received a flyer from RichmondBUILD inviting anyone to attend a presentation about the construction trades.

What Gatlin remembers about that presentation was the emphasis on working in a craft instead of just a job. He signed up quickly to learn carpentry. However, it was during the *solar* training module that he became most inspired. Gatlin was so excited by the live system he helped to install through Solar Richmond's training that during his job interview he was able to describe every detail. The project, which took place in conjunction with nonprofit Grid Alternatives (gridalternatives.org), was installed on a low-income home in Richmond. Within three months of graduation, Gatlin was offered a job by Sun Light & Power as a PV installer.

Gatlin has been working there roughly a year, building experience. He hopes to start his own solar business within five years. Although he doesn't consider himself an environmentalist or activist, Gatlin tries to be an example of what one can achieve with the right help and motivation.

"I am thankful for the coaches and instructors at Solar Richmond and RichmondBUILD for helping me to realize that solar power is the future and that I can be part of it," Gatlin says. He encourages friends to get training through the program and find their own green career paths.

Richmond BART station, part of the Bay Area's public transit system. By October, he and the crew are expected to complete a system at the Hayward BART station.

In addition to PV, program trainees are breaking into the emerging solar thermal field. Horne and program graduate Alberto Martinez both worked with SunWater Solar, a Richmond-based solar thermal company, to install a small system atop Richmond Fire Station No. 68. The system will offset 60 to 70 percent of the station's annual hot water load. Because the installation team was a small one, Horne and Martinez received lots of one-on-one guidance.

SunWater Solar President Justin Weil says he's glad for the opportunity to try Solar Richmond graduates before committing to hire. "It's much better than a typical labor pool company," he says.

In January, Solar Richmond hosted a focus group for solar employers including representatives from Akeena Solar (akeena.net), Sun Light & Power (sunlightandpower.com), Sungevity (sungevity.com), SunPower and several smaller solar companies. Participants discussed what they expect and desire when hiring newly trained job candidates. The resounding answer: soft skills, soft skills, soft skills! From showing up on time to being reasonably computer-savvy, solar representatives were more interested in attitude and professionalism than in specific hard skills.

Jumpstarting a Market to Feed New Jobs

In addition to its efforts to develop the green workforce, Solar Richmond has worked to promote solar policies in Richmond. In January, Solar Richmond persuaded the city to pilot a solar thermal rebate program. The program awards Richmond building owners $1,000 if they hire a Solar Richmond graduate on the installation job.

In the three years since founding Solar Richmond, McGeoy has seen great progress toward her initial goals. Nearly 4.87 MW of PV have been installed in Richmond as of July. In a 2008 NorCal Solar Energy Association report (at norcalsolar.org), Richmond was named among the top three cities for watts per capita of solar installed in the Bay Area. Solar Richmond has installed eight low-income home installations and created 35 green-collar jobs, both temporary and permanent.

SOLAR RICHMOND

In 2008, Solar Richmond set up its own staffing agency, which gives Bay Area solar companies incentives to hire its training graduates temporarily.

With a few hundred Richmond residents on the waiting list for the next training session, Solar Richmond is working to scale up its solar-promotion and job-creation services. For instance, the organization is working with local churches and other nonprofits to evaluate solar at community buildings. A pilot project Solar Richmond conducted in 2007 at St. Paul's Episcopal Church in Walnut Creek, Calif., offers a good model for cash-strapped organizations eager to support the local community and renewable energy (see sidebar on page 34). By promoting the benefits of solar to large building owners, Solar Richmond aims to fulfill its mission to install more solar and create more green-collar jobs. ST

Appendix D. Market Data

Introduction

The appendix provides a comprehensive market research within the targeted market for S4A – the Greater Bay Area, with specific focus on the City of Richmond. The potential clients for S4A are tax-exempt non-profit organization that own their buildings. This broad definition of non-profits includes welfare non-profits, churches and religious institutions, hospitals, schools, affordable housing, community centers, municipal buildings, etc.

