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SOLAR 101 – PART II

Solar Resources for Multifamily Affordable Housing
California Housing Partnership | chpc.net

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SOMAH

Presenters

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The Partnership's Mission

The California Housing Partnership creates and preserves affordable and sustainable homes for Californians with low incomes by providing expert financial and policy solutions to nonprofit and public partners.

- chpc.net
- [@CHPCnews](https://twitter.com/CHPCnews)



75,000



*Affordable homes
created/preserved*

30,000



*People trained
by our staff*

\$25B

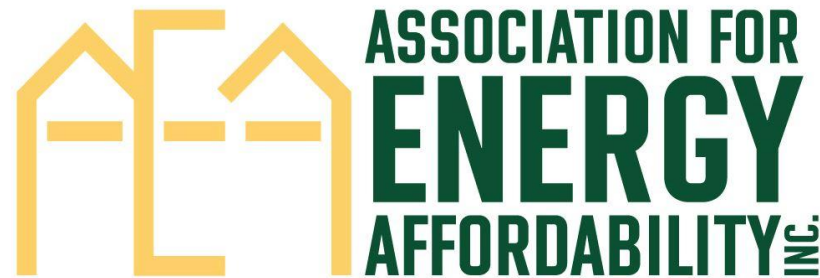


*In public & private
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AEA's Mission

The Association for Energy Affordability, Inc. is dedicated to achieving energy efficiency in new and existing buildings in order to foster and maintain affordable and healthy housing and communities, especially those of low-income.

→ aea.us.org



AGENDA

1. Solar Value Proposition
2. Solar Funding Landscape
3. LIWP Program Overview
4. SOMAH Program Deep-Dive
5. Q&A



Zoom Functions

Zoom Meeting

- Please rename yourself with your name, organization, and preferred pronouns
- Use the “Raise Hand” feature to ask a question, or type in the chat
- Please keep your sound on mute, and unmute only when speaking
- Keep your camera on, if possible

Poll #1

Poll #2



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Why Solar?

Why Solar?

- Solar has been made more appealing for multifamily housing owners
- Advances in technology, utility billing, program development
- Programs, like LIWP, can provide solar to low-income households
 - 5.8 MW of installed solar PV
 - 72% of this solar directly reduces resident utility bills
 - Real results



Solar Value Proposition

ENERGY EFFICIENCY + SOLAR ENERGY

- Declining PV system costs
- Solar incentives and ITC help offset installation costs
- Reduce resident's energy burden
- Financial sustainability and resiliency



Poll #3



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Solar Funding Landscape for Multifamily Properties

Types of Solar Programs

On-Site Shared Solar



Off-Site/Remote Shared Solar



ITC for Solar Technologies

Solar Technologies	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/25	Future Years
Solar PV, Solar Water Heating, Solar Space Heating/ Cooling, Solar Process Heat	26%	26%	26%	22%	22%	22%	10%

- Example: 26% of total solar project cost (26% X \$100K = \$26K).
- ITC value depends on when solar construction begins.
- No cap on incentive for solar technologies.
- The system owner receives the tax credit.
- Energy storage is eligible if charged by solar for $\leq 75\%$ of the time.

Solar Funding Comparison

Program	LIWP	SOMAH	MASH
Eligibility	≥ 66% of units at 80% AMI and in DACs, available to all utilities (not just IOUs)	≥ 80% of units at 60% AMI or in DAC (IOUs & CCAs only)	≥20% of units are low-income and In IOUs (PG&E, SCE, SDG&E only)
Tenant PV incentive *	\$3.50/W-DC	\$3.04/W-AC	\$1.80/W-AC
Common areas PV incentive *	\$1.10/W-DC	\$1.04/W-AC	\$1.10/W-AC
Tenant PV share	0 – 100%	≥ 51% required	0-100%
Tenant solar benefits	100% required	100% required	≥50% required
		(of the ≥ 51% required)	(for higher incentive)
Utility allowance (UA) & rent adjustments	Must exclude solar & EE benefits to avoid recapture and/or diminishment of tenant benefits	Must exclude solar benefits to avoid recapture and/or diminishment of tenant benefits	Owner may not adjust UA by more than 50% of tenant benefit



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Low Income Weatherization Program

LIWP Program Overview

- Whole building energy efficiency, solar thermal, and solar PV for multifamily properties under a single program



- All measures that result in GHG reductions are eligible

LIWP Program Eligibility

- Multifamily properties with 5 units or more
- Located in a CalEPA Disadvantaged Community (DAC) - limited amount of funding for properties outside of DACs
- At least 66% of tenants with incomes at or below 80% AMI
- Able to achieve minimum modeled energy savings $\geq 15\%$
- Incentives cannot exceed net project costs
- Funding carveout for housing for people experiencing homelessness

LIWP Program Requirements

- Minimum modeled energy savings requirement of 15%
 - 25% minimum savings required for projects leveraging other major funding sources
- Must sign Property Affordability Covenant
- Cannot adjust utility allowances or increase rent as a result of LIWP participation
- For EE upgrades, owner selects and hires contractor directly
- For solar PV component, two bid minimum is required for contractor selection
- Incentives cannot exceed net project costs
- Maximum 1500 units per ownership entity

