

REQUEST FOR PROPOSALS NEW HORIZONS

Solar Photovoltaic Design and Installation Services

NH-2025-RFP-01

Introduction:

New Horizons Affordable Housing and Development Inc. (New Horizons), a nonprofit affiliate of the Housing Authority of the County of Santa Cruz (HACSC) is issuing the following Request for Proposals (RFP) for solar photovoltaic design and installation services. New Horizons' purpose includes, but is not limited, to supporting HACSC with acquiring, providing, developing, financing, rehabilitating, owning, and operating affordable housing for low-income individuals. New Horizons actively manages approximately 240 affordable housing units in Santa Cruz County. New Horizons is committed to enhancing and preserving its existing affordable portfolio as well as expanding opportunities for high quality affordable housing for low-income residents of Santa Cruz County. This RFP is issued solely by New Horizons and is not issued by HACSC but may be placed on HACSC's website for convenience and ease of access.

Request for Proposals:

New Horizons is soliciting proposals from Solar Photovoltaic (PV) Contractors with a minimum of a California A, B, C-10 or C-46 Contractor's License ("Contractor") to provide solar design and installation services for installation of solar PV systems on six sites located across Santa Cruz County ("Project"). The six sites are comprised of 92 units of multifamily housing. Buildings are wood frame and no more than two stories in height.

The six sites are participating in the Solar on Multifamily Affordable Housing Program (SOMAH). **All contractors must be able to demonstrate SOMAH eligibility at the time of proposal submission.** The Contractor will be required to maintain eligibility throughout the duration of the project. For more information on SOMAH and contractor eligibility, contractors can visit calsomah.org. New Horizons reserves the right to award more than one contract through this RFP process among two separate Contractors in order to meet the timelines associated with this project. Contractors are expected to commence Solar PV design and installation work in Spring of 2025. New Horizons may award contract(s) to more than one vendor if in the best interest of New Horizons and project completion within desired timetable.

Project addresses will not be published publicly with this RFP but will be provided separately through BidNet Direct upon request of the contractor. Requests for addresses must be made via the BidNet Direct Platform. Contractors will be provided with the same information that will only contain the street address locations of the six sites.

New Horizons Representative:

Daniel Fagan
2160 41st Ave, Capitola, CA 95010
Email: danielf@hacosantacruz.org

PROPOSAL SUBMISSION

Submissions to the RFP must be submitted electronically via the BidNet Direct procurement system no later than Friday November 15, 2024, at 5:00 p.m. All proposals must include the completed bid form included in this RFP. Prospective bidders must be registered with BidNet Direct to participate in this solicitation and can create an account at no cost by visiting <https://www.bidnetdirect.com/california/housingauthorityofcountyofsantacruz>.

I. Bid Schedule and Project Timeline:

New Horizons is seeking a consultant with the capacity and resources to begin work in **Spring 2025** and be able to provide services through **November 2025**. New Horizons may extend the contract if needed. New Horizons may consider alternative start dates based on contractor availability.

Solar PV RFP Timeline	
Scheduled Event	Date
1. RFP Issued	October 22, 2024
2. Deadline for Questions	November 8, 2024
3. Submission Deadline	November 15, 2024 at 5:00PM
4. Intent to Award	Week of November 25, 2024

1. RFP Issued: Tuesday, October 22, 2024

Prospective bidders must register with BidNet Direct to participate in this solicitation and can create an account at no cost by visiting: <https://www.bidnetdirect.com/california/housingauthorityofcountyofsantacruz>.

2. Deadline for Questions:

All questions and requests for clarification or additional information, must be addressed in writing via the BidNet Direct procurement system by **Friday, November 8, 2024 at 5:00pm**. HACSC's Director of Property Management and Client Services shall respond to such inquiries in writing via the BidNet Direct platform. To avoid giving one prospective Proposer an advantage over another during the solicitation process, HACSC's Director of Property Management and Client Services will NOT conduct any substantive discussions with a prospective Proposer when other prospective Proposers are not present. HACSC may redirect the asking party back to the solicitation documents where his/her question has already been addressed. Otherwise, HACSC's Director of Property Management and Client Services will direct the asking party to submit his/her inquiry via BidNet Direct platform so that HACSC may more fairly respond to all Proposers in writing by addendum. Proposers are responsible for obtaining and reading all addenda.

3. Submission Deadline:

Submissions to the Request for Qualifications must be submitted electronically via the BidNet Direct procurement system no later than **Friday, November 15, 2024, at 5:00pm**.

4. Intent to Award

New Horizons will post a "Notice of intent to award" on the BidNet Direct platform the week of November 25, 2024. Contract Award(s) are subject to approval by New Horizons Board of Directors prior to execution.

II. Property Description and Scope of Work:

PROPERTY DESCRIPTION:

Six multifamily sites located in Santa Cruz County. The six sites will be broken into individual projects. All buildings are wood frame construction with 5 properties having recently replaced pitched asphalt shingle roofs and one having a flat Thermoplastic Polyolefin (TPO) roof. Addresses will be provided to contractors only after a request has been made through the BidNet Direct Platform.

Project Sites (Street numbers to be provided by request):

Project A

Portola Dr.
Santa Cruz, Ca 95062

Project B

Crestview Dr.
Watsonville, Ca 95076

Project C

Clifford Ave
Watsonville, Ca 95076

Project D

Arista Ct
Watsonville, Ca 95076

Project E

Arista Ln
Watsonville, Ca 94076

Project F

Brommer St
Santa Cruz, Ca

SCOPE OF WORK:

The following scope of work will apply to all six sites listed in the property description. All sites have been analyzed by the SOMAH's Technical Assistance (TA) Team for system sizing as a part of the SOMAH program. The analysis results can be found in Exhibit A and can be used to complete the bid form. All six projects must be sized according to the information contained in Exhibit A. The solar array layouts provided in Exhibit A are provided only as an example, the final array placement may differ. The solar array placements must be contained on the roof structures of buildings. All solar PV systems will be purchased and owned by New Horizons.

The selected proposer shall:

1. Be responsible for the designing, engineering, permitting, installing and interconnection of solar PV systems on assigned project sites listed in this RFP. PV systems must meet the PV system requirements listed in the SOMAH Handbook.
2. Review any drawings, specifications, reports, and other planning documents provided by New Horizons or SOMAH's TA Team on the proposed project.
3. Conduct kick off meeting for each project with HACSC staff, SOMAH's TA Team, and other stakeholder.
4. Prepare complete draft designs, drawings and specifications for complete solar system for each project. Review and seek approval from HACSC and SOMAH's TA Team. Designs and specifications must comply with SOMAH requirements.
5. Secure any project permitting or interconnection agreements required for system construction and activation. This includes final permit signoffs from applicable jurisdiction.
6. Secure and maintain sufficient insurance coverage as shown in the sample contract for the duration of the project.
7. Provide information on workmanship warranties and product warranties that are compliant with SOMAH warranty requirements.
8. Maintain eligibility and compliance with all SOMAH policies and requirements as shown in the SOMAH Handbook throughout the duration of the project.
9. Provide information on plans for meeting SOMAH's job training and tenant education requirements.
10. Provide HACSC staff with training on PV system, monitoring system access/ overview of monitoring system and review warranty.
11. Address any and all construction, subcontractor, and third-party vendor and manufacturer warranty issues in a timely, systematized manner.
12. Enforce all OSHA, CalOSHA and client-specific safety rules and regulations.
13. Assure overall quality controls of the Project and correcting all work not in compliance with the Contract Documents.

III. Contractor Selection:

Bidders, by submitting their proposal, agree to enter a contract with New Horizons substantially in the form accompanying this RFP, including all payment / performance bonds and insurance requirements should they be selected for the award.

New Horizons may award, at their discretion, to separate contractors if necessary to meet project timelines and objectives.

New Horizons will negotiate with the selected Contractors and reserves the right not to award a contract for solar photovoltaic design and installation services if an agreement is unable to be reached within a reasonable timeframe at the sole discretion of New Horizons.

IV. Proposal Contents:

Include responses to each of the following in your proposal response following the same outline format and numbering as below.

1. A cover letter introducing the Contractor signed by a representative that is authorized to execute a contract.
2. Certification Form. Signed by a contractor representative. See Attachment B.
3. Approach. A detailed narrative that explains the Contractor's approach to projects of this type. See Attachment C
4. Project Experience. A detailed table or list that itemizes the Contractor's project experience as a solar contractor. Include the project name, location, clients name, basic description of the scope, size of solar PV system, and the date of project completion. Responses to questions regarding financial capacity, licenses, and litigation. See Attachment D.
5. Completed Bid Form for each of the six projects listed in the scope of Work.