This market research starts with macro information including geographic maps, total numbers of population, and total tax-exempt organizations in the area, and then examines the tax-exempt organizations by sub-category. Because not all the total numbers of tax-exempt NGOs that own their buildings are available from either the nine county assessors' offices or general information online, this appendix also makes some estimates and includes the estimation rationale.

Target Market: Greater Bay Area

The Greater Bay Area located in Northern California generally includes nine counties: Sonoma, Marin, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco.

Currently, the Greater Bay Area has a population of 7.3 million, with about 45,000 non-profit organizations operating within the region. By estimation, there are about 9,200 tax-exempt non-profit organizations that own their buildings in the Bay Area.

Map retrieved from www.solarpowerrocks.com.

Solar in the Greater Bay Area

According to the statistics from the report "California's Solar Cities" conducted by Environment California, California has experienced tremendous growth in the amount of solar power installations, from just 500 rooftops in 1999 to 51,000 solar roofs with more than 500 megawatts of solar power capacity in total in 2009. If the growth rate of solar installation keeps this compound annual growth rate of about 45-50%, California will be able to have about one million solar roofs by 2017.[1]

The Greater Bay Area in particular, has a number of cities which have been ranked among the top ten solar cities in California in terms of various measures:

Top 10 for Number of Solar Roofs		
Rank	City (County)	Number Solar Roofs
2	San Francisco (San Mateo)	1,493
4	San Jose (Santa Clara)	1,336
8	Santa Rosa (Sonoma)	729
10	Berkeley (Alameda)	648

Top 10 for Solar Capacity (kilowatts installed)		
Rank	Cities	Kilowatts AC installed
2	San Jose (Santa Clara)	15,818
5	San Francisco (San Mateo)	12,763
6	Santa Rosa (Sonoma)	11,212
8	Oakland (Alameda)	7.007
10	Richmond (Contra Costa)	6,286

[1] Environment California, *California's Solar Cities*, http://cdn.publicinterestnetwork.org/assets/YM3W81JComzW53sx1fgAiw/Californias-Solar-Cities.pdf (accessed April 22, 2010).

Top 10 for Solar Roofs per Household		
Rank	Cities	Solar roofs/# households
2	Sebastopol (Sonoma)	15.5%
4	Portola Valley (San Mateo)	10.1%
5	Los Altos Hills (Santa Clara)	7.7%
10	Sonoma (Sonoma)	5.8%

Potential Clients

Number of tax exempt / non-profit organizations: 45,186
Number of tax-exempt / non-profit organizations with their own buildings: 9,222

County	Population (2009)	# Non-Profits	# Non-Profits That Own Buildings *(estimation)*
Alameda	1,556,757	9,589	2,205
Contra Costa	1,060,435	5,161	955
Marin	258,618	2,679	327
Napa	137,571	931	214
San Francisco	845,559	8,198	1,915
San Mateo	745,858	3,876	828
Santa Clara	1,857,621	9,569	1,516
Solano	426,729	1,833	422
Sonoma	486,630	3,350	840
Total	**7,375,778**	**45,186**	**9,222***

*Please see the section “estimation rationale” to see basic estimation assumptions

Number of private schools: 1,221
Number of religious institutions: 3,279

County	# of Private Schools			# of Religious Institutions
	Grades 9-12	Grades PK-8	Total	
Alameda	54	198	252	742
Contra Costa	43	131	174	477
Marin	12	44	56	128
Napa	16	22	38	76
San Francisco	42	101	143	408
San Mateo	23	99	122	310
Santa Clara	58	214	272	687
Solano	16	44	60	213
Sonoma	38	66	104	238
Total	**302**	**919**	**1,221**	**3,279**

Number of Boys/Girls Scouts: 16

Name	Location	Phone
Girl Scouts of Northern Ca	7700 Edgewater Drive, Oakland	(510) 562-8470
Butano Creek Girl Scout Camp	11740 Dublin Boulevard, Dublin	(925) 899-4022
	1400 Canyon Road, Pescadero	(650) 879-0661
S F Bay Girl Scout Council	Springhill Road, Lafayette	(925) 284-1058