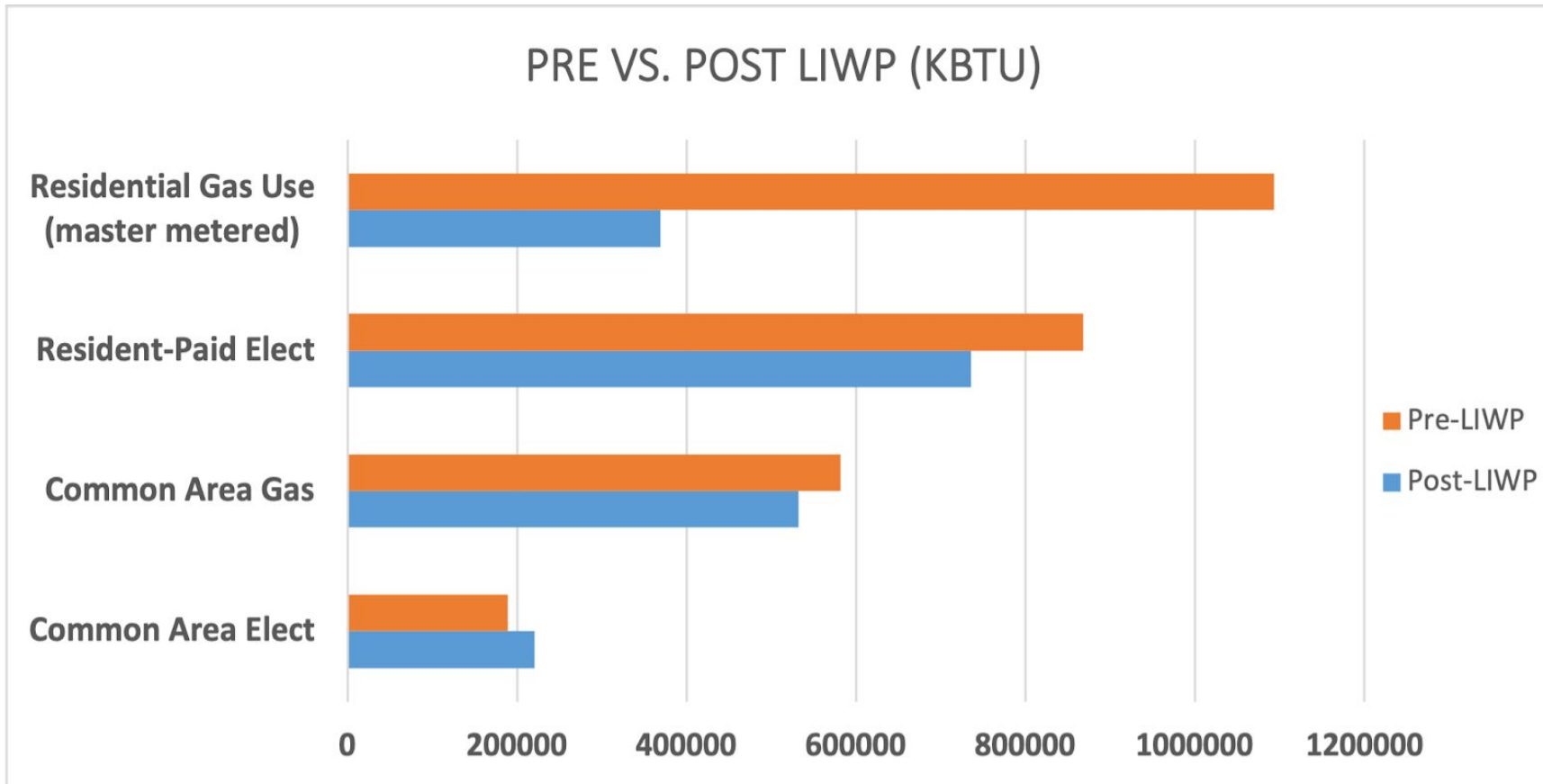
LIWP Solar PV Opportunity

- Solar PV installation is not required through LIWP, but is an optional benefit
- Solar PV Incentive is based on:
 - Type of leveraged funds (LIHTC, ITC, MASH, etc.)
 - If PV system is offsetting owner meter or tenant meter consumption
 - Size of the PV system

Solar PV Incentive	Tenant Meter PV Systems <100 kW*	Owner Meter PV Systems <100 kW* (Common Area or Master Metered)
Funding Rounds 1-4	Up to 100% of Installation Costs	Up to 50% of Installation Costs

LIWP Case Study: Building Electrification

Seasons at Ontario – Ontario, CA
LINC Housing



Scope of work

- Solar PV system
- Cool roof and attic insulation
- Dual-pane windows
- Heat pump for HVAC
- Condensing tankless water heater
- VSD pool pump & condensing pool heater
- Comprehensive LED lighting
- ENERGY STAR appliances



LIWP Waitlist

- LIWP program is currently waitlisted
- News about new funding allocation is expected Summer 2021
- Property owners can submit interest forms for eligible properties to get in the queue
- LIWP will follow up to complete intake process when additional funding is secured
- Visit camultifamilyenergyefficiency.org to complete an interest form or contact mclaproth@chpc.net to schedule an interest call



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Comprehensive Affordable Multifamily Retrofit Program

Upcoming Solar Funding Programs

LADWP's Comprehensive Affordable Multifamily Retrofit (CAMR) Program

- Estimated launch Summer 2021
- Incentive budget of \$75M over 5 years
- Implemented by the Association for Energy Affordability (AEA) on behalf of LADWP
- GHG emissions reduction through energy efficiency upgrades, fuel switching, and solar PV installations for common areas and tenants

Draft CAMR Program Eligibility

- Existing multifamily low-income properties, including deed-restricted and naturally occurring affordable housing (NOAH)
- Properties must be at least 5 units in size
- At least 66% of units serving households at or below 80% AMI
- Properties must be located within LADWP service territory

LADWP's CAMR Program – Incentive Rates

Incentives	Energy Efficiency*	Solar PV*
Tenant meter	\$6,750/MTCO ₂ e	\$3.00/W-DC
Common Area meter	\$5,400/MTCO ₂ e	\$1.30/W-DC
Notes:	<ul style="list-style-type: none">• Highly benefits building electrification• Gas-to-gas upgrades not covered• Offsets prevailing wage costs	<ul style="list-style-type: none">• Solar PV is optional• Tenant solar currently limited to 5 properties through LADWP VNEM pilot

*Program is under development and incentives may be adjusted.



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Solar on Multifamily Affordable Housing (SOMAH)



SOMAH

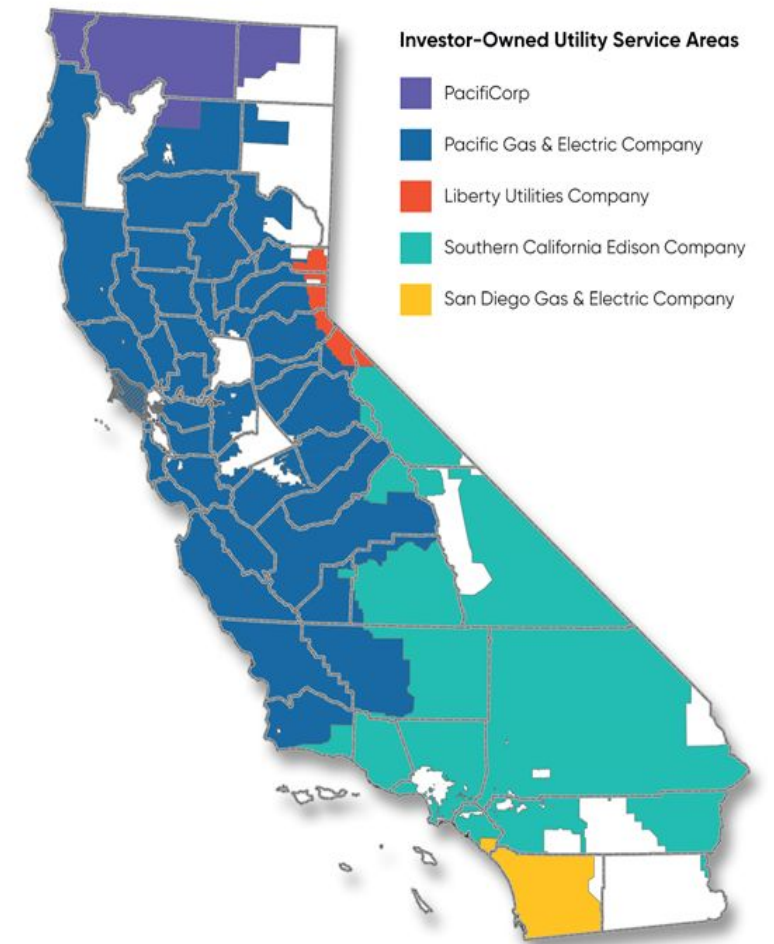
SOMAH Program Overview

- SOMAH primary goal is to provide solar financial benefits to tenants of qualified affordable housing
- Annual budget of up to \$100M from greenhouse gas (GHG) auction proceeds through 2030
- One-stop-shop program model