V. Submission Guidance & Requirements:

1. Submit proposals to New Horizons via BidNet Direct Platform before the deadline.
2. Only SOMAH eligible vendors with relevant and comparable solar PV experience will be considered. At a minimum a vendor must be licensed to perform the scope of work in the City of Santa Cruz and the State of California and maintain adequate insurance coverage.
3. Questions? All questions must be submitted in writing to the New Horizons via the BidNet Direct platform by Friday, **November 8, 2024**. Written responses will be posted here within five (5) business days. New Horizons will only respond to written inquiries. Under no circumstance should any prospective contractor contact, discuss with, or inquire of any New Horizons' consultant or employee, any matter relating to this solicitation process. This requirement is to ensure that the same information is communicated to all parties and that no inconsistent, incomplete, or inaccurate information is transmitted separately.
4. Final proposals are due by **Friday, November 15, 2024, at 5:00pm.**

VI. Proposal Evaluation Criteria

The following factors will be utilized by New Horizons to evaluate each proposal received; award of points for each listed factor will be based upon the documentation that the proposer submits within his/her proposal submittal:

NO.	FACTOR DESCRIPTION	WEIGHT (Max Points)
1	Attachment A - Checklist	0
2	Cover letter	15
3	Attachment B - Certification (Mandatory Form)	10
5	Attachment C - Proposer Approach and Timeline	20
6	Attachment D - Proposer Experience, References and Questionnaire	25
7	Attachment E – Project Bid Form sum for all six projects	30
	Maximum Total Points	100

A review panel will evaluate all proposals based on the scoring criteria. The review panel may check references in connection with scoring.

New Horizons anticipates that it will select a minimum of a three-person committee to evaluate each of the responsive proposals submitted in response to this RFP. PLEASE NOTE: No proposer shall be informed at any time during or after the RFP process as to the identity of any evaluation committee member. If, by chance, a proposer does become aware of the identity of such person(s), he/she SHALL NOT make any attempt to contact or discuss with such person anything related to this RFP. John Fleisher, Controller, at johnf@hacosantacruz.org, is the only person at New Horizons that the proposers shall contact pertaining to this RFP.

All persons having familial (including in-laws) and/or employment relationships (past or current) with principals and/or employees of a proposer entity will be excluded from participation on the New Horizons evaluation committee. Similarly, all persons having an interest in and/or contract with a proposer entity will be excluded from participation on the evaluation committee.

Upon final completion of the proposal evaluation process, the evaluation committee will forward the completed evaluations to the New Horizons Board at a scheduled meeting for approval. Contract negotiations may, at New Horizons' option, be conducted prior to or after the Board's approval.

VII. Reservation of Rights:

This RFP does not commit New Horizons to continue with the procurement process or select and award a Solar PV Design and Installation Services contract. New Horizons reserves the right to cancel the procurement in whole or in part, at its sole discretion, at any time before the Solar PV Design and Installation Services contract is fully executed and approved on behalf of New Horizons. New Horizons further reserves the right to reject all submissions and seek new proposal or proposals when New Horizons considers such procedure to be in its best interest. New Horizons reserves the right to terminate a contract awarded pursuant to this RFP, at any time for its convenience upon 10 days written notice to the successful proposer(s).

New Horizons reserves the right to waive any minor irregularities and omissions in the information contained in the Proposal it receives, and to make the final determination of which Contractor firms are considered.

New Horizons reserves the right to negotiate the fees proposed by the responding party and reserves the right to determine the location that the successful proposer shall provide the services called for in this RFP.

The party responding to this RFP accepts all risks and costs associated with completion of their proposal. The submittal of a response and qualification package and its use by the New Horizons will not give rise to any liability on the part of New Horizons to the submitting party or any third party or person. No guarantees are made or implied that the Project will be developed either in whole or in part.

New Horizons reserves the right to retain all proposals submitted and not permit withdrawal for a period of 60 days subsequent to the deadline for receiving proposals without the written consent of the Agency. The California Public Records Act (Cal. Govt. Code sections 6250 et seq.) mandates public access to government records. Any submissions not opened will remain sealed and will be returned to the submitting party. To the extent required by law, upon request, New Horizons will make available to the public after award of contract: (i) All opened Proposals including all information submitted; (ii) All correspondence and written questions submitted during the proposal period; and (iii) All subsequent evaluation information. Except as otherwise required by law, New Horizons will not disclose financial details or trade secrets submitted that have been designated confidential by the submitting party. Any financial details or trade secrets that a submitting party believes should be exempt from disclosure must be specifically identified and marked as "confidential trade secrets" and that material must be submitted in a separate envelope clearly labeled as confidential. Upon receipt of a request under the Public Records Act, New Horizons will notify the proposer. If proposer requests that New Horizons withhold from disclosure the information identified as confidential, the proposer will assume all responsibility for any challenges resulting from the non-disclosure, indemnify and hold harmless New Horizons from and against all damages (including but not limited to attorney's fees that may be awarded to the party requesting the proposer's information), and pay any and all cost and expenses related to the withholding of proposer's information. Proposer will not make a claim, sue, or maintain any legal action against New Horizons or its directors, officers, employees, or agents concerning the withholding from disclosure of the proposer's information. Failure to respond to New Horizons' notice or enter into a defense and indemnity agreement with the New Horizons constitutes a complete waiver of any rights regarding the information designated as proprietary/confidential and such information will be disclosed pursuant to

applicable procedures under the Public Records Act. If the proposer does not request that the New Horizons withhold from disclosure information identified as confidential, New Horizons will have no obligation to withhold the information from disclosure and may release the information sought without any liability to the New Horizons.

Representatives of New Horizons can:

- Request clarification of responses submitted before the final selection of a contractor for this project;
- Reject any or all responses;
- Waive any informality in the selection process;
- Terminate this selection process at any time;
- Negotiate the fees proposed by bidders for this project;
- Award a contract on a fixed fee or time and material basis, or both;
- Award a contract that provides the best value to New Horizons as determined solely by New Horizons in its absolute discretion;
- New Horizons shall not be liable for any expense incurred in relation to the preparation or submittal of proposals. Such expenses include, but are not limited to, expenses for preparing the proposal or related information in this RFP, negotiations with New Horizons on any matter related to the Proposals, any attorneys' fees incurred prior to execution of final construction documents, affidavits and certifications, and costs associated with interviews, meetings, travel or presentations. Additionally, New Horizons shall not be liable for expenses incurred as a result of New Horizons' rejection of any Proposal made in response to the RFP.

Vendors wishing to contest the selection process or results will have five (5) business days from the date of the notice of final selection to submit written complaints by email to John Fleisher, Controller, at johnf@hacosantacruz.org. Thereafter, the Controller has 10 business days to respond in writing to the complaint.

VIII. Attachments:

- Attachment A:** Checklist
- Attachment B:** Certification
- Attachment C:** Proposer Approach and Timeline
- Attachment D:** Proposer Experience, References and Questionnaire
- Attachment E:** Project Bid Forms
- Exhibit A:** SOMAH's Technical Assistance Reports
- Exhibit B:** Sample Contract

ATTACHMENT A

Checklist of Submittal Components

Complete proposals must include the following list of documents.

- Cover Letter.** Provide a letter of introduction signed by an authorized officer of the proposing entity. The letter should include the following information:
 - General qualifications statement, including a statement on whether the proposer is licensed.
 - List the license number
 - State how many years the organization has been in business under the current business name and license number
 - Note any concerns with availability to begin construction by spring, 2025
 - Identify a contact person for any correspondence specific to this RFP. Include both a phone number and email address.

- Certification.** A statement signed under penalty of perjury attesting to the correctness of the information supplied (Attachment B).

- Proposer Approach and Timeline** (Attachment C)

- Proposer Experience, References and Questionnaire** (Attachment D)

- Proposer Project Bid Form for each project** (Attachment E)

ATTACHMENT B

Certification Under Penalty of Perjury

_____(person), hereby submits on behalf of
_____(business) its certified response to the Request
for Qualifications for the New Horizons Solar PV design and Installation Services issued by
New Horizons.

The RFP has been read and understood. Reasonable diligence has been used in preparation of this submittal and all information provided is true and complete to the best of my knowledge. The form contract has been reviewed and my signature below confirms this entity is qualified and capable to provide all the requirements of the contract. Whenever an explanation has been provided as requested in further response to a “yes” or “no” answer, my signature below is an affirmation of the explanation.

By signature and date below, prospective bidder authorizes any financial institution, credit reporting agency and/or service, legal firm or any other type of business, agency or individual to release to New Horizons any and all information as that information relates, or could relate, to its ability to evaluate the background, stability and general worthiness of this bidder to perform Solar PV Design and Installation Services activities if pre-qualified and awarded a contract by New Horizons.

Executed under penalty of perjury on _____(date), in
_____(city/state).

Signature

Print Name

Title

ATTACHMENT C

Proposer Approach and Timeline

Provide the following information as a response in your proposal.

- General approach to solar PV work including a discussion of any project systems and procedures the Contractor employs to maintain clear project oversight and quality control throughout the project.
- Describe experience installing Virtual Net Energy Metering (VNEM) systems. Please provide a list of projects installed utilizing a VNEM tariff.
- Describe plan for meeting SOMAH's job training and tenant education requirements.
- A detailed description of the Contractor's ability to maintain project schedules, track project costs and all project documentation, anticipate issues, effectively troubleshoot problems to minimize any project impacts.
- Describe approach to managing multiple projects and include a timeline that shows anticipated start and end dates for each of the six projects.
- Please limit to no more than two pages.

ATTACHMENT D

Proposer Experience, References and Questionnaire

Proposers Experience

Provide the following information as a response in your proposal.

Company Profile

Provide the following narrative information:

- Location of the office that will be responsible for the implementation of this Project.
- Describe any customer service or customer satisfaction plans the company utilizes.

