Notes regarding submitting comments on this Draft Work Product:

Comments are Due November 30th, 2017.

Comments shall be no longer than 5 pages.

Comments should be submitted to LDBPcomments@ebce.org

Agency as Developer Strategy

for

East Bay Community Energy

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INTRODUCTION

Alameda County's Community Choice Aggregation (CCA), East Bay Community Energy (EBCE), has determined that spurring and utilizing local distributed energy resources (DERs) will be an integral part of its mission. To accomplish this mission, a multi-pronged approach will be advisable in order to maintain low energy sourcing costs while adequately stimulating the local distributed energy market and achieving regional and municipal clean energy goals. One potential strategy can be called "Agency as Developer," by which EBCE member organizations partner with EBCE to collaboratively procure renewable energy and energy storage on municipal properties within the EBCE service territory. By compiling multiple properties with similar characteristics, EBCE and its partner agencies can take advantage of economies of scale to reduce energy costs and administrative and legal burdens, and can quickly scale up DER development on strategic facilities or at targeted locations. The Joint Powers Authority (JPA) structure and make-up of EBCE presents a unique opportunity to build upon previous solar procurement strategies and initiatives undertaken by member jurisdictions in the JPA, as well as those pursued by neighboring municipalities, to support the goals of EBCE's Local Development Business Plan (LDBP).

BACKGROUND

Collaborative procurement of DERs has a strong history in the San Francisco Bay Area and, particularly, in EBCE territory. In 2011, the cities of Albany and Piedmont partnered with the cities of El Cerrito and San Pablo, along with non-profit leader Strategic Energy Innovations, to obtain a US Environmental Protection Agency (EPA) grant to form the Small Cities Climate Action Partnership (ScCAP).[1] Among other shared sustainability initiatives, the ScCAP, with energy consulting firm Optony Inc., brought together municipally-owned facilities into a single Request for Proposals (RFP) for on-site solar development across multiple small contracting agencies. Due to the relatively small sizes of the cities, financial and staff-time costs of pursuing clean energy individually was a barrier to achieving citywide clean energy goals. Through the aggregation of multiple small and medium- size city facilities, feasibility assessment and RFP management tasks were handled more efficiently than through a "one-off" process, and sites that otherwise would not have been pursued for clean energy development currently have operational solar systems in place.

[1] See website: https://archive.epa.gov/epa/statelocalclimate/small-cities-climate-action-partnership.html

Figure 1. Regional solar collaborative procurements

This ScCAP procurement was built off of the success of the collaborative solar development process (SV-REP—Silicon Valley Renewable Energy Procurement) initiated and led by the County of Santa Clara in 2009, in conjunction with the cities of Milpitas, Morgan Hill, Mountain View, Cupertino, Pacifica, and Los Gatos, and the Santa Clara Valley Transportation Authority and South Bayside Waste Management Authority. SV-REP was the first major aggregation of its kind for clean energy projects, conceived through the private-public efforts of regional convener Joint Venture Silicon Valley and national think tank World Resources Institute.[2] In that initial SV-REP initiative, approximately 45 municipal sites from the 9 participating agencies were aggregated into a single RFP that covered over 14 MW of potential solar development. Of this potential, nearly 12 MW was ultimately constructed, with pricing 12-14% lower than prevailing prices for individual solar projects on similar government facilities. Additionally, with the County of Santa Clara taking the lead on RFP management and contract negotiation, partner agencies experienced an estimated 50-75% reduction in administrative and legal costs and effort than if they had pursued such projects on their own.[3] From the experience and lessons learned, a best-practices guide (*Purchasing Power: Best Practices Guide for Collaborative Solar Procurement)*[4] was developed, and has been widely distributed and followed by subsequent initiatives across the nation.

[2] See website: https://jointventure.org/initiatives/completed-initiatives/solar-procurement/sv-rep
[3] Goodward, Jenna, Rachel Massaro, Benjamin Foster, and Caroline Judy. 2011. *Purchasing Power: Best Practices Guide for Collaborative Solar Procurement*. Washington, DC: World Resources Institute.
[4] See website: https://jointventure.org/images/stories/pdf/purchasing-power-guide.pdf

