

# New Home Energy Storage Pilot Rulebook

SOUTHERN CALIFORNIA EDISON

V. 1.0

- 1 Introduction
  - 1.1 Pilot Overview – Pilot Description
  - 1.2 Pilot Objectives
  - 1.3 Harmonization with SGIP
- 2 Budget and Incentive Levels
  - 2.1 Total Pilot Funding
    - 2.1.1 Pilot Administration
    - 2.1.2 Marketing, Education and Outreach (ME&O)
    - 2.1.3 Measurement and Verification (M&V)
    - 2.1.4 Incentives
  - 2.2 Incentive Levels
  - 2.3 Fund Shifting Authority
- 3 Application Process
  - 3.1 Reservation Phase
  - 3.2 Customer Eligibility and Conditions of Participation
  - 3.3 Equipment Eligibility
  - 3.4 System Size / Incentive Cap
  - 3.5 Warranty Requirements
  - 3.6 Dwelling Eligibility
  - 3.7 End-Use Customer Requirements
  - 3.8 Incentive Reservation Process
    - 3.8.1 Reservation Request Phase
    - 3.8.2 Reservation Queue and Remaining Incentives Status
    - 3.8.3 Changes to Equipment Technical Specifications
    - 3.8.4 Deadline for Final Construction and Interconnection
  - 3.9 Construction Phase
    - 3.9.1 Three Month Reporting Requirement
    - 3.9.2 Installation Inspection Requirements
    - 3.9.3 Interconnection Requirements
    - 3.9.4 Performance Requirements
  - 3.10 Incentive Claim Form Phase
    - 3.10.1 Request for First Incentive Progress Payment / Initial Incentive Claim Form (IICF)

### 3.10.2 Request for Second Payment / Final Incentive Claim Form (FICF)

#### 3.11 End-User Customer Engagement Phase (I and II)

- 4 Measurement and Valuation (M&V)
- 5 Dispute Resolution (Under Construction)
- 6 Definition (Under Construction)
- 7 Program Closure

# 1 Introduction

## 1.1 Pilot Overview – Pilot Description

The New Home Energy Storage Pilot (NHESP) will provide financial incentives for the installation of approximately 2,400 energy storage battery (ES) systems on new single family or multi-family residential housing developments that are subject to 2019 or 2022 [Title 24 Building Energy Efficiency Standards](#) (either standard referred to as “Title 24” in this document).

Specifically, the NHESP will allow building developers to install ES in single-family or multi-unit housing developments prior to tenant move-in, giving SCE, through this pilot, the opportunity to evaluate whether there is a simpler, more cost-effective way to promote the installation of energy storage systems paired with PV as compared to other existing incentive programs (such as the Self-Generation Incentive Program (SGIP)) that target ES installations for existing households.

Assuming an average discharge capacity of 5kW per ES system, SCE through the NHESP seeks to fund 2,400 ES systems with 12.2 MW of combined operating capacity.

## 1.2 Pilot Objectives

Among other goals presented throughout this PIP, the main objectives of the NHESP include:

- Incentivize developers adopting ES in new construction housing subject to Title 24 Building Energy Efficiency Standards requirements.
  - The pilot is intended to pair photovoltaic (PV) systems with ES systems (“paired storage”, or PS) in dwellings intended for residential occupancy.
    - Unlike SGIP, NHESP requires that the ES system be installed in conjunction with a PV system.
  - The goal is to install approximately 2,400 of ES systems in new dwellings (for a target installed capacity of 12.2 MW).
- Evaluate incentive programs at a “mid-stream” level (rather than at the end-user/customer level) to identify economies of scale cost reductions and simplified enrollment, participation, and adoption.
  - Unlike SGIP that requires a “host-customer” designation (with specific information about service account and end-user name), the NHESP payments will be issued directly to the applicant/developer (in accordance with Section 3.10.1 below).
- Evaluate interest or adoption barriers from low-income affordable housing developers.
- Determine whether a new construction ES incentive merits its own program design, similar to how the New Solar Homes Program previously operated under the California Solar Initiative or something different.
- Evaluate strategies to educate/incentivize customers on how to use ES systems for (a) bill minimization (while participating in selected Time-of-Use (TOU) rates), (b) reduction of Greenhouse Gas (GHG) emissions, and (c) responding to a grid need (via direct participation on a demand response program or through an aggregator-controlled program).
- Confirm if incentives can be successfully provided to mitigate solar overgeneration (duck curve), while reducing GHG emissions and improving air quality.

- Quantify onsite customer benefits.
- Investigate whether customer-sited ES can be configured as “dispatch-ready” assets when installed in batches.