Project Experience

Submit three examples of relevant projects. Relevant projects shall be of similar scope, size, design character and complexity to the Project Requirements. Examples can be completed or in progress. Each example submittal shall provide the following information:

- Project name and location
- Project description, including
 - Number of units
 - Size of solar system
- Client name
- Overall project timeline in months, including any significant delays and reason for delays. Describe the steps taken by the General Contractor to mitigate damages.
- Project completion date or expected completion date
- Project budget, including schedule of values and amount of change orders approved. If project budget was exceeded, provide an explanation why the budget was exceeded and describe steps that were taken by General Contractor team to control costs during the design/preconstruction stage and during the construction stage.
- State whether there were any claims on the project, including subcontractor and vendor claims, and describe how the claims were resolved.

Company References:

Provide three (3) professional references from Contractor's clients, relating to projects that Contractor has completed in the last five (5) years that are similar to the proposed Project.

Questionnaire:

Answer the following questions Yes or No on the form below and attach additional information if necessary:

1. Has your contractor's license been revoked at any time in the last five years?

YES:_____ NO:_____

2. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner?

YES:_____ NO:_____

If yes, explain on a separate signed page, identifying all such projects by owner, owner's address, the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.

3. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any project for any reason?

YES:_____ NO:_____

If "yes," explain on a separate signed page. State whether the firm involved was the firm applying for pre-qualification here or another firm. Identify by name of the company, the name of the person within your firm who was associated with that company, the year of the event, the owner of the project, the project and the basis for the action.

4. In the past five years has any claim against your firm concerning your firm's work on a construction project been filed in court or arbitration?

YES:_____ NO:_____

If "yes," on separate signed sheets of paper identify the claim(s) by providing the project name, date of the claim, name of the claimant, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

5. In the past five years has your firm made any claim against a project owner concerning work on a project or payment for a contract and filed that claim in court or arbitration?

YES:_____ NO:_____

If "yes," on separate signed sheets of paper identify the claim by providing the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution).

6. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf, in connection with a construction project, either public or private?

YES:_____ NO:_____

If “yes,” explain on a separate signed page the amount of each such claim, the name and telephone number of the claimant, the date of the claim, the grounds for the claim, the present status of the claim, the date of resolution of such claim if resolved, the method by which such was resolved if resolved, the nature of the resolution and the amount, if any, at which the claim was resolved.

7. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

YES: _____ NO: _____

If “yes,” explain on a separate signed page. Name the insurance carrier, the form of insurance and the year of the refusal.

ATTACHMENT E

Project Bid Form

PLEASE USE PROJECT BID FORM TEMPLATE WHICH CAN BE DOWNLOADED FROM THE SOLICITATION AS A SEPARATE DOCUMENT FROM THIS RFP DOCUMENT.

Exhibit A

SOMAH's Technical Assistance
Reports



TECHNICAL ASSISTANCE REPORT Project A

Presented to: New Horizons Affordable Housing and Development
Housing Authority of Santa Cruz
September, 2024

Created by: SOMAH Program Administrator
TechAssist@CalSOMAH.org



|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

Installing solar on existing multifamily properties often requires property owners to navigate and overcome barriers, including complicated ownership and financing structures as well as crunching the numbers on solar costs and benefits. To help level the playing field and overcome these barriers, the SOMAH program was intentionally designed to provide personalized technical assistance to bridge these knowledge gaps and to help facilitate solutions to common issues faced along the way.

SOMAH's technical assistance services are designed to provide personalized support to make the process as simple as possible. The technical assistance services cover a wide range of project-related elements, including solar feasibility, financial analysis, contractor bidding, and interconnection support as well as referrals to other energy programs.

Upfront Technical Assistance Overview

The following report is provided as part of the SOMAH Upfront Technical Assistance (TA) offering to help appropriately size your SOMAH-funded PV system. The SOMAH TA team has evaluated your site's physical properties, conducted a thorough analysis of both your common areas and tenant electric usage patterns and applicable electric rates. These factors were evaluated to determine both the maximum eligible SOMAH incentive as well as an optimized system that factors in customer preference, such as minimized net cost, where applicable.

In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4.04/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility/CCA	Pacific Gas & Electric (PG&E) Central Coast Community Energy Electric
Number of Units	24
Current Common Area Electric Rate Schedule	E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Annual Common Area Electric Usage (from baseline 9,178 kWh)	9,579 kWh
Aggregated Annual Tenant Area Electric Usage (from baseline 44,676 kWh)	122,960 kWh
Total Estimated Annual Electric Usage (from baseline 53,854 kWh)	132,539 kWh

- Energy usage increased to account for potential new electrification loads.

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system re-design is intended to meet current energy usage and additional estimated electrification loads for common and tenant areas.

Estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 90% of the new estimated energy usage after electrification.

PV System Sizing Analysis	
Proposed PV System Size	89.6 kW DC / 82.4 kW CEC-AC
Annual PV Generation	119,535 kWh / 90% Offset
Common Area Generation	8,367 kWh / 90% Offset
Tenant Area Generation	111,168 kWh / 90% Offset





Sample Layout Notes

The total system cost was calculated with \$4.00 / W AC which is the average price per watt from SOMAH projects.

The PV system pre-design uses (224) 400W modules for roof-mounted system on pitched roofs. The design factor for this project is 86.3%, the system does not exceed 10% shading and meets fire code setbacks.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

Purchased System

If you decide to purchase a system, you may use one or a combination of options: cash, loans, and/or the federal investment tax credit. A one-time federal investment tax credit (ITC) is available for residential solar PV systems. The credit is based on a percentage of the total solar PV system cost. Currently, the ITC is at 30% through 2032.

If you purchase a system, you pay for the upfront costs to own the solar system in exchange for reduced or eliminated electricity bills. Under system ownership, you are responsible for system maintenance and repairs.

Third Party Ownership

Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	5.8	7%	8,367	\$1.19	\$5,925	
Tenant Areas	76.6	93%	111,168	\$3.50	\$231,507	
Total	82.4	100%	119,535		\$237,432	\$2.88



Financial Results - Overall	
Estimated Total System Cost	\$329,657
SOMAH Incentive Payment	\$237,432
Net Out-of-Pocket Purchase Cost	\$92,225
Year 1 O&M Cost	\$2,598 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	14.2%
Net Present Value (NPV) ⁵ - 20 Years	\$140,627
Return on Investment (ROI) ⁶ - 20 Years	95%
Payback Period	5.3 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	5.8	7%	8,367	\$0.87	\$4,331	
Tenant Areas	76.6	93%	111,168	\$2.45	\$162,055	
Total	82.4	100%	119,535		\$166,386	\$2.02

Financial Results – Claiming the ITC baseline	
Total System Cost	\$329,657
SOMAH Incentive Payment	\$166,386
Net Out-of-Pocket Purchase Cost	\$163,271



Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results – After ITC adders	
Total System Cost	\$329,657
SOMAH Incentive Payment	\$166,386
ITC (30% tax credit)	\$98,897
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system \$64,373 final gap \$0 or 0% of project cost
Net Out-of-Pocket Purchase Cost	\$0
Year 1 O&M Cost	\$2,598 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results - Overall	
Year 1 Common Area Savings	\$3,542
Year 1 PPA Cost	\$3,613
Year 1 Total Return	-\$71
Year 20 Total Return	\$12,384
Year 1 Estimated Per Unit Tenant Savings	\$538

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.03/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.03/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.03/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	3,542	3,613	(71)	(71)
2	3,666	3,685	(19)	(90)
3	3,794	3,759	35	(54)
4	3,927	3,834	93	39
5	4,065	3,911	154	192
6	4,207	3,989	218	410
7	4,354	4,069	285	696
8	4,506	4,150	356	1,052
9	4,664	4,233	431	1,483
10	4,827	4,318	510	1,993
11	4,996	4,404	592	2,585
12	5,171	4,492	679	3,264
13	5,352	4,582	770	4,035
14	5,540	4,674	866	4,901
15	5,733	4,767	966	5,867
16	5,934	4,862	1,072	6,939
17	6,142	4,960	1,182	8,121
18	6,357	5,059	1,298	9,419
19	6,579	5,160	1,419	10,838
20	6,809	5,263	1,546	12,384
TOTAL	100,167	87,783	12,384.12	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Value of Common Area Production	\$3,542
Example Annual Lease Payment	\$3,613
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$23,056
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	3,542	3,613	(71)	(71)
2	3,666	3,613	53	(18)
3	3,794	3,613	181	164
4	3,927	3,613	314	478
5	4,065	3,613	452	930
6	4,207	3,613	594	1,524
7	4,354	23,056	(18,702)	(17,179)
8	4,506		4,506	(12,672)
9	4,664		4,664	(8,008)
10	4,827		4,827	(3,181)
11	4,996		4,996	1,816
12	5,171		5,171	6,987
13	5,352		5,352	12,339
14	5,540		5,540	17,878
15	5,733		5,733	23,612
16	5,934		5,934	29,546
17	6,142		6,142	35,688
18	6,357		6,357	42,044
19	6,579		6,579	48,624
20	6,809		6,809	55,433
TOTAL	100,167	44,733	55,433.22	



Solar Lease Notes

No additional notes.



TECHNICAL ASSISTANCE REPORT Project B

Presented to: New Horizons Affordable Housing and Development
Housing Authority of Santa Cruz
September, 2024

Created by: SOMAH Program Administrator
TechAssist@CalSOMAH.org



|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

Installing solar on existing multifamily properties often requires property owners to navigate and overcome barriers, including complicated ownership and financing structures as well as crunching the numbers on solar costs and benefits. To help level the playing field and overcome these barriers, the SOMAH program was intentionally designed to provide personalized technical assistance to bridge these knowledge gaps and to help facilitate solutions to common issues faced along the way.

