

Attachment A

Introduction

In accordance with Decision (D.) 16-06-055 of the California Public Utilities Commission (CPUC), the Energy Division of the CPUC presents this proposal for a plan to measure and evaluate the progress and impacts of the Self-Generation Incentive Program (SGIP) for Program Years (PY) 2016 – 2020.

SGIP operates in the service areas of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E). SGIP is administered by PG&E, SoCalGas and SCE in their respective service territories. The Center for Sustainable Energy (CSE) administers SGIP in SDG&E's service territory. Collectively, PG&E, SCE, SoCalGas and CSE are known as the SGIP Program Administrators (PAs).

Background

SGIP began in 2001, and the CPUC previously directed the PAs to complete a number of measurement and evaluation (M&E) plans through 2015.¹

In October of 2009, the Legislature passed Senate Bill (SB) 412 (Kehoe, 2009).² Energy Division then developed a Staff Proposal with recommendations on how to modify SGIP to comply with SB 412. In D.11-09-015, the CPUC modified SGIP to conform to SB 412 and accepted a Staff Proposal recommendation that the CPUC provide clear guidance for future SGIP M&E work after the implementation of those program changes.³

However, D.11-09-015 did not establish a schedule or other details regarding the M&E component of the program. For this reason, Energy Division requested that the PAs develop an M&E proposal, and present it to the CPUC via motion as had been done in the past.⁴ The PAs duly filed a motion seeking CPUC approval of the SGIP M&E plan for PY 2014-2015. This motion was granted, with modifications, by ALJ ruling on July 23, 2014.

¹ These include Decision 02-09-051 and an Administrative Law Judge's (ALJ) ruling of April 24, 2002 in Rulemaking 99-10-025 and a May 18, 2006 Administrative Law Judge's ruling approving and M&E plan for 2006 and 2007, issued in Rulemaking 06-03-004. The deadlines in these orders have also been adjusted on several occasions, such as the ALJ Rulings of February 27, 2007, and June 24, 2008. In a February 3, 2009 ruling in Rulemaking 08-03-008, the assigned ALJ approved an M&E plan for SGIP for 2009 through 2011. In a July 23, 2014 ruling in Rulemaking 12-11-005, the assigned ALJ approved an SGIP M&E plan for 2014-2015.

² Senate Bill (SB) 412 (Stats. 2009, ch. 182) authorized the CPUC to determine eligible SGIP technologies based on greenhouse gas (GHG) emissions reductions. SB 412 also extended the SGIP sunset date from January 1, 2012 to January 1, 2016.

³ Staff Proposal, Part I, Section 4.5.1 states: "Since its inception, SGIP has undertaken an extensive measurement and evaluation (M&E) process. A full list of SGIP M&E reports can be accessed from the CPUC's website. These reports, which include annual Impacts Evaluations, Process Evaluations, Market Characterization Reports, Renewable Fuel Use Reports, and Cost-Effectiveness Evaluations, have all contributed to staff's analysis and recommendations in this proposal. Following the implementation of program changes pursuant to SB 412, staff recommends that the Commission provide clear guidance for future SGIP M&E work..."

⁴ The Motion to approve the SGIP M&E Plan for Program Years 2009 – 2011 was filed in R. 08-03-008 by PG&E on December 4, 2008 and approved by the assigned ALJ on February 3, 2009.

This latest M&E plan was originally prepared by Energy Division pursuant to D.16-06-055 and delivered to the PAs via email on January 13, 2017. Energy Division subsequently modified this plan and delivered it to the PAs via email on March 28, 2019 pursuant to its authority under D.16-06-055.

At the time this plan was developed, SGIP was set by statute to conclude in 2020, thus the plan covered SGIP M&E for PYs 2016-2020. SB 700 (2018) subsequently extended administration of SGIP from 2020 to 2025. As 2021 approaches, Energy Division, in consultation with the PAs, will develop an M&E plan for PYs 2021-2025.