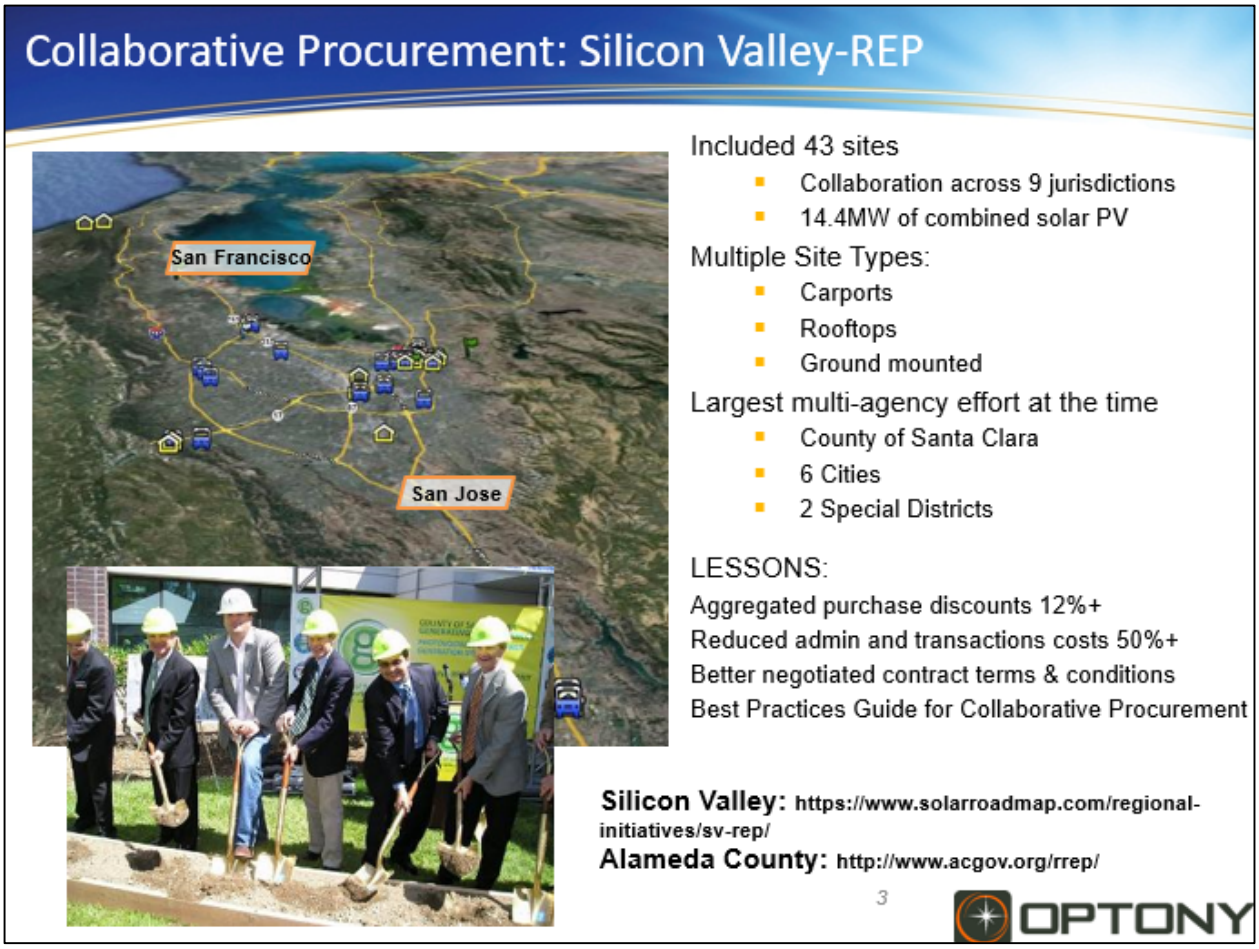

Figure 2. Sample slide of SV-REP results[5]

After the SV-REP and ScCAP programs, in 2012, the County of Alameda endeavored to put together the largest aggregation of sites and public agencies for clean energy procurement that had ever been created. With 19 public agencies in the East Bay, South Bay, and Peninsula, and approximately 186 municipal sites, the Regional Renewable Energy Procurement (R-REP) brought municipal solar purchasing to new scale.[6] Approximately 31 MW of solar was presented to the vendor community for development, including sites in the EBCE communities of Berkeley, Emeryville, Fremont, Oakland, and the County of Alameda itself, as well as with the Hayward Area Recreation and Park District and University of California-Berkeley. The vendor response was impressive, with 16 DER developers qualifying and 13 ultimately submitting proposals for almost 23 MW of projects. Sites made available through this program continue to be developed, with over 13 MW built to-date.

The successes (and lessons learned) of all of these ambitious procurement programs led to further enhancements of the collaborative solar purchasing model, and the model has been replicated in

[5] Slide from Whelan, Jonathan. "Council of Independent Colleges in Virginia: Collaborative Solar Procurement." American Solar Energy Society: SOLAR 2016, July 12, 2016.
[6] See website: https://www.acgov.org/rrep/progress.htm

other places across the United States, including among municipalities in Central New York[7] and among private colleges in Virginia,[8] garnering attention and funds from organizations such as the US Department of Energy (DOE). In all cases, the central ideas remained the same: harness standardization and economies of scale in feasibility assessments, procurement processes, contract documents, financing instruments, and construction materials, to increase vendor interest, drive down pricing, reduce barriers to entry for interested site owners, and generally make it easier and less costly for municipal site owners to say "yes" to on-site solar development.

FURTHER INNOVATION

The collaborative solar procurement model was enhanced in 2012, with the creation of the Sustainable Energy and Economic Development (SEED) Fund. The SEED Fund, created as a partnership between San Francisco Bay Area firms Optony and Strategic Energy Innovations, received a grant from the California Solar Initiative (CSI) to pilot a twist on the municipal aggregation process.[9] Since costs for feasibility assessments and procurement management were seen as barriers to entry for some municipalities in the SV-REP and R-REP programs, the SEED Fund sought to use investment funding from CSI to cover those upfront costs to participants, making involvement in the procurement financially free, commitment-free, and risk-free. Only if the feasibility assessments, RFP, and contract negotiation processes led to signed and constructed projects would the participating agencies reimburse the SEED Fund for performing these services, "re-seeding" the SEED Fund as a revolving fund. If agencies elected not to pursue projects at any of several off-ramp periods, they were free to walk away with no repercussions, leaving with investment-grade feasibility assessments for potential use in future solar development projects. The revolving fund, replenished from projects that did proceed, would then be (and has been) used to drive additional rounds of collaborative procurement of clean energy projects.

The North San Francisco Bay area operated as the first SEED Fund host region, with 13 public agencies participating, led by the City of San Rafael.[10] As the revolving fund started to receive reimbursements from successfully-developed projects, a second round of procurement was undertaken in the Monterey Bay area, with the County of Santa Cruz leading 7 other agencies.[11] Currently, a third round of procurement is underway in the Sierra Mountains region,[12] with additional funding provided through the US DOE's Solar in Your Community Program,[13] to help ensure that the concepts of the revolving fund and reduced barriers to entry were brought to rural and underserved communities.

