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**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking  
Regarding Policies, Procedures and  
Rules for the Self-Generation Incentive  
Program and Related Issues.

Rulemaking 20-05-012

**ASSIGNED COMMISSIONER'S RULING REQUESTING  
COMMENT ON HEAT PUMP WATER HEATER CONTRACTOR  
TRAINING AND WORKFORCE ISSUES AND METHODS TO INCREASE  
SELF-GENERATION INCENTIVE PROGRAM TECHNOLOGIES'  
CONTRIBUTIONS TO SUMMER RELIABILITY**

**Summary**

This Ruling provides background on recent developments in the areas of workforce training and development pertinent to the planned Self-Generation Incentive Program's (SGIP) Heat Pump Water Heater (HPWH) incentive and provides a series of questions. This ruling also provides questions exploring potential methods to increase the contribution of existing SGIP technologies to enhance summer reliability.

Parties shall provide opening comments responding to the questions no later than 20 days from issuance of this ruling and reply comments no later than five days from the due date for opening comments.

**1. Background- Training and Workforce Issues**

**1.1 California Workforce Development Board  
Memorandum of Understanding**

The SGIP program has traditionally not included contractor training requirements, trainee hiring requirements, or provided training incentives. However, on October 29, 2020, the California Public Utilities Commission

(Commission) and the California Workforce Development Board (CWDB) executed a Memorandum of Understanding (MOU) to coordinate workforce development planning and implementation activities. The aim of the MOU is to build partnerships to meet California’s clean energy and transportation goals and to provide pathways to the middle class and beyond for Californians who have been historically excluded from opportunities or who have shouldered a disproportionate share of climate and environmental costs.<sup>1</sup>

Amongst the priorities of the MOU is a shared commitment to develop a near and long-term framework for a “high road” economy for California, defined as several goals to be achieved simultaneously: greater equity and mobility for workers, higher skills and competitiveness for employers, and long-term environmental sustainability and climate resilience. Additional shared MOU goals include those in the Commission’s Environmental and Social Justice (ESJ) Action Plan, the CWDB’s 2020-2023 Unified Strategic Workforce Development Plan, and Governor Gavin Newsom’s Executive Order N-79-20.<sup>2</sup>

On September 3, 2020, the CDWB submitted to the Legislature *Putting California on the High Road: A Jobs and Climate Action Plan for 2030* (High Road

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<sup>1</sup> Memorandum of Understanding Between the California Public Utilities Commission and the California Workforce Development Board on Workforce Development for Environmental and Social Justice, October 29, 2020, available as of July 9, 2021 at [https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/10/CWDB-CPUC-MOU-executed-10.29.20\\_ACCESSIBLE.pdf](https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/10/CWDB-CPUC-MOU-executed-10.29.20_ACCESSIBLE.pdf)

<sup>2</sup> The Commission adopted an ESJ Action Plan on February 2019, available as of July 9, 2021 here: <https://www.cpuc.ca.gov/CPUCNewsDetail.aspx?id=6442461331>; the CWDB 2020-2023 Unified Strategic Workforce Development Plan is available as of July 9, 2021 at [https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/09/Strategic-Planning-Elements.Final\\_ACCESSIBLE.pdf](https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/09/Strategic-Planning-Elements.Final_ACCESSIBLE.pdf); Executive Order N-79-20 is available as of July 9, 2021 at <https://www.library.ca.gov/Content/pdf/GovernmentPublications/executive-order-proclamation/40-N-79-20.pdf>. Amongst other actions, EO N-79-20 directs the CWDB and other state agencies to develop by July 15, 2021 and implement a Just Transition Roadmap, consistent with the recommendations in the High Road Report, available as of July 9, 2021 at [https://cwdb.ca.gov/plans\\_policies/](https://cwdb.ca.gov/plans_policies/).