SOMAH's technical assistance services are designed to provide personalized support to make the process as simple as possible. The technical assistance services cover a wide range of project-related elements, including solar feasibility, financial analysis, contractor bidding, and interconnection support as well as referrals to other energy programs.

Upfront Technical Assistance Overview

The following report is provided as part of the SOMAH Upfront Technical Assistance (TA) offering to help appropriately size your SOMAH-funded PV system. The SOMAH TA team has evaluated your site's physical properties, conducted a thorough analysis of both your common areas and tenant electric usage patterns and applicable electric rates. These factors were evaluated to determine both the maximum eligible SOMAH incentive as well as an optimized system that factors in customer preference, such as minimized net cost, where applicable.

In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4.04/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility/CCA	Pacific Gas & Electric (PG&E) Central Coast Community Energy Electric
Number of Units	16
Current Common Area Electric Rate Schedule	E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Annual Common Area Electric Usage (from baseline 5,606 kWh)	1,015 kWh
Aggregated Annual Tenant Area Electric Usage (from baseline 27,704 kWh)	66,343 kWh
Total Estimated Annual Electric Usage (from baseline 33,310 kWh)	67,358 kWh

- Energy usage estimate increased to account for potential new electrification loads.

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system re-design is intended to meet current and future electrification loads for common and tenant areas.

Estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 100% of the new estimated energy usage after electrification.

PV System Sizing Analysis	
Proposed PV System Size	48.8 kW DC / 44.9 kW CEC-AC
Annual PV Generation	67,471 kWh / 100% Offset
Common Area Generation	1,012 kWh / 100% Offset
Tenant Area Generation	66,459 kWh / 100% Offset





Sample Layout Notes

The total system cost was calculated with \$4.00 / W AC which is the average price per watt from SOMAH projects.

The PV system pre-design uses (122) 400W modules for roof-mounted system on tilted roofs. The design factor for this project is 90.1%, the system does not exceed 10% shading and meets fire code setbacks.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

Purchased System

If you decide to purchase a system, you may use one or a combination of options: cash, loans, and/or the federal investment tax credit. A one-time federal investment tax credit (ITC) is available for residential solar PV systems. The credit is based on a percentage of the total solar PV system cost. Currently, the ITC is at 30% through 2032.

If you purchase a system, you pay for the upfront costs to own the solar system in exchange for reduced or eliminated electricity bills. Under system ownership, you are responsible for system maintenance and repairs.

Third Party Ownership

Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	0.7	2%	1,012	\$1.19	\$722	
Tenant Areas	44.2	98%	66,459	\$3.50	\$139,426	
Total	44.9	100%	67,471		\$140,148	\$3.12



Financial Results - Overall	
Estimated Total System Cost	\$179,545
Net Out-of-Pocket Purchase Cost	\$39,398
Year 1 O&M Cost	\$1,415 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	13.5%
Net Present Value (NPV) ⁵ - 20 Years	\$61,294
Return on Investment (ROI) ⁶ - 20 Years	77%
Payback Period	5.2 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	0.7	2%	1,012	\$0.87	\$528	
Tenant Areas	44.2	98%	66,459	\$2.45	\$97,598	
Total	44.9	100%	67,471		\$98,126	\$2.19



Financial Results – Claiming the ITC baseline 30%	
Total System Cost	\$179,545
SOMAH Incentive Payment	\$98,126
ITC (30% tax credit)	\$53,864
Net Out-of-Pocket Purchase Cost	\$27,555

Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results – With ITC Adder	
Total System Cost	\$179,545
SOMAH Incentive Payment	\$98,126
ITC (30% tax credit)	\$53,864
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system \$27,555
Net Out-of-Pocket Purchase Cost	\$0
Year 1 O&M Cost	\$1,415 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being located in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation.

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results - Overall	
Year 1 Common Area Savings (A)	\$175
Year 1 PPA Cost (B)	\$179
Year 1 Total Return	-\$4
Year 20 Total Return	\$612
Year 1 Estimated Per Unit Tenant Savings	\$442

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.003/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.003/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.003/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	175	179	(4)	(4)
2	181	182	(1)	(4)
3	187	186	2	(3)
4	194	189	5	2
5	201	193	8	10
6	208	197	11	20
7	215	201	14	34
8	223	205	18	52
9	230	209	21	73
10	239	213	25	98
11	247	218	29	128
12	255	222	34	161
13	264	226	38	199
14	274	231	43	242
15	283	236	48	290
16	293	240	53	343
17	303	245	58	401
18	314	250	64	465
19	325	255	70	535
20	336	260	76	612
TOTAL	4,949	4,337	611.86	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Value of Common Area Production	\$175
Example Annual Lease Payment	\$179
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$9,849
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	175	179	(4)	(4)
2	181	179	3	(1)
3	187	179	9	8
4	194	179	16	24
5	201	179	22	46
6	208	179	29	75
7	215	9,849	(9,634)	(9,559)
8	223		223	(9,336)
9	230		230	(9,106)
10	239		239	(8,867)
11	247		247	(8,621)
12	255		255	(8,365)
13	264		264	(8,101)
14	274		274	(7,827)
15	283		283	(7,544)
16	293		293	(7,250)
17	303		303	(6,947)
18	314		314	(6,633)
19	325		325	(6,308)
20	336		336	(5,971)
TOTAL	4,949	10,920	(5,971.47)	



Solar Lease Notes

No additional notes.



TECHNICAL ASSISTANCE REPORT Project C

Presented to: New Horizons Affordable Housing and Development
Housing Authority of Santa Cruz
September, 2024

Created by: SOMAH Program Administrator
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|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

Installing solar on existing multifamily properties often requires property owners to navigate and overcome barriers, including complicated ownership and financing structures as well as crunching the numbers on solar costs and benefits. To help level the playing field and overcome these barriers, the SOMAH program was intentionally designed to provide personalized technical assistance to bridge these knowledge gaps and to help facilitate solutions to common issues faced along the way.

SOMAH's technical assistance services are designed to provide personalized support to make the process as simple as possible. The technical assistance services cover a wide range of project-related elements, including solar feasibility, financial analysis, contractor bidding, and interconnection support as well as referrals to other energy programs.

Upfront Technical Assistance Overview

The following report is provided as part of the SOMAH Upfront Technical Assistance (TA) offering to help appropriately size your SOMAH-funded PV system. The SOMAH TA team has evaluated your site's physical properties, conducted a thorough analysis of both your common areas and tenant electric usage patterns and applicable electric rates. These factors were evaluated to determine both the maximum eligible SOMAH incentive as well as an optimized system that factors in customer preference, such as minimized net cost, where applicable.

In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4.04/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility/CCA	Pacific Gas & Electric (PG&E)
Number of Units	16
Current Common Area Electric Rate Schedule	E1 then E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Annual Common Area Electric Usage (from baseline 19,488 kWh)	13,926 kWh
Aggregated Annual Tenant Area Electric Usage (from baseline 47,049 kWh)	76,893 kWh
Total Estimated Annual Electric Usage (from baseline 66,537 kWh)	90,819 kWh

- Energy usage estimate to account for potential new electrification loads.

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system re-design is intended to meet current and new electric loads after electrification projects are completed.

Estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 100% of the new estimated energy usage after electrification.

PV System Sizing Analysis	
Proposed PV System Size	68 kW DC / 62.5 kW CEC-AC
Annual PV Generation	90,970 kWh / 100% Offset
Common Area Generation	13,646 kWh / 100% Offset
Tenant Area Generation	77,325 kWh / 100% Offset





Sample Layout Notes

The total system cost was calculated with \$4.00 / W AC which is the average price per watt from SOMAH projects.

The PV system pre-design uses (170) 400W modules for roof-mounted system on tilted roofs. The design factor for this project is 89.7%, the system does not exceed 10% shading and meets fire code setbacks.

No carports necessary to meet usage needs for now but they are a possibility if needed in the future.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

Purchased System

If you decide to purchase a system, you may use one or a combination of options: cash, loans, and/or the federal investment tax credit. A one-time federal investment tax credit (ITC) is available for residential solar PV systems. The credit is based on a percentage of the total solar PV system cost. Currently, the ITC is at 30% through 2032.

If you purchase a system, you pay for the upfront costs to own the solar system in exchange for reduced or eliminated electricity bills. Under system ownership, you are responsible for system maintenance and repairs.