Boy Scouts Of America-Scout Shop	1001 Davis Street, San Leandro	(510) 633-2005
Boy Scouts of America	1150 Chess Drive, Foster City	(650) 341-5633
	1001 Davis Street, San Leandro	(510) 633-2005
	1100 James Place, El Cerrito	(510) 235-8312
	10 Highland Way, Piedmont	(510) 547-4493
	225 West End Avenue, San Rafael	(415) 454-1081
	1000 Iron Springs Road, Fairfax	(415) 459-9530
Boy Scouts of America Council	1714 Everett Street, Alameda	(510) 522-2772
Boy Scouts Troop 204	3502 School Street, Lafayette	(925) 283-1282
Boy Scouts Santa Clara County	26005 Highway 9, Los Gatos	(408) 867-7610
Boys Scouts Of America - Stanford Area Council	1305 Middlefield Road, Palo Alto	(650) 327-5900
Boy Scouts of America - Mt. Diablo-Silverado Council	800 Ellinwood Way, Pleasant Hill	(925) 674-6100

Number of United Way: 3

Name	Location	Phone
United Way of the Bay Area (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Solano Counties) (www.uwba.org)	221 Main St, Suite 300, San Francisco	(415) 808-4300
United Way of the Wine Country (www.unitedwaywinecountry.org)	418 B St, Suite 400 Santa Rosa	(707) 528-4485
United Way Silicon Valley (www.uwsv.org)	1400 Parkmoor Ave, Suite 250, San Jose	(408) 345-4300

Number of Goodwill: 88

Estimation Rationale

The appendix found two measures to estimate the number of tax-exempt organizations/NGOs that own their buildings in one county: (1) from the total number of NGOs or (2) from the total number of tax-exempt parcels in a specific region. Since the appendix only got comprehensive information of the tax-exempt properties from Contra Costa County's assessor office, the appendix chose 5 cities of Contra Costa County – Richmond, Clayton, Concord, Pleasant Hill, and Walnut Creek – to derive the average percentage of NGOs that own their buildings from the two measures. The first calculated assumption is that on average, 23% of the total NGOs own their buildings in one area. The second calculated assumption is that on average, among all the tax-exempt parcels/buildings in one area, only 74% of them are owned by respective NGOs with no repetition (because some NGOs own more than one tax-exempt parcel/building). In other words, the appendix uses the real information of the 5 cities to calculate and project estimates. Detailed calculation is shown as follows.

Selected City	A	B	C	C/A	C/B
	# of NGOs	# of tax-exempt parcels	# of NGOs that own buildings		
Richmond	456	317	188	0.41	0.60
Clayton	54	15	11	0.20	0.73
Concord	512	182	132	0.26	0.73
Pleasant Hill	206	42	37	0.18	0.88
Walnut Creek	719	104	79	0.11	0.76
			Average:	0.23	0.74

Measure I: Deriving from total number of tax-exempt parcels (C/B)

For those counties that the numbers of tax-exempt parcels are available from the assessors' offices – Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Sonoma, because some NGOs own more than one tax-exempt parcels/buildings, the appendix used 74% as the average percentage to calculate the numbers of NGOs that own tax-exempt parcels/buildings with no repetition.

County	Tax-exempt parcels by category					Total # of tax-exempt parcels	Estimated # of NGOs that own buildings with no repetition
	Welfare	Church	Religious	Hospital	Schools		
Contra Costa	511	27	647	29	77	1,291	955
Marin	442					442	327
San Francisco	1,800	370	195		223	2,588	1,915
San Mateo	810		259		50	1,119	828
Santa Clara	1,180		692	35	141	2,048	1,516
Sonoma	868	23	244			1,135	840