[7] See website: http://www.cnyenergychallenge.org/municipal-solar-initiatives
[8] See website: http://my.solarroadmap.com/ahj/smp-icv/view
[9] See website: http://www.solarroadmap.com/regional-initiatives/seed/
[10] See website: http://www.solarroadmap.com/regional-initiatives/north-bay/
[11] See website: http://www.solarroadmap.com/regional-initiatives/seedmontereybay/
[12] See website: http://www.solarroadmap.com/regional-initiatives/seed-fund-sierras/
[13] See website: http://www.solarinyourcommunity.org/

SEED FUND LOCATION:	NORTH SF BAY	MONTEREY BAY	SIERRA MOUNTAINS
LEAD AGENCY	City of San Rafael	County of Santa Cruz	County of Amador (proposed)
CONVENER	Marin Clean Energy Practitioners	Association of Monterey Bay Area Governments	Sierra Business Council
FUNDING BY	California Solar Initiative	SEED Fund North Bay	SEED Fund Monterey Bay, US Department of Energy
# OF RFP PARTICIPANTS	13	8	6-10 (target)
# OF SITES (BUNDLED)	29	28	20-25 (target)
# OF MW IN RFP	~ 4.3 MW	~ 7.0 MW	3-5 (target)
# OF MW CONTRACTED	~ 3.1 MW	~ 2.3 MW +	TBD
# OF MW BUILT	~ 1.3 MW +	TBD	TBD

Figure 3. Comparison of SEED Fund projects, as of October 2017

CASE STUDY: SEED FUND MONTEREY BAY

To provide a more detailed look at the process, results, and benefits of a collaborative DER procurement, the SEED Fund project in the Monterey Bay area may be studied, applying the steps for program development as explained in the Purchasing Power best practices guide:[14,15]

1. Early regional recruiting
2. Initial participant questionnaire
3. Solar project workshop
4. Consolidated analysis of sites
5. Internal decision-maker consultation
6. Design of procurement process and documents
7. Request for proposals
8. Proposal evaluation
9. Negotiations and awards
10. Installation project management
11. Commissioning and operations
12. Celebration of success

[14] Goodward, et al., *Purchasing Power*
[15] For 12-step graphic, see website:
https://jointventure.org/images/stories/pdf/best_practices_collaborative_solar_purchasing.pdf

Step 1: Early regional recruiting
This essential step is necessary for determining the geographical scope of the initiative and identifying likely partners and a lead agency (see figure below). Ideally, a regional group with strong ties to local governments will act as a convener to lead outreach around established communications channels and to provide a familiar face with a new program. Additionally, a technical advisor, in this case the SEED Fund team, is essential for performing the work necessary to organize and implement a successful procurement program.

In the Monterey Bay area, the SEED Fund team worked with a regional climate action group, Communities for Sustainable Monterey County (CSMC), to make first contact with potentially interested public agencies in the area. CSMC led the team to the Association of Monterey Bay Area Governments (AMBAG), who had an existing climate initiative program[16] with the communities in the region of Santa Cruz, Monterey, and San Benito counties. Through the organizational and outreach efforts of the AMBAG and CSMC conveners, SEED Fund team members were able to present the specifics of the SEED Fund collaborative procurement program to public agency staff in group and individual settings.

Figure 4. Roles of partners in collaborative procurement, from *Purchasing Power*[17]

Step 2: Initial participant questionnaire
A questionnaire functions to gather necessary information about possible participating agencies, key contacts, and potential sites for development. In the case of SEED Fund Monterey Bay, a

[16] See website: http://www.ambag.org/programs-services/energy-watch/monterey-bay-regional-energy-plan
[17] Goodward, et al., *Purchasing Power*, p. 16

simplified spreadsheet was sent to interested parties, asking for site names, addresses, and annual energy usage, among other items. As these data were received, the SEED Fund team would perform "pre-screen" analyses to rank potential sites in terms of constructability of solar and likelihood of financial viability. Importantly, these pre-screen reports were completed remotely, enabling fairly rapid delivery to responding agencies, keeping interest levels and momentum high. Correspondingly, and understandably, delayed delivery of pre-screen reports appeared to cause loss of attention among some agencies.

The SEED Fund team found the pre-screen process to be essential in establishing a staff project champion for each potential participant agency. The pre-screen reports also helped to determine the most suitable sites for solar development, along with possible system sizes, physical footprints, and gross financial savings, making the projects more focused, "real," and understandable. For the pre-screen questionnaire, simplification was the key. Asking for too much information in the spreadsheet led to lack of response from interested agencies—staff was already stretched thin, and asking them to complete a multi-hour task for a prospective program was often not realistic. With the streamlined request (facility name/type, address, and annual energy usage), the SEED Fund team was able to glean enough information to preliminarily model potential solar sites, without requiring a burdensome time commitment from agency staff.

Step 3: Solar project workshop

The solar project workshop serves multiple functions. It brings agency staff champions up the learning curve of how solar projects are procured, contracted, financed, and built. In many cases, staff have never worked on a solar project, and solar projects tend to be different from other types of construction. Solar finance and contract options are also fairly unique, so, understandably, staff need to be trained on vocabulary, ownership options, financial costs and benefits, construction considerations, and a wide array of other factors that impact the decision to pursue solar projects.

In addition to staff training, the project workshop serves an invaluable role in building team cohesion. By seeing their peers involved and engaged, the comfort level of all participants rises. The program becomes more and more of a true collaboration, rather than a collection of unaffiliated agencies.

For the Monterey Bay initiative, the SEED Fund team broke training into two workshops: Solar Finance/Legal Workshop and Solar Technical Workshop.[18] The thought behind this structure was to bring in multiple team members from each agency to help build project ownership and further develop collaborative cohesion among the group with multiple face-to-face meetings. The Finance/Legal workshop targeted agency business, financial, and legal staff, while the Technical workshop focused on facilities and public work staff. The SEED Fund team found that projects were much more likely to proceed if these staff (who were often different from the agency champion) were able to have their questions and concerns addressed prior to moving too far forward with site exploration.