Report), a report developed pursuant to Assembly Bill (AB) 398 (E. Garcia, Chapter 135, Statutes of 2017). Among the High Road Report's many findings are that two previous Commission studies of investor-owned utility (IOU) administered energy efficiency programs identified job quality concerns, including qualitative evidence of low wages paid by some contractors, little participation of union contractors, pockets of wage and hour violations, limited attention to job quality and work quality, and that, with limited exceptions, contractors qualify for participation in IOU incentive programs if they self-report that they have acquired the basic licensing required by law.<sup>3</sup>

## **1.2 Solar on Multifamily Affordable Housing Program**

Some ratepayer funded clean energy incentive programs already reflect equity and high-road jobs principles, to some extent. For example, Public Utilities (Pub. Util.) Code Section 2870(f)(6) regarding the Solar on Multifamily Affordable Housing (SOMAH) program, requires the Commission to establish local hiring requirements to provide economic development benefits to disadvantaged communities.<sup>4</sup> Decision (D.) 17-12-022 addresses this requirement by establishing SOMAH job-training activities based on the Multifamily Affordable Solar Housing program model, encouraging the SOMAH statewide program administrator to develop job training guidelines emphasizing

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<sup>3</sup> High Road Report at 229, referencing the 2011 California Workforce Education and Training Needs Assessment for Energy Efficiency, Distributed Generation, and Demand Response (Needs Assessment) and the 2014 Workforce Issues and Energy Efficiency Programs: A Plan for California's Utilities (WE&T Guidance Plan (Guidance Plan), both sponsored and funded by the Commission. *See also* "High Road Workforce Guide for City Climate Action," by Inclusive Economics, available as of July 23, 2021 at <https://inclusiveecon.com/high-road-workforce-guide-for-city-climate-action/>.

<sup>4</sup> D.17-12-022 renamed the Multifamily Affordable Housing Solar Roofs Program the "SOMAH" program.

quality training for each training participant, and directing the program administrator to develop strategies to encourage local hiring by participating contractors in collaboration with Commission staff. D.17-12-022 also requires the SOMAH program administrator to collect and track data on job training and local hiring provided by solar installers. This includes collecting the following data:

- Number of training participants and hours (required);
- Amount of local labor provided by each solar installation contractor working on SOMAH projects (required);
- Continuing employment of job training participants after their SOMAH training experience (recommended).<sup>5</sup>

The SOMAH program requires SOMAH job trainees to be paid at either the contractor's entry level rate or 1.4x the city minimum wage, whichever is higher, requires participating contractors to hire a minimum number of job trainees depending on the size of the installed solar system, and identifies eligible training programs and trainee minimum qualifications.<sup>6</sup> Participating contractors must demonstrate that they have satisfied job training requirements to receive SOMAH incentives.<sup>7</sup> Additionally, after a project is complete, the SOMAH program administrator is required to periodically survey contractors and job trainees (up to 1 year after) to assess sustained impacts. The SOMAH program administrator is also required to publicly report on job training information such as percent of job trainees that are local hires, average trainee

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<sup>5</sup> D.17-12-022 at 25-26.

<sup>6</sup> SOMAH program website, accessed July 9, 2021, at <https://calsomah.org/job-training-requirements>.

<sup>7</sup> The SOMAH Jobs Training Affidavit requires trainee name(s), eligible job training program name(s), job task types completed, hours worked, and wages (SOMAH Handbook, Appendix L).

hours per project; permanent job attainment and retention; average wages, and trainee demographics.<sup>8</sup>

The SOMAH program defines “local hire” as “lives in the county in which the SOMAH program is taking place.” The SOMAH program defines “targeted hire,” as “resident of a disadvantaged community, affordable housing resident, woman, person of color, or someone who has faced or overcome at least one barrier to employment,” with “barrier to employment” defined as “being homeless, being a custodial single parent, receiving public assistance, lacking a GED or high school diploma, participating in a vocational English as a second language program or having a criminal record or other involvement with the criminal justice system.”<sup>9</sup>

The SOMAH incentive program differs substantially from the envisioned SGIP HPWH incentive program. SOMAH projects are costly, averaging between roughly \$500,000 to \$1.7 million per project, and consist of large crews installing one or more large solar arrays on affordable housing properties.<sup>10</sup> In contrast, the SGIP HPWH target market is primarily single-family housing, both affordable and commercial rate, and, to a lesser extent, small and large commercial properties.