### 1.3 Harmonization with SGIP

Although the NHESP is not a program mandated as part of the implementation of the SGIP, and its funding differs from that of SGIP, SCE will require that projects seeking incentives from NHESP be required to comply with all technical and operational requirements as projects receiving incentives from SGIP in order to be consistent with current SGIP’s system performance and GHG reduction goals.

To that extent, the SGIP Handbook serves as the guide for the NHESP technical requirement and performance expectations. However, the application, reservation, and incentive processes, as well as eligibility requirements differ from those of the SGIP and are outlined in this Rulebook.

## 2 Budget and Incentive Levels

### 2.1 Total Pilot Funding

The NHESP’s total authorized budget of \$5 million is allocated to: (a) Pilot administration, (b) marketing, education, and outreach (ME&O), (c) measurement and verification (M&V), and (d) incentives. Table 1 below breaks down the authorized funding for each category.

**Table 1. NHESP Funding by Category**

<b>Cost Category</b>	<b>Total Funding</b>
Pilot Administration	\$302,315
Marketing, Education and Outreach (ME&O)	\$158,500
Measurement & Verification (M&V)	\$350,000
Incentives	\$4,189,185
<b>Total</b>	<b>\$5,000,000</b>

#### 2.1.1 Pilot Administration

Pilot Administration activities include those related to the execution and oversight of the Pilot such as preparation of marketing and outreach materials, processing customer applications, project construction tracking, coordination with internal and external stakeholders, incentive payment processing, negotiation of the measuring and evaluation third-party contract, Pilot reporting and closing.

### 2.1.2 Marketing, Education and Outreach (ME&O)

ME&O includes materials (printed and electronic form including Pilot fact sheets), and web content intended to promote Pilot participation and to educate housing developers and installers about the availability and benefits of this Pilot. This also includes materials (printed and electronic) to support customers education about features and capabilities of their new storage system, TOU rates, reduction of GHG emissions, and other relevant programs.

### 2.1.3 Measurement and Verification (M&V)

Planned evaluation of Pilot performance through market adoption, identification of future improvements or potential permanent program, and generating the one-time NHESP Adoption Report. An extensive list of metrics expected to be completed in this evaluation by a selected third-party is discussed in Section 4.

### 2.1.4 Incentives

The incentive budget covers payments made to developers for the installation of ES and the subsequent programming and customer education (as described in Section 2.2).

## 2.2 Incentive Levels

The NHESP will pay incentives in the form of a rebate to eligible building developers who choose to add ES systems in new residential dwelling projects. SCE will pay NHESP incentives directly to building developers who pre-install paired ES / PV systems in new dwellings prior to occupancy. The incentives vary by the housing type as follows:

**Table 2. NHESP Incentive Levels and Set Asides**

Housing Type	Incentive Level	Incentive Rate*	Initial Budget Set Aside
Affordable Housing	90% of SGIP Residential Storage Equity incentive rate at time of NHESP launch	\$0.765/Wh	\$1,047,296
General Market or Mixed-Use	90% of SGIP Small Residential Storage incentive rate at time of NHESP launch	\$0.135/Wh	\$3,141,889

\* Based on SGIP levels as of the date of this advice letter; SGIP Rate current as of May launch date.

To promote developer certainty, SCE will fix incentive rates at the time of NHESP launch for the duration of the pilot. SCE will not modify incentive rates based on dwelling eligibility for the federal Investment Tax Credit (ITC).

To avoid confusion, and to simplify administration, the “affordable housing” set aside of the NHESP will use the same criteria for single-family and multi-family developments intended for residents that, except for final occupancy, would otherwise qualify for the Equity Budget as set forth in the SGIP Handbook.

### **2.3 Fund Shifting Authority**

SCE will initially split the budget authorized for payment of incentives (\$4,189,185) between affordable housing and general market (or mixed use) in a 25%/75% split as shown in Table 2, above. If the funds allocated to affordable housing (\$1,047,296) are not fully reserved within 12 months of the Pilot Launch Date, SCE will shift the unreserved balance to the general market set-aside during the remaining of the Reservation Period (as described in Section 3.1).

## **3 Application Process**

### **3.1 Reservation Phase**

SCE will accept applications for 18 months from the Pilot Launch Date (the Reservation Period) and will commence reviewing for eligibility upon receipt. SCE has the discretion to extend the Reservation Period so long as an extension will not compromise the time allowed for the Measuring and Evaluation phase of the Pilot.

SCE will review applications for NHESP incentives on a “first come, first serve” basis until all available funds are reserved. SCE will provide successful applicants with a notice confirming the reservation and providing general information about providing construction progress updates (as described in Section 3.3). During the Reservation Period, SCE will maintain a waitlist that includes valid applications, but for which funds are no longer available<sup>1</sup>. Funds reserved for projects that subsequently withdraw their application will be released for use immediately to projects on the waitlist, if any.