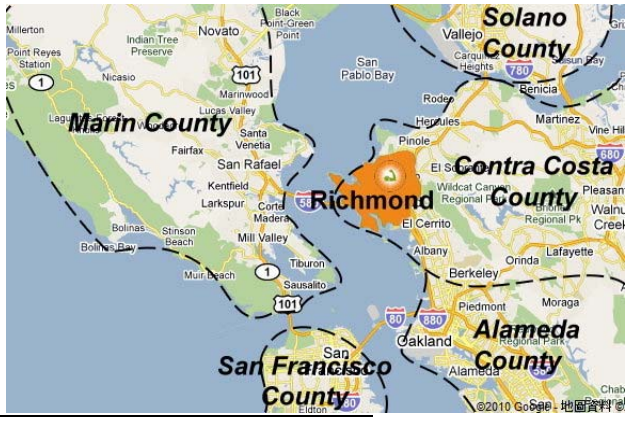
Measure II: Deriving from total number of NGOs (C/A)
For those counties that only have information regarding total numbers of NGOs – Alameda, Napa, and Solano, the appendix used 23% as the average percentage of NGOs that own their buildings in one county to make general estimates.

County	Total # of NGOs	Estimated # of NGOs that own buildings
Alameda	9,589	2,205
Napa	931	214
Solano	1,833	422

Limitations:
There are a number of limitations within the estimation. First, some counties do not track which non-profits own their own buildings. Instead they keep records based on the number of assessor's parcel numbers which receive exemptions. Second, there may be more than one structure on each parcel, there may be only partial exemptions on some properties, and a few may be land trusts which have no structures. Also, some counties count government-owned buildings toward welfare exempt buildings.

Target Market Focus: City of Richmond

Overview
City of Richmond currently has a population of 99,216 and 456 tax-exempt or nonprofit organizations operating, with 188 of them owning their buildings. Potential clients by detailed category can be reviewed as follows.



Potential clients

Number of tax exempt/nonprofit organizations: 456
Number of tax-exempt/nonprofit organizations with their own buildings: 198

Tax exempt buildings by category	Number
Welfare	60
Religious	118
Hospital	1
Schools	19

Number of private schools: 15

School	Students	Grades	Location
Salesian High School	526	9-12	2851 Salesian Ave.
La Cheim School Inc	80	5-12	5625 Sutter Ave.

New Faith Christian Academy	55	KG-12	830 Macdonald Ave.
Family Christian Academy	34	KG-12	160 Broadway
Richmond Education Learning Center	21	3-12	600 S. 16th St.
St David Elementary School	329	PK-8	871 Sonoma St.
Pacific Academy	256	PK-9	1615 Carlson Blvd.
St Cornelius Elementary School	204	KG-8	201 28th St.
Canterbury School	131	KG-8	3120 Shane Dr.
Vista Christian School	122	KG-8	2354 Andrade Ave.
La Petite Academy	97	PK-KG	3891 Lake Side Dr.
Montessori Community School	22	PK-KG	1963 Carlson Blvd.
Odyssey School	8	KG	1800 Barrett

Number of Boys/Girls Clubs: 2

Name	Location	Phone
West Contra Costa Salesian Boys & Girls Club (www.bgca.org)	2801 Moran Avenue, Richmond	(510) 215-4646
Boys & Girls Club Of El Sobrante (www.bgcelsobrante.org)	4660 Appian Way, El Sobrante	(510) 223-5253

Number of YMCA: 2

Name	Location	Phone
YMCA of the East Bay (www.ymcaeastbay.org)	4300 Lakeside Dr, Richmond	(510) 262-6551
West Contra Costa YMCA (www.westcc.ymcaeastbay.org)	263 South 20th St, Richmond	(510) 215-4670

Number of Salvation Army locations: 7

Name	Location	Phone
Salvation Army Family Store	13577 San Pablo Ave, San Pablo	(510) 236-0847
Richmond Corps Community Center	4600 Appian Way, El Sobrante	(510) 262-0582
Oakland Adult Rehabilitation Center	601 Webster Street, Oakland	(510) 451-4514
San Francisco Chinatown Corps Community Center	1450 Powell Street, San Francisco	(415) 781-7360
San Rafael Corps Community Center	351 Mission Avenue, San Rafael	(415) 459-4520
Salvation Army Family Store	350 Fourth St., San Rafael	(415) 454-7201
Golden State Divisional Headquarters	832 Folsom St, San Francisco	

