## Response to Recommendations (RTR) in Impact, Process, and Market Assessment Studies

**Study Title:** Solar on Multifamily Affordable Housing Second Triennial Report

**Program:** Solar on Multifamily Affordable Housing (SOMAH)

**Author:** Verdant Associates and Illume Advising

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Link to Report: <a href="https://www.calmac.org/publications/SOMAH\_Second\_Triennial\_Report">https://www.calmac.org/publications/SOMAH\_Second\_Triennial\_Report</a> (1).pdf

					SOMAH PA
Ite m#	Page #	Findings	Best Practice / Recommendations	Disposition	Disposition Notes
				Choose: Accepted, Rejected, or Other	Examples:  Describe specific program change, give reason for rejection, or indicate that it's under further review.
1 108-109		Obtaining contractor bids for Track A projects has been challenging, often requiring SOMAH PA involvement. A number of Track A projects have been cancelled stating they plan to resubmit as Track B. One property owner stated they did this as they had identified a contractor and did not want to get multiple bids.	1a. The SOMAH PA should assess the Track A multiple bid requirement to determine if it is providing its intended value or if it is inadvertently adding an additional burden to Track A participants.	Accept	The SOMAH PA acknowledges that the contractor bidding process can be time intensive, specifically as it relates to Track A projects. The time-consuming process, combined with the burden of application timelines, may push owners away from Track A participation, even with the PA's recently extended Track A period from three months (180-days) to six months. The SOMAH PA is committed to assessing the Track A multiple bid requirement, including assessing any added value or burden that the requirement may bring to the program. Furthermore, through this assessment, the SOMAH PA will evaluate the challenges identified in the findings and make programmatic changes to reduce additional burden as needed.  Stakeholders: Property Owners, Applicants and Contractors Timeline: Q2 2024
			1b. Allow projects to transition from Track A to Track B. Allowing Track A projects to submit a multiple bid waiver would reduce the quantity of cancellations, the burden of application resubmittal, and allow information from the initial application to be retained.	Accept	The SOMAH PA sees value in finding solutions to reduce the burden of application resubmittal and increase application retention. Given that the primary difference between Track A/B is the Upfront Technical Assistance Milestone and subsequent three bid requirement, the result of the assessment from Recommendation 1a may address how the SOMAH PA allows projects to transition from Track A to Track B. For this reason, the SOMAH PA will review and assess Recommendations 1a and 1b in conjunction to ensure the most comprehensive approach is taken for any potential program changes that allow projects to efficiently transition from Track A to Track B as well as assess other ways to connect the two participation tracks.  In the next SOMAH Handbook (2024) the SOMAH PA commits to modifying or removing the three-bid requirement for Track A projects to address 1a and 1b. If removed, Track A projects would no longer be required to receive a minimum of three bids to participate and move on to Reservation Request Milestone. If removed, this could also eliminate another program document for Track B projects
					(Multiple Bid Waiver) to further the effort of eliminating administrative burden and creating efficiencies.  Stakeholders: Property Owners, Applicants and Contractors Timeline: Q2 2024
2	109	System purchase type has been dominated by Third Party Owned (TPO) systems (73 percent of submitted applications). TPO projects have a higher completion rate than host customer owners (HCO) projects (13 versus 7 percent) and a lower cancellation rate (30 versus 68 percent) and are preferred by most property owners due to their ease of participation, lack of up front out of pocket costs, beneficial financing terms, and on-going operation and maintenance of the system.	2. The SOMAH PA should increase engagement with property owners using HCO to ensure they have adequate support to navigate issues they encounter and keep their projects on track.	Accept	Although the cancellation rate for host customer owned systems (HCO) may appear higher than that of third-party owned systems, this observation could be distorted due to the limited sample size of HCO projects (n=173) available for analysis versus the sample size of Third Party Owned (TPO) projects (n=557), which is more than three times the amount of HCO projects. The actual count of TPO projects that have been cancelled is higher than the actual count of HCO projects. Moreover, it is worth noting that the main reasons for the cancellation of applications with HCO systems are due to not meeting program deadlines and determining there was disinterest in the program, not necessarily scenarios where additional support from the PA would have kept the project on track or active in the pipeline. Regardless of system purchase type, deadline management is driven by Applicants, who for Track B applications, are typically not the property owner. The SOMAH PA has robust existing channels to convey programmatic