Funding Snapshot

Utility	Available Budget	Waitlist Status
SDG&E	\$27,539,161	No Waitlist
SCE	\$152,064,203	No Waitlist
PG&E	\$76,838,227	No Waitlist
PacifiCorp	\$3,806,819	No Waitlist
Liberty Utilities	\$948,545	No Waitlist



SOMAH funding status updated weekly at CalSOMAH.org/waitlist

Incentive Rates

- Current SOMAH incentive rates are as follows:

ITC	LIHTC	Tenant	Common
		2020-2021	2020-2021
No	No	\$3.04	\$1.04
Yes	No	\$2.14	\$0.76
No	Yes	\$2.14	\$0.76
Yes	Yes	\$1.52	\$0.57

Progress Payment Pathway

Alternative payment option that:

- Expedites a portion of the total incentive payment
- Pays 60% of the total approved incentive upon proof of installation
 - Available prior to system receiving PTO
- The remaining incentive is paid upon approval of the final onsite SOMAH inspection and Incentive Claim Milestone





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SOMAH Requirements



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Property Eligibility

- Existing deed-restricted buildings with at least 5 units
- Individually metered units where tenants pay electricity
- Affordable housing regulatory agreement with at least 10 years remaining on term, and:
 - 80% of residents must have income at or below 60% AMI, or
 - Located in a [CalEnviroScreen](#) disadvantaged community (DAC)
- Located in an investor-owned utility (IOU) territory or a customer of a Community Choice Aggregator (CCA)
- Buildings with a Certificate of Occupancy (COO)

Tenant Benefit Requirement

- At least 51% of the system's electric output must offset tenant load
- Sign Tenant Benefits Affidavit that guarantees:
 - Project costs cannot be passed on to tenants over time
 - Tenant allocations for lifetime of the system
 - Utility allowance calculations must exclude solar credits



Affidavit Ensuring 100% Tenant Economic Benefit

Affidavit Ensuring 100% of Economic Benefits of Solar Energy System Generation Allocated to Tenants through VNEM on a Monthly Basis for the Life of the System or 20 years, whichever is less.

By signing this affidavit, [Host Customer Name], with respect to the solar electric system project ("System") at [Property Name], located at [Project Site Address], which is partially funded by the Program Administrator for the Solar On Multifamily Affordable Housing ("SOMAH") Program under Application Number XXX-SOMAH-XXXXX, certifies and declares under penalty of perjury under the laws of the State of California that each of the statements in the paragraphs below are complete, true, and correct.

1. Host Customer certifies that it will allocate at least 51% of the System's electric generation to tenants, allocate solar benefits through Virtual Net Energy Metering, and ensure tenants continue to receive the same portion of the System's electric generation on a monthly basis for the life of the system, or 20 years, whichever is less.
2. Host Customer certifies that it will exclude solar benefits (allocated through Virtual Net Energy Metering) from the project's utility allowance calculations in order to prevent the recapture and/or diminishment of tenant economic benefits from solar through rent and utility allowance adjustments related to the solar system.
3. Host Customer certifies that, for California Tax Credit Allocation Committee projects, it will not use the California Utility Allowance Calculator to recapture and/or diminish tenant economic benefits from solar.
4. Host customer certifies that the tenant accounts will remain in the tenants' names and will not be recaptured by the Host Customer.
5. Host Customer acknowledges that failure to comply with these requirements serves as grounds for program removal and repossession of any dispersed incentive funds.
6. Host Customer agrees that the SOMAH Program Administrator reserves the right to request further documentation that demonstrates that the benefits will be passed to the tenants as provided in this Affidavit.

Although it is not mandatory, the SOMAH PA also strongly encourages the Host Customer to compensate the tenants for performance guarantee shortfalls, either directly (e.g. rent reduction, direct check to tenant) or indirectly through common area improvements.

I declare under penalty of perjury, under the laws of the State of California, that all of the foregoing statements are true and correct.

Host Customer

Signature:

Utility Allowance Requirements

- HUD Memorandum (7/19) and USDA letter to SOMAH (6/20) direct SOMAH-participating owners to exclude solar credits from annual UA calculations.
- Most HUD properties with Project-Based Section 8 funding are eligible for SOMAH, except:
 - Section 101, Rent Supplement
 - Section 236 RAP
- PHA properties may be eligible if use a standard regional or local standard regional or local UA schedule

Warranty Requirements



SOMAH's warranty requirements include:

- 20-year manufacturer performance warranty
- 10-year workmanship warranty
- 20-year warranty to protect against more than a 15% degradation
- 1-year meter warranty

Performance and Permanency Requirements

- PV system must be in place for a minimum of 20 years & be a permanently installed
- PMRS is required for all systems for a minimum of 20 years
- Third-Party owned systems must provide evidence of O&M services





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SOMAH Application Pathways



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Technical Assistance Options

There are two options to receive Technical Assistance:

- Upfront Technical Assistance (Track A) is for property owners who are trying to understand the solar potential for their site, and the associated costs and benefits of moving forward with a SOMAH project.
- Standard Technical Assistance (Track A & B) is for property owners and contractors who need assistance with energy efficiency, general project management, and construction support.

SOMAH Application Tracks

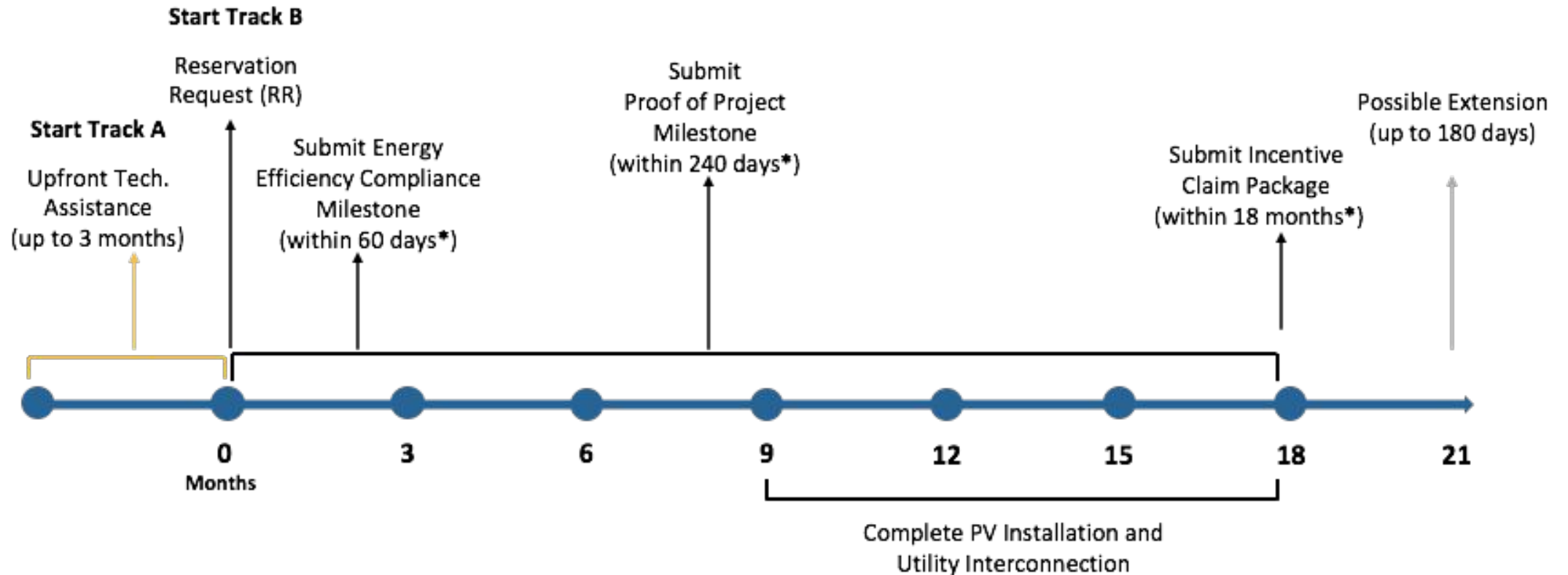
Track A: Upfront Technical Assistance selected – 21 months