### **1.3 BUILD Program and TECH Initiative**

In the Building Decarbonization Proceeding (R.19-01-011), the Commission authorized use of Building Initiative for Low-Emissions Development (BUILD)

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<sup>8</sup> D.17-12-022, Appendix B, page 5; and SOMAH Handbook Section 2.6.9.4 “Public Reporting on Job Training Data”

<sup>9</sup> SOMAH website, accessed July 9, 2021: <https://calsomah.org/job-training-requirements>.

<sup>10</sup> Final Phase I 2020 SOMAH Process and Impact Assessment Report, available as of July 19, 2021 at: <https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/s/6442465840-somah-phase1-evaluation-final-report.pdf>

program funds to train HPWH contractors and vendors, required a “targeted regional approach” to training, and required the BUILD and Technology and Equipment for Clean Heating (TECH) Initiative implementer to develop training elements focusing on low-income residents living in disadvantaged communities.<sup>11</sup> Additionally, development of job training and employment opportunities is also part of one of three key requirements for the TECH Initiative contained in Senate Bill (SB) 1477, which authorized both the BUILD program and the TECH Initiative.<sup>12</sup>

Energy Solutions, the contractor selected to implement the BUILD program, will submit a proposed Implementation Plan in November 2021 that will include proposals for implementing these training requirements. There may be opportunities for synergy between the BUILD training opportunities and the SGIP HPWH incentive program requirements.

#### **1.4 Definitions of Disadvantaged Communities and Low-Income Residents**

For SGIP purposes, the Commission defined disadvantaged community, low-income community, and low-income residents in D.17-10-004, D.19-09-027, and D.20-07-015, as follows:

- Disadvantaged community:
  - Any census tract that ranks in the top 25 percent most affected census tracts in the most recently released version of CalEnviroScreen and census tracts that score within the highest five percent of CalEnviro Screen’s

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<sup>11</sup> D.20-03-027 at Ordering Paragraph (OP) 32, 72 and 86.

<sup>12</sup> *Id.* at 10, 69-70.

pollution burden, but do not receive an overall CalEnviroScreen score;<sup>13</sup> and,

- California Indian Country as defined in 18 United States Code Section 1151, with the exception of privately held in-holdings, which are defined as non-Indian owned fee land located within the exterior boundaries of Indian Country; in the event of multiple owners, such land shall be considered Indian owned if at least one owner is a tribe or tribal member, regardless of the use of the land.<sup>14</sup>
- Low-income community, pursuant to 39713(d)(2) of the Health and Safety Code: (1) census tracts with median household incomes at or below 80 percent of the statewide median income; or (2) with median household incomes at or below the threshold designated as low-income pursuant to Section 50093.
- Low-income residential customer not residing in Indian Country:
  - Resident lives in a multi-family residential building with at least five rental housing units that provides deed-restricted that is either: (1) in a disadvantaged community; or, (2) is a building where at least 80 percent of the households have incomes at or below 60 percent of the area median income, as defined in Pub Util. Section 2852 and, by reference, Section 50052.5(f) of the Health and Safety Code;
  - Resident lives in a low-income single-family residence subject to resale restrictions, defined as a residence conforming with Section 2852 such that: (1) household

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<sup>13</sup> The California Communities Environmental Health Screening Tool (CalEnviroScreen) identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. The tool is managed by the Office of Environmental Health Hazard Assessment (OEHHA), on behalf of the California Environmental Protection Agency (CalEPA) and is available as of July 19, 2021 here: <https://oehha.ca.gov/calenviroscreen>.

<sup>14</sup> D.19-09-027 at Attachment A-1.

income does not exceed 80 percent of the median income for the area; and, (2) the residence is subject to a resale restriction or an equity sharing agreement;

- California Indian County residents are not required to reside in deed or resale restricted housing pursuant to Section 2852 to be considered low-income residents.

### **1.5 SGIP HPWH Incentives and Existing Training**

Commission Staff recently consulted with CWDB Staff regarding potential workforce and training approaches for the SGIP HPWH incentive program. Since we are building the market for HPWHs in California, quality installations that build consumer confidence are essential. We also must ensure that contractors and their staff, or “technicians,” and any subcontractors, have the skills necessary to provide quality installation. This suggests that minimum contractor, technician, and subcontractor standards may be advisable. On the other hand, training, workforce development, and quality installation requirements must not create onerous barriers that decrease contractor interest in accessing SGIP HPWH incentives and/or transitioning their business model to include active promotion of HPWHs to customers.

Currently, HPWH manufacturers and other entities offer the following contractor training opportunities:

#### **1.5.1 Investor-owned Utilities**

PG&E, SCE, and SDG&E all offer HPWH trainings through their respective Energy Center websites. Available online course titles as of July 2021 can be found in Table 1 below.

Table 1: Existing IOU HPWH Trainings<sup>15</sup>

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<sup>15</sup> PG&E: <https://pge.docebosaas.com/learn>

SCE: <https://www.sce.com/hy/business/consulting-services/energy-education-centers>

*Footnote continued on next page.*



Organization	Trainings
<b>Pacific Gas and Electric</b>	<ul style="list-style-type: none"> <li>• Heat Pump Technologies for Space Conditioning and Water Heating</li> <li>• Best Practices in Residential Water Heating</li> <li>• Electric Heat Pumps for Water Heating</li> <li>• Implementing Heat Pump Water Heaters in Replacement Scenarios: Why They Make Sense</li> <li>• Overcoming Installation Challenges for Heat Pump Water Heater Retrofits</li> <li>• Central Heat Pump Water Heating Systems for Multifamily Buildings</li> </ul>
<b>Southern California Edison</b>	<ul style="list-style-type: none"> <li>• Heat Pumps in Retrofit Construction: Space Conditioning and Water Heating</li> <li>• Commercial &amp; Multifamily Heat Pump Water Heating Engineering and Design Deep Dive (Parts 1 and 2)</li> <li>• Central Heat Pump Water Heating Systems for Multifamily Buildings</li> <li>• Central Heat Pump Water Heaters (HPWHs): Engineering Deep Dive (Parts 1-2)</li> </ul>
<b>San Diego Gas &amp; Electric</b>	<ul style="list-style-type: none"> <li>• Central Heat Pump Water Heater Systems: Design &amp; Maintenance Deep Dive (Parts 1-4)</li> <li>• Central Heat Pump Water Heater Systems for Multifamily Housing (Parts 1-2)</li> </ul>

### 1.5.2 Manufacturers:

HPWH manufacturers offer a range of HPWH installation and service trainings for contractors. While many of these trainings have been moved online due to the Covid-19 pandemic, manufacturers intend to resume in-person trainings once it is safe to do so. Trainings for readily available HPWHs are available from:

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SDG&E: <https://www.sdge.com/energy-innovation-center/education-training>

- Rheem Manufacturing Company:
  - Rotating courses and e-learning modules available through [www.rheemtraining.com](http://www.rheemtraining.com).
- A.O. Smith:
  - Online training that provides a Residential Heat Pump Water Heater Installer Certification is available through <https://www.hotwater.com/service/heat-pump-certification/>.
  - Online trainings and certifications for related products are available through <https://university.hotwater.com/>.
- Bradford White:
  - Online trainings available through the Bradford White International Technical Excellence Center website [https://www.bradfordwhite.com/itec-training/#itech\\_live\\_webinar](https://www.bradfordwhite.com/itec-training/#itech_live_webinar).

### **1.5.3 Other Available Trainings:**

In addition to IOUs and manufacturers, contractor trainings related to HPWHs are available from the Bay Area Regional Energy Network (BayREN) at <https://www.bayrencodes.org/services/trainings/>.