Third Party Ownership

Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	9.4	15%	13,646	\$1.19	\$10,015	
Tenant Areas	53.1	85%	77,325	\$3.50	\$166,910	
Total	62.5	100%	90,970		\$176,925	\$2.83



Financial Results - Overall	
Estimated Total System Cost	\$250,186
SOMAH Incentive Payment	\$176,925
Net Out-of-Pocket Purchase Cost	\$73,261
Year 1 O&M Cost	\$1,972 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	15.7%
Net Present Value (NPV) ⁵ - 20 Years	\$130,851
Return on Investment (ROI) ⁶ - 20 Years	112%
Payback Period	4.9 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	9.4	15%	13,646	\$0.87	\$7,322	
Tenant Areas	53.1	85%	77,325	\$2.45	\$116,837	
Total	62.5	100%	90,970		\$124,159	\$1.99

Financial Results – Claiming the ITC baseline	
Total System Cost	\$250,186
SOMAH Incentive Payment	\$124,159
ITC (30% tax credit)	\$75,056
Net Out-of-Pocket Purchase Cost	\$50,971



Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results – After ITC adders	
Total System Cost	\$250,186
SOMAH Incentive Payment	\$124,159
ITC (30% tax credit)	\$75,056
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system \$50,037 final gap \$934 or 0% of project cost
Net Out-of-Pocket Purchase Cost	\$934
Year 1 O&M Cost	\$1,972 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results - Overall	
Year 1 Common Area Savings (A)	\$5,914
Year 1 PPA Cost (B)	\$6,032
Year 1 Total Return	-\$118
Year 20 Total Return	\$20,677
Year 1 Estimated Per Unit Tenant Savings	\$526

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.065/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.065/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.065/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	5,914	6,032	(118)	(118)
2	6,121	6,153	(32)	(150)
3	6,335	6,276	59	(91)
4	6,557	6,402	155	64
5	6,786	6,530	257	321
6	7,024	6,660	364	685
7	7,270	6,793	476	1,162
8	7,524	6,929	595	1,757
9	7,788	7,068	720	2,477
10	8,060	7,209	851	3,328
11	8,342	7,353	989	4,317
12	8,634	7,500	1,134	5,451
13	8,936	7,650	1,286	6,737
14	9,249	7,803	1,446	8,182
15	9,573	7,959	1,613	9,796
16	9,908	8,119	1,789	11,585
17	10,255	8,281	1,974	13,559
18	10,614	8,447	2,167	15,726
19	10,985	8,616	2,370	18,096
20	11,370	8,788	2,582	20,678
TOTAL	167,246	146,569	20,677.50	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Value of Common Area Production	\$5,914
Example Annual Lease Payment	\$6,032
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$18,315
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	5,914	6,032	(118)	(118)
2	6,121	6,032	89	(30)
3	6,335	6,032	303	273
4	6,557	6,032	525	798
5	6,786	6,032	754	1,552
6	7,024	6,032	992	2,544
7	7,270	18,315	(11,046)	(8,502)
8	7,524		7,524	(977)
9	7,788		7,788	6,810
10	8,060		8,060	14,870
11	8,342		8,342	23,213
12	8,634		8,634	31,847
13	8,936		8,936	40,783
14	9,249		9,249	50,033
15	9,573		9,573	59,606
16	9,908		9,908	69,514
17	10,255		10,255	79,768
18	10,614		10,614	90,382
19	10,985		10,985	101,367
20	11,370		11,370	112,737
TOTAL	167,246	54,509	112,736.99	



Solar Lease Notes

No additional notes.



TECHNICAL ASSISTANCE REPORT Project D

Presented to: New Horizons Affordable Housing and Development
Housing Authority of Santa Cruz

Created by: SOMAH Program Administrator
TechAssist@CalSOMAH.org
9/6/2024



|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

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In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility/CCA	Pacific Gas & Electric (PG&E) Central Coast Community Energy Electric
Number of Units	15
Current Common Area Electric Rate Schedule	E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Annual Common Area Electric Usage (from baseline 15,137 kWh)	8,301 kWh
Aggregated Annual Tenant Area Electric Usage (from baseline 44,018 kWh)	117,009 kWh
Total Estimated Annual Electric Usage (from baseline 51,740 kWh)	125,310 kWh

- Energy usage estimate increased to account for potential new electrification loads.

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system pre-designed to meet 100% of the current and additional energy usage from electrification projects.

Estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 100% of the new estimated energy usage after electrification.

PV System Sizing Analysis	
Proposed PV System Size	92.8 kW DC / 85.4 kW CEC-AC
Annual PV Generation	127,275 kWh
Common Area Generation	8,909 kWh
Tenant Area Generation	118,366 kWh





Sample Layout Notes

The total system cost was calculated with \$4 / W AC which is the average price per watt from SOMAH projects.

The PV system pre-design uses (232) 400W modules for roof-mounted system on tilted roofs. The design factor for this project is 91.1%, the system does not exceed 10% shading and meets fire code setbacks.

No carports necessary to meet usage needs but more modules may be added if needed on existing carport structures in the future.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

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Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	6	7%	8,909	\$1.19	\$6,477	
Tenant Areas	79.4	93%	118,366	\$3.50	\$253,112	
Total	85.4	100%	127,275		\$259,589	\$3.04



Financial Results - Overall	
Estimated Total System Cost	\$341,431
Net Out-of-Pocket Purchase Cost	\$81,842
Year 1 O&M Cost	\$2,691 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	14.5%
Net Present Value (NPV) ⁵ - 20 Years	\$140,129
Return on Investment (ROI) ⁶ - 20 Years	90%
Payback Period	5 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	6	7%	8,909	\$0.87	\$4,736	
Tenant Areas	79.4	93%	118,366	\$2.45	\$177,178	
Total	85.4	100%	127,275		\$181,914	\$2.13



Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results - Overall	
Total System Cost	\$341,431
SOMAH Incentive Payment	\$181,914
ITC (30% tax credit)	\$102,429
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system
Net Out-of-Pocket Purchase Cost	\$57,088
Year 1 O&M Cost	\$2,691 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being located in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation.

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results - Overall	
Year 1 Common Area Cost Reduction (A)	\$3,186
Year 1 PPA Cost (B)	\$3,250
Year 1 Total Return	-\$64
Year 20 Total Return	\$11,139
Year 1 Estimated Per Unit Tenant Savings	\$841

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.027/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.025/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.025/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	3,186	3,250	(64)	(64)
2	3,298	3,315	(17)	(81)
3	3,413	3,381	32	(49)
4	3,532	3,449	84	35
5	3,656	3,518	138	173
6	3,784	3,588	196	369
7	3,916	3,660	257	626
8	4,053	3,733	321	946
9	4,195	3,808	388	1,334
10	4,342	3,884	458	1,793
11	4,494	3,961	533	2,325
12	4,651	4,041	611	2,936
13	4,814	4,121	693	3,629
14	4,983	4,204	779	4,408
15	5,157	4,288	869	5,277
16	5,338	4,374	964	6,241
17	5,524	4,461	1,063	7,305
18	5,718	4,550	1,167	8,472
19	5,918	4,641	1,277	9,749
20	6,125	4,734	1,391	11,139
TOTAL	90,099	78,960	11,139.42	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Common Area Cost Reduction	\$3,186
Example Annual Lease Payment	\$3,250
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$20,460
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	3,186	3,250	(64)	(64)
2	3,298	3,250	48	(16)
3	3,413	3,250	163	147
4	3,532	3,250	283	430
5	3,656	3,250	406	836
6	3,784	3,250	534	1,370
7	3,916	20,460	(16,544)	(15,174)
8	4,053		4,053	(11,120)
9	4,195		4,195	(6,925)
10	4,342		4,342	(2,583)
11	4,494		4,494	1,912
12	4,651		4,651	6,563
13	4,814		4,814	11,377
14	4,983		4,983	16,360
15	5,157		5,157	21,517
16	5,338		5,338	26,855
17	5,524		5,524	32,379
18	5,718		5,718	38,097
19	5,918		5,918	44,015
20	6,125		6,125	50,140
TOTAL	90,099	39,959	50,140.33	



Solar Lease Notes

No additional notes.



TECHNICAL ASSISTANCE REPORT Project E

Presented to: New Horizons Affordable Housing and Development
Housing Authority of Santa Cruz

Created by: SOMAH Program Administrator
TechAssist@CalSOMAH.org
9/3/2024



|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

Installing solar on existing multifamily properties often requires property owners to navigate and overcome barriers, including complicated ownership and financing structures as well as crunching the numbers on solar costs and benefits. To help level the playing field and overcome these barriers, the SOMAH program was intentionally designed to provide personalized technical assistance to bridge these knowledge gaps and to help facilitate solutions to common issues faced along the way.

SOMAH's technical assistance services are designed to provide personalized support to make the process as simple as possible. The technical assistance services cover a wide range of project-related elements, including solar feasibility, financial analysis, contractor bidding, and interconnection support as well as referrals to other energy programs.

Upfront Technical Assistance Overview

The following report is provided as part of the SOMAH Upfront Technical Assistance (TA) offering to help appropriately size your SOMAH-funded PV system. The SOMAH TA team has evaluated your site's physical properties, conducted a thorough analysis of both your common areas and tenant electric usage patterns and applicable electric rates. These factors were evaluated to determine both the maximum eligible SOMAH incentive as well as an optimized system that factors in customer preference, such as minimized net cost, where applicable.

In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility/CCA	Pacific Gas & Electric (PG&E) Central Coast Community Energy Electric
Number of Units	16
Current Common Area Electric Rate Schedule	E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Annual Common Area Electric Usage (from baseline 10,672 kWh)	12,083 kWh
Aggregated Annual Tenant Area Electric Usage (from baseline 41,068 kWh)	112,566 kWh
Total Estimated Annual Electric Usage (from baseline 51,740 kWh)	124,649 kWh

- Energy usage estimates increased to account for new electrification loads.

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system was pre-designed to meet current electric loads plus additional estimated energy needed after electrification projects for common and tenant areas.

The estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 100% of the new estimated energy usage after electrification.

PV System Sizing Analysis	
Proposed PV System Size	90 kW DC / 82.8 kW CEC-AC
Annual PV Generation	123,246 kWh
Common Area Generation	11,955 kWh
Tenant Area Generation	111,291 kWh





Sample Layout Notes

The total system cost was calculated at \$4 / W AC which is the average price per watt from SOMAH projects.