[18] Presentation documents available at: http://www.solarroadmap.com/regional-initiatives/seedmontereybay/

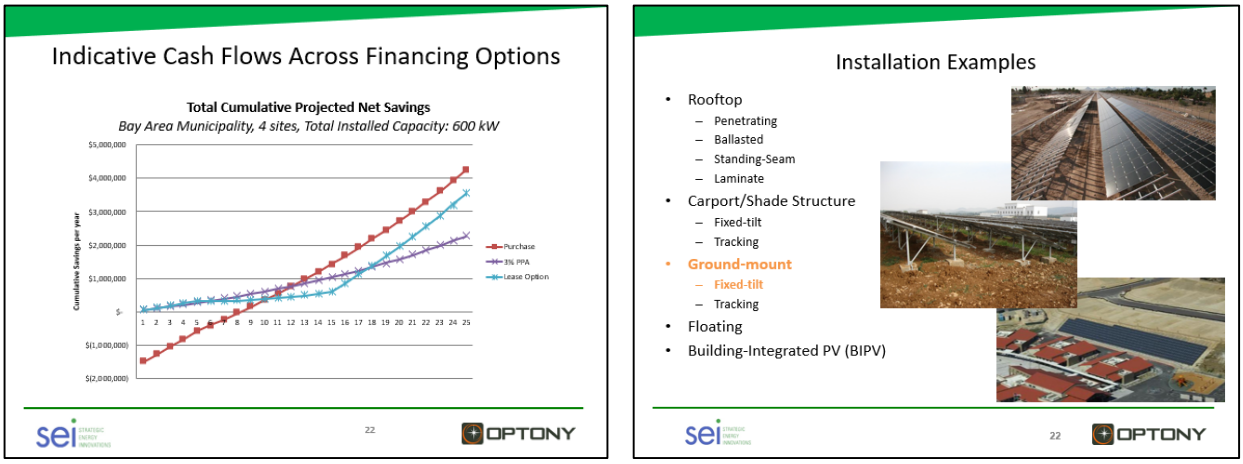

Figure 5. Sample slides from Finance/Legal and Technical Workshop presentations

Step 4: Consolidated analysis of sites

Providing organization and realistic opportunities to the vendor community is essential to the success of the procurement. All potential sites should be reviewed in depth to identify obstacles and opportunities, and to appropriately set expectations for the site owners. With a detailed feasibility assessment, construction considerations and financial viability can be used to make go/no-go decisions on sites to include in the RFP issuance. This process is key to showing vendors that the sites have been vetted and are a legitimate use of their time in putting together a proposal.

For SEED Fund Monterey Bay, the inclusion of the revolving fund concept necessitated an extra step prior to the completion of site feasibility assessments. A Memorandum of Understanding (MOU) was prepared for interested agencies, after their review of the pre-screen reports. The MOU addressed each agency's commitment to participating the group initiative, and acknowledged the agreement to reimburse the SEED Fund, at a small percentage of project cost—IF, and only IF, the projects proceeded into construction. The commitment to reimburse is designed to ensure that the revolving fund continues to be replenished, so that additional rounds of procurement can be developed by the SEED Fund team. The qualifier is important to agency participants—at any point prior to giving Notice to Proceed (NTP) on construction, the agency can step away from the project (construction contract terms notwithstanding) and owe no monetary compensation to the SEED Fund. As shown in the timeline below, there are several decision points at which off-ramps exist to exit the program. These off-ramps mitigate agency risks and concerns and help expedite the building of the collaborative team.

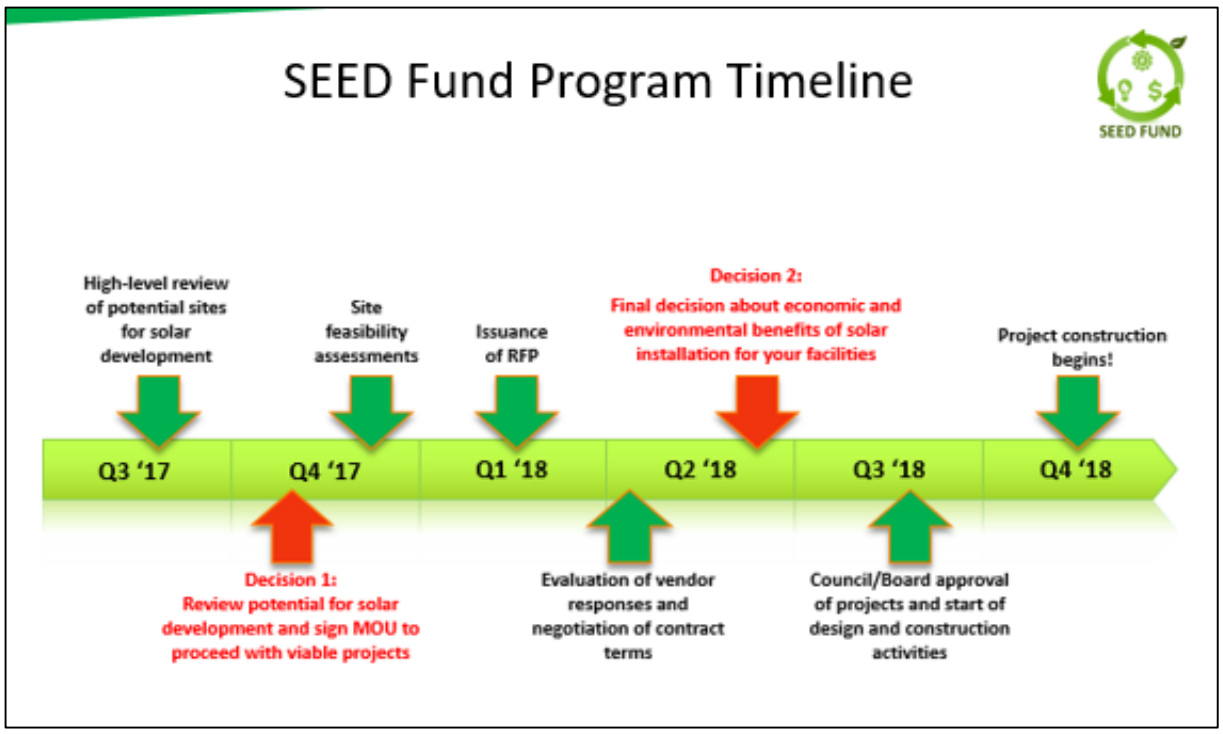

Figure 6. Example SEED Fund timeline with decision off-ramps in red

After MOUs were signed, site visits for SEED Fund staff were scheduled, and feasibility assessments were completed on both a technical and financial level. While meeting environmental goals is very important to public agencies, the scarcity of funds means that projects typically also must provide energy cost savings, either immediately or in a reasonable period of time (often 10-12 years or less). Potential projects were analyzed for economic viability by looking at energy usage, solar energy production, utility rate schedules, estimated pricing, and across multiple finance/ownership options. Similar to the production of pre-screen reports, timely delivery of feasibility assessments is important for maintaining program momentum and agency interest levels.