As described above, 12 months into the Reservation Period, SCE will shift any funds allocated to the affordable housing budget (\$1,047,296) and not fully reserved to the general market budget to make those funds available for projects in the general market category for the remainder of the Reservation Period.

### **3.2 Customer Eligibility and Conditions of Participation**

Participation in NHESP will be limited to builders of new residential housing that at minimum, are subject to the 2019 Title 24 PV requirements found in Chapter 7, Sections 7.1 and 7.2 of the 2019 Residential Compliance Manual (generally single-family and multi-family structures under four stories). Eligible developers will submit applications for batch reservations of energy storage incentives for units to be built. Batch reservations are limited to groups of dwellings that will each install the same ES make and model.

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<sup>1</sup> This mirrors the same process under SGIP Handbook Section 2.3.6 “Wait List and Program Closure”.

**Table 3. Requirements and Conditions of Participation to the Pilot.**

Requirement or Preference	Impacted Housing Development Type	Purpose
Must meet 2019 Title 24 Energy Design Rating (EDR) compliance scores.	All	To establish a threshold population of eligible new construction buildings meeting Title 24 Residential.
Must meet 2019 Title 24 PV requirements through onsite solar installation.	All	See above.
Preference for homes with 2019 Title 24 EDR scores that exceed relevant climate zone compliance by 10 EDR points or more.	All	To help ensure NHESP incentives help reduce GHGs as much as possible by supporting builders of highest performing homes, most likely all- electric.
Must not reserve NHESP incentives for more than 600 units per housing developer	All	To ensure a mix of participating developers in the pilot
Demonstration of ability to programming of NHESP batteries by installers to provide customer bill minimization and GHG reduction benefits (with a preference for bill minimization if both cannot be achieved in the case of affordable housing).	All	To help drive bill minimization for customers and reduce GHG emission in aligned cases
Must enroll in a SCE rate with peak differential of 1.69 or more where applicable <sup>2</sup> , and enrollment is compatible with battery programming described above	All	See above.
Preference for applications located on candidate circuits for distribution infrastructure deferral projects per SCE's annual DDOR.	All	<ul style="list-style-type: none"> <li>· To promote battery adoption in optimal locations for mitigating grid upgrade costs consistent with Energy Division recommendations to the CPUC and CEC on Title 24 building policy<sup>3</sup>.</li> <li>· To offer customers additional sources of revenue or bill credit when participating in demand response programs or similar services.</li> </ul>
Must follow Rule 21 smart inverter and communication protocol requirements.	All	To ease customer participation in demand response programs or other market eligible services offering customers additional revenue streams tied to usage of their battery.

All intended benefitting dwellings must be located in SCE's service territory. In addition, qualification for the affordable housing incentive rate requires demonstration of non-profit builder status, a permanent covenant on property title, or other documentation required to qualify for credits per the California Tax Credit Allocation Committee.

<sup>2</sup> This NHESP rate enrollment requirement is intended for single-family homes once they are occupied to mimic SCE's implementation in SGIP of D.19-08-001, Attachment A, Upfront Requirements 1-4, at the time of pilot launch.

<sup>3</sup> [https://www.cpuc.ca.gov/uploadedFiles/CPUC\\_Public\\_Website/Content/About\\_Us/Organization/Divisions/Office\\_of\\_Governmental\\_Affairs/Legislative%20Report%20on%20Residential%20ZNE-Building%20Integration%20Costs%20Analysis.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Office_of_Governmental_Affairs/Legislative%20Report%20on%20Residential%20ZNE-Building%20Integration%20Costs%20Analysis.pdf), p. viii.



### 3.3 Equipment Eligibility

All equipment eligible for incentives under the NHESP must (a) satisfy the eligibility for incentives under the SGIP's Small Residential Storage budget (as provided for in the [SGIP Handbook](#)), (b) be eligible for service under current SCE's Schedule NEM or a replacement tariff, when available, (c) comply with industry established safety standards, (d) and satisfy interconnection requirements pursuant SCE's Rule 21.

### 3.4 System Size / Incentive Cap

The NHESP does not have requirements on the size of the installed PV or ES system as those will be driven by the 2019 Title 24 PV requirements on the new development. However, in order to maximize the number of systems supported by the NHESP, the incentive will be capped to an ES system with average charging/discharging operating AC capacity of not to exceed the CEC-AC capacity of the complementary PV system, and with 2 hours of discharge period at such charging/discharging rate.