Number of Goodwill Stores: 6

Name	Location	Phone
Retail Store & Donation Center	12341 San Pablo Avenue, Richmond	(510) 965-1833
Donation Center	7501 Schmidt Ln, El Cerrito	(510) 698-7200
Retail Store & Donation Center	3730 San Pablo Dam Rd, El Sobrante	(510) 758-4968
Retail Store & Donation Center	2058 University Ave, Berkeley	(510) 649-1287
Retail Store & Donation Center	6624 San Pablo Ave, Oakland	(510) 428-4911
Retail Store & Donation Center	607 Parker Ave, Rodeo	(510) 799-4662

Number of hospitals: 13 (neighborhoods: 15 in San Pablo, 12 in El Cerrito, 14 in El Sobrante)
Number of private collages/universities: 1 (Argosy University - Richmond)[2]

[2] California State of Association of Counties
TaxExemptWorld.com (www.taxexemptworld.com)
Assessor's Offices of Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Sonoma Counties
The Association of Religion Data Archives (www.thearda.com)
Private School Review (www.privateschoolreview.com)

Appendix E. Strategic Review

S4A SWOT Analysis Format (1)

Internal

Strengths

Mission / Structure
- S4A has strong ethical values to achieve people- and eco-friendly goals.

Worker-Related
- Solar Richmond's green-collar job training has established a good reputation.
- S4A works with well-trained solar installation workers and constantly provides them with comprehensive support and wraparound services.

Customer- Related
- S4A's PPA financing option allows nonprofit organizations that would otherwise be unable to go solar to save money and to reduce their environmental footprint and pollution.
- Except for targeted customers, S4A can further attract customers who want to empower local communities as well as to adopt clean energy solutions.

Sales / Market
- S4A is expected to have break-even or positive operating revenue.
- S4A's focus on smaller solar installation size is currently unique in the market.
- S4A collaborates with local solar vendors and integrators and complements their work.
- The integration of PPA installation and green-collar job creation makes S4A distinctive in the market.

Weaknesses

Product-Related
- A nonprofit customer roof leaks or needs reroofing.
- Solar panels are damaged or stolen.
- The solar inverter malfunctions.

Sales / Market
- S4A only raises half the capital it requires.
- The store needs to differentiate itself from other local solar installation organizations and staffing agencies.

External

Opportunities

Mission / Structure
- S4A as a subsidiary of the nonprofit Solar Richmond may have the leverage of some tax-exempt benefits and volunteer recruiting.

Customer-Related
- Changing consumer lifestyles potentially increases the demand for clean energy.
- Nonprofits which haven't gone solar is an unfulfilled customer need.