Track B: Upfront Technical Assistance NOT selected – 18 months



SOMAH Project Timeline



* Period begins upon the *approval* of RR, not submittal date.



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Deep-Dive: Upfront Technical Assistance



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Technical Assistance Services

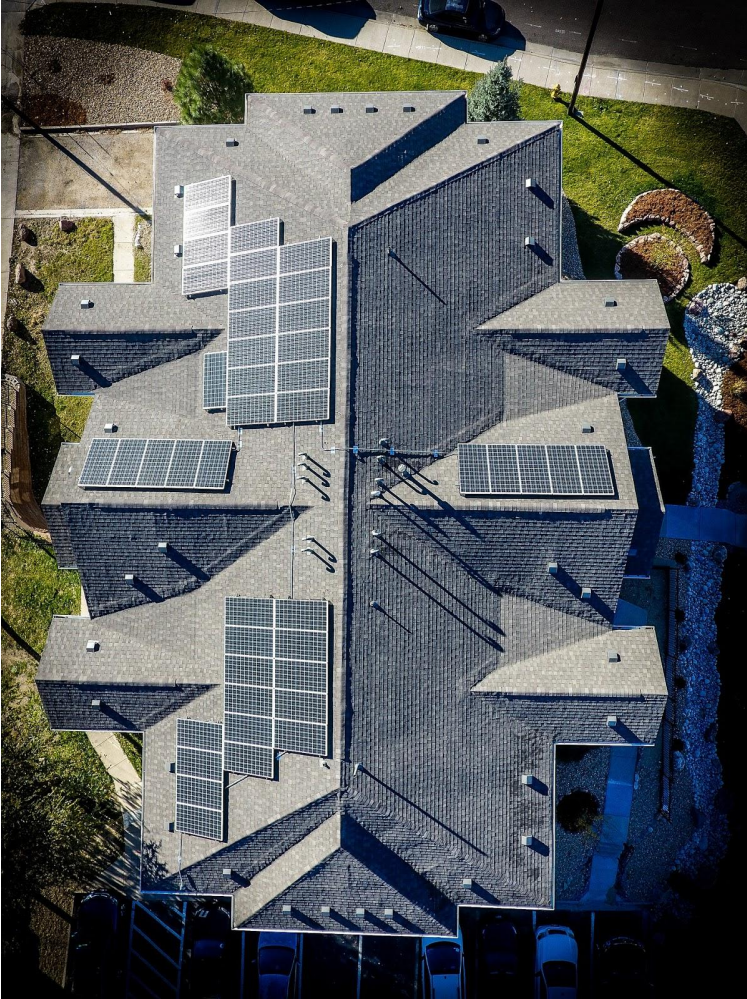
Upfront Technical Assistance (Track A):

- Can include:
 - System pre-design
 - Financial analysis
 - Utility rate analysis
 - Program co-leveraging
 - Project bid support
- 3-month period before the Reservation Request Package is submitted
- Incentive funds are earmarked for 3 months

Standard Technical Assistance (Track A & B):

- Can include:
 - Energy efficiency services
 - General project management and construction support
 - Project financing
 - Post-install services
- Can be requested at any time after Reservation Request Package is submitted

Benefits of Upfront TA



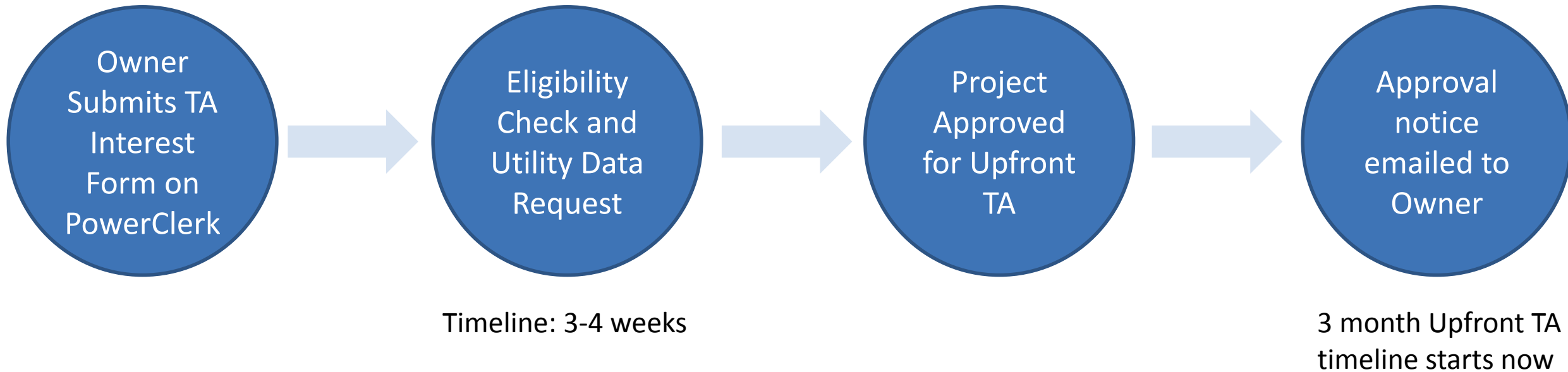
- Equal access to SOMAH for all eligible property owners, regardless of previous knowledge related to solar
- Free Upfront Technical Assistance
- Education and access to resources to help with decision making
- Project portfolios are welcome
- A dedicated Energy Project Manager (EPM) as a single point of contact

What Upfront TA Provides

- EPM will listen to your needs in order to create a solar pre-design
- Customized solar feasibility report
- Establishing common vs. resident system size and allocation split
- Purchase, PPA, or lease options
- Coordination with energy efficiency and other complementary programs in the property's area
- Contractor bidding support