### **1.5.4 Licensing and Permitting Requirements**

To install a HPWH unit, contractors are required by the California State Licensing Board (CSLB) to have a license appropriate for the job at hand. Licenses typically needed in the installation of HPWHs may be a B General Contractor license, a C-10 (electrical) license, a C-20 (Warm-Air Heating, Ventilating and Air-Conditioning) license, a C-36 (plumbing) license, a C-4 (Boiler, Hot Water Heating and Steam Fitting) license, or some combination thereof. Regardless of licensure, the installing contractor is required by California Building Standards Code to pull and close a permit to legally install a HPWH unit. The specifics of HPWH unit permitting may vary by county and will also vary depending on whether an electric panel upgrade is required.

## **2. Questions for Party Comment on HPWH Training and Workforce Issues**

The SGIP HPWH Staff Proposal released for party comment on April 16, 2021 did not include specific training, workforce development or quality installation proposals nor request party comment on these topics.<sup>16</sup> Therefore, this section provides a series of questions for party comment.

Parties shall file opening comments on the questions in the order provided no later than 20 days from issuance of this ruling and reply comments no later than five days after opening comments are due. Additionally, if there is significant party interest, I will consider convening an All-Party Meeting to discuss these issues prior to adopting guidance on them in the upcoming SGIP HPWH incentive decision.

### **2.1 Contractor Eligibility Requirements: Training**

1. The Commission distinguishes between “contractors,” the owners of a company that hold one or more licensures, and his or her employees, or “technicians.”<sup>17</sup> For some types of in-home installations, technicians may perform the majority of the work even though such personnel may not be licensed. Subcontractors may also perform work in some cases.

Should the Commission require contractors, technicians, and/or any subcontractors to have completed a minimum training requirement for a given contractor to be eligible to receive SGIP HPWH incentives? If so:

- a. How should such a training requirement be structured?
- b. How should appropriate training courses be identified?

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<sup>16</sup> Administrative Law Judge’s (ALJ) Ruling Providing Proposal, Requesting Comment, and Updating Procedural Schedule, April 16, 2021.

<sup>17</sup> See D.18-10-008 for an example of technician training requirements for energy efficiency commercial programs.

- c. Should there be a minimum time period over which completion of specific training(s) are required?
  - d. Who should be required to complete the training courses? The contractor-business owner? A minimum number of employee technicians? One technician per job? All or some subset of any subcontractors?
2. If the Commission adopts a contractor training requirement, what is the best way for the Commission to receive feedback from contractors on required courses? What is the best way for the Commission to ensure that such trainings are well-structured and useful to participants?
3. If the Commission adopts a contractor training requirement, should it also authorize a SGIP HPWH program administrator to identify appropriate trainings that meet the training requirement? If yes, how might this occur?
4. Should online, on-demand training courses be eligible to meet a SGIP HPWH training requirement? Should online, on-demand training courses be sufficient in themselves to meet a SGIP HPWH training requirement?
5. Should the Commission adopt requirements related to minimum levels of participation by low-income individuals or those residing in disadvantaged communities in any contractor training requirement, for each participating contractor?
6. What other suggestions do you have regarding contractor training and SGIP HPWH incentives?

## **2.2 Contractor Eligibility Requirements: Installation Quality, Consumer Protection, and Labor Protection**

Since we are just starting to build the California market for HPWHs, quality installations that build consumer confidence are critical to ensure customer acceptance. To be successfully build demand for HPWH, we must

ensure that contractors, technicians, and subcontractors have both the skills and the feedback loops or oversight necessary to provide quality installations.

1. How should the Commission ensure quality installation in jobs using SGIP HPWH incentives?
2. As mentioned above, the Commission distinguishes between “contractors,” the owners of a company, and his or her employees, or “technicians.” For some types of in-home installations, technicians may perform the majority of the work even though such personnel may not be licensed. Subcontractors may also perform work in some cases.
  - a. What evidence of contractor, technician, and/or subcontractor licensing should the Commission ensure is provided to a SGIP HPWH program administrator prior to payment of an incentive?
  - b. What evidence of contractor adherence to permitting requirements should the Commission ensure is provided to a SGIP HPWH program administrator prior to payment of an incentive?
3. What is the role of in-person or virtual inspections in ensuring quality installation?
  - a. Does SGIP’s existing inspection protocol in the SGIP Handbook need to be modified for SGIP HPWH installations?<sup>18</sup>
  - b. Is a new HPWH inspection protocol required? If so, what elements should be included in the protocol?
  - c. Should the Commission require participating contractors to demonstrate that a local building