For example, a dwelling with a PV CEC-AC system rating of 10 kW could install an ES system with an average charging/discharging capacity of 12 kW and with an energy storage capacity of 48 kWh (which would allow the installed ES system to provide backup services for up to 4 hours, assuming no charging from the PV). However, the NHESP incentive will be capped at a 10 kW charging/discharging capacity (which is the PV's CEC-AC rating) and 20kWh of energy storage; this translates to:

$$\$0.765/Wh \times 20,000Wh = \$15,300 \text{ for affordable housing dwellings}$$

or

$$\$0.135/Wh \times 20,000Wh = \$2,700 \text{ for general market or mixed-used dwellings.}^4$$

The amount of the final incentive will also be limited in accordance with SGIP Handbook Section 3.2.2 ("Total Eligible Project Costs") and Section 3.2.6 ("Incentives From Other Sources"). NHESP applicants will be required to provide the list of eligible costs and any additional incentives expected to be applicable to each dwelling.

### 3.5 Warranty Requirements

All ES receiving incentive from NHESP must comply with the SGIP service contract and warranty requirements. This includes a minimum 10-year warranty provided in combination by the manufacturer and equipment seller/installer. During the 10-year period, the warranty must:

- Provide coverage for replacement due to defects in materials and workmanship.
- Provide coverage for system or component breakdown.
- Prevent degradation in electrical output of more than 15 percent from the originally rated electrical output.

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<sup>4</sup> The \$/Wh rates used in this example are as shown in Table 2, for illustration. Rates in Table 2 could vary depending on SGIP rates as of the Pilot Launch Date.

### 3.6 Dwelling Eligibility

In addition to the applicable requirements listed in Section 3.2, dwellings intended to receive incentives under the NHESP should satisfy the following requirements:

- a) Intended to be occupied by a single SCE end-use customer (with an individual meter as required for SCE's retail service).
- b) Have a dedicated solar PV system to be installed during the construction of the dwelling (**prior to first time occupancy by a permanent resident**)
- c) Be one of the following:
  - i. Single-family home
  - ii. Duplex
  - iii. Condominium
  - iv. Multifamily buildings (including market-rate and affordable housing projects) where the PV and ES systems are installed at the dwelling (that is, no "virtual NEM" or community solar systems are eligible).
  - v. Mixed-use buildings

Common areas (electric service not intended for residential service accounts) and multi-metered or master-metered premises are not eligible for incentives under the NHESP. Applicants must demonstrate that the ES system will be installed prior to obtaining the certificate of occupancy (final building permit sign-off) for the new home. Dwellings that obtained final certificate of occupancy prior to installing the ES system are not eligible for incentives under the NHESP.

### 3.7 End-Use Customer Requirements

Tenants whose dwellings have received NHESP incentives will be required to be served in an SGIP approved TOU differentiated rate schedule. In D.19-08-001 (dated August 1, 2019), Approving Greenhouse Gas Emission Reduction Requirements for The Self Generation Incentive Program Storage Budget, the Commission found that, for the purpose of promoting GHG emission reductions from residential customers, it was "reasonable to require customers with new residential projects to enroll in an SGIP-approved rate, defined as a time varying rate, including an EV rate, with a 1.69 or greater price differential between summer peak and off-peak or summer peak and super off-peak periods, and a peak period starting at or after 4 pm, if such a rate is available to the customer."<sup>5</sup>

Currently, the SGIP approved TOU rate schedules are TOU-D-PRIME and TOU-D-5-8. Note that residential Net Billing Tariff (NBT) customers will be required to take service under TOU-D-PRIME pursuant to the Ordering Paragraph 1(c) of D.22-12-056 ("NBT Decision"). Any subsequent TOU requirements under NHESP will be consistent with the NBT Decision.

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<sup>5</sup> D.19-08-001, COL 23

### 3.8 Incentive Reservation Process

With the exception of documentation required to verify Affordable Housing eligibility, all documents required for the program can be found on the NHESP section of the SGIP website.

The required documents at Reservation Request are:

- A completed NHESP Reservation Request Form (RRF)
- A completed NHESP Project Site List

A disadvantaged community is defined as any census tract that ranks in the statewide top 25% most affected census tracts in the most recently released version of the environmental health screening tool, CalEnviroScreen, plus census tracts that score within the highest 5% of CalEnviroScreen's pollution burden, but do not receive an overall CalEnviroScreen score. A low-income community is defined as census tracts with median household incomes at or below 80% of the statewide median income, or with median household incomes at or below the threshold designated as low-income by the Department of Housing and Community Development's list of state income limits adopted pursuant to Section 50093.

- As noted in Section 3.2, for projects applying to the Affordable Housing Budget, documentation verifying eligibility is also required in addition to the Reservation Request Form and Project Site List. Such documentation includes but may not be limited to:
  - Deed restriction or affordability covenant with a public entity or nonprofit housing provider organized under Section 501(c)(3) of the Internal Revenue Code that has as its stated purpose in its articles of incorporation on file with the office of the Secretary of State to provide affordable housing to lower income households that ensures that the units will be available at an affordable rent for a period of at least 30 years.
  - Documentation that proves the project site is located in a disadvantaged, tribal, or low-income community<sup>6</sup> or document that at least 50% of the census tracts it serves are disadvantaged, tribal, or low-income communities.
  - Documentation that proves the facility is owned or operated by a public agency that provides services to DAC or low-income community members for which at least 50 percent of census tracts served are DACs or low-income communities.