Upfront TA – Application Steps



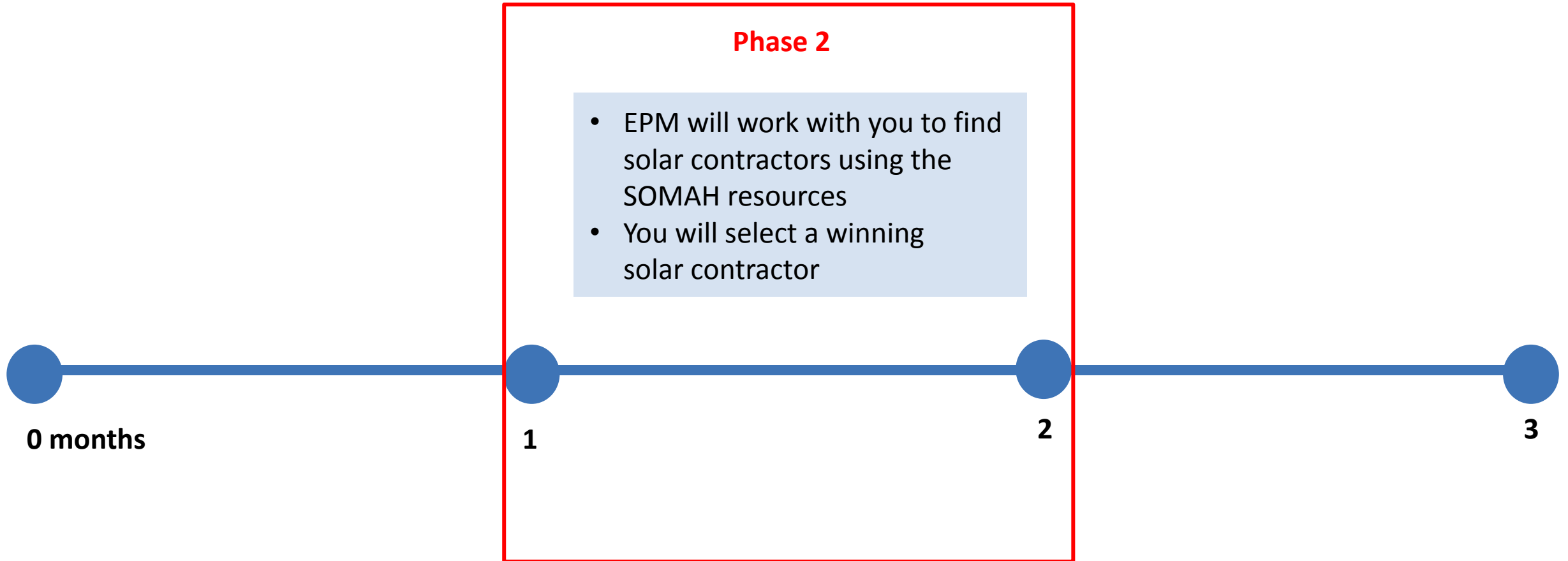
Upfront TA – Phase 1

Phase 1

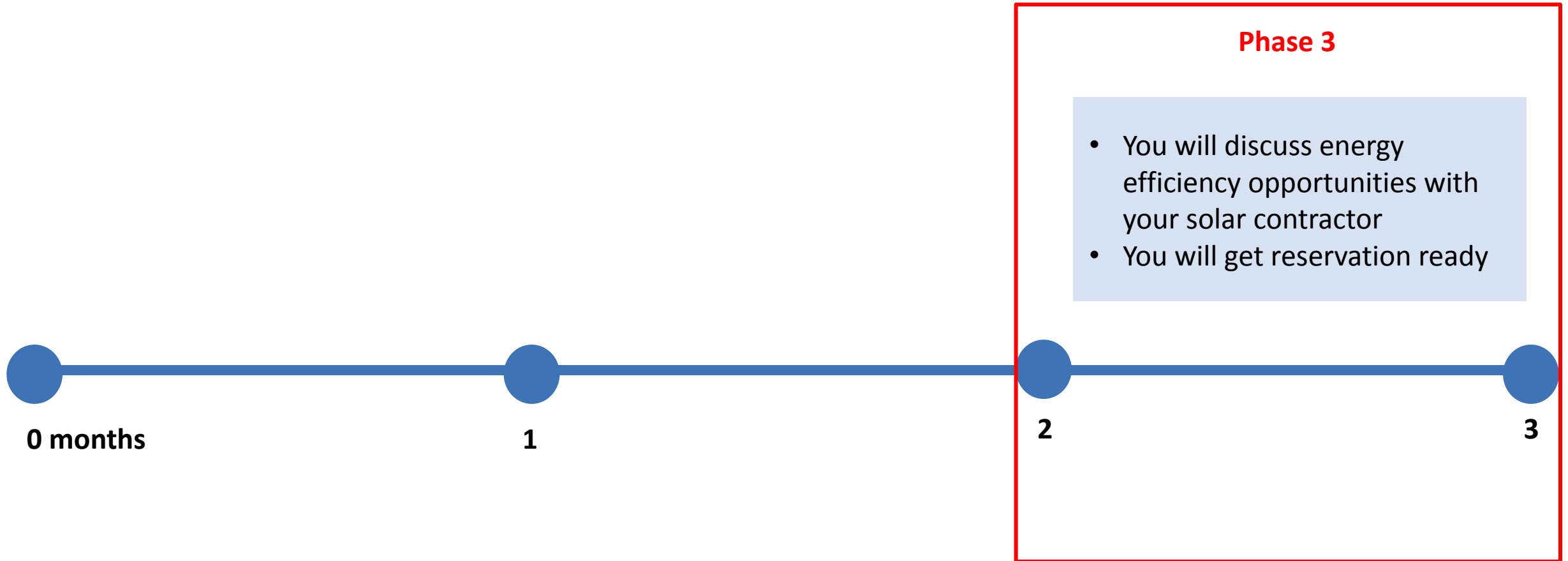
- EPM will provide technical assistance services to answer your solar questions
- You will decide if the project appears feasible



Upfront TA – Phase 2



Upfront TA – Phase 3





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Upfront Technical Assistance Solar Feasibility Report

