Preliminary Analysis:
Will SB 843 Promote
Community Solar Gardens?

January 16, 2012

Contents

Introduction

SB 843 (Lois Wolk), sometimes referred to as an off-site net metering or community solar gardens bill[1], is due to be re-introduced in the California legislature in 2012. The bill provides for a form of virtual net metering in California. Virtual net metering is a way of extending the benefits of net metering to utility customers who are renters, or who do not have an appropriate on-site location for hosting solar PV panels. Under SB 843, these customers can purchase a portion of a shared solar PV facility. These "subscribers" receive the credit for their share of the electricity generated, as if the panels were located on their own property. SB 843 is similar to Colorado's Community Solar Gardens Act and Washington's Community Solar Enabling Act.

Because SB 843 provides for sharing of solar facilities, it presents the possibility that it could further the development of community-based or collective ownership models for local renewable electricity generation.

The purpose of this Local Clean Energy Alliance (LCEA) analysis is to make an assessment of who would be the main beneficiaries of the legislation and to evaluate the potential of SB 843 for advancing the development of community-based models of renewable electricity generation. For the purpose of this analysis, it is assumed that the term "community solar garden," generally refers to a solar PV project that is "owned, developed and controlled in full or in part (50 per cent or more) by residents of the community in which the project is located."[2]

[1] Officially called the Community-Based Renewable Energy Self-Generation Program

[2] This is a definition for community power used by the Ontario (Canada) Sustainable Energy Association (http://www.ontario-sea.org/Page.asp?PageID=751&SiteNodeID=202&BL_ExpandID=44).

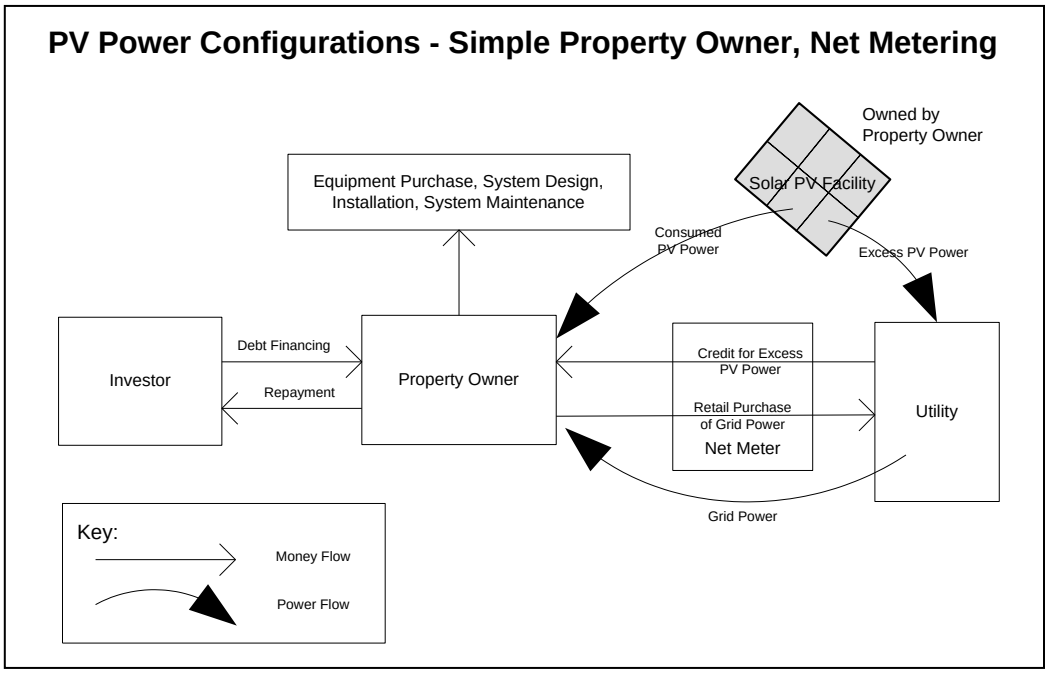
To be more specific, this analysis is looking at the potential of SB 843 to promote solar PV projects that have the following characteristics:

- They should be in or near an identifiable community
- They should be owned and controlled by the community through transparent democratic decision making
- They should be locally financed
- They should enable participation by low-income communities
- They should employ a local workforce (using local training programs) for development and maintenance
- They should employ land use policies that preserve agricultural land and environmentally sensitive habitat
- They should be flexible enough (over 20 years) to allow for enhancements such as residential energy upgrades, electricity storage, smart grid, and best practices

The SB 843 Shared Solar Facility Model

Virtual net metering, as represented by SB 843, is an extension of net metering. To understand what this means, consider the basic net metering model shown in Figure 1.