Step 5: Internal decision-maker consultation

After receiving feasibility assessments on their proposed sites, agencies determined which of their sites to include in the group RFP. The process for approval varies by agency—some agencies sought City Council or Board approval at the MOU stage, whereas others did not need to seek approval to pursue solar projects until the procurement was complete and contracts were ready to sign. Naturally, all along the process, agency decisions at the staff level were necessary to continue to participate in the program. By building project buy-in through the workshops and on-site feasibility assessments, potential projects had a greater level of internal support than would have been possible through an unsolicited developer proposal.

Step 6: Design of procurement process and documents

Concurrently with the completion of feasibility assessments, the SEED Fund team tailored a standard solar procurement RFP to meet the goals and structure of the collaborative process. Sites were compiled into more manageable "bundles" for proposers to more easily handle the portfolio

workload and facility types. Bundle development can be done in various ways: for the SV-REP procurement, sites were separated by estimated system sizes (i.e., small, medium, large), whereas the SEED Fund Monterey Bay procurement separated by geography—sites within Santa Cruz County in one bundle and sites within Monterey or San Benito County in the other bundle. Both approaches have pros and cons, but a common issue with the size break-down strategy was that smaller sites were regularly ignored by the vendors, in favor of the bigger sites. Since spurring development for smaller, typically hard-to-contract sites was part of the reason for the collaboration, the SEED Fund team decided to split geographically. This type of split also kept multiple sites owned by the same agency within the same bundle, eliminating the need to negotiate with multiple bundle-awarded vendors, as was necessary in the SV-REP program.

The collaborative purchase RFP contained several additional features unlikely to be found in many other construction or solar bid documents:

- To be responsive, proposers were required to provide a pricing proposal for every site within a given bundle—they were not allowed to pick and choose sites. Again, since opening small sites to bid processes that would normally not be viable options was a key goal of the initiative, this strategy was favored over allowing the vendors to choose the best sites.
- Vendors were also required to provide pricing for each site under both a purchase and a Power Purchase Agreement (PPA) scenario. Optony has found that decision-making bodies will nearly always want to review all financing options available, and limiting procurement to a single financing mechanism has led to the need to issue a second RFP asking for an alternate finance option. By requiring both cash and financed pricing, participating agencies have options from the vendors, and the agencies can also consider alternate and/or internal financing options to purchase at the cash price, if those alternates provide better economics.
- Proposers were provided with a pricing and production spreadsheet to fill out, which enable the RFP selection committee to more readily compare proposals. These sheets required proposers to include proposed technology, system sizes, estimated system production, and pricing. With this information, a levelized cost of energy (LCOE) could be calculated to better compare system pricing to both other proposals and to utility rates.
- As part of the RFP package, the feasibility assessments, edited to remove estimated pricing and financial modeling, were included to provide direction and site details to vendors. Experience has shown that a fine line exists between providing too much direction and not enough, so general system placement and sizing was provided, but vendors were free (and expected) to propose systems that they thought optimal for each site. With this freedom, the vendors' abilities to provide rationale for design decisions was a key differentiating factor.
- Insurance requirements were included in the RFP, with the goal of using the most restrictive conditions of the participant agencies, so that meeting those requirements would ensure compliance with less-restrictive agencies.
- In some cases, collaborative solar procurements have spent time to develop contract language that was included in the RFP. For SEED Fund Monterey Bay, a sample contract (which had been reviewed and lightly commented on by participating agencies) was included, with key terms, but vendors were invited to submit their own contracts for review.

Using an in-house developed contract can provide terms for the agencies, but can lead to longer negotiation timelines and disparities between what is and what is not acceptable to the project finance community.

- Importantly, the procurement documents stated that the agencies would be procuring energy projects under the allowances of California Government Code 4217. This code enables a very flexible analysis of best-value, giving the agencies the ability to move away from a low-price proposer if there were other concerns, such as technology viability or questions about ability to finance. Code 4217 does require that all projects procured this way do achieve positive financial returns over the useful life of the project, and the Board or Council decision to proceed must be managed through a public hearing process with proper notice.
- Of particular importance to both the SEED Fund team and the participating agencies, the RFP required that all PPA pricing include vendor payment of the reimbursement fee to the SEED Fund, on behalf of the agency that had signed the MOU. This requirement, which required a signed acknowledgment from proposers, enabled a true "no-out-of-pocket-cost" option for particularly cash-strapped agencies.
- The RFP also included several potential project sites that had unknown potential for solar development, largely due to questions around energy off-taker, since the sites typically had little to no energy usage, but larger areas of land. These sites were treated as bid alternates, and vendors were free to bid on them individually, outside of bids on bundled sites.

Step 7: Request for proposals

Upon final decisions to include or not include sites in the procurement, the lead agency (County of Santa Cruz, in the SEED Fund Monterey Bay initiative) issued the RFP by posting onto its website, along with relevant attachments including the edited feasibility assessments acting as "site spec sheets." County staff acted as the primary contact for communications and addenda, while SEED Fund staff worked to respond to questions and obtain site-related answers from the various participating agencies. An optional site meeting was held, and followed by optional site visits to every available facility, with cooperation by agency on-site staff. Several addenda were issued to address vendor questions and requests for information (RFIs), and vendors were given approximately 8 weeks to put together responses.