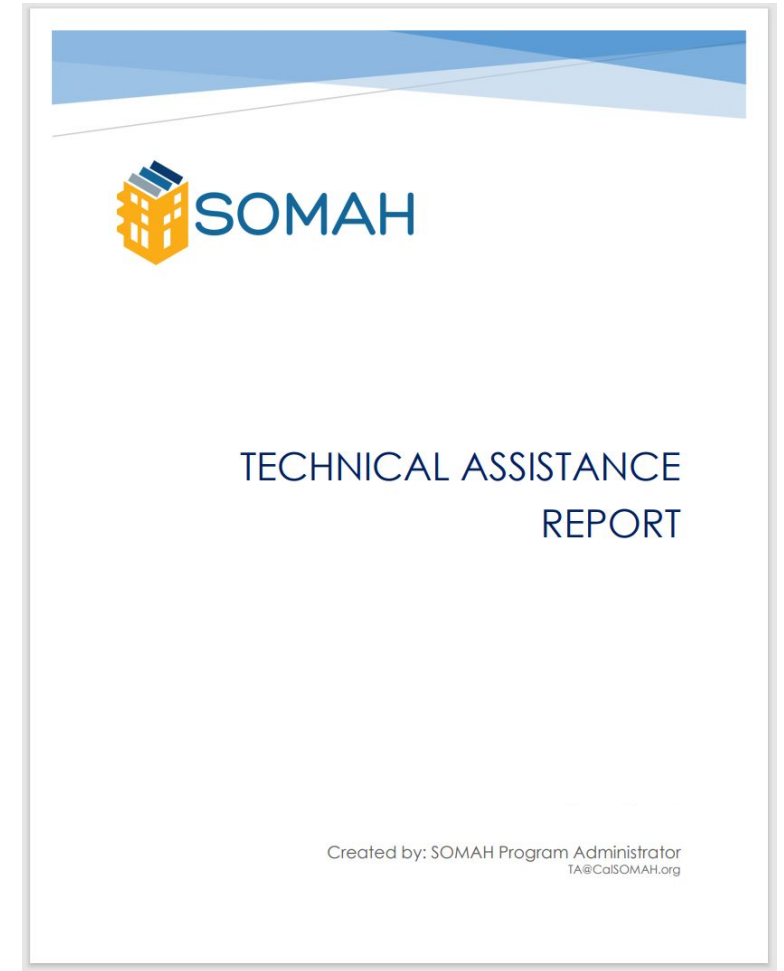


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Solar Feasibility Report

Upfront TA provides owners with a comprehensive TA report that includes:

- Property characteristics and electricity usage data
- Photovoltaic (PV) system sizing and sample pre-design
- Financing analysis
- Estimated costs and savings
- Estimated SOMAH incentive amount
- Utility rate analysis



Pre-Design Process



- Analysis of property characteristics
- Use of satellite images and modeling software
- Pre-design can include:
 - Rooftop solar
 - New or existing carport systems
 - Ground-mounted systems
- System size and generation estimate
- SOMAH incentive estimate

Solar Feasibility Report

System Design Details

System Size Estimate	275.68 kW CEC-AC
Solar Energy Generation Estimate	479,524 kWh



Solar Feasibility Report

Includes a breakdown of the common area and resident area systems details

	Annual Usage (kWh)	Common /Tenant Split (%)	System Size (kW-CEC-AC)	SOMAH Incentive (\$ / W CEC-AC)	Estimated EPBB Incentive Payment (\$)	Average \$ / W CEC-AC
Common Areas	18,720	4	11.700	1.1	12,302	
Tenant Areas	449,280	96	280.797	3.2	858,882	
Total	468,000	100	292.496		871,184	2.98

Solar Feasibility Report

Includes a basic financial analysis showing the estimated system cost and incentives under SOMAH

System Cost Information	
Estimated System Size (kw CEC-AC)	275.68
Estimated System Cost	\$882,174
Estimated SOMAH Incentive	\$823,986
Net Out of Pocket Purchase Cost	\$58,188

Solar Feasibility Report

Includes a Power Purchase Agreement example

- Current escalation rate assumptions
- Example cash flow table

Current electric rate assumptions	
Common area electric rate	\$0.26/kWh
Year 1 value of common area production (Common area electric rate x Common area system size)* (C)	\$16,088
Blended average electric rate (C/(A+B))	\$0.072/kWh
Example annual electric rate escalation	3.0 %
Example annual PPA escalation rate	2.0 %
Example year 1 annual PPA or lease payment**	\$16,419

Year	Savings from Solar	PPA Payments	Net Cashflow	Cumulative Cash Flow
0				
1	16,088	16,419	(331)	(331)
2	16,570	16,747	(177)	(507)
3	17,067	17,082	(14)	(522)
4	17,579	17,424	156	(366)
5	18,107	17,772	335	(31)
6	18,650	18,127	523	491
7	19,210	18,490	720	1,211
8	19,786	18,860	926	2,137
9	20,379	19,237	1,142	3,280
10	20,991	19,622	1,369	4,649
11	21,621	20,014	1,606	6,255
12	22,269	20,414	1,855	8,110
13	22,937	20,823	2,114	10,224
14	23,625	21,239	2,386	12,610
15	24,334	21,664	2,670	15,280
16	25,064	22,097	2,967	18,247
17	25,816	22,539	3,277	21,524
18	26,591	22,990	3,601	25,125
19	27,388	23,450	3,938	29,063
20	28,210	23,919	4,291	33,354

Solar Feasibility Report

Includes a sample electric utility bill analysis

Previous Electric Bill

Rate Schedule: SCE - Default SOMAH tenant flat rate

Time Periods	Energy Use (kWh)	Charges	Charges		
			Other	NBC	Energy
1/1/2020 - 2/1/2020 W	27,296	-	\$682	\$1,194	\$1,876
2/1/2020 - 3/1/2020 W	26,538	-	\$663	\$1,161	\$1,824
3/1/2019 - 4/1/2019 W	33,186	-	\$830	\$1,451	\$2,281
4/1/2019 - 5/1/2019 W	31,038	-	\$776	\$1,357	\$2,133
5/1/2019 - 6/1/2019 W	36,790	-	\$920	\$1,609	\$2,529
6/1/2019 - 7/1/2019 S	44,987	-	\$1,125	\$1,967	\$3,092
7/1/2019 - 8/1/2019 S	61,532	-	\$1,538	\$2,691	\$4,229
8/1/2019 - 9/1/2019 S	78,653	-	\$1,966	\$3,439	\$5,406
9/1/2019 - 10/1/2019 S	69,343	-	\$1,734	\$3,032	\$4,766
10/1/2019 - 11/1/2019 W	54,074	-	\$1,352	\$2,365	\$3,717
11/1/2019 - 12/1/2019 W	29,551	-	\$739	\$1,292	\$2,031
12/1/2019 - 1/1/2020 W	23,661	-	\$592	\$1,035	\$1,626
Totals:	516,649	-	\$12,916	\$22,593	\$35,509

New Electric Bill

Rate Schedule: SCE - Default SOMAH tenant flat rate

Time Periods	Energy Use (kWh)	Charges	Charges		
			Other	NBC	Energy
1/1/2020 - 2/1/2020 W	1,437	-	\$464	\$63	\$527
2/1/2020 - 3/1/2020 W	-1,531	-	\$435	-\$67	\$368
3/1/2019 - 4/1/2019 W	-5,906	-	\$456	-\$258	\$198
4/1/2019 - 5/1/2019 W	-13,582	-	\$363	-\$594	-\$231
5/1/2019 - 6/1/2019 W	-11,924	-	\$399	-\$521	-\$123
6/1/2019 - 7/1/2019 S	-2,484	-	\$493	-\$109	\$384
7/1/2019 - 8/1/2019 S	15,011	-	\$750	\$656	\$1,406
8/1/2019 - 9/1/2019 S	36,460	-	\$1,081	\$1,594	\$2,675
9/1/2019 - 10/1/2019 S	33,679	-	\$1,008	\$1,473	\$2,481
10/1/2019 - 11/1/2019 W	23,572	-	\$834	\$1,031	\$1,865
11/1/2019 - 12/1/2019 W	2,930	-	\$498	\$128	\$626
12/1/2019 - 1/1/2020 W	-1,723	-	\$401	-\$75	\$326
Totals:	75,939	-	\$7,181	\$3,321	\$10,501