Requirements of D.16-06-055 for a Measurement & Evaluation Plan

The latest revisions to SGIP arise from D.16-06-055 (the Decision). Conclusion of Law #46 mandated that within six months of the Decision's effective date of June 23, 2016, an SGIP M&E plan should be developed by Energy Division staff in consultation with the PAs. By tasking Energy Division with this responsibility the Decision aimed to simplify and streamline the process for managing the M&E plan approval.⁵

The Decision set out some firm requirements for the M&E plan, including that it require an evaluation of the administrative performance of each PA every year and fiscal performance every other year; with the first rounds of each of these evaluations completed within twelve months of the effective date of the Decision.

Public Utilities Code Section 379.6(l) also sets out performance measures for the program as a whole that must be evaluated as a part of any M&E plan. These are:

- (1) The amount of reductions of emissions of greenhouse gases.
- (2) The amount of reductions of emissions of criteria air pollutants measured in terms of avoided emissions and reductions of criteria air pollutants represented by emissions credits secured for project approval.
- (3) The amount of energy reductions measured in energy value.
- (4) The amount of reductions of aggregate noncoincident customer peak demand (normally expressed as kilowatts (kW)).
- (5) The ratio of the electricity generated by distributed energy resource projects receiving incentives from the program to the electricity capable of being produced by those distributed energy resource projects, commonly known as a capacity factor.

⁵ D.16-06-055 at 47-48 ("In order to streamline and simplify the [SGIP M&E plan] requirements, the Staff Proposal recommends [that]...[w]ithin six months, an SGIP M&E Plan should be developed by Energy Division staff in consultation with program administrators; this mimics the [California Solar Initiative] program where M&E was directed by Energy Division, not Administrative Law Judge (ALJ) ruling.... We adopt the Staff Proposal's recommendations").

(6) The value to the electrical transmission and distribution system measured in avoided costs of transmission and distribution upgrades and replacement.

(7) The ability to improve onsite electricity reliability as compared to onsite electricity reliability before the self-generation incentive program technology was placed in service.

For SGIP participants receiving performance based incentive (PBI) payments, the Decision also directs the M&E plan to ensure a public online report documenting performance for the following measures: energy generated (kWh), gross and net greenhouse gas (GHG) emissions, number of charging and discharging events and total amount of energy charged and discharged (for storage), amount and type of fuel consumed, and heat recovered (for combined heat and power (CHP) systems). Additional measures, such as system efficiency for CHP and round-trip efficiency for storage systems, may also be included.

Proposed Measurement & Evaluation Plan for SGIP: Program Years 2016-2020

Public Website for SGIP Performance Data

As required by the Decision, this M&E plan includes a proposal for a public website that will allow access to the following SGIP data for each active SGIP project that receives PBI funding:

- Energy generated in kilowatt-hours (kWh)
- Fuel type (natural gas or renewable fuel)
- Amount of fuel consumption (SCF)
- Amount of waste heat recovered (MMBtu) for combined heat and power (CHP) projects
- Gross and net GHG emissions
- For energy storage projects, the number of charging and discharging events and total amount of energy charged and discharged

Customer load data is specifically excluded from the data to be publicly displayed. While not specified in the Decision, individual customer identities must remain confidential and therefore the website must not directly reveal a customer's identity.

While the Decision only requires that this data be publicized for PBI projects, to the extent this data can be collected for non-PBI projects then that information should be included as well.

Ideally, this website would be hosted at CaliforniaDGstats.ca.gov. In the event this is not possible, a vendor will be selected to develop this website and it will be completed and available for public access in 2017.

Reports

This M&E plan includes the following studies to be conducted in accordance with the Decision and other mandates. It includes the deadlines for M&E activities for PY 2016-2020.