				deadlines to the applicant, including the program's Technical Assistance and Support Services, which are available to all applications regardless of TPO or HCO designation.
				For the smaller subset of projects utilizing HCO systems, the SOMAH PA will implement additional automated email reminders at strategic points in the application life cycle to ensure they have adequate support to navigate issues they encounter and keep their projects on track. The automated touchpoint(s) will be in addition to the SOMAH PA's commitment to aiding property owners and applicants through the program's Technical Assistance and Support Services offerings. The SOMAH PA will also ensure support to navigate issues that may precipitate cancellations due to disinterest in the program. Planned activities to support HCO systems include developing and launching segmented nurture campaigns for enrolled Host Customers to disseminate resources that support HCO systems including tenant education, Technical Assistance and Support Services and tailored resources.  Stakeholders: Applicants, Property Owners, Contractors
				Timeline: Q2 2024 and ongoing
3 109-	SOMAH Program awareness continues to be driven by contractor outreach. CBOs, whose efforts accounted for almost 30 percent of the ME&O budget, have not yet had a significant impact on program participation.	3. The SOMAH PA should reevaluate the role of CBOs in SOMAH implementation to determine if CBO roles should be augmented to include a greater focus on promoting SOMAH's job training opportunities and partnering with contractors and property owners to maximize the value of tenant education.	Other	SOMAH CBO partners support outreach and engagement efforts to several SOMAH audiences, including but not limited to property owners and developers. The CBOs currently support outreach efforts that promote job training opportunities as well as tenant education services and workshops. The SOMAH PA is currently revising the program's tenant education requirements through the CPUC's Rulemaking process and potential future Handbook revisions, which would result in CBOs supporting more in-person tenant education workshops. As program funding decreases, the SOMAH PA and CBO partners have begun to adjust scopes for Marketing Education and Outreach (ME&O) to focus on more tenant education and additional scopes that align with CBO missions, including DAC properties.  Stakeholders: Property Owners, Contractors
4 54	One of the larger participating contractors indicated that there was a disconnect between the SOMAH marketing strategy and its target audience. According to multiple contractors and program partners interviewed for this evaluation, the decision-makers for potential projects are the property owners, who resonate more with messaging about the financial benefits of SOMAH as opposed to the social and environmental benefits and are ultimately driven by the financial savings. A few contractors mentioned that tailoring marketing materials specifically to this group and their priorities might make it easier to "sell" the program to property owners.	4. The SOMAH PA should tailor marketing materials to highlight the financial benefits of SOMAH for property owners.	Accept	Timeline: Q3 2023 – Q1 2024  The SOMAH PA is dedicated to crafting a range of marketing materials that emphasize the financial advantages offered by SOMAH. This initiative is already underway. To illustrate, the SOMAH PA has created and continues to refine case study fact sheets, spotlighting completed projects and showcasing the savings achieved over the system's lifespan. The SOMAH PA intends to enhance the selection process for new project case studies, with a specific focus on promoting a broader range of completed projects. This includes projects featuring HCO systems that have successfully utilized external financing alongside SOMAH's rebate. Additionally, the SOMAH PA has produced a comprehensive financing e-book designed to assist property owners in determining the most suitable ownership model for their organization. The SOMAH PA has broadened its Technical Assistance Support Services by introducing Solar Preview Reports. These reports are aimed at property owners, providing them with preliminary estimates of their anticipated SOMAH incentive, projected energy offset, potential energy savings, and insights into the project's eligibility for the updated solar tax credits (ITC) from the Inflation Reduction Act (IRA). Also, on October 31, 2022, SOMAH launched a new website with a new incentive estimation tool that can help property owners see an average incentive amount where they can add unit numbers, tax credits, and tenant-common area solar credit allocations. Finally, the SOMAH PA created an email campaign aimed at nurturing property owners. This campaign delivers eight timed emails to property owners who subscribe to the SOMAH listserv, covering crucial subjects such as financing. The email focused on financing was successfully delivered to 151 property owners, resulting in 82 property owners engaging and opening the email.  Stakeholders: Property owners  Timeline: Ongoing, quarterly
5 110	Many smaller contractors report significant challenges regarding the administrative aspects of SOMAH. Multiple contractors reported confusion around the application process and that the level of documentation required to participate in the program was burdensome.	5. The SOMAH PA should do greater outreach to contractors to ensure they are aware of all available SOMAH resources and to reduce the administrative burden. This can be done through increased email outreach to connect with smaller contractors and prominent features on the application portal detailing what services are available.	Accept	The SOMAH Program continues to maintain a goal of having a diverse pool of contractors by company size, ownership type (minority, woman, and LGBTQ+ owned), and region. Contractor primary research by the PA found similar findings reported by Verdant. For example, barriers reported by contractors include the complexity of the program, the financial structure of incentives, necessity for cash flow, and property owners wanting to work with well-known, established contractors. Additionally, impacts from the pandemic have created barriers for smaller contractors who were interested in participating but have yet to apply.  The primary focus of the PA's research involved surveying contractors on marketing materials and resources that would contribute to their success. Subsequently, the PA restructured and launched the SOMAH website in October 2022. Contractor information was streamlined into three buckets (program
				overview and requirements, how to find property leads, and application process), more resources were added to the contractor toolkit (marketing materials for contractors to use when they are speaking to property owners), and a resource library with helpful information and application tutorials was created.

				The application process and documents webpage were streamlined to make the application process easier to navigate. Available resources were featured at each application milestone to increase accessibility and decrease the burden of needing to find information in the resource library. Also, the new website rebranded its services available to contractors, and all program participants are directed to the new Technical Assistance and Support Services webpage where all services and common assistance needs are listed out. A single service request form was created to decrease the burden on a contractor to think about which team within the PA from whom they need help versus the previous format of a contractor needing to investigate which internal PA group it needed to contact, such as the Tenant Education, Technical Assistance, Job Training, Application Team, etc.
				To disseminate the information and marketing materials that contractors pinpointed as most important to them, SOMAH created a contractor email nurture campaign that sent 7 emails to all email listserv subscribers self-identified as contractors. The campaign launched May 11, 2023, and ended August 3, 2023. The campaign reached 488 contractors and generated 1,903 email openings throughout the campaign. The number of engagements with the 7 emails is a success for SOMAH because nonparticipating eligible contractors received the SOMAH materials to help them learn about the program and market SOMAH. Once a new contractor subscribes, they will receive the email nurture campaign. Contractors often do not seem to look at the program's resources but report they want more resources. Therefore, the email nurture campaign delivers the information straight to their inboxes to help contractors learn about the available program resources.
				The PA came to the same conclusion as has been stated in Recommendation 5. Therefore, in 2023 SOMAH introduced Contractor Office Hours webinars where a special topic was featured in depth to further help contractors with knowledge gaps on the program. The two topics this year were fleet monitoring (June 2023; 16 registrations, 6 attendees) and VNEM (March 2023; 34 registrations, 16 attendees). Marketing materials were reintroduced during these sessions, and 30 minutes were dedicated to an open forum for attendees to ask any questions about the program. The Contractor Office Hours were supplemental sessions to the normal quarterly webinars held Applicant and Contractor Eligibility Training, Contractor Job Training Requirements and Tenant Education Training. The webinar series was successful at attracting registrations and had engaged contractors. The PA will be continuing the webinar series in 2024.
				Stakeholders: Contractors Timeline: Email Campaign: when contractor subscribes; Office Hours: bi-annual; New resources: as needs arise; Website: launched October 2022
6 110	Smaller contractors struggle to "break into" the SOMAH program given the significant presence of larger solar contractors. Contractors reported that most of the "easy" projects had been taken by larger contractors and struggled to find available, eligible properties to bring into the program.	6. The SOMAH PA should offer additional trainings or information to contractors on how to secure leads and find eligible projects.	Other	SOMAH's primary research on contractors (see Response to Recommendation 5) has continuously found that contractors want resources to find leads and secure leads. Therefore, the new SOMAH website that launched on October 2022, included a contractor-facing webpage on property leads with the eligibility map to find leads and marketing materials for contractors to use when marketing SOMAH to property owners.
				The contractor email nurture campaign that launched in May 2023 (see Response to Recommendation 5), featured four out of seven emails on the topic of lead generation. Email #1 was a video on success tips from a larger participating SOMAH contractor. The email was delivered to 488 self-identified contractor subscribers and opened by 297. Email #4 focused on the eligibility map to find leads. The email was sent to 476 contractor subscribers and opened by 262 subscribers. Email #6 focused on tips for working with multifamily affordable housing to secure leads, sent to 463 subscribers and opened by 253. The email campaign ended with Email #7 featuring the contractor marketing toolkit for contractors to use when marketing SOMAH, sent to 455 subscribers and opened by 261.
				In Q1 2024, SOMAH will hold a Contractor Office Hour webinar focused on lead generation and tribal properties. The webinar will feature marketing materials available on the website for contractors to give property owners when speaking to them, property eligibility improvements with the passing of SB 355, tools on the website such as the eligibility map and incentive estimator and how to use these tools. The webinar will be recorded and posted in the SOMAH website resource library.
				Stakeholders: Contractors Timeline: Contractor Office Hour on Lead Generation: Q1 2024; Email Campaign: Ongoing (when contractor subscribes)