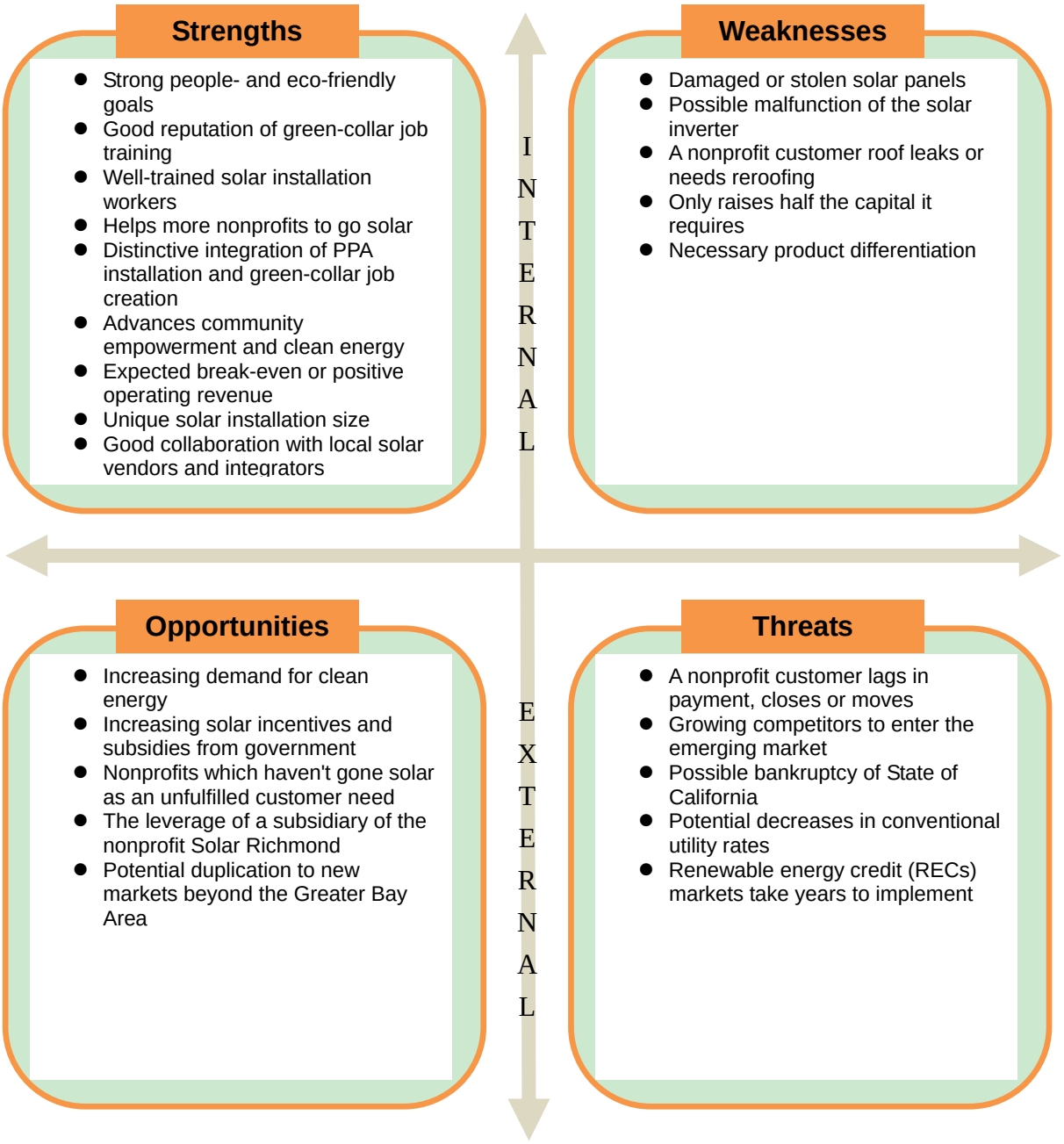
Sales / Market
- Increasing solar incentives and subsidies offered by the government are beneficial for the whole solar industry.
- Once S4A establishes its reputation and operates smoothly, it can duplicate its model to new markets beyond the Greater Bay Area.