- Biannual Impact Evaluations: Collect data, conduct analyses and provide biannual impact evaluations on SGIP for PY 2016-2017 (due⁶ September 30, 2018) and PY 2018-2019 (due September 30, 2020). The PY 2020 impact evaluation should be filed as part of the Final Program Summary in 2021.
- Annual Impact Evaluations on various impacts of SGIP-funded energy storage projects for PY 2016 (due June 30, 2017), PY 2017 (due June 30, 2018), PY 2018 (due September 30, 2019), PY 2019 (due June 30, 2020) and PY 2020 (due June 30, 2021). Detailed requirements for these annual impact evaluations appear later in this plan.
- Annual review of the performance of each PA: Reviews for PYs 2016 and 2017 should include at a minimum a survey of program participants' feedback regarding the PA's clarity and timeliness of oral and written communications, their accessibility, their helpfulness to applicants submitting and processing applications, and the clarity and helpfulness of their websites. Reviews for PYs 2018, 2019, and 2020 may focus on one or more aspects of PA performance and use less resource-intensive methodologies for evaluating performance than reports submitted in earlier years.
- Biannual review of SGIP fiscal performance (due June 23, 2017, and June 30, 2019 and 2021). Per the Decision, these fiscal audits should ensure that program funds are accounted for, are being spent appropriately, and that safeguards are in place to ensure this.
- Renewable Fuel Use Reports (due August of each year – may be published directly by the PAs without the review of Energy Division). As currently required, these reports should include an analysis of renewable fuel use data for SGIP participants.
- Storage and Generation Cost-Effectiveness/Market Transformation Studies (due June 30, 2019 and December 31, 2019, respectively). These reports are intended to help inform Commission decisions implementing SB 700, including authorizing annual collections for PYs 2020-2024, adopting incentive levels, and making other program modifications as needed.⁷

While no specific M&E budget is set for PY 2016-2020 in D.11-09-015 the CPUC established that the overall budget for administration of SGIP (including M&E expenditures) should not exceed 7% of SGIP funding.⁸

⁶ "Due" in this context means that a draft version is finalized by the PAs and submitted to Energy Division by this date for review prior to distribution to the public. Renewable Fuel Use Reports are excepted; they may be finalized and distributed by the PAs without Energy Division review.

⁷ SB 700 (Wiener, 2018) extends SGIP by five years: annual collections are extended from 2019 to 2024 and administration is extended from 2020 to 2025.

⁸ See D.11-09-015 at 59.

The work will be funded by the four SGIP PAs through a co-funding agreement based on the current CPUC-approved budget allocation (PG&E 44%, SCE 34%, CSE 13%, and SoCalGas 9%) for shared expenses.

The nature of the reports required by this M&E plan differs somewhat from previous SGIP M&E plans in the following ways:

- This M&E plan modifies the delivery schedule for the Impact Evaluation Reports previously established by the CPUC. As energy storage projects are currently planned to absorb 75% of all SGIP project incentives going forward, this M&E plan requires annual updates on the impacts of storage, while accounting for all SGIP project impacts on the existing biannual schedule.
- This plan did not originally require a Cost Effectiveness Study for PY 2016-2020 because SGIP was presumed to continue in its current structure until the end of PY 2020, obviating the need for an additional study.⁹ With the passage of SB 700 (2018) and its extension of SGIP through 2025, we revise this plan to include cost effectiveness/market transformation studies for storage and generation projects in 2019 to inform Commission decisions on annual collections for PYs 2020-2024, incentive levels, and other program modifications.
- Renewable Fuel Use Reports (RFUR) continue to be required. As before, the RFURs are to be created annually and are due in August of each year. However, to maximize the ability to use the RFURs in a timely fashion to sanction those SGIP participants that do not meet renewable fuel use requirements¹⁰, the RFUR shall include an analysis of renewable fuel use data collected through June 30th of the year the report is delivered. Furthermore, due to the data quality and uncertainty issues identified in the 25th RFUR, the cost analysis performed in the RFUR is no longer required.
- A draft Market Transformation Study from 2015 is still under review by Energy Division. The Cost Effectiveness/Market Transformation study to be completed in 2019 should update aspects of the 2015 study to inform SB 700 implementation and other program modifications. The Final Program Summary should also include a Market Transformation component. More detail about that component appears below.
- New annual administrative review reports and biannual fiscal audit reports are required.

Details of Proposed Reports

The following table summarizes the reports required by this M&E plan and the due dates for each.

⁹ The most recent cost effectiveness study was received in October 2015 and helped to inform SGIP reforms in 2016.

¹⁰ For example, the 25th RFUR found that all 13 blended on-site biogas fuel cell projects were found to be out of compliance during one or more RFUR compliance periods.