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<sup>18</sup> The 2021 SGIP Handbook states in section 9.1.2 on inspections that “[a]ll projects may be inspected at any time during a project’s permanency period and are expected to meet document and operational requirements of the program. Failure to do so will count as a failed inspection. Participants with a high statewide inspection failure rate may forfeit future participation and/or all active applications/incentive.” Section 9.2 of the SGIP Handbook addresses infractions, which can result in: Suspension or expulsion from future program participation, cancellation of existing projects, application fee forfeiture, fiscal or programmatic audit.

authority has inspected an installed HPWH unit prior to payment of an SGIP incentive, if the local jurisdiction requires a post-installation inspection?

- d. Should the Commission require all (or some portion) of installed HPWH units to be inspected by SGIP program administrators or evaluators prior to payment of the incentive? If yes, should this requirement be applied for some pre-determined period of time to all participating contractors? Alternatively, should the Commission require post-installation inspections for the first 5, 10, or 20 jobs performed by each participating contractor, for example, or a similar approach?
4. In addition to the required CSLB licensures, should the Commission require eligible contractors to meet minimum labor and/or consumer protection standards (overseen by CSLB and other state agencies), including that an eligible contractor has:
  - a. No unresolved labor law violations;
  - b. No unresolved consumer complaints before the CSLB
  - c. No repeat violations of Division of Occupational Safety (DOSH/CalOSHA) requirements;
  - d. No violations of worker classification rules;<sup>19</sup>
  - e. Other?
5. What other suggestions do you have regarding installation quality, consumer protection, and labor protection issues relevant to the SGIP HPWH incentive?

### **2.3 Workforce Development**

1. What steps if any should the Commission consider with regard to the SGIP HPWH incentive to support workforce development, particularly amongst local or targeted populations, residents of a disadvantaged or low-income community of low-income residents (hereafter collectively

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<sup>19</sup> As overseen by the California Division of Labor Standards Enforcement and the California Department of Industrial Relations.

- referred to as “disadvantaged communities;” *see* Sections 1.2 and 1.4 above for definitions of these terms)?
2. Should the Commission consider requiring participating contractors to find and hire a minimum number of trainee technicians?<sup>20</sup> A minimum number of trainee technicians from disadvantaged communities?
  3. Should the Commission consider offering participating contractors stipends or incentives to support trainee technician development? If yes, please explain.
  4. Should the Commission consider offering participating contractors a bonus payment for hiring and training persons from disadvantaged communities? If yes, how should this be structured?
  5. Should the Commission offer a bonus to participating contractors for completing a minimum number of installations? If yes, should such a bonus payment be higher for jobs completed in disadvantaged communities, or jobs completing involving trainees from disadvantaged communities?
  6. What have been HPWH contractors’ experiences recruiting and training workers from disadvantaged communities to date? What efforts in this regard, if any, have HPWH contractors already undertaken? What has been successful and what are the difficulties?
  7. What other methods should the Commission consider to ensure that disadvantaged communities have equitable access to HPWH job training?

#### **2.4 Contractor Requirements: Minimum Wage and Targeted Hire Standards**

1. Should the Commission consider local hire or targeted hiring requirements or recommendations for eligible

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<sup>20</sup> See SOMAH website for that program’s requirements.

- contractors wishing to access SGIP HPWH incentives?<sup>21</sup> If so, what approach is appropriate?
2. Should the Commission consider requiring SGIP HPWH contractors to pay trainees and/or technicians a minimum wage? If so, what wage floor is appropriate?
  3. Should the Commission consider requiring SGIP HPWH contractors to offer trainees and/or technicians a minimum level of employer-provided benefits? If so, what employer-provided benefits are appropriate?
  4. Should the Commission require participating contractors to have insurance coverage that covers job training hires, including temporary hires?
  5. What other suggestions do you have in this area?

## **2.5 Data Collection**

1. Should the Commission require the HPWH program administrator to track data on job training and any local or targeted hiring provided by HPWH contractors using SGIP incentives?
2. Should the Commission require the HPWH program administrator to track data on job quality and job access, including but not limited to wages and employer-provided benefits for workers employed by SGIP HPWH contractors and the demographics of workers employed by SGIP HPWH contractors? If so, how should data be collected and at what level of detail?
3. If yes, should the Commission require the SGIP HPWH program administrator to collect and track the following data on the participating HPWH contractors:
  - a. Number of training participants and hours of training;
  - b. Amount of local or targeted labor provided by each HPWH contractor using SGIP incentives;

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<sup>21</sup> See Section 1.2 for definitions used by SOMAH for these terms.



- c. Continuing employment of job training participants after their SGIP HPWH training experience; and,
- d. Any other area? (if so, please describe).

#### **4. Contribution from SGIP Technologies to Summer Reliability**

Summer reliability challenges are increasingly a concern in California. Although parties have previously recommended various approaches to ensure that SGIP technologies contribute to reliability, for instance, via enrollment in demand response programs, the Commission has not yet adopted such suggestions.

This section contains several questions to support consideration of how existing SGIP energy storage technology budgets (*i.e.*, excluding the HPWH budget, which is still in the planning phase) could better contribute to summer reliability.

1. Could higher SGIP incentives for certain SGIP budget and/or customer categories help contribute to grid reliability by summer 2022, by reducing peak loads? Which SGIP budget and/or customer categories have the greatest potential to contribute?
2. If higher SGIP incentives are offered to help contribute to grid reliability by summer 2022, should customers receiving the incentive be required to participate in a demand response aggregation program, or other demand response program? If so, which existing or proposed demand response programs should they be required to participate in? How long should participation be required? If higher incentives are offered, what amount do you recommend?
3. More specifically:

- Should the Commission require new SGIP storage systems receiving any higher reliability incentive to enroll in a market-integrated residential or non-residential demand response program, the recently adopted out-of-market Emergency Load Reduction Program (ELRP), or a dynamic rate option (such as Critical Peak Pricing (CPP), or Real Time Pricing (RTP)?<sup>22</sup> Should such a requirement be tied to higher incentives? If so, what amount?
  - Should new residential SGIP energy storage participants with solar receiving any higher reliability incentive be required to select a Virtual Power Plant<sup>23</sup> aggregator and participate in the ELRP? Are there any downsides to the Commission requiring default enrollment into ELRP for new SGIP energy storage participants receiving a higher reliability incentive?
  - Should the Commission require new SGIP energy storage systems receiving any higher reliability incentive to be “future proof” (grid interactive, control system upgradeable over a network, able to respond to hourly or 15-minute or 5-minute real time prices, and able to participate in Virtual Power Plant aggregation services)? What steps should the Commission consider to support future-proofing energy storage systems?
  - Should the Commission require SGIP host customers receiving any higher reliability incentive to provide annual hourly charge, discharge, and state of charge data to the California Energy Commission or researchers authorized by this Commission for summer reliability research purposes?
4. Do you have other suggestions to increase the contribution of SGIP technologies to summer reliability?

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<sup>22</sup> See D.21-03-056 for explanation of ELRP. See D.08-07-045 for discussion of CPP.

<sup>23</sup> See discussion of Virtual Power Plant in D.21-03-056 and on the Commission’s ELRP webpage, available as of July 27, 2021 at <https://www.cpuc.ca.gov/elrp/>.

**IT IS RULED** that:

Parties shall provide opening comment on the questions in this ruling in the order provided no later than 20 days from issuance of this ruling and reply comments no later than five days from the due date for opening comments.

Dated August 3, 2021, at San Francisco, California.

/s/ CLIFFORD RECHTSCHAFFEN

Clifford Rechtschaffen  
Assigned Commissioner