Threats

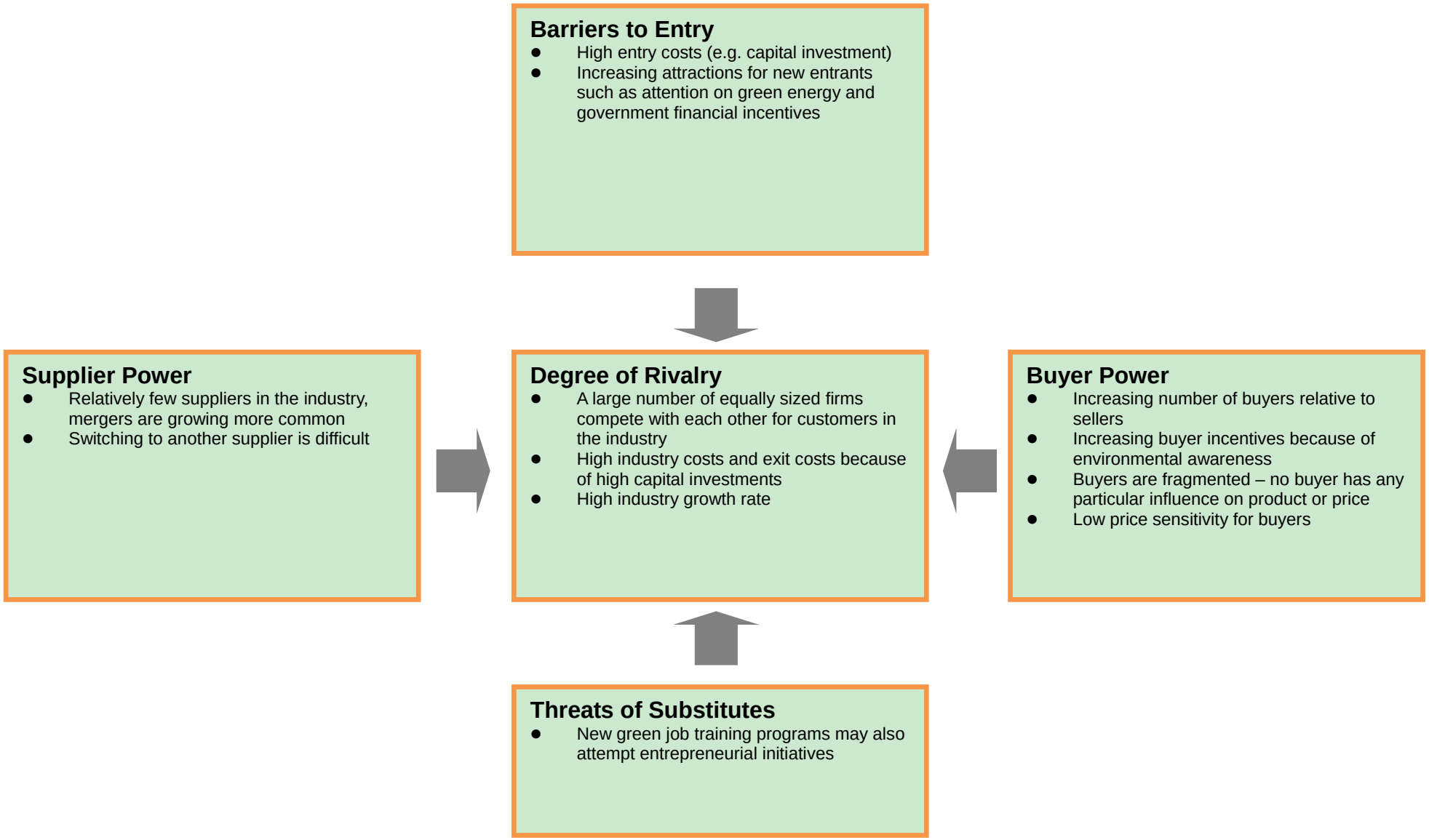
Customer- Related
- A nonprofit customer lags in payment, closes or moves.