Any other documentation submitted for the purposes of eligibility verification to the Affordable Housing Budget will be reviewed by SCE on a case-by-case basis and SCE reserves the right to either approve, reject, or request additional information to confirm the eligibility to the Affordable Housing Budget.

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<sup>6</sup> As defined in 39713(d)(2) of the Health and Safety Code.

### 3.8.1 Reservation Request Phase

To support administrative simplicity and low administration costs, the NHESP reservation process begins by having applicants submit initial reservation forms via email to [NHESP@sce.com](mailto:NHESP@sce.com). Applicants must submit a completed RRF, a complete NHESP Project Site List, and if applicable, documentation verifying Affordable Housing Eligibility as described in Section 3.7.

SCE will assign a project number to the project and provide it to the applicant in an email response confirming application receipt within three (3) business days. SCE will also include a Sharepoint link to the applicant that corresponds to the project. All future documentation with the exception of three-month check-ins, must be uploaded by the applicant to the Sharepoint link.

Upon receipt of the RRF, SCE will review documentation for completeness and accuracy. Documents must meet eligibility requirements. SCE will verify all the following requirements:

- That all intended dwellings are located in SCE territory.
- Proposed energy storage device makes, and models are eligible; as indicated in Section 3.2, batch reservations are limited to groups of dwellings that will install the same energy storage device make and model.
- The developer has not exceeded the 600-unit cap.
- Forms are properly signed by relevant parties
- NHESP Project Site List only requires RRF information and is color coded in green for applicants to complete.

Applications will be reviewed on a first-come, first-served basis. SCE will leverage existing internal SGIP subject matter experts (SMEs) and existing SGIP 3rd party service providers to review the application for eligibility.<sup>7 8</sup>

SCE will provide the applicant a response of application acceptance or any deficiencies within ten (10) business days from application receipt. Same as in SGIP, the NHESP applicants will have 15 calendar days to respond to SCE with any necessary information to complete their application. Failure to respond within 15 days will result in a withdrawal of the RRF.

SCE staff will work with applicants to ensure all program requirements are satisfied prior to issuing a confirmed reservation notice; however, in order to maintain the tight timelines for Pilot execution, deficient applications that are not corrected within forty-five (45) days from their initial application timestamp will be withdrawn.

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<sup>7</sup> For example, existing SGIP staff will review the application for equipment eligibility under the SGIP Small Residential Storage budget, while interconnection SMEs will review the application to ensure it satisfies Rule 21 eligibility requirements.

<sup>8</sup> Applications for NHESP incentives are not the same as a "Request for Interconnection". Applicants will be required to submit a "Request for Interconnection" for NEM or NBT, as eligible (refer to Section 3.3.3 of this PIP for additional information about interconnection). Submittal of a Request for Interconnection is not necessary at the time of reservation for NHESP incentives, but it will be required at the Incentive Claim Form stage.

As indicated in Table 3 above, the NHESP is limited to 600 units per developer (at the company’s parent level) to ensure there is a mix of developers participating in the Pilot. Applications already approved that submit a request for an increase of funding (due, for example, to the inclusion of additional units) will be treated in accordance with the queuing practices described above (that means, the additional units will be considered a separate application, will be reviewed on a “first-come, first-served basis, and may be put on a waitlist if no incentives are available at the time of review).

### **3.8.2 Reservation Queue and Remaining Incentives Status**

SCE will publish and maintain on its NHESP webpage a list of NHESP applications submitted as well as their status (mirroring the format and content of similar programs reports currently available at CalDGStats<sup>9</sup>). In the NHESP webpage, SCE will also post the amount of current reserved incentives and available funding for each category of the NHESP. SCE will update this information at least twice per month.

### **3.8.3 Changes to Equipment Technical Specifications**

SCE recognizes that the final system specifications such as make, model, charging/discharging capacity, etc., may be different from the ones submitted at the time of application due to:

- Equipment availability or supply chain issues
- Design changes
- Final permit requirements
- Other reasonable factors

The final NHESP incentive paid for each dwelling will be calculated based on the specification of the as-built system (as provided by the developer in its initial incentive claim form package, as described in Section 3.10.1). In this scenario, however, incentives will be capped to the amount of the initial reservation, unless there are remaining funds in the NHESP incentive budget that have not been reserved at the time the applicant submits a request for incentive payment.