Annual Electricity Savings: \$25,008



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Upfront Technical Assistance Case Study



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Upfront Technical Assistance Case Study

A Property in Oakland, CA

- Affordable housing community for seniors
- Built in 1979
- Offers 100 apartments to seniors aged 62 or over who qualify as low income according to HUD income limits for the area



Upfront Technical Assistance Case Study

- What are the important questions to ask during Upfront TA:
 - How do I start a solar project?
 - Are the roofs on the buildings even suitable for solar?
 - How much will this project cost?
 - How do I pay for a project like this?
 - How are savings passed to the residents
 - How much savings will the common area bills see?



Upfront Technical Assistance Case Study



Upfront Technical Assistance Case Study



Upfront Technical Assistance Case Study

	Estimated Annual System Production (kWh)	Common /Tenant Split (%)	System Size (kW CEC-AC)	SOMAH Incentive (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	85,477	28	53.06	\$1.10	\$58,366	
Tenant Areas	219,799	72	138.34	\$3.20	\$442,688	
Total	305,276	100	189.50		\$501,054	\$2.64/W

System Cost Information	
Estimated system size (kW CEC-AC)	189.15 kW CEC-AC
Estimated system cost	\$575,016
Estimated SOMAH incentive	\$501,054
Estimated carport cost ³	\$260,820
Net cost	\$334,782

Upfront Technical Assistance Case Study



Upfront Technical Assistance Case Study

	Estimated Annual System Production (kWh)	Common /Tenant Split (%)	System Size (kW CEC-AC)	SOMAH Incentive (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	57,267	28	33.74	\$1.10	\$37,114	
Tenant Areas	147,259	72	86.76	\$3.20	\$277,632	
Total	204,526	100	120.50		\$314,746	\$2.61/W

System Cost Information	
System size (kW CEC-AC)	120.5 kW CEC-AC
System cost	\$366,313
Estimated SOMAH incentive	\$314,746
Net cost	\$51,567

Upfront Technical Assistance Case Study

	Annual Estimated Annual System Production (kWh)	Common/Tenant PV Allocation Split (%)	System Size (kW CEC-AC)	SOMAH Incentive (\$ / W CEC-AC)	Estimated SOMAH Incentive Amount (\$)	Average \$ / W CEC-AC
Common Areas	0	0	0	\$1.10	0	
Tenant Area	223,651	100	132.147	\$3.20	\$403,376	
Total	223,651	100	132.147		\$403,376	\$3.05/W

System Cost Information	
Estimated System Size (kW CEC-AC)	132.147
Estimated System Cost	\$422,870
Estimated SOMAH Incentive	\$403,376
Net Out of Pocket Purchase Cost	\$19,494

Upfront Technical Assistance Case Study

- Annual estimated total electric savings for residents = \$31,384
- Annual estimated electric savings per apartment = \$313

Rate Schedule: PG&E - Default SOMAH Tenant Flat Rate

Time Periods Bill Ranges & Seasons	Energy Use (kWh) Total	Charges Other	Charges		
			NBC	Energy	Total
1/1/2020 - 2/1/2020 W	15,999	-	\$400	\$2,080	\$2,480
2/1/2020 - 3/1/2020 W	14,672	-	\$367	\$1,907	\$2,274
3/1/2020 - 4/1/2020 W	15,791	-	\$395	\$2,053	\$2,448
4/1/2020 - 5/1/2020 W	16,472	-	\$412	\$2,141	\$2,553
5/1/2020 - 6/1/2020 S	18,440	-	\$461	\$2,397	\$2,858
6/1/2020 - 7/1/2020 S	25,861	-	\$647	\$3,362	\$4,008
7/1/2019 - 8/1/2019 S	31,262	-	\$782	\$4,064	\$4,846
8/1/2019 - 9/1/2019 S	23,777	-	\$594	\$3,091	\$3,685
9/1/2019 - 10/1/2019 S	22,087	-	\$552	\$2,871	\$3,423
10/1/2019 - 11/1/2019 W	22,357	-	\$559	\$2,906	\$3,465
11/1/2019 - 12/1/2019 W	17,221	-	\$431	\$2,239	\$2,669
12/1/2019 - 1/1/2020 W	17,918	-	\$448	\$2,329	\$2,777
Totals:	241,857	-	\$6,046	\$31,441	\$37,488

Rate Schedule: PG&E - Default SOMAH Tenant Flat Rate

Time Periods Bill Ranges & Seasons	Energy Use (kWh) Total	Charges Other	Charges		
			NBC	Energy	Total
1/1/2020 - 2/1/2020 W	4,630	-	\$288	\$602	\$890
2/1/2020 - 3/1/2020 W	577	-	\$247	\$75	\$322
3/1/2020 - 4/1/2020 W	-2,020	-	\$251	-\$263	-\$12
4/1/2020 - 5/1/2020 W	-4,514	-	\$240	-\$587	-\$347
5/1/2020 - 6/1/2020 S	-5,477	-	\$254	-\$712	-\$458
6/1/2020 - 7/1/2020 S	1,943	-	\$365	\$253	\$618
7/1/2019 - 8/1/2019 S	5,084	-	\$450	\$661	\$1,111
8/1/2019 - 9/1/2019 S	-67	-	\$353	-\$9	\$344
9/1/2019 - 10/1/2019 S	280	-	\$340	\$36	\$377
10/1/2019 - 11/1/2019 W	4,505	-	\$369	\$586	\$955
11/1/2019 - 12/1/2019 W	5,280	-	\$307	\$686	\$993
12/1/2019 - 1/1/2020 W	7,530	-	\$333	\$979	\$1,312
Totals:	17,751	-	\$3,796	\$2,308	\$6,104

Annual Electricity Savings: \$31,384

Upfront Technical Assistance Case Study

Energy Efficiency Integration

If the SOMAH incentivized system is offsetting resident use only, how can common area use and operating costs be reduced?

- Low Income Weatherization Program (LIWP) and Bay Area Regional Energy Network (BayREN)
- Project Scope: Central heat pump water heating, comprehensive LED lighting upgrades, low-flow fixtures



Upfront Technical Assistance Case Study

- What are the important questions to ask during Upfront TA:
 - Where do I find solar contractors?
 - How do I know the contractors have experience completing multifamily solar projects?
 - How do I compare one project proposal to another?



Upfront Technical Assistance Case Study

- What are the important questions to ask solar contractors:
 - Does the solar contractor design and install the systems themselves or do they subcontract to local companies?
 - How many projects has the contractor completed that utilized the VNEM billing arrangement?
 - How many projects have they completed in the Oakland area?
 - How has their experience been working with the local utility and local city and county agencies?