Figure 1



In the net metering model, a property owner, working with a designer, equipment venders, installers and others, builds a solar PV facility on his/her property. The facility provides electricity "behind the meter" so the property owner does not have to purchase that energy from the electric utility.

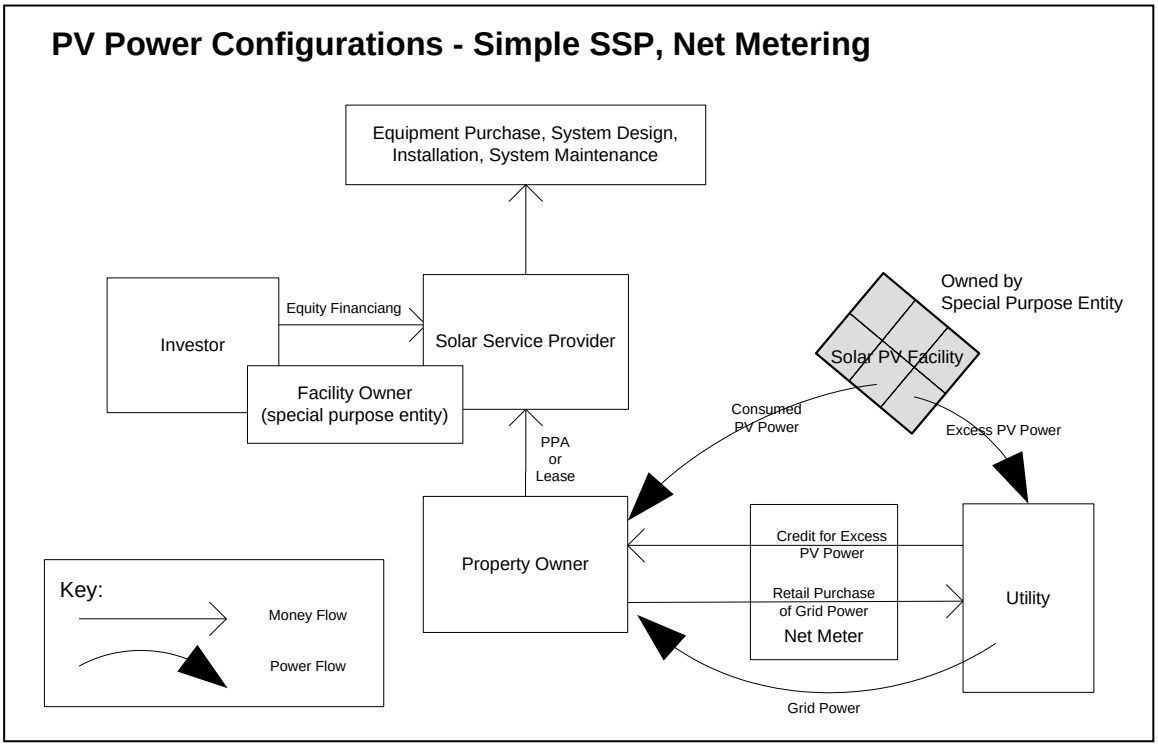
Any excess electricity generated beyond what is consumed on the property is fed into the grid and credited to the property owner against power needed from the grid (for example, at night, when there is inadequate generation from the solar PV facility). This is the notion of the *net*

meter—it reads the net electricity consumed from the grid. At the end of a billing cycle, any net excess credits are carried forward to the next cycle. At the end of a year, if the solar PV facility has provided a net excess of electricity to the grid, the owner is reimbursed for that electricity at a rate set by the California Public Utilities Commission (CPUC), currently a low rate of about $.05/kWh.

In practice, most property owners do not have the expertise to find financing and integrate the work of system designers, equipment venders, installers, and system maintenance providers. Typically what they do instead is employ a developer—a solar service provider (SSP)—to organize and perform this work, as shown in Figure 2.

Typically the SSP seeks financing for the project from an equity investor who is able to benefit from depreciation of the assets and receive a 30% federal investment tax incentive. The SSP typically collects state rebates offered by the California Solar Initiative and owns the renewable energy credits (RECs) associated with electricity generated by the facility. (RECs can be sold on the market.) Making use of these incentives, the SSP can lower the effective cost of the electricity generated by the solar PV facility (calculated as a levelized cost over the 20-year lifetime of the facility).

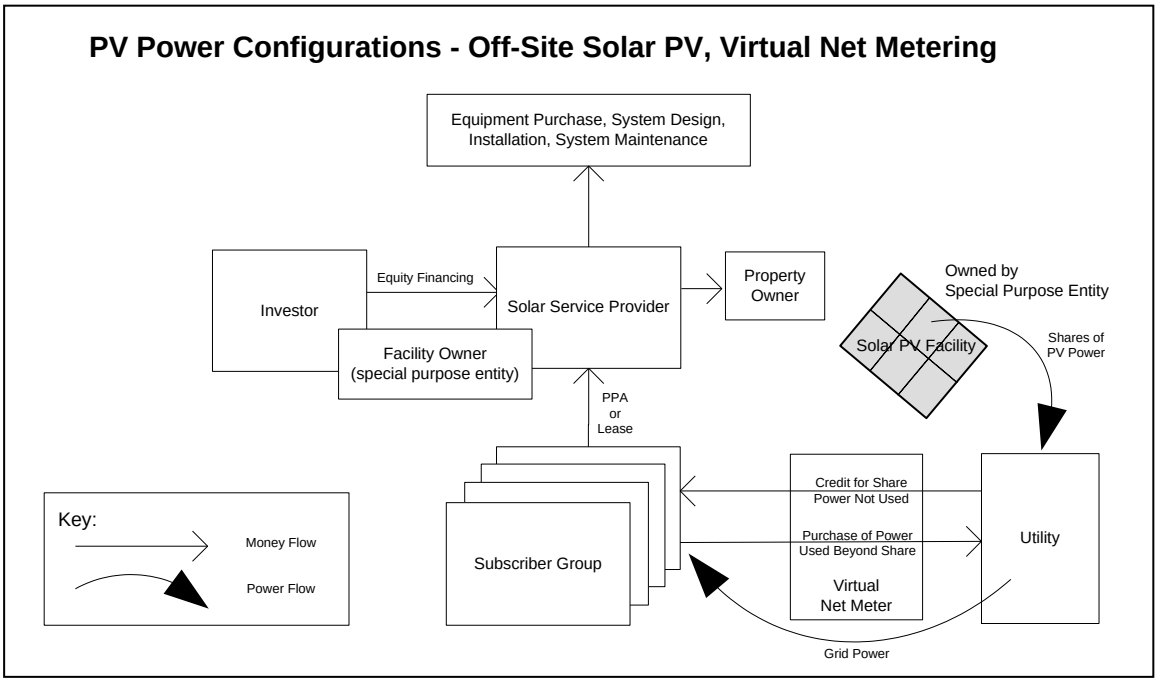
Figure 2



While in some cases ownership of the resulting solar PV facility will reside with the property owner, it is quite often the case that the SSP owns the facility and the property owner signs a lease or a power purchase agreement with the SSP to secure the generated electricity.

Virtual net metering extends the net metering model by replacing the single property owner in Figure 2, who has a local solar PV facility on his/her property, with a subscriber group that "shares" an off-site solar PV facility, as shown in Figure 3.

Figure 3



The subscriber group can be a set of renters who share a solar PV facility located on a multifamily housing property, as in California's Multifamily Affordable Solar Housing (MASH) program, or it could be any arbitrary group of electricity customers that wish to share a solar PV facility located within their utility's service area, as provided for by SB 843.

In the case of virtual net metering, all of a subscriber's electricity comes from the grid—there is no "behind the meter" generation—but the utility treats the subscriber as if he/she were a net metering customer, accounting for his/her share of the solar PV facility's electricity generation as if it were on site, hence the term *virtual* net metering.

Under SB 843, the developer of a shared solar PV facility (the SSP) would rent or own a site on which the solar PV facility would be installed. Shares in the facility would then be offered to subscribers, either as a long-term purchase (repayment of a long-term purchase loan) of a fixed amount of generating capacity (ranging from one kilowatt to two megawatts) or as a power purchase agreement for a number of kilowatt-hours of energy per month.

As with net metering, any excess electricity provided by a subscriber's share beyond what is consumed by the subscriber is fed into the grid and credited against power needed from the grid (for example, at night, when there is inadequate generation from the solar PV facility). At the end of a billing cycle, any net excess credits are carried forward to the next cycle. At the end a year, if the share has provided a net excess of electricity to the grid, the subscriber is reimbursed for that electricity at the same rate set by the CPUC for net metering.

Also like net metering, a combination of tax incentives, depreciated assets, renewable energy credit ownership, and, in this case, *economies of scale*, can, in theory, allow the SSP to generate energy for less cost than what subscribers are paying for their shares, thereby providing the SSP's margin of profit.[3]

[3] For a discussion of economies of scale for solar PV, see John Farrell, Institute for Local Self Reliance, at (http://energyselfreliantstates.org/content/solar-pv-economies-scale-improve-2010). This report does not

This is the basic model implied by SB 843. If the subscriber group is a set of electricity customers in a community sharing a solar PV facility installed in or near that community, one might think of the facility as a "community solar garden."[4]

SB 843 itself does not require a subscriber group to use a solar service provider (SSP) or to seek equity financing for a solar PV facility or do any of the things that cede ownership or control to another entity. It would be possible under the law for a group to organize a project, provide the financing, buy equipment, hire installers, and then own a solar PV facility, and possibly get a better overall deal, just like an individual property owner could. But that is not the model implied by SB 843 because most community groups would not have the financial strength or technical know-how to do this in a way that optimizes costs or quality or financial benefits. And the incentives, like the 30% tax incentive and depreciation allowances and the like, are meant to favor profit-making businesses. See the following two sections.

The Economics of Net Metering

Net metering is typically of most benefit to residential utility customers who consume a relatively large amount of electricity. Because utility electric rates are tiered—you pay higher rates as your electricity usage increases—high-end consumers pay premium prices for electricity. The tiered rate structure is meant to discourage high-end consumption and encourage conservation.

What this tiered rate structure means in practice is that high-end customers get greater benefit from a solar PV facility than do low end customers. If energy from an on-site solar PV facility costs \$0.23/kWh[5], and you are currently paying \$.30/kWh for high-tier usage[6], then you can save \$0.07/kWh by generating electricity from a solar PV facility on your property. If you are a low-tier customer, however, paying only \$.12/kWh, then installing a solar PV facility would be of no immediate economic benefit. Hence the value of a solar PV facility depends on your level of consumption.

Of course some residential customers install solar PV as a hedge against utility rates that have been rising about 7% per year.[7] So even if solar PV is not cost effective today, it can provide

---

distinguish between rooftop and ground-mounted systems, but these probably have similar characteristics. Economies of scale are not generally due to the fact that panels are that much cheaper in quantity, but because other factors like design, permitting, financing, administrative, legal and other transactional costs are leveraged over more kilowatts as installations get larger.

[4] See the description of community solar gardens at the beginning of this document.

[5] This is an approximate levelized cost of electricity for residential-scale solar PV in California. It is based on a value (\$0.21) reported for a 2 MW facility by Energy and Environmental Economics (E3) at http://www.e2.org/ext/doc/SB843_Analysis_E3_20June2011.pdf adjusted for an approximate time-of-delivery factor (1.3) and then scaled up by a factor (1.4) taken from John Farrell's discussion of economies of scale, previously cited: (0.21/1.3) x 1.4 = 0.23.

[6] The rates for tiered usage shown are based on the PG&E residential rate structure: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_E-1.pdf. Note that the rates include a generation charge and a distribution charge (both of which are tiered), as well as a large number of other charges (the biggest of which is the public purpose program charge). Of the three investor-owned utilities in California, only PG&E currently has a tiered structure for the generation component. However, in July 2012, PG&E will be adopting a flat (un-tiered) rate structure for generation charges. This will tend to reduce somewhat the skewing of net metering benefits toward high-end users.

[7] The figure 6.8% is quoted in an article by Tioga Energy at http://www.earthtoys.com/emagazine.php?issue_number=08.08.01&article=tiogaenergy. A figure of 4.1% is

price stability against increasing utility rates**.** Future rate increases are not possible to predict with any great degree of accuracy, but the prospect of a fixed rate versus an increasing rate can be persuasive to many.

When you generate on site most of the electricity you consume, any electricity that you need to purchase from the grid is in a lower usage tier, and hence at a lower rate, than would normally have been the case. If you are already a low-tier user, there would be no such advantage. In addition, because of rates set by the CPUC, any net excess generation over the course of a year would not pay for the investment in excess capacity.

What all this means is that net metering is economically most beneficial to high-end energy users. If you have low-end energy requirements because you are poor or because you conserve energy, net metering programs are of little or no direct advantage. In fact, the California Solar Initiative, which provides rebates for solar PV facility installation, is considered a regressive program: surcharges on everyone's energy bills are used to fund subsidies for solar PV facilities that are beneficial mainly for high-end consumers.

In addition, when electricity customers are removed from a utility (essentially what happens when you generate your own power), the utility is left with stranded costs—it can't recover investments it made on behalf of customers it has lost. This puts the burden on the remaining customers. Also, by drawing high-end user revenues away from the utility, net metering drives utilities to obtain more revenue from low-end users—in effect, making low-end users subsidize high-end users.

Furthermore, the tax benefits that make solar PV installations economically viable are mainly accessible to profit-making businesses. Non-profit institutions, public agencies, community organizations, marginal businesses, and most residential homeowners are not generally able to participate in net metering programs without working through an SSP. Not having up-front capital or equity for financing an on-site solar PV facility drives non-profit electricity customers into leasing a facility from an SSP or into purchasing power from an SSP, just to realize even limited benefits from net metering.

Because the benefits of net metering are accessible mostly to high-end electricity users and/or organizations with tax liability, net metering has not been widely adopted, especially in low income communities and in the non-profit sector. To capture these consumers, solar PV development must be de-coupled from electricity consumption and regressive tax incentives that are embodied in net metering.

The Economics of Virtual Net Metering

In general, the same economic characteristics hold for virtual net metering as for net metering: if the cost of electricity shares of a solar PV facility (over the long run) is not lower than the price of electricity from the utility (over the long run), there would be little reason to subscribe to a shared facility.

However, one aspect of SB 843 will make it *more* difficult for electricity customers to benefit from virtual net metering than from net metering. With net metering, the cost of electricity generated by an on-site solar PV facility does not have any associated distribution cost. However in the case of SB 843, subscribers of a solar PV facility obtain their share of electricity from the grid and *have to pay distribution charges for that electricity*. Hence the

---

assumed as a future growth rate by Energy and Environmental Economics (E3) at http://www.e2.org/ext/doc/SB843_Analysis_E3_20June2011.pdf.

cost of electricity from a shared off-site solar PV facility would include not only the cost of generation but also distribution charges, which typically amount to a third to a half of the entire bill.

All other factors being equal, the cost of electricity from an off-site solar PV facility would therefore be considerably higher than from an on-site facility. Put another way, the electricity generated by an off-site solar PV facility will have to compete with the generation-only component of utility electricity rates. This provision significantly changes the economics of virtual net metering compared to net metering.

For example, if a shared solar PV facility were installed over the parking lot of a condominium complex, then condominium-owners who subscribe to the facility would have to pay not only the cost of the electricity generated by the facility, but also distribution charges, even though the facility is on the property. The same would be true for a neighborhood solar PV facility built by a homeowner association to benefit its members.

What this provision of SB 843 means is that developers of shared off-site solar PV facilities will find it more difficult to compete with prices of electricity offered by utilities than is the case for on-site facilities.[8] Developers will therefore be forced to pursue economies of scale—developing shared solar PV facilities that are large (probably 2–20 MW in size)[9], in remote or rural locations where land or property values are very low, or where grid interconnection fees are relatively low. In such cases, the subscriber group would generally need to be quite large. (For example, a 3 MW solar PV facility would require about 1,000 residential subscribers.)

Most likely this provision would also mean that the RECs associated with the electric power generated by the facility would be sold by the facility owner in order to lower the price of shares in the facility. Selling the RECs means that the subscriber group cannot claim it is receiving renewable power from the facility: some other party, either the utility or another buyer of the RECs, is the legitimate claimant to the renewable attribute of the power generated and is using the solar PV facility to meet *their* renewable power obligations or commitments.

In the end, what virtual net metering will probably look like under SB 843—in cases where it is economically viable—is essentially a group of subscribers buying power directly from a solar PV facility developer at a price lower than what it would cost from their utility (estimated over 20 years). This is similar to the direct purchase of power by some municipalities and other large institutions that have brokered deals with Direct Access providers. In the case of virtual net metering, however, the "Direct Access" provider is an SSP supplying power to an otherwise unrelated group of subscribers, while the utility accounts for the share of the facility held by each subscriber.

---

[8] This effect is demonstrated by a study of SB 843 by Energy and Environmental Economics (E3) at http://www.e2.org/ext/doc/SB843_Analysis_E3_20June2011.pdf that showed that large solar PV facilities in the 2-20 MW range could generate electricity at a levelized cost below the price of utility-supplied electricity only if utility rates were assumed to rise at 4% per year over twenty years. At current rates, even large facilities could not compete with utility rates. This study assumed 2010 capital costs for solar PV, which will probably decrease over the next few years.

[9] An example of this scale is the 5 MW Sunset Reservoir project in San Francisco, one of the largest urban solar PV facilities in the country, which covers an area the size of 12 football fields.

The Potential for Community Solar Gardens under SB 843

The impetus for SB 843 is the possibility of tapping a market of electricity consumers, who do not have the opportunity to build on-site solar PV facilities, with the goal of developing profitable solar PV facilities in the 2–20 MW range. These facilities would be located within the distribution system (to not require new transmission lines), but because of their size would not generally be located within urban centers. While they might fill an important development niche between small scale residential/commercial facilities and utility-scale central station power plants, such facilities have little resemblance to community solar gardens.

As mentioned in the introduction of this analysis, the concepts normally associated with the term community solar garden are perhaps best expressed by the Ontario (Canada) Sustainable Energy Association, which describes community power projects as: "a class of sustainable energy projects that are owned, developed and controlled in full or in part (50 per cent or more) by residents of the community in which the project is located."

Under this definition, "community power proponents include local residents, farmer collaboratives, co-operatives, First Nations (Native Americans), municipalities and other institutions working to develop local sustainable energy projects."[10]

While in a strictly technical sense, SB 843 would make it possible for a community-based subscriber group to pool its financial resources and invest in developing a shared solar PV facility from which individual subscribers and the community would benefit, the reality is that because of the economics such a community solar garden arrangement would be relatively difficult to achieve under the virtual net metering model represented by SB 843.

To create a community-based project in which a community installs, collectively owns, and economically benefits from a shared solar PV facility would mean, in essence, that the subscriber group would itself have to act as the equity investor or would have to work through an SSP, which generally owns and controls the facility.

The community-based subscriber group would need to build a solar PV facility in the community and be able to purchase capacity shares of the facility or purchase electricity shares at a price low enough to compete favorably with utility prices. The economics would not appear to be very advantageous, especially at community scale.

Working through an SSP avoids the necessity of up-front financing and leverages tax-based incentives, but ownership and control rests with the SSP and the costs of equity financing combined with the SSP's profit margin could well set a cost on subscriber shares that is prohibitively expensive.

Under conditions like these, it is hard to imagine how a community-based subscriber group in a normal or low-income community, urban or rural, would be able to create under SB 843 a solar PV facility that meets the characteristics itemized in the introduction of this analysis: namely, one located in the community, controlled by the community, providing electricity savings to the community, economic development, jobs, and/or community empowerment.

[10] http://www.ontario-sea.org/Page.asp?PageID=751&SiteNodeID=202&BL_ExpandID=44

Changes to SB 843 Needed to Support Community Solar Gardens

To address the barriers discussed above, SB 843 would need provisions that further the creation of real community-based solar gardens—addressing location, scale, ownership, affordability, and environmental impact.

The following issues would need to be addressed:

- **Location**:

  The bill provides no limit on the distance subscribers can be from their shared solar PV facility, requiring only that the facility be in the same utility service territory as subscribers. The PG&E service area extends from Humboldt County all the way down to San Bernardino County.

  To promote community solar gardens, SB 843 could require that that a solar PV facility be close to its subscriber group, for example, in the same county or within 10 miles of its subscriber base. Thus, San Francisco residents could participate in installations that are nearby but still outside the city/county proper. This would help ensure that the project would promote local economic development. SB 843 could include provisions that support the use of a local workforce to build and maintain the project and thereby support local training programs.

  Better yet, SB 843 could specify that if a shared solar PV facility is within a mile or so of all subscribers (or on the same low voltage distribution circuit), then those subscribers would pay minimal distribution charges on their share of the electricity generated by the facility. This would immediately promote neighborhood-based solar PV development.

- **Scale**:

  The bill allows for solar PV facilities up to 20 MW (about 160 acres), and the economies of scale will clearly favor developers of large facilities. At this scale, development will be out of reach of urban centers, even large community groups, and local developers. These are not solar gardens—they are industrial-scale solar farms.

  To promote community-scale solar gardens SB 843 could provide incentives to encourage development of facilities small enough (generally less than 1 MW) to be sited in populated areas. This would mean adding provisions to SB 843 that reduce capital costs for smaller facilities, such as incentivizing permitting and approval processes that are streamlined below 1 MW, facilitating the aggregation of small projects to minimize transaction costs, or providing incentives for use of commercial urban rooftops, parking lots, or otherwise unproductive urban property.

  Another method to incentivize smaller facilities is to implement a tiered REC structure giving a higher price to facilities smaller than 50 kW. (There is a provision in Colorado of this sort.)

- **Subscriber Ownership and Control**:

  SB843 is unclear about how a SSP transfers ownership of the solar PV facility to a subscriber group. The assumption appears to be that ownership resides with the SSP until a facility's end of life. Similarly, the bill has no provisions by which a subscriber group has decision-making power that is exercised democratically, unless the subscriber group is providing the original equity financing of the project.

To promote community solar gardens SB 843 could encourage mechanisms by which subscriber groups can assume ownership and control of a shared solar PV facility long before its end of life, and specifically after the tax benefits have accrued to the developer. In addition, the financial and governance arrangement could be flexible enough (over 20 years) to allow for residential energy upgrades, battery storage, and other energy enhancements.

- **Low-income Communities**:

  The bill assumes standard financing mechanisms and incentives for solar PV facilities that are not accessible to non-profit entities or low-income communities. Such communities would need to employ an SSP, which would essentially deny the community control over the project, and siphon off significant return on investment.

  To promote community solar gardens, SB 843 could include provisions that enhance the ability of low income communities to develop shared solar PV facilities, such as low interest financing, accessibility to brownfields or urban disturbed land or rooftops at little or no cost, technical assistance, or other measures that would make shared solar PV facilities more economically viable to such communities.

- **Land Use**:

  SB843 currently has no provisions requiring responsible land use: that would avoid siting solar PV facilities on agriculturally productive or environmentally sensitive land. Lacking such provisions developers could exploit cheap or readily available private land that would threaten ecologically sensitive habitat or other environmental values. Opposition from environmentalists would create a negative image for solar PV development and undermine the building of a constituency needed to promote local renewable energy development.

  To promote community solar gardens SB 843 could foster wise land use that will minimize opposition on environmental grounds to solar PV facilities. It could explicitly call for development on brownfields, marginal agricultural land, rooftops, parking lots, and other disturbed land, while restricting development on agriculturally productive or environmentally sensitive land.

Some of the provisions suggested above for promoting community solar gardens within SB 843 would require financial subsidies or incentives. The fragile economic state of the California budget could be an impediment to providing the financial resources required. However, the development of local renewable power has many economic benefits to the state energy system that can be leveraged to provide such financial resources.

For example, because the generation profile of solar PV coincides with peak power demand (when electricity prices are high), solar PV drives down the overall price of electricity in wholesale electricity markets, resulting in significant savings (this is known as the merit order effect). Hence, the development to scale of solar PV facilities would provide substantial system-wide economic value through avoided costs to utilities. This value can be tapped to provide financial incentives for promoting local renewable generation.

Thus SB 843 could create a Community Solar Gardens Development Fund financed by a small fee deducted from these system-wide savings by utilities for every kWh of electricity generated by new solar PV facilities. This fund would be used to promote the development of community solar gardens—in particular, shared solar PV facilities sized 1 MW and smaller—for subscriber groups consisting of low income communities, non-profit collaboratives, co-operatives, municipalities, and similar communities.

The fund could also be financed through a modest, graduated levy on electricity generated by shared solar PV facilities larger than 1 MW. In this way, a small portion of the benefits that accrue from economies of scale under SB 843 could be used to promote development of community solar gardens.

In effect, the operation of a Community Solar Gardens Development Fund is similar to the California Solar Initiative (CSI) program, which taps ratepayer bills to subsidize solar PV installation, except that the CSI residential rooftop program results in more affluent homes being subsidized, while the program being proposed here would incentivize community solar gardens. In fact, the CSI low-income rebates could be modified to allow for funds to be used for solar garden projects in low-income communities.

Because SB 843 as currently written does not address the issues discussed above, which are crucial to the promotion of community solar gardens as the term is generally understood, the "community solar garden" language used by proponents of SB 843 is rather misleading. The changes suggested above regarding location, scale, ownership, affordability, and environmental impact of solar PV facilities under SB 843 could bring the bill into alignment with a framework for virtual net metering that promotes community solar gardens.

Local Clean Energy Alliance Position on SB 843

Virtual net metering as represented by SB 843 and as currently written, does not unlock the latent potential for expansion of local renewable energy nor does it provide a vehicle for the development of community solar gardens. At a minimum, tapping the potential for community solar gardens would require changes in the bill to promote a qualitatively different kind of solar PV project development.

To the extent that such changes are made in SB 843, the LCEA would support the bill. In the absence of such changes, we would call on promoters of the bill to refrain from marketing the bill as community solar gardens legislation. We would emphasize that it is not a policy likely to encourage the development of local renewable energy, in general, or community solar gardens, in particular.

To successfully promote the development of community solar gardens might require a different kind of policy framework. Both net metering and virtual net metering are based on an approach of crediting electricity consumers for electricity generated by on-site or shared off-site solar PV facilities. In the case of net metering the value of PV-generated electricity is critically dependent on utility pricing policies and user consumption levels; in addition, there is an economic dis-incentive to provide net electricity to the grid. In the case of virtual net metering under SB 843, the value of PV-generated electricity is dependent on the pricing of utility-generated electricity, which is heavily subsidized (nuclear power) or based on existing cheap fossil fuel power.

In both net metering and virtual net metering, investment in solar PV electricity is relatively risky and dependent on tax incentives not generally available to local residents, non-profit collaboratives, co-operatives, municipalities, and other institutions working to develop local sustainable energy projects.

To capture these sectors, solar PV development needs be de-coupled from both consumption levels and regressive tax incentives. Instead, solar PV electricity generation needs to be profitable in its own right.

Rather than a consumption-based policy framework, what is needed is a production-based policy framework: one in which the value of solar PV electricity generation is based on the

cost of generation (or the avoided cost of producing fossil-fuel electricity), in which the risk of utility electricity pricing uncertainty has been eliminated, and in which it is economically advantageous to provide net electricity to the grid.

This is what a feed-in tariff policy framework does. It provides long-term guaranteed competitive prices for renewable energy generation, based on standard-offer contracts. Feed-in tariff programs have given rise to spectacular growth rates of local solar PV generation in Germany and many other countries.

With feed-in tariff programs, communities are encouraged to invest in and benefit from renewable energy generating facilities because such projects are simple and relatively risk free. Electricity generation is not tied to electricity consumption in any way, so generating capacity can expand to maximize available resources. Removing income and consumption level barriers means that under feed-in tariff programs communities are able to participate more fully and profitably than under net metering.

In an effort to address the 2-20 MW market, SB 843 might well compete with the development of feed-in tariff policies. Within California generally, and within Governor Brown's 12,000 MW distributed generation initiative, there is an ongoing struggle over two different development models. The utilities and large developers favor what they call market-based approaches like SB 843 or the Renewable Auction Mechanism (RAM), which they claim will drive down production costs. Community economic development advocates, on the other hand, are calling for government policies like feed-in tariffs that encourage the growth of solar PV technology based on a broad set of economic benefits. To the extent that these two development models compete for public backing, one could move forward at the expense of the other.

In this way, SB 843's focus on market competition to develop renewable resources could serve as a fetter on the development of local community-based resources, holding back policy alternatives, such as feed-in tariffs, that could provide for qualitatively better, more equitable growth.

Short of a robust feed-in tariff program in California, however, virtual net metering policy, as embodied in SB 843, needs to be configured with explicit provisions for advancing community solar gardens.

The Local Clean Energy Alliance is the Bay Area's largest clean energy coalition, with 90 affiliated member organizations, including environmental justice, social justice, environmental, business, and community groups. The Alliance sees the need for an integrated state energy policy that includes both energy demand reduction resources and local renewable generation resources. We believe that it is through integrating both these types of resources that communities can achieve their full greenhouse gas reduction and climate adaptation potential while enhancing local economies, providing clean energy jobs, and improving community health.