The PV system pre-design uses (225) 400W modules for roof-mounted system on tilted roofs. The design factor for this project is 90.8%, the system does not exceed 10% shading and meets fire code setbacks.

No carports are necessary to meet usage needs but more modules may be added if needed on existing carport structures.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

Purchased System

If you decide to purchase a system, you may use one or a combination of options: cash, loans, and/or the federal investment tax credit. A one-time federal investment tax credit (ITC) is available for residential solar PV systems. The credit is based on a percentage of the total solar PV system cost. Currently, the ITC is at 30% through 2032.

If you purchase a system, you pay for the upfront costs to own the solar system in exchange for reduced or eliminated electricity bills. Under system ownership, you are responsible for system maintenance and repairs.

Third Party Ownership

Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	8	10%	11,955	\$1.19	\$8,676	
Tenant Areas	74.8	90%	111,291	\$3.50	\$237,563	
Total	82.8	100%	123,246		\$246,239	\$2.97



Financial Results - Overall	
Estimated Total System Cost	\$331,129
Net Out-of-Pocket Purchase Cost	\$84,889
Year 1 O&M Cost	\$2,610 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	15.5%
Net Present Value (NPV) ⁵ - 20 Years	\$159,456
Return on Investment (ROI) ⁶ - 20 Years	105%
Payback Period	4.7 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	8	10%	11,955	\$0.87	\$6,343	
Tenant Areas	74.8	90%	111,291	\$2.45	\$166,294	
Total	82.8	100%	123,246		\$172,637	\$2.09



Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results - Overall	
Total System Cost	\$331,129
SOMAH Incentive Payment	\$172,637
ITC (30% tax credit)	\$99,338.67
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system
Net Out-of-Pocket Purchase Cost	\$59,154
Year 1 O&M Cost	\$2,610 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being located in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results - Overall	
Year 1 Common Area Savings	\$5,158
Year 1 PPA Cost	\$5,261
Year 1 Total Return	-\$103
Year 20 Total Return	\$18,034
Year 1 Estimated Per Unit Tenant Savings	\$756

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.042/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.042/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.042/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	5,158	5,261	(103)	(103)
2	5,339	5,366	(28)	(131)
3	5,525	5,474	52	(79)
4	5,719	5,583	136	56
5	5,919	5,695	224	280
6	6,126	5,809	317	598
7	6,340	5,925	416	1,013
8	6,562	6,043	519	1,532
9	6,792	6,164	628	2,160
10	7,030	6,288	742	2,902
11	7,276	6,413	863	3,765
12	7,531	6,542	989	4,754
13	7,794	6,672	1,122	5,875
14	8,067	6,806	1,261	7,136
15	8,349	6,942	1,407	8,544
16	8,641	7,081	1,561	10,104
17	8,944	7,222	1,721	11,826
18	9,257	7,367	1,890	13,716
19	9,581	7,514	2,067	15,783
20	9,916	7,665	2,252	18,034
TOTAL	145,867	127,832	18,034.25	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Value of Common Area Production	\$5,158
Example Annual Lease Payment	\$5,261
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$26,810
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	5,158	5,261	(103)	(103)
2	5,339	5,261	77	(26)
3	5,525	5,261	264	238
4	5,719	5,261	458	696
5	5,919	5,261	658	1,354
6	6,126	5,261	865	2,219
7	6,340	26,810	(20,470)	(18,251)
8	6,562		6,562	(11,689)
9	6,792		6,792	(4,896)
10	7,030		7,030	2,133
11	7,276		7,276	9,409
12	7,531		7,531	16,940
13	7,794		7,794	24,734
14	8,067		8,067	32,801
15	8,349		8,349	41,150
16	8,641		8,641	49,791
17	8,944		8,944	58,735
18	9,257		9,257	67,992
19	9,581		9,581	77,573
20	9,916		9,916	87,489
TOTAL	145,867	58,377	87,489.47	



Solar Lease Notes

No additional notes.



TECHNICAL ASSISTANCE REPORT Project F

Presented to: New Horizons Affordable Housing and Development
Santa Cruz Housing Authority

Created by: SOMAH Program Administrator
TechAssist@CalSOMAH.org



|| SOMAH TECHNICAL ASSISTANCE REPORT

PROGRAM INFORMATION

Installing solar on existing multifamily properties often requires property owners to navigate and overcome barriers, including complicated ownership and financing structures as well as crunching the numbers on solar costs and benefits. To help level the playing field and overcome these barriers, the SOMAH program was intentionally designed to provide personalized technical assistance to bridge these knowledge gaps and to help facilitate solutions to common issues faced along the way.

SOMAH's technical assistance services are designed to provide personalized support to make the process as simple as possible. The technical assistance services cover a wide range of project-related elements, including solar feasibility, financial analysis, contractor bidding, and interconnection support as well as referrals to other energy programs.

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In the report you will find:

- Measurement of available solar suitable roof or other space via remote site analysis
- Estimate of PV generation potential
- Cost analysis and SOMAH incentive information
- Analysis of utility billing information including electric consumption and rate structure

The PV system in this analysis is sized to the maximum amount of available space and/or maximum system sizes based on your historical electric usage and account for any reductions in energy use generated by the implementation of energy efficiency measures recommended by the SOMAH Program Administrators (PA).



SOMAH Program Requirements

Incentives are available for projects that meet the SOMAH eligibility requirements (see Program Handbook section 2.2) including:

- At least 51% of the system's electrical output must directly offset tenant load and be provided to tenants in the form of virtual net energy metering (VNEM) bill credits.
- For projects receiving upfront technical assistance it is required that at least three bids are obtained. Project bid solicitation can be facilitated through the SOMAH PA's online bidding portal.

Incentive Structure

The incentive structure will vary based on the amount of leveraged funding sources, such as the Federal Investment Tax Credit (ITC) and the Low-Income Housing Tax Credits (LIHTC), as well as the energy percentage split between the owner meter consumption offset (common area) or tenant meter consumption offset (direct metered electric). The current incentive structure is detailed in the table below and is also detailed in the SOMAH Program Handbook section 3.

Tax Credits		\$/W CEC-AC Incentive	
ITC	LIHTC	Tenant	Common
No	No	\$3.50	\$1.19
Yes	No	\$2.45	\$0.87
No	Yes	\$2.45	\$0.87
Yes	Yes	\$1.75	\$0.65

SOMAH issues incentives for projects through an up-front incentive referred to as an Expected Performance Based Buydown (EPBB), which are based on the system's capacity and design and provide an estimate of the system's future performance.



The EPBB incentive is calculated with the following formula:

$$\text{EPBB Incentive Payment} = \text{Reserved Incentive Rate} \times \text{CEC-AC Rating}^1 \times \text{Design Factor}^2$$

The SOMAH incentives may be able to cover the complete cost of installing a solar PV system for tenant area loads at an installation cost of \$4/W CEC-AC or less. A solar PV system installed to offset your common area loads will likely require an initial investment due to the lower incentive rates available for common area systems. Gap financing may need to be secured between initiation of the contract and incentive payment. Prices can vary significantly across contractors.

Site Information

Electric Utility	Pacific Gas & Electric (PG&E)
Number of Units	6
Current Common Area Electric Rate Schedule	E-TOU-C
Common Area Electric Rate	\$0.46/kWh
Estimated Tenant Electric Rate	\$0.29/kWh
Estimated Annual Common Area Electric Usage	3,294 kWh
Estimated Aggregated Annual Tenant Area Electric Usage	17,327 kWh
Total Estimated Annual Electric Usage	20,621 kWh

¹ The SOMAH PA uses the California Energy Commission's CEC-AC method to determine the system rating. CEC-AC System Rating (kilowatts) = Quantity of Modules * CEC Rating of Photovoltaic Modules * CEC Inverter Efficiency Rating / (1000 watts/1kilowatt)

² Learn more about the Design Factor and how it is calculated in section 5.2 of the SOMAH Program Handbook.



Site Information Notes

The solar PV system needed to meet current electric loads and additional electrification loads for common and tenant areas.

Estimated tenant electric rate generated from PG&E cost data provided with energy usage spreadsheet. Common area rate scheduled listed on pdf of utility bill provided by owner.

PV SYSTEM SIZING ANALYSIS AND SAMPLE LAYOUT

The PV system sample layout shown below has been designed to meet 100% of the potential energy usage after electrification projects.

PV System Sizing Analysis	
Proposed PV System Size	14 kW DC / 12.9 kW CEC-AC
Annual PV Generation	20,990 kWh
Common Area Generation	3,358 kWh
Tenant Area Generation	17,632 kWh





Sample Layout Notes

Solar energy PV system pre-design on both flat roofs with a design factor of 91.0% per Powerclerk. The pre-design uses (35) 400 W modules at a 10-degree tilt with 97% efficient microinverters. The entire design within a 10% shading tolerance and meeting all required fire setbacks. No carports necessary to meet usage needs.



FINANCING OPTIONS

There are multiple financing options if the SOMAH incentive does not fully cover the cost of the installation. The SOMAH TA team is available to help you make informed decisions about the most viable financing pathway for your project.

Purchased System

If you decide to purchase a system, you may use one or a combination of options: cash, loans, and/or the federal investment tax credit. A one-time federal investment tax credit (ITC) is available for residential solar PV systems. The credit is based on a percentage of the total solar PV system cost. Currently, the ITC is at 30% through 2032.