7 110-111	Contractors reported that the financial costs of the program make it difficult for smaller contractors without as much capital to participate. Participating and non-participating contractors believed that these larger contractors are the only companies able to secure contracts through the SOMAH program because they have the capacity to withstand financial risk. Both participating and non-participating contractors stated the incentive structures were too low to either engage property owners or to make a profit.	7a. The SOMAH PA should increase marketing of the progress payment pathway, as many contractors were not aware that this was an option.	Accept	Given the Progress Payment Pathway is optional, the SOMAH PA agrees that it would be helpful to expand marketing efforts to participating contractors and applicants who may be less familiar or uninformed about the optional offering. To date, of the seven contractors with completed projects, four of the contractor companies have utilized the progress payment pathway at least once.  The SOMAH PA has identified opportunities to highlight the optional progress payment at different times and through different platforms with the smaller contractors who cite having the most financial risk. These platforms include the application portal, eligibility trainings, and direct outreach. The Progress Payment language in the Applicant and Contractor Eligibility Training can be revised and expanded. The application flow will not change in PowerClerk, but the SOMAH PA will add in reminder text regarding the Progress Payment Pathway option in earlier milestones in PowerClerk. Additionally, the SOMAH PA will send outreach emails to contractors to provide information regarding the Progress Payment Pathway, including via the Contractor Nurture Campaign and with targeted outreach towards smaller contractors and applications that have received Energy Efficiency Compliance Milestone approval or Proof of Project Milestone approval. The SOMAH PA would like to note acceptance of this recommendation with the context and acknowledgement that the timing of the evaluation's findings, where "both participating and non-participating contractors stated the incentive structures were too low to either engage property owners or to make a profit" preceded the now active, revised, higher incentive levels.  Stakeholders: Contractors, Applicants and Property Owners
		7b. The Progress payment pathway should be a default milestone rather than opt-in.	Reject	Timeline: Q4 2023 - Q2 2024  The Progress Payment Pathway (PPP) was designed to reduce the financial burden of out-of-pocket costs in the time between mechanical completion of the project and Permission to Operate (PTO) with the utility. The time between mechanical completion and PTO can vary widely with external impacts from permitting delays, AHJ signoff, and final interconnection. It is important to note that not all projects need the optional progress payment if the above timeframe is reasonable and without delay. The PPP requires additional administrative work for the Applicant, SOMAH PA, and IOUs to complete the request. After the applicant submits the additional documentation required for this milestone, the SOMAH PA must review the documentation and conduct the virtual walkthrough for final verification. After the review and verification, the SOMAH PA requires IOU signoff for the progress payment and receipt of funds before executing payment. With intention for that timeline, the SOMAH PA established the requirement that projects within 2 months (originally 4 months) of their final Incentive Claim submittal, cannot request a progress payment. As of October 2023, 36 of 103 completed projects (~35%) have utilized the pathway since the launch of the Progress Payment Pathway in Spring 2021. There are also 61 additional projects who have utilized the progress payment pathway with projects pending completion. If there is not undue delay between mechanical completion and PTO, the Applicant benefits from the straightforward approach of submitting for the Incentive Claim Milestone and single, final payment only. For additional transparency, the SOMAH PA will expand reporting in the Semiannual Progress Report to further address the timelines and data collected around construction start, mechanical completion and PTO. This information may help to shed a light on the portion of activity within these timelines that are particularly lengthily.
				For the above stated reasons, the SOMAH PA's response of committing to increased marketing in reply to Recommendation 7a is sufficient and more appropriate than requiring a default milestone for the PPP. Allowing the PPP to remain an optional milestone is also the best use of program administrative funds for both the PA and IOUs – allowing participants to take advantage of the helpful offering should it be relevant and of interest to each project instead of requiring more administrative effort for all parties by default. Additionally, redesigning the milestone in an opt-out format would require further database configuration that would not only require more time spent to test and implement the change by the PA, but may also cause a less than ideal user experience for the customers or applicants. It is the PA's experience that designing opt-in features (current design of the PPP), versus opt-out, is consistently more user friendly and easier to manage from a database design and maintenance perspective as well. With more than 4 years of participant feedback requesting additional program simplicity and streamlining, the SOMAH PA is confident that this recommendation would work in opposition of the larger and ongoing effort to streamline the program and create efficiencies whenever reasonable. As a result, the SOMAH PA rejects the recommendation to default projects to the Progress Payment Pathway.
8 111	Contractors report elongated timeframes for the PA to become aware of, and sometimes fix, identified issues with the program. Relying only on evaluation studies (that only occur every three years) to identify problems and make recommendations for change is insufficient for program success.	8. The SOMAH PA should establish a well-understood communication channel for program feedback to be shared with the PA and the CPUC (if needed).	Other	The SOMAH program is administered by the SOMAH PA and governed under public process via the CPUC. This relationship necessitates constant interaction between the SOMAH PA and CPUC Energy Division (ED). There are already well-established touchpoints between the SOMAH PA and ED that provide regular connection on a weekly and/or bi-weekly basis. Additionally, there are also valuable feedback loops that exist between the PA and contractors that the PA utilizes and relies on for trusted feedback and to maintain strong relationships with program participants. Contractors with active applications have phone

				and email pathways to directly reach communicate with the PA. These communication opportunities are regularly utilized by active Applicants to discuss smaller impactful solutions that can be accommodated on reasonable on-the-fly timelines.
				For most program modifications, there is a formal process and timeline the PA must follow as program changes are documented in the Handbook which involves the at a minimum, the CPUC's Advice Letter process but also potentially the CPUC's Rulemaking process to request and approve changes. The Rulemaking process provides opportunity for public comments and stakeholder feedback that is taken into consideration by the CPUC. From the SOMAH PA side, implementation of approved program modifications also includes structured timelines and testing before going live to the user. It is noteworthy that some suggested program fixes may also require IOU agreement and additional coordination between the SOMAH PA and IOUs. The SOMAH PA does not expect participating contractors to know the logistics and timelines for the CPUC policies and processes, which may be why the evaluation found contractors reporting certain identified issues seeming to take elongated timeframes to remedy.
				Although the evaluation studies occur every three years, the SOMAH PA has implemented seven program Handbook versions to date since program inception, which illustrates a constant and continued commitment to proactively identifying/collecting and fixing program barriers and challenges. The SOMAH PA appreciates the value in ensuring well understood communication channels exist between the PA and ED and is committed to maintaining the multiple channels necessary for such a multifaceted program. In pursuit of meaningful program and process improvement, the SOMAH PA will further confer with Verdant to discuss if specific examples from the evaluation's findings from contractors be shared for further improvement.
				The communication channel of Public Forums has taken place since program launch. Also, communication channels accessibility was improved with the SOMAH website relaunch in October 2022. These improvements include new sticky headers placed at the top of every webpage with the 'Contact Us' form, which now has a staff directory with the contractor lead's direct contact information and a rebranding of available SOMAH services called Technical Assistance and Support Services with a new information intake form for assistance. Contractors are always encouraged to speak to PA members directly, as verbalized in all webinars. To further hear questions and concerns from contractors, bi-annual Contractor Office Hours in the form of a live webinar were commenced in 2023 to hear from contractors directly about any concerns or program questions.
				Stakeholders: Applicants and Contractors Timeline: Ongoing
9 111	The SOMAH cancellation rate has continued to increase. To date 40 percent of submitted applications have been cancelled or withdrawn (287 applications, 50MW of capacity). This cancellation rate has increased since the last evaluation (22 percent) but remains lower than for the MASH program (57 percent). Data documenting the reason for application cancellations has improved and nearly two-thirds of cancellations are potentially "recoverable".	9. The SOMAH PA should prioritize outreach to potentially "recoverable" cancelled applications to determine if their needs can be addressed to facilitate future participation at these properties.	Accept	The SOMAH PA is actively engaged in reaching out to property owners who have withdrawn their applications. This is being achieved through direct communication with the host customers assigned to those applications. Furthermore, the SOMAH PA is also in contact with contractors associated with cancelled applications, encouraging them to consider reapplying to the program. Moving forward, the SOMAH PA will ensure continuous and direct outreach to applicants and host customers whose applications have been cancelled with multiple touchpoints to ensure all recoverable cancellations have the opportunity, resources, and support to successfully participate in the program.
				Stakeholders: Property Owners, Applicants, Contractors  Timeline: Ongoing, Quarterly
10 111	The evaluation team spoke with a number of non-participating property owners who were either unaware or ill-informed about the program and were very interested in participating when provided a program overview.	10. The SOMAH PA should prioritize direct outreach to non-participating property owners to ensure they are aware of and knowledgeable about the program. One way to address this would be to leverage the Salesforce database by conducting one on one outreach through phone calls and/or emails to identify the correct contact for the SOMAH Program and then working to build a relationship with that organization through these people.	Accept	The SOMAH PA accepts Verdant's recommendation, as engaging in personalized direct outreach is a crucial element of the PA's marketing approach. For 2023, SOMAH established a target of initiating outreach with a minimum of 200 property owner organizations, with emphasis on prioritizing tribes and Public Housing Authorities (PHAs). Examples of marketing activities include sending direct emails to affordable housing staff, facilitating webinars addressing relevant subjects to prospective applicants, exhibiting at statewide and regional affordable housing conferences, and holding interest calls with potential applicants. To monitor outreach efforts, the SOMAH PA utilizes Salesforce to record outreach attempts conducted by both the PA and CBO partners. Salesforce keeps a record of outreach to property owner organizations and individual properties. This creates a transparent tracking system that allows both PA members and CBO partners to readily view the organizations and contacts that have been reached out to. Looking forward, the SOMAH PA will concentrate on refining the internal Salesforce database, ensuring that contact details for property owner organizations remain up to date by using contact databases available online.
				The SOMAH PA is continuously conducting outreach to property owners who do not respond or acknowledge the PA's direct outreach. To establish a relationship, discuss the program and conduct a

communications.  Stakeholders: Property Owners Timeline: Ongoing  11 61 The evaluation team found that estimates of potential future SOMAH 11. The SOMAH PA should prioritize building relationships with participating property owners  Accept The SOMAH PA is currently engaged in a comprel	
Timeline: Ongoing	
11 61 The evaluation team found that estimates of potential future SOMAH	
properties were ineligible (master metered, already have solar), not good candidates for SOMAH (roof too small, carports too expensive), or unlikely due to property or financial constraints  through one-on-one outreach via emails, phone calls, or in-person visits to introduce themselves, collect pertinent data, and determine what support is needed to complete any potential projects.  through one-on-one outreach via emails, phone calls, or in-person visits to introduce themselves, collect pertinent data, and determine what support is needed to complete any potential project some constraints. Moreover, during these outreach energy estimated project expenses and incentive amount establishing trust between the SOMAH PA has placed emphase and in-person events as a key point of relationsh communications like email blasts to inform proper.	oroperty owners, also serving as a conduit for initiating sis on extending personalized invitations to both virtual hip building versus solely relying on impersonal mass perty owners of engagement and education opportunities
effective in fostering meaningful relationships wi The attendance at ribbon cutting events not only	ng ribbon cutting events have proven to be highly vith property owners with completed SOMAH projects. It offers insights into successful practices but also helps to pede participation in the program. In-person outreach roperty owners, fostering rapport and enhancing
Timeline: Ongoing	
allowing them to have third-party owned systems installed on properties they fund as they are concerned that roof mounted PV systems are a threat to their collateral. For this particular property owner, the PV installation has already been completed and thus they had to get a dispensation for this project, but they have been told  properties. Prior to this, the SOMAH PA was unaw Fannie Mae and is dedicated to conducting a thompson of the sound to get a dispensation for this project, but they have been told  properties. Prior to this, the SOMAH PA was unaw Fannie Mae and is dedicated to conducting a thompson of the sound to get a dispensation for this project, but they have been told	ncountered while trying to utilize SOMAH for Fannie Mae ware of this particular issue in co-leveraging SOMAH and brough investigation in collaboration with Fannie Mae.
Stakeholders: Property Owners, Fannie Mae Timeline: Q2 2024	
13 112- 113 113- 114	re important to maintain ongoing conversations and ad IOUs in order to support and expedite the delivery of the recommendation and will continue to work with the first step toward this collaborative effort is for the PA and les leading to extended interconnection timelines. The ed due to the bifurcated process of utility interconnection cipation but can utilize the feedback provided by OUs on partnership and improvement in support of the IOU Working Group program leads to identify the pecifically support interconnection.
Timeline: Ongoing, with a focus in data gathering	g and troubleshooting in Q1-Q2 2024
	P Tariffs earlier this year, the SOMAH PA commits to ride support and clarity on pairing SOMAH PV with battery

	SOMAH PV systems with battery storage, down from 92 percent of TPO systems in 2021. Despite IOUs recently attempts to clarify how VNEM systems can be paired with storage, confusion remains.	pairing SOMAH PV with battery storage. When the current pairing challenges are resolved, the Handbook should be updated to include details on pairing storage with VNEM solar systems.		storage in the next SOMAH Handbook revisions planned for 2024. The SOMAH PA believes the best approach to support pairing SOMAH PV with battery storage is one-on-one with direct support and technical assistance. However, the SOMAH Handbook should not be referenced as the primary resource for storage guidance, so the PA will also review what other informative resources on solar plus storage can be housed on the SOMAH website. The SOMAH PA will incorporate additional checkpoints to connect with Applicants and meet projects where they are when pairing SOMAH PV with battery storage to provide the highest quality of support services relating back to the program's technical assistance offerings. While the PA is committed to publicizing guidance on pairing solar plus storage and working with the IOUs to support successful projects to interconnection, the PA's primary focus remains on solar PV and the program's overarching goal of installing 300 MW of solar capacity.  Stakeholders: Applicants and Property Owners
15 113	Program tracking data continues to improve. The evaluation team's use and detailed review of this database recommends a number of updates to continue to improve its usefulness.	15. Continue to improve tracking data with additional fields. The program tracking data could benefit by the inclusion of a construction completion or interconnection requested date to be able to better understand the time it is taking for systems to receive PTO (e.g., contractor termed, 'Mechanical Completion'), fields indicating whether an application has been resubmitted or has switched from Track A to Track B (if allowed), fields indicating when bill credits were set up by the utility, and additional review and cleaning of variables that are incomplete or invalid (e.g., the tribal indicator field and many of the date fields).	Accept	Timeline: Q2 2024, Ongoing  The SOMAH PA is focused on continued improvement of program data tracking. In response to this recommendation, the PA will conduct an internal review and cleaning of current data fields in PowerClerk at a regular and consistent cadence moving forward. Bill credit data is currently collected semiannually from the IOUs, which allows the PA to better understand interconnection dates and timelines. The SOMAH PA currently records the following fields in PowerClerk: system's PTO date (provided by the IOU), construction start date, and if an application has been resubmitted. The SOMAH PA will include new fields to better indicate if a project has switched from Track A to B, as well as request applicants to self-report a mechanical completion date to indicate construction completion. The SOMAH PA recognizes that some projects have incomplete data on property identifiers and will focus on further data collection for current and future projects, such as if a project is located on tribal land. The SOMAH PA will look into defaulting "yes/no" data fields to "no" where applicable to prevent data from appearing incomplete. The SOMAH PA is committed to a regular cadence of data scrubbing and will continue to add new data fields to improve program tracking.  Stakeholders: Applicants and Contractors Timeline: Q1 2024 and ongoing
16 113- 114	Awareness of tenant education materials was low. Less than half of the surveyed tenants recalled seeing materials in their building related to the SOMAH program. Very few tenants reported attending a workshop or presentation about the SOMAH program. Property owners reported that tenants often turn to them with questions about their bills.	16a. The SOMAH PA should provide educational materials that are posted or available to tenants in common areas of the property. This should include flyer(s) posted in common areas to promote the tenant hotline.	Other	Posting of educational materials to common areas of the property is already part of SOMAH's tenant education requirements, to be completed by property owners. Based on results from the SOMAH PA's tenant education survey, projects that enter the program via Track B (contractor-led applications) result in contractors being relied upon to meet the tenant education requirements. Survey results have shown that contractors are meeting these requirements at their minimum. Subsequently, survey results have shown that the minimum requirements are not effectively educating tenants, resulting in a lack of awareness of SOMAH and its benefits, and overall failing to meet the program's tenant education intentions and goals. Therefore, the SOMAH PA is currently working to update the tenant education requirements, to ensure that tenants are supported more intentionally by the SOMAH PA, CBOs, Property Owners, and contractors. Current materials already promote the tenant hotline, and the SOMAH PA will continue to promote the tenant hotline as a resource during tenant education workshops and tenant education trainings.  Stakeholders: Tenants, Property Owners, Contractors Timeline: Q2-Q4 2024
		16b. The SOMAH program should consider developing a tenant partnership role that would pay one tenant in each property to educate fellow tenants about SOMAH. This person would be a resource to educate their fellow tenants about SOMAH, assist property managers in handling tenant inquiries, and point tenants to existing SOMAH support resources. They could also educate tenants about other efficiency measures and programs available to tenants.	Other	The SOMAH PA will explore developing a tenant "ambassador" role as an activity through an objective in the SOMAH PA's 2024 Marketing, Education, and Outreach Plan. Setting up a program to identify, train, and be able to serve as a resource and provide outreach support (materials, answering questions, etc.) to tenant "ambassadors" of SOMAH buildings, would require additional capacity from SOMAH staff and potentially CBO partners. As program administration funds and CBO partnership funding continue to decrease, the SOMAH PA is being mindful of the scope and scale of which this recommendation could be effectively implemented.  Stakeholders: Tenants, Property Owners Timeline: Q2-Q4 2024
		16c. The SOMAH PA should update the tenant survey to collect more in-depth information about tenant experience and education awareness. Details of these recommended survey changes are found in Section 5.4.1 of the report.	Accept	The SOMAH PA agrees that it would be beneficial to collect additional information about tenant experience and education awareness and will be updating future tenant surveys to implement this recommendation. Given that tenant surveys are conducted every other year, the next survey process would occur in 2025. This will result in a slight delay of implementation of the recommendation compared to the other recommendations, but it is still a priority for the SOMAH PA to implement.  Stakeholders: Tenants, Property Owners

				Timeline: Q2-Q4 2025
17 114	Low Contractor awareness of job training resources. Not all contractors were aware of the SOMAH PA's job training resources, including the job board, and reported they would be interested in using them.	17. The SOMAH PA should do greater outreach to contractors to ensure they are aware of all available SOMAH job training resources.	Accept	Since the close of this evaluation period, the SOMAH PA has conducted a Workforce Development Needs Assessment, which surveys contractors on their awareness of the SOMAH Job Portal and SOMAH's Job Training resources. To date, 100% of surveyed contractors have reported they are aware of the Job Portal and the PA's job training resources. While this assessment has focused on primary contractors, one subcontractor has been surveyed, who noted they were also aware of the job training resources and Job Portal. Additionally, earlier this year, the SOMAH PA fine-tuned a process for onboarding eligible contractors, which includes walking contractors through the job training portal and reminders over email and virtual calls/meetings about SOMAH's job training requirements and resources. These updates were made after this report's evaluation period, so the impacts were not captured in this evaluation.  For general marketing on job training requirements, the SOMAH PA has informed contractors in Applicant and Contractor Eligibility Trainings and quarterly contractor-facing Job Training Overview webinars. On October 31, 2022, SOMAH relaunched the SOMAH website where job trainee requirements and information were imbedded in the application process and documents webpage in the appropriate milestone and laid out the contractor-facing 'Plan Your Next Steps' page. Also, a Job Training requirements e-book was released in Q3 2022 to make information more digestible for contractors.  Finally, the SOMAH PA is currently working on a process to have PowerClerk send automatic email reminders about the job training resources and portal to contractors, which is expected to launch in Q2 2024
18 114	While the job trainee survey was not fielded at the time of this evaluation, we reviewed the survey instrument and identified areas of improvement.	18. The SOMAH PA should include additional questions on the job trainee survey to better understand this program component. This includes additional questions regarding the trainee's motivations for participating, and how their experience has impacted their career path moving forward, including their interest in solar, and career goals and expectations.	Accept	Stakeholders: Contractors Timeline: Q1 2023 – Q4 2023  The SOMAH PA will update the job trainee survey so that future iterations of the survey will include questions on trainee motivations for participating, and how their experience has impacted their career path moving forward, including their interest in solar, and career goals and expectations. In addition, the PA will be evaluating survey responses, the survey "tool", and its methodology, to see if there are data or information gaps to better support SOMAH's trainees and relevant workforce development goals. After this evaluation, the SOMAH PA will modify the survey to address future Workforce Development needs in Q2 2024.  Stakeholders: Job Trainees
19 116	SOMAH PV systems are underperforming relative to expectation. The evaluation team saw evidence of systems where production was steadily declining, or inverters had clearly gone offline. While the SOMAH PA has begun to monitor system performance, a 70% performance threshold was used to flag systems for follow-up.	19. Increase the SOMAH PA monitoring threshold that flags underperforming systems. The evaluation team recommends raising the performance threshold to 90% which aligns with the system warranties and performance guarantees that third-party owners are required to include in contracts with customers.	Accept	Timeline: Q1 2024 for initial survey updates; Q4 2024 for full survey evaluation and updates.  This recommendation has already been completed and addressed. The internal flag at 90% of expected performance was added in Q2 2023, after the close of the evaluation period. The SOMAH PA currently has two system performance thresholds in place for monitoring completed systems. The first is an internal flag at 90% of expected performance that is consistent with system warranties and performance guarantees required for third-party owned systems. The second is a 70% performance threshold that triggers communications to the property owners and contractors indicating that the system needs immediate attention.
20 116	The evaluation team analyzed PV generation data provided by the utilities (NGOM data) as well as data provided by certain PMRS entities. We found systems with data quality issues within the utility data but not the PMRS data, and vice versa. The utility data is used to determine tenant and common areas bill credits and the PMRS data is used by the SOMAH PA for system monitoring. There is a potential monitoring gap if utility data quality is poor but the PMRS data is clean. The SOMAH PA would not be able to flag these systems based on the PMRS data	20. Track and report SOMAH bill credits as a secondary measure of data quality and system performance. The evaluation team recommends that utilities track and report SOMAH bill credits. This reporting would allow confirmation of system performance and enable identification of systems with potential NGOM data issues that could affect bill credits.	Accept	The SOMAH PA acknowledges this is also an IOU recommendation. The SOMAH PA and IOUs currently work together to source, share (by the IOUs), collect, and follow up on bill credits being properly applied for SOMAH projects. Historically, this data sharing has been primarily focused on one-off incoming customer requests, or general confirmation that credits are being received and when they first began appearing on customer bills. Confirmation of bill credits being applied is a field that the PA added to PowerClerk mid-2023 to further streamline data management, especially since the bill credit application is a field that is recorded by the PA after the project and incentive application are completed.  Relating to the PA's response to Recommendation 13, the SOMAH PA strongly supports continuing the customer support liaison role it plays between SOMAH participants and the IOUs. Furthermore, the SOMAH PA supports additional data sharing and collaboration between the PA and IOUs related to bill credits and Interconnection that the IOUs find possible to track and report and sees the monthly IOU Working Group meetings as an established forum to continue discussions. Once the Response to Recommendations is finalized in December, the PA will focus on collaborating with the IOUs in Q1 2024 to establish a consistent reportable tracking format with the IOUs.  Stakeholders: Property Owners, Tenants, IOUs Timeline: Ongoing