Solar on Multifamily Affordable Housing (SOMAH) Program

Project Bid



The Solar on Multifamily Affordable Housing (SOMAH) Project Bid form allows customers to compare multiple bids using standard metrics. The customer should be aware and understand the information in the bid. The final contract may differ from this bid and will be reviewed in accordance with the incentive application process. Submission of the incentive application and Project Bid form does not guarantee incentive eligibility. **Note: When responding to bid requests received through the online bidding platform, the SOMAH Project Bid Form should be filled out digitally using the form fields and submitted as a PDF file.**

Bid Prepared By

Solar contractor contact:

Solar contractor company:

Bid Prepared For



Upfront Technical Assistance Case Study





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Submitting an Upfront Technical Assistance Interest Form



SOMAH

Submitting an Upfront Technical Assistance Interest Form



Required documents include:

- Regulatory agreement or HAP contract
- List of resident addresses
- Signed *Letter of Authorization to Receive Customer Information*
- Signed Cover Sheet for Multifamily Low-Income Housing

For more application information, visit CalSOMAH.org/apply



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Leveraging SOMAH for LIHTC Projects



SOMAH

Poll #4

SOMAH/LIHTC Co-Leveraging

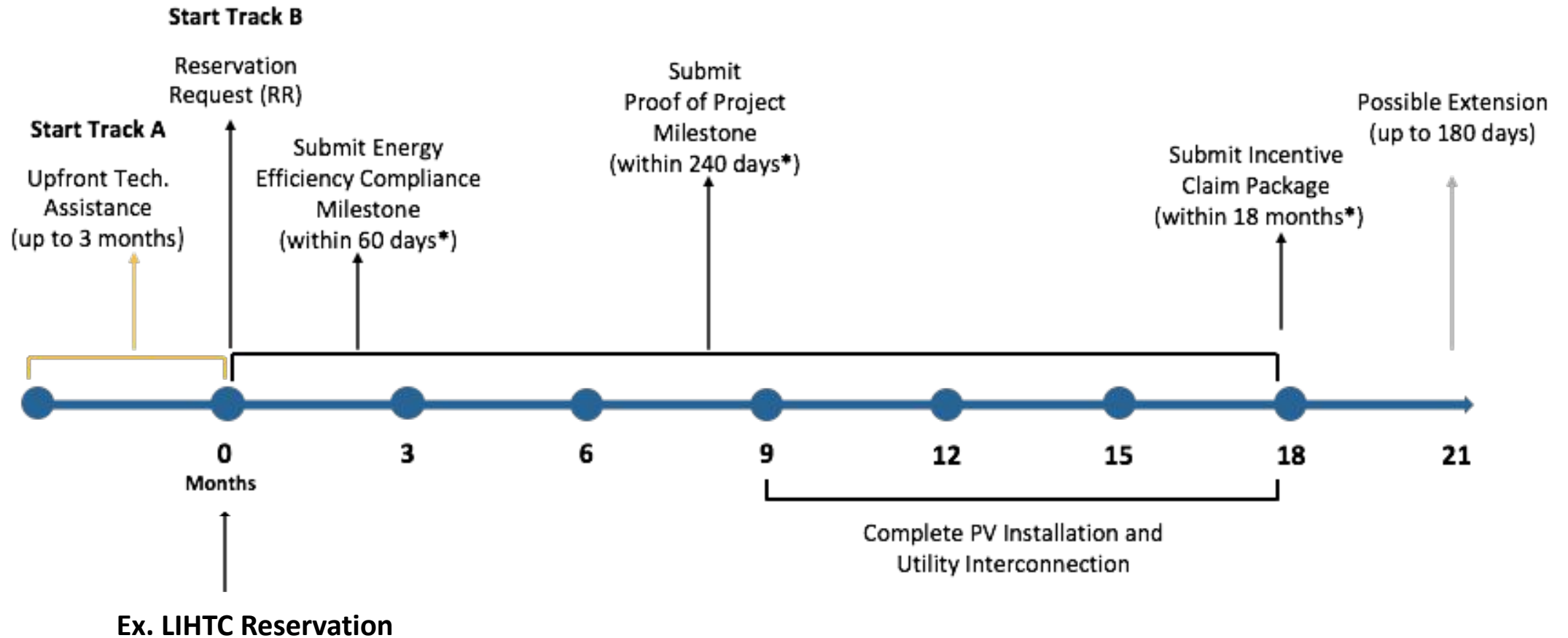
Benefits

- Free Upfront TA project strategies, planning & timeline coordination
- Cash incentives
- Leverage more debt based on common area savings
- Long-term bill savings for residents and owner
- Referral to other programs

Planning is Key

- Inquire early and keep options open
- Contact SOMAH team or talk to your contractor
- Upon receiving LIHTC award, apply to Track A/B
- Consider SOMAH for entire portfolio

SOMAH/LIHTC Project Timeline



* Period begins upon the *approval* of RR, not submittal date.

SOMAH/LIHTC Eligibility Documents

Rehabilitation Projects	Acquisition & Rehabilitation	New Construction
<ul style="list-style-type: none">• Eligible existing regulatory agreement• Eligibility based on existing rent restriction, not LIHTC award	<ul style="list-style-type: none">• Eligible existing regulatory agreement• Eligibility based on existing rent restriction, not LIHTC award• Purchase contract required	<ul style="list-style-type: none">• Eligible regulatory agreement• Certificate of Occupancy (COO)• Solar permit <u>must</u> be pulled post-COO• Upfront TA available post-COO

SOMAH/LIHTC and CUAC Rules

TCAC rules for CUAC for rehab projects include:

- Energy Efficiency (EE) improvements over 20%, or
- Install solar offsetting 50% tenant loads

SOMAH rules pertaining to UA:

- Must exclude solar credits from annual calculations
- SOMAH UA requirement does not apply to EE upgrades, check with EE programs





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Gap Financing

Standalone Solar PV: Gap Financing

1) PPA/Lease

Feasible

Payment for solar as a service, occurs above the line

Performance-based financing

Known as Solar Services Agreement (SSA)

2) Affordable Multifamily Housing (AMF)

Feasible for EE

PV & energy storage eligible at discretion of finance company

ESA or Equipment Finance Agreement

Requires UCC-1 fixture filing, no property lien

3) On-Bill Financing

Feasible for EE, PV not eligible

Payment included in utility bill so above the line

Loan amount based on savings for eligible measures

Ex. IOU OBF programs provide unsecured loans for EE upgrades

4) Traditional Loan

Payment for debt occurs below the line

Existing lenders must approve adding debt

Approval process is time intensive & may not result in approval

Property lien

5) PACE Financing

Not Feasible

Payment is included in property tax

Existing lenders must approve addition of tax lien on the subject property

Approval process is time intensive and may not result in approval

Payments stay with the property



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QUESTIONS?



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THANK YOU!

Questions?

Email rdiaz@chpc.net