Step 8: Proposal evaluation

Proposals from six vendors (for the bundled projects; several others were received for bid alternate sites only) were received and evaluated by staff from a sub-group of participating agencies, self-selecting based on interest, experience, and time availability. SEED Fund staff created an evaluation matrix to spell out criteria and weight those criteria by importance to the agencies. Broadly, proposers were evaluated on completeness of submittal; qualifications and experience; design and components; project costs; and contract terms. Most areas were scored qualitatively based on the proposal and testimonials from project references, while the project costs were compared by LCOE and scored on a sliding scale.

The top vendors were then interviewed to discuss project approach and to answer questions that had arisen during evaluation of their proposals. Scores were given for each criteria area, with the top scorer for each bundle being considered the "selected vendor." At this point, all vendors were contacted to alert them of their status, with the selected vendors not receiving an award, but, rather, being invited to enter into contract negotiations for their bundle. Non-selected vendors were

notified if they had been short-listed, and were told that they may be contacted if the agencies were unable to enter into satisfactory contracts with the selected vendors.

Step 9: Negotiations and awards
The lead agency, County of Santa Cruz, led contract negotiations, with the intent being to reach a point where the contracts were 90-95% agreed, and then release the selected vendors to finalize the last 5-10% based on each participating agency's individual requirements and concerns. This is the typical process for the collaborative procurements, and this is where participating agencies receive significant value by relying on the lead agency's legal counsel (along with SEED Fund team experience).

For SEED Fund Monterey Bay, the contract negotiation process was extremely expedited by the selected vendors' use of previously-vetted contract documents that had been approved by other public agencies. As of October 2017, the County of Santa Cruz has entered into PPA contracts for 8 public facilities, while the other agencies are still working to finalize the last parts of their contracts. One small agency, North County Recreation and Parks District, was able to move quickly and entered into a contract before even the County had done so.

Step 10: Installation project management
Contracted projects are currently in the design and permitting process, with the first construction mobilization anticipated in November 2017. Upon Notice to Proceed on Construction, the PPA vendor (or agency, for cash purchases) will reimburse the SEED Fund at approximately 2% of project costs, and these funds will be used to pursue a third round of the SEED Fund for public agencies, businesses, and housing developers in the Sierra Mountains.

The SEED Fund involvement officially ends at the completion of contract negotiation, once City Council or Board of Supervisors approves the execution of the contract. However, the work is not done. Government agencies need to assign project managers, either in-house or contracted, to coordinate design, planning, and construction with the vendor team. Proactive planning is essential, particularly for active sites that include critical facilities for many agencies.

Step 11: Commissioning and operations
Upon construction completion, every installed system should be inspected for code compliance by the municipality's Building Inspector, and should also be inspected for compliance with contract terms and approved designs. Installed equipment performance should be reviewed in coordination with measured weather conditions to ensure that the system is fully operational and is likely to produce at the expected levels. Online monitoring should show detailed system performance that is compared to weather conditions, so that output can be tracked remotely. Close-out documents should include as-built drawings, executed and dated component warranties (copies, if the system is owned by the vendor), test results, serial numbers with flash-test data, and operations manuals. Vendor billings and utility bills should also be reviewed to confirm that all rates and tariffs are changed or applied correctly.

Step 12: Celebration of success
To build community pride and show effective municipal administration, every public facility project should have a ribbon-cutting or "switch-throwing" ceremony. Such a ceremony can include

speaking opportunities for local politicians and community leaders, and should include information about the community benefits (financial, environmental, and otherwise) of the constructed project.

PLANNING FOR EBCE

EBCE has the unique opportunity to follow a similar path to guide and stimulate DER development in its territory. By creating a SEED Fund-like program with a similar revolving fund element to eliminate barriers to entry for site owners, large-scale procurement can be successfully pursued, to the mutual benefit of the community, site owners, local energy developers, and the CCA. For example, by working to aggregate public safety facilities (e.g., police departments, fire stations, emergency operations centers, etc.) at cities throughout the CCA territory, a single procurement could seek to develop up to 5 MW of customer-sited solar, with no risk to the site owners. EBCE could act as the convener, the lead agency, and the technical advisor, with both strong ties to member public agencies and an experienced energy procurement team capable of managing an RFP process. The process could generally follow the 12 steps outlined above, with variations according to the CCA's capabilities and goals, and with some steps expedited or skipped due to previous work completed through the R-REP program or existing relationships with the participating agencies:

Step 1: Early regional recruiting

- The outreach and team-building aspects of recruiting are already done—EBCE has a defined service territory, with a Board comprising representatives from member agencies. The work needed in this step is the definition of the target facility type or service territory location for coordinating a procurement initiative. Public safety facilities were used as an example above because of the added benefit of possible energy storage and resiliency for those types of sites, as well as the public relations benefit of working with and for the people who keep our communities safe. Alternatively, an initiative could be directed toward areas of high electrical feeder congestion, such as zones with high daytime manufacturing loads—these areas might not be experiencing the duck curve and could more readily, and more helpfully, accept solar energy.
    - Our examples will primarily focus on local public agencies as the holders of the most "cooperatively-accessible" facilities, for expedited roll-out of a collaborative procurement. Stated otherwise—these facilities are the low-hanging fruit. However, after successful completion of pilot initiatives, the model could also be replicated for hospitals, parks, municipal offices, open space around existing transmission infrastructure (i.e., Altamont Pass), and then eventually for commercial sites, like warehouses, manufacturing facilities, office buildings, and potentially for neighboring county agencies, or even residential customers.

- Target customers, if outside of JPA membership, are best reached through existing aggregating relationships, such as through regional government working groups, industry associations, or local chambers of commerce.

Step 2: Initial participant questionnaire

- EBCE could work with member agency staff to compile lists of potentially-available municipal properties that meet the determined program parameters. The CCA already has access to addresses and energy usage data, so potential solar sites could be readily sized and pre-screened for system footprint and possible financial benefits.
  - If pre-screen analysis indicates high likelihood of technical and financial viability, participants must sign an MOU to indicate that they intend to proceed with solar under the collaborative procurement led by EBCE if, and only if, such a project makes sense to them financially and operationally. It is important that the MOU makes it clear that participation is at no upfront cost to the participant, and that there are multiple off-ramps for the site owner to walk away from the process if it no longer appeals to them. The only commitment in the MOU is that if, and only if, a project is procured, contracted, and permitted/built, would the participant be responsible for reimbursement to the revolving fund.

Step 3: Solar project workshop

- EBCE will be continuing to lead or participate in regular public events to build the brand and minimize opt-out numbers. EBCE staff could easily invite agency staff to public "Solar Awareness" workshops that would explain the financial, contractual, and technical considerations for potential solar owners and developers, while also explaining how EBCE provides greater benefit to solar customers than opting-out.
  - If popular, these workshops could be expanded to drive other EBCE initiatives, including energy efficiency, electrification, electric vehicle, energy storage, demand response, or other programs that require significant public behavioral change.

Step 4: Consolidated analysis of sites

- For potential sites that score highly in the pre-screens, EBCE could use internal or external funds to start a revolving fund to provide full feasibility assessments at no cost to the agencies. EBCE could use in-house or contracted staff to perform the analyses, with the added benefit of having better visibility into possible feeder- or transformer-sizing issues than most solar developers or consultants have available. These feasibility assessments would be provided to participating agencies at no charge upon the signing of an MOU that commits the agency to paying a reimbursement fee if the projects proceed into construction. The reimbursement fee should be a fixed percentage of project costs, which should be determined by calculating estimated program costs, program procurement targets, and prevailing system pricing.

- Note that many of the collaborative procurements identified in this report have been supported or funded through federal or state grants. Expanding access to DERs, particularly for public agencies, tends to be a universally-supported theme.
- The reimbursement rate can be between 1 and 5%, with the goal being full re-investment of the revolving fund, based upon procurement targets. If the target RFP is 5 MW, with 80% expected contracting rate and $2/Watt estimated pricing, the necessary reimbursement rate for a $220,000 fund would be slightly less than 3%.
- Procurements with larger sites, and/or with fewer participants, are able to accept lower reimbursement rates. Programs with many small sites, with high numbers of site owners, would require a higher reimbursement rate to ensure full replenishment of the revolving fund.

Step 5: Internal decision maker consultation

- Agency decisions to proceed with solar procurement would still need to be made at the Council or Board level, but EBCE has an internal connection through its Board membership, which can help align interests at the outset of program development. As long as agency staff have been engaged through the workshops and feasibility site visits, internal support should be more readily obtained.

Step 6: Design of procurement process and documents

- Again, EBCE is in the business of energy procurement, so crafting bid documents is not a significant additional burden. Additionally or alternatively, as-needed support can be gathered from outside consultants or through review and gleaning from previous collaborative solar RFPs.
    - The processes described throughout this document relate to solar interconnected on the customer side of the electrical meter. As an option, or as a requirement of the program, EBCE could take delivery of produced energy on the utility side of the meter. In this case, EBCE could either pay a Feed-In Tariff rate or could provide a small lease payment to the partner agencies, which would remove the agencies' performance risk of the solar systems, their upfront costs for installation, and their project management responsibilities, while utilizing unused roof or ground space and/or providing shade canopies over parking lots. If lease payments were used, the revolving fund concept would be dropped from the program.

Step 7: Request for proposals

- EBCE would issue the bid documents on behalf of participating agencies, and CCA staff are well-suited to organize bidder conferences and site walks, or outside or agency support can be obtained. EBCE staff would manage vendor RFIs, passing site-specific questions to agency partners.

Step 8: Proposal evaluation

- EBCE staff would work with agency support to evaluate and score proposals and proposers. Previously-used evaluation matrices are available to customize to prioritize agency and CCA goals.

Step 9: Negotiations and awards

- EBCE staff and legal team are skilled in energy contract negotiations and would provide significant value to the process of finalizing contract terms and conditions.
    - While EBCE involvement could end after this stage, follow-up activities after vendor selection and contract negotiation are extremely helpful to give participants the confidence and peace-of-mind to move forward in executing contracts. Good financial analysis and a strong understanding of site impacts and considerations are key to ensuring high rates of contracting among participants. Development of standardized stakeholder presentations and materials are also helpful to ensure that good potential projects do not get lost in day-to-day operations.

Step 10: Installation project management

- Prior to this stage, EBCE would hand off negotiated contracts to agency staff for presentation and approval at the Council or Board level. Upon NTP for construction, vendors or agencies would make a reimbursement payment to the EBCE revolving fund, and the next round of procurement can be planned with another facility type, grid network location, or customer class.
    - As an alternative to requiring a one-time payment of the reimbursement fee, EBCE could pilot an On-Bill Financing program to allow participating agencies to pay monthly over a set period of time. If successful, such an arrangement could be expanded to other customer classes.

Step 11: Commissioning and operations

- Likely not applicable to EBCE, though EBCE could negotiate viewing access to all solar monitoring for sites developed through the program, for promotional use on the CCA website.

Step 12: Celebration of success

- When projects are completed, EBCE would participate in celebration events and would receive public relations goodwill for supporting community self-reliance, local employment, bill savings, and emissions reductions.

In summary: The EBCE revolving fund would cover costs for site owners to receive solar feasibility assessments and to participate in the EBCE-driven procurement. EBCE's team (internal or subcontracted) would issue and manage the RFP process, including the evaluation and selection

of a preferred proposer. EBCE would lead the negotiation of standardized contract documents and, if desired, could perform or validate financial analysis of savings for participating site owners. With greater site owner participation and a shared process, greater industry interest would be seen, and competition and economies of scale would drive down development costs. In cases where the proposed projects make financial sense—typically 70-90% of the projects that make it to RFP, based upon previous procurements—site owners would agree to move forward, with a small percentage of project costs being reimbursed to the revolving fund to ensure the next round of development, perhaps for another facility type or grid network location across Alameda County.

With such a model, multiple benefits would accrue to EBCE:

1. Firstly, the CCA would be accomplishing one of its missions by encouraging and enabling the greater use of clean, green energy from local sources.