### **3.8.4 Deadline for Final Construction and Interconnection**

Due to the tight timelines of the NHESP, at application submittal, projects are expected to be completed, interconnected, and are expected to receive final certificate of occupancy no later than 24 months (or 2 years) from the Pilot Launch Date<sup>10</sup>. SCE may request reasonable evidence that projects can meet this deadline. At SCE’s discretion, this deadline may be modified upon consultation with the Commission’s Energy Division staff if it believes an extension is necessary to achieve the Pilot’s objectives.

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<sup>9</sup> <https://www.californiadgstats.ca.gov/>

<sup>10</sup> The NHESP is launching on 5/22/23, therefore the 2-year mark is scheduled for 5/22/24.

### **3.9 Construction Phase**

The Construction Phase of the Pilot corresponds to the time starting with the acceptance of an application up to the time the applicant submits a request for inspection of the installed systems which, if successful, triggers the “first progress payment” of the NHESP incentive (the incentive payment process is further described in Section 3.10.1. This section describes:

- a) Applicants’ obligations during the Construction Phase (including milestone and progress reports)
- b) Installation inspection requirements, and
- c) Request for interconnection to SCE.

#### **3.9.1 Three Month Reporting Requirement**

Given the expedited nature of the Pilot, SCE will rely on information provided by the applicant to update SCE on the status of the major milestones of the construction, final permitting and expected occupancy of the dwellings with an approved NHESP reservation. Since one of the objectives of the Pilot is to remove unnecessary processing and overwhelming documentation requirements, the report stated below can be satisfied by a simple email containing the information requested. SCE, however, retains the right to request additional information if it believes it is necessary to demonstrate that the project can reasonably satisfy the timelines stated in Section 3.8.4 above.

Every three months from the date the applicant received the reservation approval notice, the applicant should submit to SCE, via email, a report containing the following:

- a) Overall status of the development and current expected date of occupancy (can be broken into phases).
- b) Status of the PV and ES purchasing contracts including:
  - i. Expected date of delivery of materials at site.
  - ii. Expected timeframe for installation.
- c) Expected date for final dwelling construction inspection (it can be broken down by development phases).
- d) Status of systems interconnection, including:
  - i. Date application for interconnection is expected to be submitted, or was submitted, to SCE’s interconnection portal.
  - ii. SCE’s Interconnection Project Number for each dwelling (if available).<sup>11</sup>
  - iii. Expected date of electrical inspection by local jurisdiction.
  - iv. Expected date of SCE inspection (per Section 3.9.2).

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<sup>11</sup> With the Project Number, SCE will verify the status of the interconnection application directly by accessing its interconnection portal without need for additional documentation from the applicant.

### **3.9.2 Installation Inspection Requirements**

Upon reasonable notice to SCE, SCE may perform an onsite inspection to verify that the ES systems receiving NHESP incentives are properly installed and comply with the requirements of the Pilot to receive the initial 50% incentive disbursement. The onsite inspection can be requested any time prior to the dwelling receiving final certificate of occupancy or final interconnection “permission to operate” but it must have received clearance from the local permitting authority to be put into service.<sup>12</sup> Inspections will be conducted in compliance and subject to SGIP Handbook Section 2.5.3 (“Inspections”).

If the field inspection indicates that the installation is not consistent with the requirements of the Pilot, or that it substantially differs from the information provided in the application package or the construction reports, SCE will provide a list of deficiencies that need to be addressed prior to being eligible for any incentive payments. Incentives may also be adjusted based on the findings of inspections, but any increases will be capped at the original reserved amount.

On a case-by-cases basis, and at SCE’s discretion, SCE may waive the site inspection of additional dwellings in a development after applicant has passed inspection of representative number of dwellings, provided developer provides a copy of the final permit for these additional units to SCE.

### **3.9.3 Interconnection Requirements**

Paired ES systems installed in dwellings receiving NHESP incentives systems must be permanently interconnected to SCE’s electrical distribution grid. The system must comply with applicable electrical codes and SCE’s interconnection and metering requirements of SCE’s Electric Rule 21.

Prior to permanent residency, the developer must submit a Net Energy Metering (NEM) or Net Billing Tariff (NBT) Interconnection Request to SCE, and subsequently obtain a Permission to Operate (PTO) from SCE’s Interconnection department.

The process of interconnecting the PV and ES systems to SCE is a separate and distinct process from participation in the NHESP. None of the documents provided to SCE as part of the participation on the NHESP should be considered an application for interconnection to SCE’s distribution system, and none of the communications received from SCE as part of the participation on the NHESP (including acceptance of the site inspection as described in Section 3.9.2) should be considered a PTO from SCE.

### **3.9.4 Performance Requirements**

Applicant will be subject to SGIP Operating requirements applicable to Small Residential Storage budget, in accordance with the SGIP Handbook, including but not limited to:

- Annual cycling requirement of 52 cycles per year (SGIP Handbook Section 5.2.9)
- Annual Fleet evaluation verifying GHG emissions standards (SGIP Handbook Section 9.1.7)
- Customer must enroll in a SGIP approved TOU rate (SGIP Handbook Section 5.2.8)

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<sup>12</sup> A copy of the “job card” with a Final AHJ sign-off demonstrating approved installation should be available at the time of inspection.

### **3.10 Incentive Claim Form Phase**

This Section describes the process for developer to submit an Incentive Claim Form (ICF) and, upon approval of the ICF, for SCE to pay the developer / designated payee the corresponding NHESP incentive.

#### **3.10.1 Request for First Incentive Progress Payment / Initial Incentive Claim Form (IICF)**

Following SCE's performance of the successful onsite inspection (or written waiver of such, per Section 3.9.2), applicant may submit a request for payment of the first incentive payment which corresponds to fifty percent (50%) of the applicable NHESP incentive for the completed dwellings. Applicant should submit the following documentation as part of the Initial Incentive Claim Form (IICF) package:

- a) Completed NHESP Incentive Claim Form (located in
- b) Updated NHESP Project Site List
- c) Proof of Total Energy Storage System Installation Cost (purchase contracts, etc.)
- d) Supplemental Project Costs Breakdown (if applicable; only needed when project costs may vary from one project site to another)

The Project Site List captures information required to complete review of the IICF:

- a) Meter ID Number
- b) Account Holder Name (whether it's currently in developer's name or End Customer name)
- c) Account Holder Email
- d) PTO Project Number (per Section 3.9.3, PTO must be issued)
- e) Authorized PTO System Size
- f) Time-of-Use Rate (per Section 3.7 and Table 3)

Applicants will trigger the Incentive Claim Phase / IICF Review by uploading the required documents to the assigned Sharepoint / OneDrive link provided when SCE confirms receipt of the RRF.

Upon receipt, SCE will review the IICF and provide notice to applicant of any deficiencies that need to be addressed prior to approval of the first incentive progress payment. If no deficiencies are identified, SCE will issue payment of fifty percent (50%) of the applicable incentive within 30 days of complete IICF submittal. Same as with the SGIP, the NHESP will provide timelines for applicant to cure any deficiencies identified during the review of the IICF. SCE can withdraw projects if the deficiency is not responded to or resolved within 45 days but will assess each project on a case-by-case basis.

Payee shall be the designated developer or it's parent company. Tax ID must be provided unless entity is eligible for tax-exemption; valid tax documentation may be required before payment is issued.



### **3.10.2 Request for Second Payment / Final Incentive Claim Form (FICF)**

Following demonstration of completion of the initial system programming, applicant may submit a request for payment of the second and final incentive payment which corresponds to fifty percent (50%) of the applicable NHESP incentive for the completed dwellings. Applicant should submit the following documentation as part of the Final Incentive Claim Form (FICF) package:

- For each dwelling, reasonable demonstration of system programming (could be a screenshot showing system unique identifier and settings) illustrating system use for minimizing bills and reducing carbon footprint. In most cases, this should suffice but applicants can also provide the next item.
- For each dwelling, basic assumptions used to do the programming of the system. These may include:
  - Applicable dwelling TOU rate
  - Expected occupancy periods
  - Dwelling time-zone
  - Size of PV / ES system
- Basic training documentation provided to the customers on how to use the system to maximize PV production value, minimize bills, reduce carbon footprint, or participate in demand response programs using ES.

Applicants will trigger the FICF Review by uploading the required document(s) to the assigned Sharepoint / OneDrive link provided when SCE confirms receipt of the RRF. If applicable, these documents may be provided with IICF documents so that the full incentive can be paid at one time.

Upon receipt, SCE will review the FICF and provide notice to applicant of any deficiencies that need to be addressed prior to approval of the second and final incentive payment. If no deficiencies are identified, SCE will issue payment of the remaining fifty percent (50%), or in full (as indicated above for applicants submitting all ICF requirements at on), within 30 days of complete FICF submittal. Same as with the SGIIP, the NHESP will provide timelines for applicant to cure any deficiencies identified during the review of the FICF. SCE can withdraw projects if the deficiency is not responded to or resolved within 45 days but will assess each project on a case-by-case basis.

### **3.11 End-User Customer Engagement Phase (I and II)**

The first phase of the End-User Customer Engagement aims to educate customers about their new PV and ES systems, their operating options, how to effectively use energy storage within their TOU periods to minimize bills, and the societal and environmental benefits of operating their energy storage systems in a way to reduce GHG emissions.

SCE recognizes that the end-user will not be in any obligation to abide to any specific operating restriction or schedule, or that the customer is compelled to participating in any demand response program; however, as described in Section 3.7, the end-use customer will be required to be served in an

SGIP approved TOU differentiated rate schedule which provides the customer with a price signal to use electricity in a way that supports GHG emission reduction.<sup>13</sup>

In coordination with the developer, SCE will provide customers with easy-to-understand information on complex matters like energy arbitrage and GHG emissions reduction. This information may be provided via printed material, live webinars, targeted on site visits, or through electronic means (like online videos or interactive guides).

The second phase of the End-User Customer Engagement aims to collect information from customers about their experience on using their PV and ES systems during the first six months of occupancy. In coordination with SCE, the program evaluator will conduct surveys, interviews, or data collection to understand the customers' operating options, use of their ES, effect on customer's bills, GHG emission reduction, and other data needed Pilot evaluation (as described below).

The details of this second phase will be available following section of the program evaluator (as described in Section 4).

## **4 Measurement and Valuation (M&V)**

This Section describes the activities and objectives of the Measuring and Valuation (M&V) plan for the NHESP.

As shown in Table 1, the M&V activities for the NHESP that have an approved funding level of \$350,000.

SCE will issue a Request for Proposals (RFP) to retain a third-party vendor (the Pilot evaluator) to produce an M&V Plan that collects the data and issue the final NHESP Evaluation Report. SCE will work with the selected Pilot evaluator to determine the exact methodologies and approaches that will be used to collect and analyze this information as part of an overall evaluation effort.

The M&V Plan will be executed simultaneously with the second end-user customer engagement phase (as described in Section 3.11) so that feedback from customer and the operational data collected during this phase can be incorporated as part of the final NHESP Evaluation Report. The final NESP Evaluation Report is expected within nine (9) months after the selection of the Pilot evaluator to allow sufficient time for the collection of system performance and identify customers' utilization patters of the installed systems.

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<sup>13</sup> the two SGIP approved rates in SCE's service area are TOU-D-PRIME and TOU-D-5-8PM.

**Table 4. M&V Expanded Data Collection and Evaluation Plan**

<b>Information Type</b>	<b>Description</b>
Grid Integration	SCE will evaluate the feasibility of future NHESP installations to bid into CAISO markets, including costs, barriers, and potential benefits (see below).
Grid Value	Quantitative and qualitative findings related to the value (if any) of installing new construction energy storage in concentrated areas. These insights will include value determination tied to avoided or deferred transmission or distribution investments, additional market participation, avoided solar curtailment, and/or grid harmonization. SCE will discuss current challenges to integrating storage into distribution operations and planning and wholesale markets. Questions to consider include if and how NHESP installations played a role in any identified value, and how such a value could be captured in the future by similar new construction energy storage installations.
Cost Effectiveness and Cost Shifts	Data collection and calculation of cost effectiveness of NHESP per relevant CPUC Standard Practice Manual methods, including an approach to capture cost shifts to non-participating ratepayers due to a decrease in retail sales and any other cost shifts identified by SCE. The cost of the program, including incentives and program administration costs paid by ratepayers, in addition to cost shifts, will be compared to benefits, including avoided costs and GHG benefits.
Participant Bill Savings	Identification and calculation of actual and representative bill savings experienced by NHESP participants due to the battery storage installation.
Calculation Costs and Incentive Levels	Collection and calculation of total equipment and installation costs associated with NHESP projects. Incentive levels calculated on a total and percentage basis, and assessment of incentive reservation volume and other factors to help assess incentive levels for future similar programs.
Participant Usage and GHG Impacts	<p>Identification and calculation of actual and/or representative operation of solar and battery units by NHESP participants, along with associated GHG impacts of battery storage installations. This will include, but is not limited to:</p> <ol style="list-style-type: none"> <li>1. Loss of solar generation due to efficiency of battery storage, and;</li> <li>2. Avoided GHGs from grid resources when battery is discharged.</li> </ol> <p>Calculations will be performed on an hourly basis but summarized to an annual statistic. The extent to which NHESP units were used for backup power during outages will also be evaluated, as will the extent to which diesel backup is used in addition to or in conjunction battery storage installations.</p>
Participant Information	Demographic data of program participants including income level, education level, and race/ethnicity, for a representative sample of participants. Additional data collection on home battery benefits knowledge or awareness, home battery purchasing interest with and without the subsidy, and appropriateness of level of subsidy offered.

**5 Dispute Resolution**

**UNDER CONSTRUCTION**

**6 DEFINITIONS**

**UNDER CONSTRUCTION**

## **7 Program Closure**

Within ninety (90) days following the issuance of the final NESP Evaluation Report, SCE shall file a Tier 3 Advice Letter seeking approval to extend the pilot effort, expand it into a program, or sunset it. The Tier 3 Advice Letter will also seek disposition on any funds remaining in the NHESPBA.