Report	Due Date
Review of Administrative Performance of Each PA for PY 2016	June 23, 2017
Biannual Fiscal Audit	June 23, 2017
Energy Storage Impact Report for PY 2016	June 30, 2017
Renewable Fuel Use Report for PY 2016 and Q1+Q2 PY 2017	August 31, 2017
Review of Administrative Performance of Each PA for PY 2017	April 1, 2018
Energy Storage Impact Report for PY 2017	June 30, 2018
Renewable Fuel Use Report for Q3 + Q4 PY 2017 and Q1 + Q2 PY 2018	August 31, 2018
SGIP Impact Report for PY 2016-2017	September 30, 2018
Biannual Fiscal Audit	June 30, 2019
Energy Storage Cost-Effectiveness/Market Transformation Study	June 30, 2019
Renewable Fuel Use Report for Q3 + Q4 PY 2018 and Q1 + Q2 PY 2019	August 31, 2019
Energy Storage Impact Report for PY 2018	September 30, 2019
Review of Administrative Performance of Each PA for PY 2018	November 27, 2019
Generation Cost-Effectiveness/Market Transformation Study	December 31, 2019
Review of Administrative Performance of Each PA for PY 2019	April 1, 2020
Energy Storage Impact Report for PY 2019	June 30, 2020
Renewable Fuel Use Report for Q3 + Q4 PY 2019 and Q1 + Q2 PY 2020	August 31, 2020
SGIP Impact Report for PY 2018-2019	September 30, 2020
Review of Administrative Performance of Each PA for PY 2020	April 1, 2021
Biannual Fiscal Audit	June 30, 2021
Energy Storage Impact Report for PY 2020	June 30, 2021
Renewable Fuel Use Report for Q3 + Q4 PY 2020 and Q1 + Q2 PY 2021	August 31, 2021

Annual Administrative Performance Reports

The Decision requires an annual review of the administrative performance of each PA.¹¹ Reports for PYs 2016 and 2017 are to include, at a minimum, a survey of program participants regarding the PAs' clarity and timeliness of oral and written communications, their accessibility, their helpfulness to applicants submitting and processing applications, and the clarity and helpfulness of their websites. Reports for PYs 2018, 2019, and 2020 may focus on one or more aspects of PA performance and use less resource-intensive methodologies for evaluating performance than reports submitted in earlier years.

Biannual Fiscal Audit Reports

The Decision requires biannual fiscal audit reports on SGIP.¹² Per the Staff Proposal, these audits should ensure that SGIP funds are accounted for, are being spent appropriately, and that safeguards are the place to ensure this.

Biannual SGIP program-wide Impact Evaluation Reports

This M&E plan continues previous practices by requiring SGIP program-wide impact evaluation reports on a biannual basis. However, SGIP-funded energy storage is subject to annual impact evaluation and reporting. Among the impacts to be assessed on an SGIP-wide biannual basis are:

- Electrical energy production and demand reduction by specific time periods (e.g., peak hour as well as seasonal) and by technology category
- Operating and reliability performance characteristics (e.g., capacity factor) for each technology category and how they compare to each other
- Electrical, thermal and overall efficiencies and the contribution of each technology category to electricity system efficiency and reliability
- Extent to which SGIP technologies employ renewable fuels and the impact of that fuel use on performance and cost characteristics (including a breakdown of how each technology category performs on GHG emissions based on renewable projects in that category, non-renewable projects in that category, and blended projects in the category)
- The extent to which each technology category provides net GHG emissions reductions and special considerations to changes in design or operation that could lead to improved GHG emission reductions

In addition to the impacts discussed above, Public Utilities Code § 379.6(l) requires that other SGIP goals and objectives be assessed. These include:

¹¹ D.16-06-055 at 47.

¹² D.16-06-055 at 47.

- The amount of reductions of emissions of criteria air pollutants measured in terms of avoided emissions and reductions of criteria air pollutants represented by emissions credits secured for project approval. Potentially, this analysis could include a quantification of the contribution of SGIP projects to an Air Quality Management District’s pollution goals (if applicable).
- The amount of reductions of customer peak demand (kW).
- The value to the electrical transmission and distribution system measured in avoided costs of transmission and distribution upgrades and replacement. This M&E plan proposes to defer consideration of this program objective until the Distribution Resources Plan (DRP) proceeding (R.14-08-013) completes its consideration of the locational value of distributed energy resources.¹³
- The ability to improve onsite electricity reliability as compared to onsite electricity reliability before the SGIP project was placed into service.

Furthermore, in the Decision the CPUC also embraced certain other SGIP goals which require measurement and evaluation. These include:

- Extent to which energy storage projects facilitate integration of renewable energy resources.¹⁴
- Extent to which SGIP resources affect the water impacts of grid energy generation.¹⁵
- Extent to which SGIP resources improve the efficiency and reliability of the transmission and distribution system.¹⁶
- Extent to which SGIP resources provide ancillary services to the utilities and grid operators.¹⁷

¹³ Once approved and implemented, the Locational Net Benefits Analysis (LNBA) in the DRP will provide estimated locational avoided transmission and distribution costs. One of the LNBA deliverables is a public tool where one may enter a distributed energy resource profile (such as that of an SGIP-funded project) to calculate the estimated net benefits of a project at a given location.

¹⁴ There would likely need to be a more dynamic methodology to analyze integration of renewables, perhaps considering renewable generation capacity when storage is charging/discharging and evaluating how storage shifts this generation. Examining local renewable generation as well as system-wide renewable integration may also be required. The analysis may also be conducted per IOU territory or possibly per Sub-LAP area (the CAISO uses sub-LAPs for behind the meter resources participating in the wholesale market as demand response). These details will need to be addressed in consultation with stakeholders on the M&E plan.

¹⁵ D.16-06-055 at 9.

¹⁶ D.16-06-055 at 10.

¹⁷ Research questions for this topic may include: Why are systems being dispatched (generation – generate electricity; storage – charge or discharge)? Are some technologies, like storage, responding to signals from utilities or participating in wholesale markets? Knowing why systems are being used may help in determining if they are providing ancillary services. If SGIP projects are participating in the wholesale market, what type of response do they produce (proxy demand response or non-generating resource) and what services do they provide (energy, resource adequacy, ancillary services)? At a minimum, the evaluator should determine if an SGIP project is

The biannual SGIP impact evaluation reports must address, at a minimum, all of the above bullet points. Energy Division may also recommend that the biannual impact evaluation reports consider other research questions. Importantly, these reports should incorporate the findings from the annual energy storage impact reports so as not to generate duplicate analyses for the energy storage sector.

Annual Energy Storage Impact Evaluations

A new feature of this M&E plan compared to previous iterations is the creation of a series of annual impact evaluations that are focused on a single SGIP technology category – energy storage. Because of the reservation of 75% of SGIP incentives for energy storage projects, it is appropriate to focus on energy storage on an annual basis to ensure that stakeholders and decision-makers are receiving regular updates on this emerging technology.

In addition to the items required for the biannual impact evaluations described above, the following information should be included in the annual storage impact report:

- Net GHG emissions of energy storage systems as a class, and net GHG emissions differentiated between residential and non-residential systems, and between systems paired with renewable generation and non-paired systems.
- Timing of charge and discharge on an average basis and duration, and identification of groups of storage systems exhibiting certain trends in the timing of charge and discharge. In other words, the average timing should be broken down to reveal any distinct groups of storage systems that have similar patterns of charge and discharge.
- In accord with Public Utilities Code § 379.6(l)(6), quantify any contribution of energy storage projects to grid services where that storage substituted for and replaced planned investment into grid services.

To achieve these goals, all storage projects must be monitored at 15 minute intervals for powerflow at the utility point of connection, at the storage alternating current (AC) connection, and at the AC connection for any additional on-site generating sources. Measurement accuracy must be assured for each of these, although at this time the acceptable bounds of accuracy have not been determined. Currently, 15 minute interval consumption data from the inverter native to the battery (as opposed to a revenue-grade meter attached to the battery) is acceptable. However, this requirement may be changed by Energy Division if the accuracy of the inverter data is not sufficient to allow for acceptable GHG emission calculations.

The following additional data from SGIP-funded energy storage projects must be provided to the evaluator: the customer's load as registered by the utility's meter, the customer's utility, the customer's tariff (including all tariff add-ons such as net energy metering, pilot programs or wholesale market

participating in load-modifying demand response programs, or participating in supply-side demand response programs.

participation), and the interval data described above for any paired renewable generation such as a solar system.

At this time, the methodology for calculating the net GHG emissions of storage systems is not finalized. This methodology will be approved by Energy Division in consultation with the PAs and the contractor selected to carry out this work at a later time.

This M&E plan specifically calls for the evaluation of the performance of energy storage systems to include results for sub-categories of customers to be finalized at a later time. These customer sub-categories are likely to include residential and non-residential customers, customers with and without paired generation, customers on different rates, and customers that do and do not participate in demand response programs or wholesale market programs.

Renewable Fuel Use Reports

This M&E plan proposes to continue requiring the submission of RFURs through 2020. In accordance with D.02-09-051 and D.16-06-055, SGIP projects using renewable fuels must achieve specified fuel use requirements. In addition, with increased interest in reducing GHG emissions, there is increased emphasis on the ability of SGIP technologies to use renewable fuels and to understand the operational and cost implications of increased renewable fuel use.

Fundamentally, the overall goal of the RFURs is to help CPUC staff and the SGIP PAs in making recommendations concerning modifications to the renewable project aspects of the SGIP. Consequently, the first objective of these reports is to identify and report on the compliance of renewable fuel use projects receiving incentives under the SGIP with renewable fuel use requirements. As noted above, to maximize the ability to use the RFURs to sanction those SGIP participants that do not meet renewable fuel use requirements in a timely fashion, the RFUR shall include an analysis of renewable fuel use data collected through June 30th of the year the report is delivered. Furthermore, due to the data quality and uncertainty issues identified in the 25th RFUR, the cost analysis performed in the RFUR is no longer required.

As with the previous M&E plan, annual RFU reports are required to be submitted in August of each calendar year.

The RFURs have two main objectives:

- Verify that SGIP projects receiving renewable incentives are in compliance with minimum renewable fuel use requirements (i.e. not “fuel switching”),
- Identify greenhouse gas emission impacts associated with renewable fuel use projects, trends in the impacts, and overall implications of renewable fuel use projects and GHG emission reductions.

Cost-Effectiveness/Market Transformation Reports

The Cost-Effectiveness/Market Transformation Studies for storage and generation are intended to help inform CPUC decisions implementing Senate Bill (SB) 700, including authorizing annual collections for program years (PYs) 2020-2024, adopting incentive levels, and making other program modifications as needed.

The CPUC M&E plan did not originally require a cost effectiveness Study for PY 2016-2020 because SGIP was presumed to continue in its current structure until the end of PY 2020, obviating the need for an additional study. With the passage of SB 700 and its extension of SGIP through 2025, the CPUC revised the M&E plan to include a cost effectiveness/market transformation study in 2019.

Key research questions to be addressed by these studies include:

- How likely are SGIP-eligible technologies to achieve market transformation in the coming years?
- How much do SGIP-eligible technologies cost, and how are those costs likely to change over time?
- What are the key drivers and barriers to adoption of SGIP-eligible technologies?

Final Program Summary Report

Note: At the time the M&E plan for PYs 2016-2020 was originally developed, SGIP was set to conclude in 2020, thus the plan included a Final Program Summary Report to be completed in 2021. With the passage of SB 700 (2018) and its extension of SGIP through 2025, we revised this plan to remove the final study from the schedule of reports to be completed on PYs 2016-2020. However, we retain the study's description below to potentially inform the scope of the final study in a future SGIP M&E plan.

By statute, SGIP may only continue through 2025.¹⁸ Due to the wide variety of technologies deployed and the extensive amount of data collected over the course of SGIP, the program will be able to provide truly unique insights into the actual costs, performance, practices and processes of distributed energy resources (DER) deployed in a commercial setting. A summary report on SGIP can provide both a retrospective set of lessons learned and a springboard for setting future DER policies and programs.