2. Depending on ownership model, this cost-effective approach could allow EBCE to secure a clean, locally-produced energy supply at wholesale generation rates, with small lease payments.

3. This is a strategic program that is manageable with a small (internal or subcontracted) staff, but capable of yielding significant amounts of locally-produced renewable energy.

4. These local projects would lead to increased economic development in the region, both for first-level construction workers, as well as for all the support services needed during the course of development of large-scale aggregated projects, including delivery drivers, security guards, restaurant workers, and shop managers.

5. By encouraging local development of distributed generation, EBCE would have to procure less green energy from outside sources to meet clean energy commitments—instead, more of the territory baseload could be met by on-site self-generation, as well as providing export energy to the EBCE grid through either Net Energy Metering (or successor), Feed-In Tariff, or site lease agreements.

6. EBCE would gain valuable goodwill and credibility by leading community efforts to drive down costs and barriers for municipal government or other customers to go solar. Customers would see EBCE as a trusted partner in meeting their energy goals, opening doors and opportunities for future collaboration and programming.

7. EBCE, by controlling the procurement process, would gain valuable insight into the latest pricing and financing models used by the renewable energy community, to help the CCA with its own development projects.

8. As creator of the procurement structure, EBCE could require or allow alternate technologies as a condition to submitting a proposal. This opens the door to all sorts of innovative possibilities, such as collaborative procurement of battery storage, demand

response, virtual power plants, energy efficiency products, or electric vehicle chargers (or the vehicles themselves), which would help meet EBCE goals and needs, while making customers happy. Specifically, a large-scale, distributed battery storage procurement could reduce EBCE's contributions to duck curve and curtailment issues and minimize the CCA's exposure to Locational Marginal Pricing (LMP) risk.

9. Just as importantly, control of the procurement process would give EBCE the ability to target specific geographic locations or customer classes for which on-site generation would be most useful for portfolio management, risk management, and/or grid-supply/management purposes. To ensure that these benefits accrue to EBCE, agency participation in a collaborative procurement could include an agreement to share energy storage or demand response capabilities with EBCE.

With the use of a revolving fund, the "Agency as Developer" model could theoretically continue in perpetuity after its initial funding, with successful projects continuing to fund future development activities (feasibility assessments, procurement management, contracting support, and financial analysis). Upfront costs for "seeding" the revolving fund would depend on the specific goals for the first round of procurement.

If desired, internal program management requirements could be minimized by creating an open enrollment period for a target facility type, customer class, or grid location. Particularly for later iterations of the program that move beyond public agencies, open enrollment would require less outreach activity and could be pushed forward only when a requisite amount of solar or battery potential were aggregated in the participant group.

To continue the example above of seeking 5 MW at countywide public safety facilities in a single RFP, the expectation would be that approximately 12 municipal customers would need to be contacted and coordinated. For an estimated $225,000 for EBCE or external staff time (assuming 2.5 full-time-equivalents, or FTEs, at $90,000/year for one year), those commercial customers would receive guidance and feasibility assessments of the solar potential of their sites, on both a technical and financial level. Those same funds would pay for the development of standardized procurement documents and issuance and management of the RFP process, including distribution to vendors, management of site visits and Requests for Information, and evaluation of proposers and proposals. After selection of a chosen vendor or vendors, the seed funding would continue to cover costs related to contract negotiation and financial analysis, as well as the added key step of preparation of decision-making materials for site owners.

In this example, assuming that 80% of the 5 MW in the RFP moved forward with viable vendor bids, approximately 4 MW of local solar would be contracted and built. At a rough approximate cost of $2/Watt for solar installation, the total solar development impact would be $8 million. By requiring a reimbursement rate of 3% of project costs (costs that could be, and have been, included in developer pricing), the revolving fund would be re-seeded with $240,000, and the next round

of EBCE-funded development activities could begin, with no additional investment by the CCA. It is certainly worth noting that expenditures for the initial round of the program would, in many cases, be higher than subsequent rounds. Documents and processes developed in early rounds of the program will be available for re-use in later rounds for little or no additional cost.

RECOMMENDATIONS

For EBCE to proceed on an Agency as Developer program such as that outlined in this document, the following recommendations apply:

- Select a target facility type or grid location that provides optimal benefit to both the CCA and the customer. We recommend public safety buildings as a Round 1 target, as those facilities are often large, in need of DERs for resilience in addition to energy, and they have public relations appeal that would be difficult to match with any other facility type.
- Target a procurement of 5-10 MW to reduce delays caused by building too big an initiative, while still capturing economies of scale. For groups of very large solar sites (>1 MW each), the target can be expanded to 10-20 MW or beyond. Stay above 2 MW to ensure required scale to see pricing and process efficiencies.
- Plan for 2.5 FTEs, estimated at $225,000, for approximately one year of work necessary to complete the pre-development tasks necessary for successful procurement. For the initial round of procurement, expect the timeline to be slightly extended as the procurement team develops outreach, on-boarding, assessment, and solicitation processes and documents.
- Prepare to start the second round of procurement shortly after starting to receive reimbursement payments. Prior to the receipt of payments, identify next target group and prepare outreach strategy and materials. If the initial procurement finishes in 12 months, expect approximately 6 more months for engineering and permitting prior to receiving reimbursements at NTP on construction, which would trigger the first outreach for the second round.

Projected outcomes depend on a multitude of factors, but, typically, the first projects could be brought on-line within 24 months of the initialization of the program. If a relatively modest procurement of 5 MW results in 4 MW of contracted projects (80% conversion rate), the resulting solar projects would output over 6 million kWh of clean local energy. Pricing varies widely by construction type and system size, but projections place PPA pricing in the $0.05-$0.13/kWh range, or even lower for very large sites. Assuming a mid-range of $0.09/kWh, the procurement could result in 6 million kWh of energy for $540,000 in energy costs, with the development and procurement costs ($225,000, in this example) repaid by the solar installer through the PPA price.

APPENDIX

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