If you purchase a system, you pay for the upfront costs to own the solar system in exchange for reduced or eliminated electricity bills. Under system ownership, you are responsible for system maintenance and repairs.

Third Party Ownership

Third Party Ownership (TPO) refers to a contract with a third-party contractor who agrees to purchase, own, and maintain the solar system on your property and provide you with the solar benefits at a reduced cost. This option may be most appropriate if you do not have sufficient capital to buy a system outright or have limited time to manage, operate, and maintain the system. Typically, in the case of a TPO within the SOMAH program, the third-party contractor will receive the SOMAH incentives after the system is installed which will result in a lower monthly payment for the property owner than non-SOMAH incentivized TPO agreements.

1. **Solar Lease:** With a solar lease you agree to pay a predictable monthly lease payment to a third-party owner in exchange for the solar credits that the solar system generates monthly. This monthly lease payment is stable and does not adjust to actual system generation and includes the cost of “services” provided for the solar PV system to be operational, such as equipment maintenance and monitoring. Leases may have a low, fixed monthly rate for 6-10 years which culminate in a buy-out payment at the end of the term at Fair Market Value (FMV), usually 25-35% of the total system cost. Alternatively, leases may have 20-year terms that restart automatically if not ended. As the types and terms of lease agreements can vary across different companies, it is important to discuss these details with the third-party contractor.



2. **Solar Power Purchase Agreement (PPA):** Under a solar PPA, you pay the third-party owner per kilowatt hour for the energy generated monthly which is usually a lower rate than what the local utility charges for electricity. There are typically no upfront or maintenance costs incurred by the property owner for the installation and ongoing maintenance of the system, and the contract will typically have 20–25-year terms and include PPA rate and electric rate escalators. Understanding the details of the electric rate escalators and how these will affect the cost of the generated energy over the life of the system is integral as the annual payments for a PPA should be less than projected annual solar savings.
3. **Other:** There may be other types of TPO agreements that are specific to the contractors you are working with on your project. Contractors can provide details on how their agreements differ from solar leases or solar power purchase agreements. Other types of TPO agreements may include customized system maintenance details, rate escalators, and/or contract terms.



FINANCIAL ANALYSIS

The following pages provide a high-level financial analysis of the solar PV system.

The financial details presented are intended as general education about typical offerings that property owners are likely to find in the market from contractors. Actual costs will vary depending on the final system size, site conditions and contractor pricing.

Financial Option 1: Purchased System

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
✓	No	No	\$3.50	\$1.19
	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	2	16%	3,358	\$1.19	\$2,231	
Tenant Areas	11	84%	17,632	\$3.50	\$34,452	
Total	12.9	100%	20,990		\$36,683	\$2.85



Financial Results - Overall	
Estimated Total System Cost	\$51,509
Net Out-of-Pocket Purchase Cost	\$14,826
Year 1 O&M Cost	\$406 ³

Project Evaluation Metrics

The following project evaluation metrics can assist you in determining the potential for upgrades at your property as well as the general economics for this type of investment. In addition, the internal rate of return (IRR) can be compared to your organization's weighted average cost of capital (WACC) as an additional way to determine if this would be a preferred investment.

Project Evaluation Metrics	
Internal Rate of Return (IRR) ⁴ - 20 Years	12.4%
Net Present Value (NPV) ⁵ - 20 Years	\$17,142
Return on Investment (ROI) ⁶ - 20 Years	80%
Payback Period	6.2 years

³ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>

⁴ IRR is the rate of return on the NPV cash flows received from your solar investment. With an IRR of XX%, the solar investment is projected to generate a XX% annual return through the life of the system.

⁵ NPV is how much return the solar system will make, accounting for the time value of money. Factors such as opportunity cost, inflation and risk are all accounted for in NPV to give the overall value of the project in today's time.

⁶ ROI provides a perspective of how much money you'll save over the entire lifetime (20 years) of a solar project.



Financial Option 2: Claiming the New ITC

Under the Biden administration, there are new adders to the ITC tax credit that can be claimed for projects. An analysis is provided for a scenario where the ITC and various adders have been claimed but the LIHTC has not as shown below.

Applicant	Tax Credits		\$/W CEC-AC Incentive	
	ITC	LIHTC	Tenant	Common
	No	No	\$3.50	\$1.19
✓	Yes	No	\$2.45	\$0.87
	No	Yes	\$2.45	\$0.87
	Yes	Yes	\$1.75	\$0.65

While the estimated SOMAH incentive is about 70% of what it would be if the ITC is not claimed, once ITC adders are included, the out-of-pocket gap payment is reduced significantly.

	System Size (kW-CEC-AC)	Common/Tenant PV Allocation Split (%)	Annual Estimated System Generation (kWh)	SOMAH Incentive Rate (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	2	16%	3,358	\$0.87	\$1,631	
Tenant Areas	10.8	84%	17,632	\$2.45	\$24,116	
Total	12.8	100%	20,990		\$25,747	\$2.00



Guidance is still emerging about the ITC adders, but this project is eligible for Energy Communities, Domestic Content, and Low-Income adders as shown below.

Financial Results - Overall	
Total System Cost	\$51,509
SOMAH Incentive Payment	\$25,747
ITC (30% tax credit)	\$15,452.68
ITC Adder: Energy Communities ⁷ (10% tax credit)	N/A – not eligible for Energy Communities adder
ITC Adder: Low-Income ⁸ (10% OR 20% tax credit) ⁹	Up to but not exceeding the total cost of the system
Net Out-of-Pocket Purchase Cost	\$10,310
Year 1 O&M Cost	\$406 ¹⁰

⁷ On Energy Community Tax Credit Bonus eligibility map from DOE, property is in “MSA/Non-MSAs that meet the Fossil Fuel Employment 0.17% Threshold” territory, likely eligible.

⁸ Either an additional 10% ITC for being located in a low-income community as defined by the New Markets Tax Credit or on Indian land; or an additional 20% ITC for being classified as a “qualified low-income residential building project” or “qualified low-income economic benefit project.” To qualify for the credit, the financial benefits of the solar facility must be allocated equitably between the residents. SOMAH projects likely eligible for 20% adder, but still seeking policy guidance.

⁹ Low-Income adder currently oversubscribed, awaiting guidance from DOE regarding funding availability. Please consult a tax professional to address concerns for your unique financial situation.

¹⁰ \$29/kW is for kW DC. Source: <https://www.nrel.gov/docs/fy22osti/80694.pdf>



Financial Option 3: Solar PPA

Financial Results – Overall	
Year 1 Common Area Savings	\$522
Year 1 PPA Cost	\$532
Year 1 Total Return	-\$10
Year 20 Total Return	\$1,825
Year 1 Estimated Per Unit Tenant Savings	\$292

Rate Assumptions	
Common Area Electric Rate	\$0.46/kWh
Blended Average Electric Rate (PPA rate)	\$0.025/kWh
Example Annual Electric Rate Escalation	2.0%
Example Annual PPA Escalation Rate	3.5%

Based on this analysis, your blended average electric rate (factoring in tenant area and common area rates, and lack of tenant financial burden for solar installation) is \$0.025/kWh. **When evaluating financing options, make sure the contract rate is less than \$0.025/kWh.**

Also, when evaluating financing options consider the electric rate assumptions, proposed PPA rate escalators, utility inflation rate, as well as the estimated solar yield. Annual payments for a PPA should be less than projected annual solar savings.



Solar PPA Cash Flow Table

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	522	532	(10)	(10)
2	540	543	(3)	(13)
3	559	554	5	(8)
4	579	565	14	6
5	599	576	23	28
6	620	588	32	60
7	642	600	42	103
8	664	612	53	155
9	687	624	64	219
10	711	636	75	294
11	736	649	87	381
12	762	662	100	481
13	789	675	114	595
14	816	689	128	722
15	845	703	142	865
16	875	717	158	1,023
17	905	731	174	1,197
18	937	746	191	1,388
19	970	760	209	1,597
20	1,004	776	228	1,825
TOTAL	14,762	12,937	1,825.10	

Solar PPA Notes

Assume tenant utility rate is equal to PG&E residential CARE rate, average of \$0.29/kWh.



Financial Option 4: Solar Lease

Solar Lease Assumptions	
Year 1 Value of Common Area Production	\$522
Example Annual Lease Payment	\$532
Lease Term	20 years with fair market value (FMV) buyout at year 7
Lease Buyout (assumes 25% of the value of the net cost)	\$3,707
Annual Electric Rate Escalation	3.5%

Solar Lease Cash Flow Table – 20-year term with 7-year FMV buyout

Year	Savings from Solar	Lease Payments	Net Cashflow	Cumulative Cash Flow
0				
1	522	532	(10)	(10)
2	540	532	8	(3)
3	559	532	27	24
4	579	532	46	70
5	599	532	67	137
6	620	532	88	225
7	642	3,707	(3,065)	(2,840)
8	664		664	(2,176)
9	687		687	(1,489)
10	711		711	(777)
11	736		736	(41)
12	762		762	721
13	789		789	1,510
14	816		816	2,326
15	845		845	3,171
16	875		875	4,046
17	905		905	4,951
18	937		937	5,888
19	970		970	6,857
20	1,004		1,004	7,861
TOTAL	14,762	6,901	7,860.85	



Solar Lease Notes

No additional notes.