The Final SGIP Summary Report shall provide a comprehensive review of SGIP from its inception through December 31, 2025. Topics in the report will include, but not be limited to, the following:

- Goals of the program and progress toward achieving them (original and changes as new policies emerged),
- Projects installed (e.g., overall, by DER type, rebated capacity and locations),
- Impacts (e.g., electricity generated, coincident peak contributions, system efficiency impacts, grid service impacts and GHG emission reductions),

¹⁸ Public Utilities Code § 379.6(a)(2).

- Trends (e.g., costs, technology specific and cumulative rebated capacities, average capacity factors by technology and overall, changes in efficiencies and renewable fuel use),
- Market transformation goals and levels of success,
- Lessons learned and recommendations, and
- SGIP-wide impact evaluation of PY 2025.

With respect to the Market Transformation (MT) component of this report, it should be written with the following in mind. The key defining metric of MT achievement is whether the market for the products and services supported by SGIP is self-sufficient in the absence of the program.¹⁹ Additionally, this M&E plan anticipates that the following MT metrics identified in the draft 2015 SGIP MT report may also be analyzed, although these are subject to change:

- There will be no significant barriers preventing utility customers and utilities to routinely use distributed generation and energy storage technologies as part of their energy solutions,
- Changes in market operation along with performance and cost improvements will allow distributed generation and energy storage to be adopted without incentives, and
- The market will encourage development and adoption of even more efficient distributed generation or energy storage technologies, services and solutions into the market.

Data Quality and Reporting

Numerous evaluation reports from previous years indicate that there is a systematic failure regarding data quality and reporting from some SGIP projects. Most SGIP projects appear to be reporting data to evaluators adequately; but many SGIP projects do not, or report data in such a way that it is not usable by evaluators. Examples include:

- In the 2014 Renewable Fuel Use Report, the authors noted that 18 out of 136 renewable fuel use projects could not have their compliance status determined because insufficient data were available.²⁰
- In the 2014-2015 Impact Evaluation Report, the authors noted that legal negotiations with utilities delayed provision of customer load data for projects with storage systems until late August 2016. In addition, one storage vendor provided only anonymized customer data, precluding matching of those customers with utility load data.²¹

¹⁹ See, e.g., D.09-09-047 at 89 for a discussion of MT in the energy efficiency context. See also the 2015 Energy Division Staff Proposal on SGIP at page 8.

²⁰ Renewable Fuel Use Report No. 24 (August, 2014) at 1-4.

²¹ 2014-2015 Impact Evaluation Report (November, 2016) at 6-1.

- Also in the 2014-2015 Impact Evaluation Report, the authors noted that storage charge and discharge data from multiple residential vendors proved biased or inaccurate, and that several projects exhibited roundtrip efficiencies above 100%.

Systematic failures to provide accurate and reliable data such as these are contrary to the statutory requirement of all SGIP projects to provide relevant data for evaluation purposes upon request.²²

This M&E plan makes clear that all SGIP projects are expected to report data that will allow evaluators to make the findings required by statute and the CPUC's decisions. The developers or project owners responding to a request for data should use a data request template provided by the evaluator. SGIP projects should report data in accordance with the parameters defined in the template, including the time zone to use for interval consumption data reports. SGIP developers should endeavor to have a single point of contact within the organizations to respond to data requests from the evaluator.

Furthermore, customer load data required for the evaluations must be provided to the evaluator by the utility in a timely manner.

This M&E plan also establishes, for the sake of clarity, that individual customer confidentiality must be maintained throughout the M&E process. The M&E reports generated by the evaluator using confidential data should include generalized descriptions of the data that do not reveal an individual customer's personally identifying information (PII). However, any customer participating in SGIP going forward must specifically allow developers, PAs and SGIP evaluators to separately and jointly use data that may include their PII as part of the evaluation process.

M&E Plan Periodic Review and Revisions

This M&E plan may be reviewed and modified by Energy Division, in consultation with the PAs, at any time. Energy Division may also make modifications to the budget allocations for M&E activities as needed. This M&E plan also specifically authorizes a single PA, chosen by a plurality of the SGIP Working Group, to oversee the contracting required to execute the plan and conduct the bidding process for the contracting work as necessary.

²² P.U. Code Sec. 379.6(f).