21 117	SOMAH PV systems are underperforming relative to expectation.	21. Consider additional system performance enforcement measures. The SOMAH PA monitoring system is an excellent first step in ensuring oversight of system performance. However, if alerts to property owners and contractors do not lead to performance improvements then more enforcement measures may be needed.	Other	The SOMAH PA believes that the current enforcement measures are sufficient. For projects where system performance is not addressed after the SOMAH PA has actively communicated with project contacts, then the program can invoke section 4.9.4 of the SOMAH Handbook. As outlined in section 4.9.4 Grounds for Incentive Payment Clawback or Reduction of the SOMAH Handbook, the SOMAH PA will uphold the incentive clawback policy for systems where underperformance has not been addressed or actively communicated about within SOMAH PA's underperformance timelines. Since the rollout of the fleet monitoring platform, there has been a positive record of active communication from project contacts for systems that are underperforming. If that changes, the SOMAH PA will consider additional system performance enforcement measures that will lead to not only better performance improvement but improved communication between project contacts and the SOMAH PA. The SOMAH PA may engage with project contacts, including contractors and host customers, on how efficient communication channels can be created.  Stakeholders: Property Owners, Contractors Timeline: Q1 2024
22 118	SOMAH incentive levels and performance expectations are developed using the EPBB Calculator which is driven by NREL's PVWatts v2 Calculator. The EPBB calculator has not been updated since 2014. The current version of NREL's PVWatts calculator is now v8.1 (released in January 2023). More recent versions of PVWatts have been shown to have higher generation estimates by approximately 10%. Therefore, SOMAH performance expectations are understated.	22. Research changing incentive calculations away from EPBB calculator which is based on PVWatts v2. The evaluation team recommends researching alternative methods for estimating PV system performance and setting incentive levels that are grounded in more up-to-date methods. This recommendation should be taken in concert with increased monitoring and enforcement measures to ensure systems performance is maximized and maintained. Note that the commission has asked in the May 5th ALJ Ruling Inviting Comments on Potential Modifications to SOMAH whether the EPBB methodology is functional for SOMAH projects and whether there are ways it can be refined to better support SOMAH program goals.	Accept	The SOMAH PA contends that the EPBB methodology should be removed entirely so that projects across the entire state have equitable access to SOMAH program resources. However, is important to note that this can only be changed by a Commission vote to amend the program requirements. In line with this stance, the SOMAH PA has advocated to remove the EPBB from the program's incentive design in its ALJ Ruling Reply Comments. In addition to the findings presented, the EPBB methodology is not functionally equipped to support the geographic diversity of participating properties and creates inequitable incentive outcomes for SOMAH projects. This is true particularly in Liberty and PacifiCorp territories as well as tribal nations in Northern California, as detailed in the ALJ Ruling Comments. The SOMAH PA is committed to researching alternative methods to the EPBB methodology where simultaneously meeting the program's incentive budget and installation goal of 300 MW by 2030 is still feasible.  Stakeholders: Property Owners, Contractors, Tenants  Timeline: Q2 — Q4 2024 (pending timeline of next Handbook and/or outcomes from SOMAH Ruling)

## **IOU Recommendations**

				Pe	G&E (if applicable)	SCE (if applicable)		SI	OG&E (if applicable)	Liberty Utilities (if applicable)			PacifiCorp (if applicable)	
Item #	Page #	Findings	Best Practice / Recommendations	Dispositio n	Disposition Notes	Dispositio n	Disposition Notes	Dispositio n	Disposition Notes	Dispositio n	Disposition Notes	Dispositio n	Disposition Notes	
				Choose: Accepted, Rejected, or Other	Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Describe specific program change, give reason for rejection, or indicate that it's under further review.	
13	112-	See #13 Above	13. The SOMAH PA and IOUs should work together to identify all issues leading to extended interconnection timelines and take steps to expedite this process to ensure program benefits and incentives are provided in a timely manner. This could include having each of the IOUs document their SOMAH interconnection process, requiring approved interconnection applications to be uploaded to PowerClerk, and requiring all IOUs to designate a SOMAH liaison who, among other things (documented throughout this report), would be tasked with tracking projects through the interconnection process with their utility such that it can be accomplished in a smoother and faster manner. If needed, the SOMAH PA should escalate long PTO delays to the CPUC who may be able work with the IOUs to expedite processing.	Accepted	PG&E's liaison is the PG&E Program Manager – the SOMAH PA can reach out to the Program Manager for interconnection and billing questions. PG&E is open to working with the SOMAH PA more on these issues, but general improvements need to be made to PG&E's interconnection process internally first. PG&E is communicating directly with SOMAH contractors on their delay experiences and is actively working on improvements and streamlining the interconnection process.	Accept	SCE already has a designated liaison for SOMAH interconnection and billing scenarios. While SCE is cognizant that SOMAH and other virtual net metering projects typically have longer project completion times, it is important to note that these are complex projects that require specific technical requirements. SCE is open to additional collaboration to address interconnection challenges.	Accept	The current liaison for SDG&E is the program advisor overseeing the SOMAH program. When an issue is identified the advisor will work with the SPOC or SME to address the problem. For example, if the problem is related to billing, the advisor would work with the billing group or interconnection team to resolve the problem. If the PA is requesting data and does not have the correct LOA on file, the advisor would work with customer service to ensure the proper LOA is on file and active.  Further, not all the IOUs have the same interconnection timelines, and SDG&E is one of the fastest to complete interconnection. Overall, there should be no interconnection delays associated with the projects as there are no interconnection requirements specific to the program.	Accept	Liberty has dedicated resources for Regulatory Affairs, Interconnection, and Customer Solutions. Liberty also uses the PowerClerk platform. With only two projects in progress, the interconnection process should not be an issue for Liberty.	Accept	PacifiCorp is open to working with the SOMAH PA to address all project issues as they arise in its service territory. Because PacifiCorp does not have any active projects at this time, the Company cannot comment on issues related to improving the interconnection process for such projects. It should also be noted that some of the suggested actions are particularly more administratively burdensome for IOUs with low participation rates and limited resources.	
20	116	See #20 Above	20. Track and report SOMAH bill credits as a secondary measure of data quality and system performance. The evaluation team recommends that utilities track and report SOMAH bill credits. This reporting would allow confirmation of system performance and enable identification of systems with potential NGOM data issues that could affect bill credits.	Other	Since this recommendation is geared toward system performance and NGOM data issues, PG&E is open to tracking and reporting the NGOM kWh data; Commission guidance may be needed due to customer data protection.	Other	Requiring IOUs to regularly track and report would be a redundant exercise that adds unnecessary administrative tasks and costs. It is the system owner's responsibility to track and maintain performance of their systems. If system owners experience anomalies in their tracking, the owner may request the IOU bill credit reports for their review. If regularly tracking/reporting is	Other	The customer system is not owned by SDG&E, so we are unable to detect any potential issues. Since the system was installed by a contractor, the customer would want to work directly with the contractor to troubleshoot any issues. SDG&E's responsibility is to ensure customer receive VNEM credits and that the account is properly profiled via the PMRS system.	Other	Liberty has not billed any SOMAH projects as none have been completed. Liberty is implementing a new Customer Information System (CIS). It is not certain at this time how this information would be tracked in the new CIS.	Other	PacifiCorp has not billed any SOMAH projects as none have been completed. PacifiCorp is in the process of updating its CSS system. It is not certain at this time how this information would be tracked.	

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							required, the PA should be						
							responsible as they have						
							the relationship with the						
							application. However, SCE						
							is open to working with the						
							PA on a process of notifying						
							the PA when SCE identifies						
							a discrepancy of a						
							customer's NGOM data.						
23	76	One property owner reported	23. The interconnection	Accepted	PG&E's understanding is	Accept		Accept	SDG&E billing system is	Accept	Liberty agrees the	Accepted	PacifiCorp has measures in
	, ,	that their utility installed their	inspection should include a check	Accepted	that these are rare	лесере	a rare occurrence. SCE	лесере	already set up to ping our	лесере	interconnection inspection	riccepted	place to check for these
		PV generation meter	for configuration errors, such as		occurrences, but PG&E will		meter techs already follow		meter since they are smart		should include a check for		rare occurrences.
		incorrectly (backwards) and	a backwards utility meter that		correct if found. The solar		a checklist to ensure proper		meters. The meter will then		utility configuration errors.		Tale occurrences.
		thus their PV generation was	could lead to PV generation		contractors and PG&E		installation and setup		respond back to say if the		dtility configuration errors.		
			_				·						
		being read as consumption.	being read as consumption.		metering technicians should		including program		configuration was				
		This resulted in the property			work together to minimize		configuration. If any		successful or not. If				
		owner receiving a \$5,000 utility			wiring errors. PG&E		errors/issues were found,		configuration errors out,				
		bill. It was eventually corrected			suggests having the solar		SCE notifies the applicant of		SDG&E will initiate				
		by the utility.			contractors clearly label and		the issues that need to be		contingency plans that				
					identify which wires are for		resolved. After SCE notifies		already exist. Another				
					the PV system and which		the application, the PA		scenario that can result in				
					are connected to the grid,		should be responsible for		generation being read as				
					and the meter socket is		working with the applicant		consumption is associated				
					installed correctly.		until the issue is resolved.		with unauthorized				
					Therefore, during the field				operation of the Generating				
					metering inspection, the				Facility. SDG&E's				
					metering technician can				interconnection portal				
					easily see the channels are				displays a banner with a				
					wired appropriately and the				message advising				
					meter will then be installed				applicants that operating a				
					correctly.				generator without				
					correctly.				=				
									Permission to Operate				
									(PTO) can result in unsafe				
									conditions and may cause				
									inaccurate billing.				
									SDG&E already has an				
									inspection process that				
									checks for configuration				
									issues. That process				
									includes a review of photos				
									prior to a field inspection.				
									This allows us to identify				
									any issues prior to the in-				
									person inspection. If all				
									checks out when reviewing				
									the photos, we then move				
									forward with the in-person				
1									field inspection which				
									includes, but is not limited				
									to, a check of wiring and				
									placard labeling as well as a				
									voltage check. Our				
									metering team will then				
									move forward with the				
									meter set and will only set				
									the Net Generation Output				
									Meter (NGOM) once they				
									have confirmed the				
									Voltage/Wiring is properly				
									configured.				