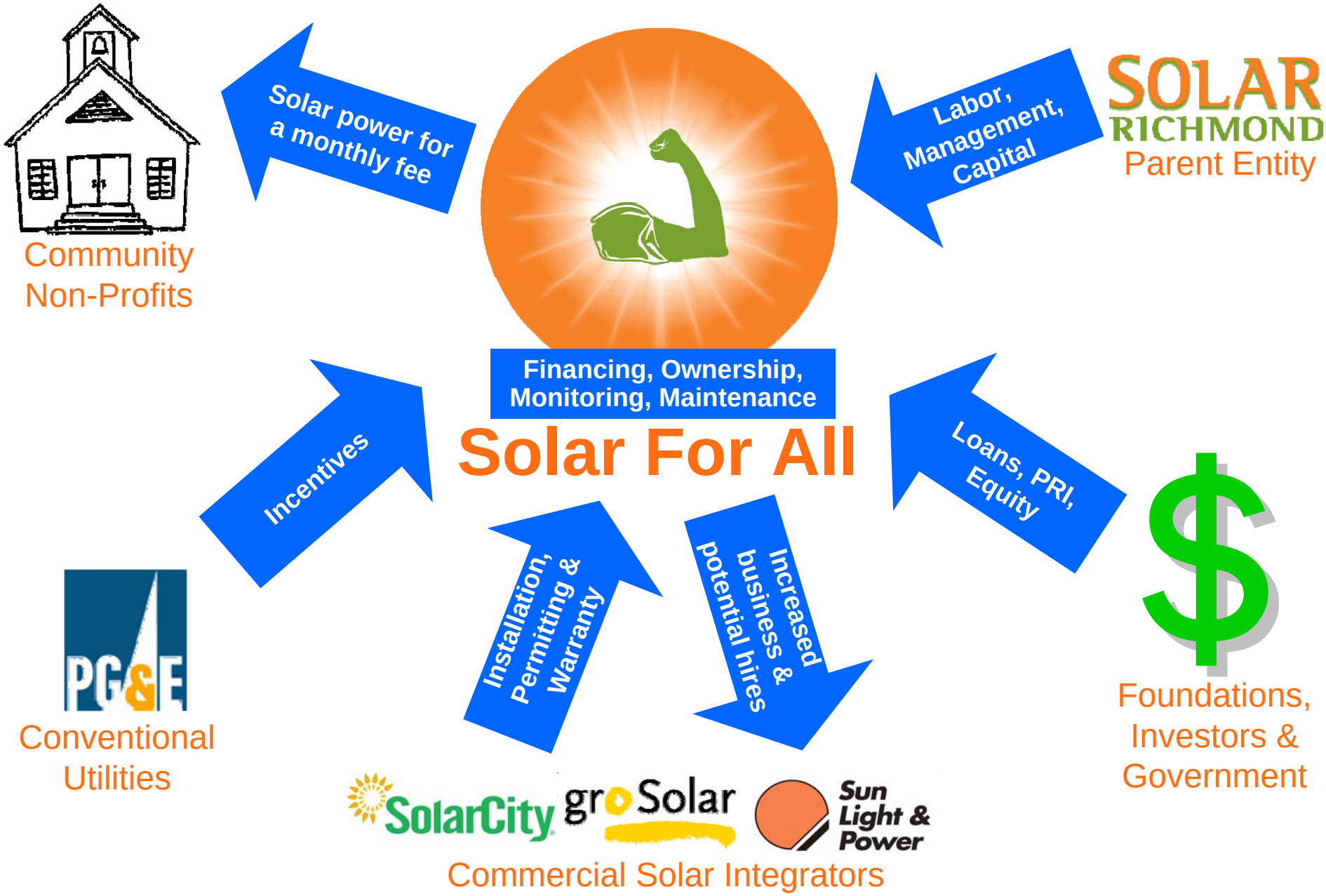
Sales / Market
- More competitors are expected to enter the emerging solar market.
- The possibility of State of California going bankrupt may affect government incentives and subsidies for the solar industry.
- Potential decreases in conventional utility rates may affect the need for solar energy.
- Renewable energy credit (RECs) markets take years to implement.

S4A SWOT Analysis Format (2)



Porter 5 Forces Analysis for Solar Industry




Solar power for a monthly fee
Labor, Management, Capital
SOLAR RICHMOND
Parent Entity
Community Non-Profits
Financing, Ownership, Monitoring, Maintenance
Solar For All
Incentives
Loans, PRI, Equity
Installation, Permitting & Warranty
Increased business & potential hires
PG&E
Conventional Utilities
Foundations, Investors & Government
SolarCity
groSolar
Sun Light & Power
Commercial Solar Integrators