**EXHIBIT B
SAMPLE CONTRACT**

**AGREEMENT FOR SERVICES
BETWEEN NEW HORIZONS AFFORDABLE HOUSING AND DEVELOPMENT INC.
AND _____**

This Agreement, for reference dated _____, is entered into by and between the New Horizons Affordable Housing and Development Inc., a non profit affiliate of the Housing Authority of the County of Santa Cruz (**New Horizons**) and _____ (**Consultant**).

RECITALS

WHEREAS, New Horizons solicited proposals under RFP Professional Roofing Services from qualified Consultants to provide professional roofing services; and

WHEREAS, Consultant submitted a proposal and represented itself and proposed staff to have the required qualifications and experience to provide the required services, and based on these representations, New Horizons selected Consultant to provide such services; and

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Agreement Documents.

The documents forming the entire Agreement between New Horizons and Consultant shall consist of this Agreement including:

- Attachment 1 – Scope of Services
- Attachment 2 – Compensation
- Attachment 3 – Insurance Requirements

This Agreement and the Attachments set forth above, contain all of the agreements, representations and understandings of the Parties, and supersede and replace any previous understandings, commitments, or agreements, whether oral or written. Any other terms or conditions included in any quotes, proposals, or other forms exchanged by the Parties shall not be incorporated in this Agreement or be binding upon the Parties.

2. Term of Agreement.

The term of this Agreement commences upon full execution by the parties as indicated on the signature page (**Effective Date**) and continues for a period until project completion (**Initial Term**), unless terminated earlier in accordance with this Agreement.

3. Scope of Services and Schedule of Performance.

Consultant shall perform Services specified in **Attachment 1** within the time stated in Attachment 1, entitled "Scope of Services and Schedule of Performance." Time is of the essence in this Agreement.

4. Maximum Compensation.

The maximum compensation limit of this agreement is _____ (**XXX,XXX.XX**), which includes the sum of all payments authorized for services, and for the expenses, supplies and equipment required to perform the services. The method and rate of payment are set forth in **Attachment 2** entitled "Compensation". Consultant is responsible for not exceeding this maximum compensation limit, and understands that the Consultant will not be entitled to any additional compensation under this Agreement.

5. Project Manager.

New Horizons' Project Manager shall be Daniel Fagan, Director of Property Management and Client Services, who shall be responsible for authorizing services, receiving reports, and for the general administration of this Agreement.

6. Independent Contractor.

It is understood and agreed that Consultant, in the performance of the work and Services agreed to be performed by the Consultant, shall act as and be an independent contractor and not an agent or employee of New Horizons; and as an independent contractor, Consultant shall obtain no rights or other employee benefits which accrue to New Horizons' employees, and Consultant hereby expressly waives any claim it may have to any such rights.

7. Assignability.

The parties agree that the expertise and experience of Consultant are material considerations for this Agreement. Consultant shall not assign or transfer any interest in this Agreement nor the performance of any of Consultant's obligations hereunder, without the prior written consent of New Horizons, and any attempt by Consultant to so assign this Agreement or any rights, duties or obligations arising hereunder shall be void and of no effect.

8. Termination.

- a. Termination for Convenience. New Horizons shall have the right to terminate this Agreement, without cause or penalty, by giving not less than fifteen (15) days' prior written notice to the other party.
- b. Termination for Default. If Consultant fails to perform any of its material obligations under this Agreement, in addition to all other remedies provided by law, New Horizons may terminate this Agreement immediately upon written notice to Consultant.
- c. Upon termination, each party shall assist the other in arranging an orderly transfer and close-out of services. As soon as possible following the notice of termination, but no later than ten (10) days after the notice of termination, Consultant will deliver to New Horizons all New Horizons Information or Material which Consultant has in its possession.
- d. Consultant will be paid for services performed to the date of termination which are acceptable to the Project Manager and performed in accordance with the standards set forth here by applying Consultant's hourly billing rates, not to exceed the maximum compensation limit in Section 4.

9. Confidentiality of Records.

- a. Intent. The nature of the services Consultant will provide pursuant to this Agreement necessarily involves disclosure to Consultant of detailed information about New Horizons' operations, including information which may be protected from public disclosure by confidentiality laws, the Consultant client privilege, and/or other provisions of law which govern the nature and timing of disclosure of public information. Consultant understands that, in order for the New Horizons to fully utilize Consultant services, New Horizons staff members providing information to Consultant must feel confident that such information will be handled properly.
- b. Release of Information. Consultant may not disclose information obtained by Consultant in the course of performing the services required by this Agreement, without the specific consent of the New Horizons Representative unless specifically permitted by this provision. Draft documents and information obtained by Consultant may be provided on a need to know basis only to persons authorized by law or regulation to receive it: to New Horizons' General Counsel, and to such New Horizons department or agency directors who may have a business need to know in order to provide necessary information to the Consultant required for completion of its services.
- c. Court Orders. In the event that Consultant receives a subpoena, court order, or other legal document requiring release of information or documents, or is informed that such an order is forthcoming, Consultant will immediately provide notice to the New Horizons' Representative in order to permit New Horizons to seek a protective order or other similar order if appropriate.
- d. Use of Information. Information obtained and/or prepared by Consultant in the course of performing services for New Horizons shall be work product which is the property of the New Horizons. Should there be a request by any other party for the provision of such information; the determination of whether such documents or

10. Indemnification.

The Consultant shall indemnify, defend, and hold harmless the New Horizons and its officers, agents, affiliates and employees from any claim, liability, loss, injury or damage arising out of, or in connection with, performance of this Agreement by Consultant and/or its agents, employees or sub-consultants, excepting only loss, injury or damage caused by the negligence or misconduct of personnel employed by the indemnified parties. The Consultant shall reimburse New Horizons for all costs, Consultants' fees, expenses and liabilities incurred with respect to any litigation in which the Consultant is obligated to indemnify, defend and hold harmless New Horizons under this Agreement.

11. Insurance Requirements.

Without limiting the Consultant's indemnification of New Horizons, the Consultant shall provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the insurance coverage set forth in **Attachment 3**, entitled "Insurance Requirements."

12. Nondiscrimination.

Consultant shall not discriminate, in any way, against any person on the basis of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, or national origin, in connection with or related to the performance of this Agreement.

13. Governing Law.

New Horizons and Consultant agree that the law governing this Agreement shall be that of the State of California.

14. Compliance with Laws.

Consultant shall comply with all applicable laws, and regulations of the federal, state and local governments.

15. Waiver.

Consultant agrees that waiver by New Horizons of any breach or violation of any term or condition of this Agreement shall not be deemed to be a waiver of any other term or condition contained herein or a waiver of any subsequent breach or violation of the same or any other term or condition. The acceptance by New Horizons of the performance of any work or services by Consultant shall not be deemed to be a waiver of any term or condition of this Agreement.

16. Consultant's Books and Records.

- a. Consultant shall maintain all documents and records which demonstrate performance under this Agreement for a minimum period of three (3) years, or for any longer period as required by law, from the date of termination or completion of this Agreement.
- b. Any records or documents required to be maintained pursuant to this Agreement shall be made available for inspection or audit at no cost to New Horizons, at any time during regular business hours, upon written request by New Horizons. Copies of such documents shall be provided to New Horizons for inspection when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Consultant's address indicated for receipt of notices in this Agreement.
- c. Where New Horizons has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, New Horizons may, by written request, require that custody of the records be given to New Horizons and that the records and documents be maintained. Access to such records and documents shall be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor-in-interest.

17. Conflict of Interest.

- a. Consultant understands and agrees that it owes a duty of loyalty to New Horizons for which it performs services hereunder. In accepting this Agreement, Consultant covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of services under this Agreement. Consultant further covenants that, in the performance of this Agreement, it will not employ any Consultant or person having such an interest.

- b. Within 30 days from the effective date of this Agreement and annually thereafter, no later than April 1st; Consultant's Attorneys assigned to this Agreement shall file Form 700, *Statement of Economic Interest* with the County of Santa Cruz.

18. Gifts.

Consultant is familiar with State law prohibitions against the acceptance of any gift by New Horizons and/or New Horizons' employees. In addition, New Horizons Personnel Policies prohibit an employee's personal acceptance of a gift.

19. Standard of Care.

Consultant must perform Services in accordance with those standards of care that are generally recognized as being used by competent persons in Consultant's area of specialty and profession in the State of California.

20. Notices.

All notices and other communications required or permitted to be given under this Agreement shall be in writing and shall be personally served, mailed (or electronic mail), postage prepaid and return receipt requested, addressed to the respective parties as follows:

New Horizons Affordable Housing and
Development Inc.

Attn: Jenny Panetta, Executive Director 2160
41st Avenue
Capitola, CA 95010
(831) 454-5923
jennyp@hacosantacruz.org

To Consultant:

Invoices to jennyp@hacosantacruz.org

21. Prior Agreements and Amendments.

This Agreement, including all Attachments, represents the entire understanding of the parties. This Agreement may only be modified by a written amendment duly executed by the parties to this Agreement. The New Horizons' Authorized Representative is authorized to amend this Agreement on behalf of New Horizons.

WITNESS THE EXECUTION HEREOF the parties hereto have executed this Agreement on the day and year indicated below.

New Horizons Affordable Housing and Development Inc.

[CONSULTANT NAME]

By: _____
Jennifer Panetta
Executive Director

By: _____
Name:
Title: