

Decision 18-09-044 September 27, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop
a Successor to Existing Net Energy
Metering Tariffs Pursuant to Public
Utilities Code Section 2827.1, and to
Address Other Issues Related to Net
Energy Metering.

Rulemaking 14-07-002

**DECISION ADOPTING NET ENERGY METERING CONSUMER PROTECTION
MEASURES INCLUDING SOLAR INFORMATION PACKET**

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DECISION ADOPTING NET ENERGY METERING CONSUMER PROTECTION MEASURES INCLUDING SOLAR INFORMATION PACKET

Summary

Today's decision adopts several consumer protections targeted to solar customers. First, we adopt a process to design and develop a consumer information packet primarily geared to residential consumers of rooftop solar. We intend for this information packet to enable consumers to make an informed decision about installing solar on their single-family homes and taking service under a net energy metering successor tariff, with particular attention to aggressive or unscrupulous sales tactics. Attached to this decision as Appendix A is a detailed outline of the specific elements the information packet should contain. Energy Division, in consultation with the News and Outreach Office, is authorized to work on finalizing the packet with stakeholders via a workshop and other procedures Energy Division may find appropriate.

We expect the final solar information packet to be available in the second quarter of 2019. It may contain revisions to the elements in or structure of Appendix A based on comments to the proposed decision, stakeholder input at the workshop and any further process afforded by Energy Division.

We require Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company¹ to require verification that

¹ This requirement only applies to the three large electric utilities and not to the smaller electric utilities, Bear Valley Electric Service (BVES), Liberty Utilities, and PacifiCorp. Per Public Utilities Code Section 2827(c)(4)(A), any electric utility with less than 100,000 service connections is not obligated to provide net energy metering (NEM) to its customers when "combined total peak demand of all electricity used by eligible customer-generators served by all the electric utilities in that service area furnishing net energy metering to eligible

Footnote continued on next page

solar customers have received and read both the information packet and the Contractors State License Board's (CSLB) Solar Energy Systems Disclosures Document prior to interconnecting their systems. This will be accomplished by having the three large investor-owned electric utilities configure their interconnection portals to require solar providers to upload signed copies of these documents in order to obtain interconnection approval. Also, to help ensure that solar contract terms are reasonable, we will require the electric utilities to collect the installation contracts from solar contractors in the interconnection portal.² We will not ask the utilities to review these contracts for reasonableness, but will instead direct the utilities to forward the contracts to Energy Division upon request.

Finally, today's decision strengthens the current practice of prompting interconnection applicants to provide a CSLB license number, by establishing a verifiable process to ensure that only solar providers with valid CSLB licenses are authorized to install solar energy systems. Specifically, we will require that the utilities modify their interconnection portals so that solar providers that interconnect net energy metering-eligible systems with investor-owned utility distribution systems must (1) provide a valid CSLB license, and (2) provide

customer-generators exceeds 5 percent of the aggregate customer peak demand of those electric utilities." Since these smaller electric utilities may not be offering a NEM program, we do not find it necessary to include them in this requirement. However, we encourage BVES, Liberty Utilities, and PacifiCorp to enact similar requirements in their interconnection portals if they are offering NEM.

² Public Utilities Code Section 2869(a) requires solar providers to provide a disclosure statement to customers. Public Utilities Code Section 2869(e) requires solar providers to provide the Commission with any customer contracts when requested. Failure to comply with these provisions constitutes a violation of the Public Utilities Code.

documentation of having provided each customer a copy of the information packet and CSLB-required Solar Energy Systems Disclosures Document before executing a contract or agreement with the customer.

This proceeding remains open and will consider additional consumer protection measures within the scope of our authority for solar customers.

1. Background

Decision (D.) 16-01-044 in this rulemaking adopted some consumer protections, including a minimum 10-year system warranty and a California Energy Commission (CEC) certified equipment list previously required under the California Solar Initiative (CSI) and the Self-Generation Incentive Program (SGIP). D.16-01-044 also directed Energy Division staff to work with parties to develop an information packet for utility customers considering installing solar rooftop energy systems.³

As a first step in considering consumer protection measures directed by D.16-01-044, Energy Division staff held a workshop on October 20, 2016 to identify consumer protection issues that net energy metering (NEM) customers have encountered. Following the workshop, on December 8, 2016, the *Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues* (December 8, 2016 Ruling or Ruling) was issued, requesting comments on consumer protection issues. Parties filed opening comments on January 24, 2017 and reply comments on February 9, 2017.

A number of parties, including GRID Alternatives (GRID or GRID Alternatives), the Center for Sustainable Energy (CSE), the California Solar &

³ D.16-01-044 at 84.

Storage Association (CALSSA),⁴ the Solar Energy Industries Association (SEIA), Coalition of Energy Users (CEU), California Municipal Utilities Association (CMUA), Greenlining Institute (Greenlining), Interstate Renewable Energy Council (IREC), Marin Clean Energy (MCE), the Public Advocate's Office of the Public Utilities Commission (Cal PA),⁵ Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), San Diego Gas and Electric Company (SDG&E),⁶ The Utility Reform Network (TURN), and Vote Solar commented on the information packet proposed in the December 8, 2016 Ruling. There was widespread consensus on the need for an information packet. No party opposed the information packet concept. There was some consensus in the comments on the format of the information packet, who should prepare it, who/which entity should provide it to potential customers, at what point in the sales process it should be provided to customers, what the information packet should include, and a verification process to ensure customers received and read the packet, as discussed below.

Following parties' comments, the State Legislature enacted Assembly Bill (AB) 1070 (Stats. 2017, Chap. 662),⁷ requiring several consumer protection measures including a Solar Energy System Disclosures Document (Solar Disclosures Document) for solar customers. AB 1070 requires the Contractors

⁴ On February 8, 2018, the California Solar & Storage Association filed a notice of name change from California Solar Energy Industries Association to California Solar & Storage Association, or CALSSA.

⁵ On June 27, 2018, the Governor approved Senate Bill No. 854, which renamed the Office of Ratepayer Advocates to the Public Advocates Office of the Public Utilities Commission.

⁶ These three utilities are sometimes referred to as the "investor-owned utilities" or IOUs.

⁷ Full text is available at

http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB1070.

State License Board (CSLB), in collaboration with the California Public Utilities Commission (Commission or CPUC), to develop the Solar Disclosures Document by July 1, 2018. To comply, the CSLB posted a cover page of the Solar Disclosures Document in English and Spanish to its website on June 29, 2018,⁸ and CSLB staff obtained authorization from its Board to host stakeholder meetings to assist in the drafting of the remainder of the Solar Disclosures Document. The Commission approved Resolution M-4836 “Endorses CPUC Staff's Collaboration with the CSLB to draft Consumer Disclosures required by AB 1070 (2017),” at its regularly scheduled business meeting on August 23, 2018.

One key element of the Solar Disclosures Document is to inform solar customers of the standard commercial transactions “cooling-off” period, which gives potential customers three days after signing a contract or lease to cancel the agreement without any penalty or obligation.⁹ Per AB 1070, CSLB is also required to receive and review consumer complaints and questions regarding solar energy system companies and solar contractors, including complaints received by other state agencies. CSLB must publish an annual report documenting solar consumer complaints beginning July 1, 2019.¹⁰ Finally, AB 1070 requires the Commission to develop standardized inputs and assumptions to be used in the calculation and presentation of electric utility bill savings to consumers by July 1, 2019.

⁸ <http://www.cslb.ca.gov/contractors/SolarSheet.aspx>. CSLB staff developed a draft Solar Energy System Disclosure document with input from Commission staff. Per AB 1070's requirements, the cover page of the Solar Disclosures Document is intended to comply with California Business and Professions Code Section 7169(b).

⁹ California Business and Professions (Cal. Bus. and Prof.) Code Section 7159.

¹⁰ Cal. Bus. and Prof. Code Section 7170.

AB 1070 contains important new consumer protections, many of which were raised by parties in their comments on the Ruling; today's decision adopts important complementary protections, including key elements for a consumer information packet (see discussion below as well as Appendix A) and a process for stakeholder input into further design and development of the information packet.¹¹ The record also informs our decision to require the investor-owned utilities to permit only solar providers, as defined here, with valid CSLB licenses to interconnect residential NEM-eligible systems to the grid.¹² We define solar providers as vendors, installers, financing entities, and contractors involved in the sale, lease, or power purchase agreement (PPA) of a rooftop solar energy system and applying to interconnect customers to the utility's distribution system. This definition is consistent with AB 1070's use of solar energy systems companies and solar contractors.

¹¹ We expect Energy Division to use the very helpful information proffered by parties in their comments in developing the information packet. For example, many parties referenced the work prepared for the October 20, 2016 CPUC NEM Consumer Protections workshop, where SEIA and CALSSA presented "Solar Industry Consumer Protection Efforts", available at <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442451313>, describing existing state and federal regulations. In addition, IREC's Clean Energy Consumer Bill of Rights and the Solar Be Smart Consumer Checklist provides valuable information. See *Comments of the Interstate Renewable Energy Council, Inc. on Consumer Protection and Related Issues*, filed January 24, 2017, at 3-4, detailing its Consumer Protection Trio. Finally, CSE provided copies of the useful consumer resources it has developed. See *Comments of the Center for Sustainable Energy in response to the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 23, 2017 (CSE Opening Comments), Attachments A-E.

¹² Resolution E-4760 requires that utilities add the CSLB license as a field in the interconnection portal. Unscrupulous entities can enter a fake CSLB license or circumvent the field by selecting the "self-installer" option. Currently, there is no requirement that the utilities confirm the accuracy of the CSLB license information.

2. Issues and Discussion

2.1. Consumer protection issues that NEM successor tariff customers face now, or are likely to face in the near future.

The December 8, 2016 Ruling first asked parties to define the most important consumer issues faced by solar customers. A number of parties (PG&E, SCE, SDG&E, Cal PA, CALSSA, CMUA, SEIA, TURN) agree that aggressive and misleading sales tactics and marketing practices are chief concerns. Such practices include persistent robocalls; pressure to sign a contract or agreement on the same day by solar salespersons; misrepresentation of the utilities' role; and confusing, incomplete or incorrect information about the costs and benefits of rooftop solar, including estimated bill savings and value and treatment of solar Renewable Energy Credits (RECs) under different products (purchase/lease/power purchase agreement).¹³ Additional issues raised include language barriers for non-English speaking customers; predatory financing; vendor failure to follow through after installation; incorrect system sizing; contract complexity; unlicensed contractors; and a lack of customer understanding of the factors impacting their actual bill savings, including changes in their energy usage and rate structures underlying the current NEM framework.

The Ruling then asked which of these issues could be effectively addressed through an information packet for potential NEM customers, and which issues could not. Parties generally agreed on the content of the information packet,

¹³ *Comments of The Utility Reform Network on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (TURN Opening Comments), at 11-12; *Reply Comments of the Solar Energy Industries Association on the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed February 9, 2017, at 6.

specifically as a tool to educate and protect consumers regarding common issues faced when considering whether to go solar. For example, PG&E believes that aggressive sales pitches could be addressed via a consumer protection checklist addressing misrepresentation.¹⁴ As to misleading finance/lease terms, TURN recommends including a short fact sheet with information.¹⁵ To protect customers against misleading bill impacts/savings, Cal PA suggests including in the information packet details on common misunderstandings.¹⁶ Vote Solar suggests that the information packet include a list of questions that customers considering rooftop solar should ask solar providers.¹⁷ Greenlining suggests the Commission focus on the needs of vulnerable groups, including low income customers, customers with limited English proficiency (LEP), and customers with limited knowledge about energy usage, generation and rates.¹⁸

Finally, CALSSA and CEU argue that the rate uncertainty underlying NEM is the most important consumer protection issue.¹⁹ For addressing this

¹⁴ *Pacific Gas and Electric Company's (U 39 E) Opening Comments on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017, at 6.

¹⁵ TURN Opening Comments, at 10.

¹⁶ *Opening Comments of the Office of Ratepayer Advocates on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection Related Issues*, filed January 24, 2017 (Cal PA Opening Comments), at 1.

¹⁷ *Comments of Vote Solar on Consumer Protection and Related Issues*, filed January 24, 2017 (Vote Solar Opening Comments), at 5.

¹⁸ *Reply Comments of the Greenlining Institute on Consumer Protection and Related Issues*, filed February 9, 2017 (Greenlining Reply Comments), at 1.

¹⁹ See, e.g., *Comments of the California Solar Energy Industries Association on the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (CALSSA Opening Comments), at 5 and *Coalition of Energy Users In Response to the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (CEU Opening Comments), at 2.

regulatory uncertainty, CEU suggests providing information/facts about NEM in the information packet, including the potential for future changes to NEM policy.²⁰ CALSSA advocates for the Commission to provide more certainty around the transition to future adopted rate changes.²¹ SDG&E's reply comments state that this phase of Rulemaking (R.) 14-07-002 is not the forum to litigate rate design issues that may affect customers' solar investment economics, arguing that the rate changes proposed by CALSSA "are not consumer protection at all, but instead proposed to advantage one group of (mostly well-off) consumers at the expense of all other customers."²²

2.1.1. Discussion

D.16-01-044 directed Energy Division staff to undertake further consideration of consumer protection measures, including the development of an information packet for customers interested in taking service under the net energy metering successor tariff.²³ Today's decision is based on the record developed in response to the December 8, 2016 Ruling seeking comments on what issues could most effectively be addressed through an information packet for potential net energy metering customers, including issues such as what the information packet should contain, who should be responsible for developing it, and what process should be used to verify that a potential customer receives an information packet.

²⁰ CEU Opening Comments, at 4.

²¹ CALSSA Opening Comments, at 6.

²² *Reply Comments of San Diego Gas & Electric Company (U 902-E) on Consumer Protection and Related Issues* (SDG&E Reply Comments), at 5.

²³ D.16-01-044 at 84.

Following submission of parties' comments on consumer protection in this rulemaking, AB 1070 was enacted, addressing some of the issues raised. For example, many parties noted in response to the December 8, 2016 Ruling that a standardized, transparent set of tools to help consumers predict bill savings does not exist. AB 1070 fills this void by directing the Commission to develop standardized inputs and assumptions for estimating electric utility bill savings by July 2019. Development of such standardized inputs and assumptions should help minimize asymmetrical information between solar providers and potential solar customers.

Also, many parties recommended a disclosure document in addition to an information packet. As discussed previously, AB 1070 required the CSLB to produce a Solar Energy Disclosures Document by July 1, 2018. With the information packet, we intend to provide customers the appropriate questions to ask at the outset of the solar sales process, information to help them select a competent and licensed solar provider, and the rights to cancel a contract or an agreement. The disclosure document and information packet, taken together, should substantially reduce information asymmetries and thereby deter and/or prevent abusive practices.

The December 8, 2016 Ruling also solicited comments on the idea of a consumer advocate to help customers install solar and resolve complaints. The new measures required by AB 1070, as well as the information packet, may reduce or obviate the need for an independent consumer advocate. At the same time, further analysis of consumer complaints may reveal additional practices or trends requiring consideration of measures beyond those contained in AB 1070 and adopted in this decision. Furthermore, as discussed below in Section 2.5, multiple state agencies and other entities, such as local district attorneys, play

important roles in protecting consumers and/or prosecuting unscrupulous businesses. Some parties contend that there are several current avenues of recourse available to customers to deal with solar contracting issues, including many state and federal regulations.²⁴ We intend to assess how the new measures work, as well as to analyze consumer complaints and better understand the roles and responsibilities of the various agencies and entities involved in rooftop solar consumer protection before we consider whether and how we can further address this issue. In comments to the proposed decision, PG&E and SCE advocate for an online marketplace in which customers could compare contractors and specific bids. GRID advocates for an independent consumer advocate, which GRID envisions would be available to help low-income customers review contracts and otherwise provide advice specific to low-income concerns. The California Low-Income Consumer Coalition (CLICC) similarly expresses disappointment that the proposed decision does not at this time adopt an independent consumer advocate, for the purpose of securing effective remedies for defrauded customers. We remain interested in these concepts and will consider them further in the remaining phase of this proceeding. Parties supporting either concept should prepare to provide comprehensive proposals. For instance, in the case of an independent consumer advocate, parties should prepare to provide specific recommendations for establishing/designating, funding, and overseeing such an entity, what specific role and functions this

²⁴ Cal PA Opening Comments, at 8, citing October 20, 2016 workshop presentations of SEIA and CALSSA. In this regard, we have noted the *Opening Comments of California Low-Income Consumer Coalition on Proposed Decision Adopting Net Energy Metering Consumer Protection Measures Including Solar Information Packet*, filed September 13, 2018 (CLICC Opening Comments on the Proposed Decision), at 10, and accordingly revise this sentence to indicate that parties disagree as to the adequacy of existing consumer remedies for fraud and other problems.

entity should perform, and accordingly what authorization(s) this entity may need in order to effectively carry out its designated functions.

Protection of customers who decide to buy or lease a solar system or enter into a PPA under the NEM program is a vital role for this Commission. In this regard, we note and agree with GRID Alternatives and Greenlining's comments regarding the need to focus on vulnerable customers.²⁵ TURN, GRID, and Greenlining, among others, emphasized the need for special consideration of consumer protection measures for LEP and low-income consumers.²⁶ SCE asserts that low-income communities tend to be more vulnerable to misrepresentations that inflate potential savings and senior citizens are at risk because they tend to be more trusting of telemarketers.²⁷ We agree there is merit in including information about low-income solar programs in the consumer information packet, as well as information about solar programs in disadvantaged communities.²⁸

Predatory lending is another concern for vulnerable communities. Parties mentioned federal laws to combat predatory lending, and, at the state level, the

²⁵ We note and agree with CLICC Opening Comments on the Proposed Decision, at 3, that vulnerable customers should include people with disabilities.

²⁶ *See, e.g., Opening Comments of the Greenlining Institute on Consumer Protection and Related Issues*, filed January 24, 2017 (Greenlining Opening Comments), at 1-2, and *Reply Comments of The Utility Reform Network on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed February 9, 2017 (TURN Reply Comments), at 2. TURN also suggested that the information packet include specific materials and resources for low-income customers and should address the impact of NEM on CARE customers. TURN Reply Comments, at 3.

²⁷ *Southern California Edison Company's (U 338-E) Comments on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (SCE Opening Comments), at 2.

²⁸ Greenlining Reply Comments, at 4.

California Department of Business Oversight requires licensing and regulation of financing entities. At the same time, the Commission can take a proactive approach regarding residential solar customers, especially in vulnerable communities, by including information to consumers about the dangers of predatory lending as well as availability of low-income solar programs in the information packet.

We agree with Greenlining that by aiming to serve the most vulnerable customers in developing the information packet, we will likely end up with “a product that serves the mainstream customer as well, but the reverse is not necessarily true;”²⁹ that is, designing a product for mainstream customers is less likely to address issues relevant to more vulnerable customers. Additionally, although the information packet is primarily geared toward residential IOU customers, we agree with parties that argued the packet could provide useful information for nonresidential customers as well.³⁰

2.2. Content and process for development, dissemination, and verification for the information packet

The December 8, 2016 Ruling asked which of the key consumer protection issues could most effectively be addressed through an information packet for potential NEM customers, what entity should prepare the information packet, which entity should provide the information packet to potential customers and at what point in the process, what process should be used to verify that a

²⁹ Greenlining Reply Comments, at 1.

³⁰ CALSSA suggests that primarily residential customers will benefit from the type of information packet the Commission is considering. But nonresidential customers, while better able to handle complex contracts, “still need clear billing practices and interactions with their utility.” CALSSA Opening Comments, at 3.

potential customer received and read an information packet, what format should the information packet be made available in and where should it be disseminated, and should the information packet be made available in any language other than English.

Based on parties' comments, we address the issues and questions raised regarding the information packet as follows.

2.2.1. Issues appropriate for the information packet

We agree with stakeholders that the information packet is an important tool to educate and protect consumers regarding common issues faced when considering whether to install solar. On that basis, we find that the information packet should contain the following elements: guidelines on how to choose a contractor; explanation of how solar financing works; what to be aware of when receiving bill savings estimates; description of net energy metering; understanding the role of the utility and solar provider; importance of energy efficiency and energy management; low-income options and options available to disadvantaged communities; technologies that combine with solar; a consumer checklist; links to important resources; and a signature box for customers and solar provider to affirm the customer has received and read the information packet. Appendix A attached to this decision contains the details for information that the information packet should cover. Energy Division is authorized to change the order of the issues in Appendix A in the draft version of the information packet.

Beyond notifying customers that their NEM rates are subject to change,³¹ we agree with SDG&E³² that this is not the forum for determining what, if any, level of certainty regarding rates should be granted to customer-generators.³³

2.2.2. What entity or entities should be responsible for preparing the information packet?

GRID, TURN, Cal PA, and IREC recommend that the Commission, with Energy Division as the lead, prepare the information packet.³⁴ Others, including Greenlining and CEU, recommend that the Commission, in consultation with stakeholders, prepare the packet. CSE and SDG&E recommend that a third-party administrator, acting neutrally, prepare the packet.³⁵ Greenlining recommends a two-part process, with a Commission-led stakeholder process to determine the content of the information packet, and then a separate design phase where a qualified entity would present the information in a useful way, with an opportunity for stakeholders to comment on the final product.³⁶

Based on these comments, we direct Energy Division to lead the process of developing a draft information packet. Appendix A sets the basic requirements

³¹ See, e.g., CEU Opening Comments, at 2.

³² SDG&E Reply Comments at 5.

³³ CALSSA Opening Comments, at 6.

³⁴ *Grid Alternatives' Opening Comments on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (GRID Opening Comments), at 6; TURN Opening Comments, at 18; Cal PA Opening Comments at 3; *Reply Comments of the Interstate Renewable Energy Council, Inc. on Consumer Protection and Related Issues*, filed February 9, 2017, at 2.

³⁵ *Comments of San Diego Gas & Electric Company (U 902-E) on Consumer Protection and Related Issues*, filed January 24, 2017 (SDG&E Opening Comments), at 10; CSE Opening Comments, at 12.

³⁶ Greenlining Opening Comments, at 2-3.

for the information packet content, and this will be further refined through a stakeholder process. Energy Division is directed to consult with other relevant Commission divisions, including the News and Outreach Office as part of this process. Within 120 days of this decision's issuance, Energy Division will release a draft information packet. Within 150 days of this decision's issuance, Energy Division will hold a stakeholder workshop, during which Energy Division should seek stakeholder feedback on further refinements. For example, stakeholders may wish to consider developing the information packet into a consumer-friendly resource that is aligned with the Commission's statewide ME&O platform, Energy Upgrade California (EUC), as described below. Energy Division will then further refine the content of the information packet based on stakeholder feedback from the workshop.

The Energy Upgrade California program originated in the Commission's energy efficiency proceeding, but in 2016 the Commission began to expressly include other demand side management programs within the program's scope. As directed by the Commission, the EUC program follows a Five-Year Strategic ME&O Roadmap (Five Year Roadmap) that requires coordination with all other ME&O programs adopted by the Commission. The Roadmap is then implemented through annual Joint Consumer Action Plans (JCAPs) that are developed by the stakeholders in the EUC proceeding.³⁷

³⁷ Per D.16-03-029, the Energy Upgrade California ME&O implementer is directed to annually file a Joint Consumer Action Plan (JCAP) via a Tier 1 Advice Letter. The JCAP is filed every March following a stakeholder meeting in January and outlines budgets and plans for the following year. These annual plans document how the implementer will meet the objectives detailed in the Five-Year Roadmap. As such, the annual JCAP process is the governance process by which Energy Division and EUC stakeholders prioritize program areas for the coming year.

The current Five-Year Roadmap discusses solar consumer protections, stating in Section 9.5.2, Rooftop Solar:

[t]he rooftop solar market is heavily marketed by solar infrastructure providers, so there is little need for heavy customer engagement efforts. However, [Program Administrators] (PAs) recommend customer engagement outreach use awareness and educational messaging on consumer protection to ensure customers do not fall victim to scams.³⁸

There is good reason that stakeholders in the instant proceeding may wish to consider seeking inclusion of the task of finalizing the information packet in the next Joint Consumer Action Plan, which is expected to be acted on by the Commission no later than April 2019. The intent of the EUC program is that “[a]ll Californians will be engaged as partners in the state’s energy efficiency, demand side management and clean energy efforts by becoming fully informed of the importance of energy efficiency and other demand side efforts, and their opportunities to act.” The immediate short-term goal of the program is to provide California residents and small business owners with information about energy concepts, programs, services, rates and benefits of taking action regarding managing their energy use.³⁹ Additionally, customers interested in installing solar are an important customer segment that is likely to participate in other demand-side management programs. In this way, stakeholders in the instant proceeding can help EUC to leverage other programs (in this case, residential solar) to reach customers who are likely to be interested in learning and engaging

³⁸ See Five Year ME&O Strategic Roadmap (Advice Letter number DDB-1), approved on October 4, 2017, <http://www.cpuc.ca.gov/statewidemeo/>, at 32.

³⁹ D.16-09-020 at 10; See, also, D.16-03-029, at 34, 35, and D.16-09-020, OP 1 and 2.

with other energy efficiency, demand response, grid supportive rates, electric vehicles and other customer energy programs.

Finally, as Greenlining notes, a third-party with consumer expertise will ensure the information packet is tailored to a layperson audience and not unduly technical in nature.⁴⁰ In comments on the proposed decision, CLICC urges that we mandate that the information packet be written at an eighth grade reading level, measured by readability tools.⁴¹ While we agree that the packet should be easily understandable, we decline to mandate a particular reading level, relying instead on Energy Division to make sure that the packet can be read and understood by its intended audience.⁴² For all these reasons, we suggest that parties consider alignment with the EUC program through its JCAP process as Energy Division develops the information packet.

The process set forth above will result in a cost-effective information packet that can be released at approximately the same time as the Commission's solar bill savings inputs and assumptions, which, by statute, must be made available no later than July 1, 2019. These two important consumer protection tools will work together to increase consumers' ability to make educated decisions about solar. We expect that the information packet will be ready in early second quarter of 2019 or at the same time as the bill savings inputs and assumptions. The information packet will be made available to customers with a

⁴⁰ Greenlining Opening Comments, at 2.

⁴¹ CLICC Opening Comments on Proposed Decision, at 8.

⁴² Stakeholders may address or discuss on readability tools and metrics at the workshop hosted by the Energy Division on the draft information packet.

link to a placeholder CPUC webpage that describes the solar bill savings inputs that will be posted on July 1, 2019.

To ensure that the information packet is not delayed, the following deadlines shall apply:

- Within 120 days of the issue date of this decision, Energy Division staff, in consultation with the News and Outreach Office, will notice a copy of the draft information packet to the R.14-02-007 service list.
- Within 150 days of the issue date of this decision, Energy Division will host a workshop to solicit stakeholder comments on the draft information packet. Energy Division will notify the R.14-07-002 service list when the final information packet is posted on its website.
- Energy Division will further refine the information packet based on stakeholder feedback from the workshop. Energy Division will post a copy of the final solar information packet on the Commission's website no later than June 30, 2019.
- No later than 30 days after Commission staff post a copy of the final solar information packet on the Commission's website, the utilities shall implement any necessary configurations to their interconnection portals to require solar providers to verify customers have received both the information packet and the CSLB's Solar Disclosures Document.

The Director of Energy Division, or his/her/their designee, is authorized to adjust this schedule if necessary to ensure these steps are taken in an efficient and cost-effective manner with sufficient time for review by the Commission and stakeholders.

2.2.3. Who should provide the information packet to potential NEM customers?

The majority of commenting parties state that solar providers should provide the information packet upon first contact, i.e., the first instance in which

a solar provider or its agent interacts with a potential customer, regardless of who initiates the contact.⁴³ SEIA recommends a more passive requirement, that consumers access the information packet on the solar provider's website.⁴⁴ This suggestion assumes all customers can access a computer, despite the fact that many contacts (both initial and subsequent) to potential customers by solar providers are made by telephone or in person. Further, it places a burden on customers to access the document online, and possibly to print it out, which customers may not be able to do for a number of reasons. We find the burden of ensuring the customer receives the information packet should rest on the seller and therefore will encourage solar providers to provide a hard copy of the information packet to potential consumers upon first contact in the sales process. This is both reasonable and consistent with our objective of enabling potential customers to make informed decisions at the outset of the sales process as to whether solar makes sense for them.

Ideally, solar providers would hand out or mail the information packet at the first contact with the potential customer. Many commenters agree that receiving the information early in the process is a critical way to educate customers on how to compare and select competent contractors and understand basic solar concepts. While solar providers are encouraged to present the information packet to customers as early as possible, we find this transfer of information hard to enforce, since it is hard to verify when first contact occurs.

⁴³ See, e.g., Greenlining Opening Comments, at 7.

⁴⁴ *Comments of the Solar Energy Industries Association on the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017 (SEIA Opening Comments), at 17.

We find it more practicable to require that solar providers obtain signatures on the information packet and Solar Energy Disclosures Document before the customer enters into a contract for a PPA, lease or purchased solar system. We find that requiring the utilities to collect these signed documents as a precondition to interconnection is both reasonable and enforceable. Section 2.2.7 below contains further discussion of the verification requirement we adopt today.

We also note that the CSLB Solar Energy System Disclosure document provides for a 72 hour “cooling off” period, a standard provision in many consumer contracts. However, this period follows signature, and some customers may feel pressured to go through with the contract. To counteract such potential pressure, we note that parties recommend customers take a period ranging from 48 hours to one week prior to signature to carefully review the materials before entering into the financial commitment by signing the contract. While we understand that customers may or may not take the time to understand the materials, given their particular circumstances, we will nonetheless include in the information packet a recommendation that customers take 48 hours to review. This may help counter the “one day only” sales technique that solar providers should be discouraged from using, considering that going solar is a significant financial decision. We believe 48 hours, as suggested by Cal PA,⁴⁵ is a minimum reasonable amount of time for customers to familiarize themselves with the content in the information packet.

⁴⁵ Cal PA Opening Comments, at 6.

2.2.4. What format should the information packet be provided in?

Greenlining argues that the information packet should be available in both paper and electronic format.⁴⁶ Greenlining also makes the point that the consumer should be presented with the information packet in the same format as the information they were given in the first contact.⁴⁷ This recommendation makes sense and comports with our earlier discussion in Section 2.2.3 that solar providers should provide customers with a hard copy if the first point of contact is in person or by mail.

We note that the majority of commenting parties also state that the information packet should be available in digital format and accessible online. We agree that the information packet should be available online since the digital format is ideal for the widest possible dissemination to potential solar customers as well as for ease of updating and managing. We discuss where the online version should be posted in Section 2.2.6, below. As Greenlining notes, the electronic version of the information packet should be available in mobile-friendly format as well, considering the increasing number of people who use their phones as computers.⁴⁸

In addition to the paper and web format, Energy Division shall consider including a mobile web version in the JCAP process.

⁴⁶ Greenlining Opening Comments, at 4.

⁴⁷ *Ibid.* at 8.

⁴⁸ *Ibid.*

2.2.5. Should the information packet be made available in languages other than English? Why or why not?

The majority of commenting parties recommend the information packet be made available in both English and Spanish, at a minimum. Greenlining suggests that the information packet should be available in all languages found in the California voter guide, including English, Spanish, Chinese, Hindi, Japanese, Khmer, Korean, Tagalog, Thai, and Vietnamese.⁴⁹ If this is not cost effective, Greenlining proposes the languages set forth in Section 777(b) of the Public Utilities Code, citing to California Civil Code Section 1632 as an alternative.⁵⁰ California Civil Code 1632 provides in pertinent part: “Any person engaged in a trade or business who negotiates primarily in Spanish, Chinese, Tagalog, Vietnamese, or Korean...shall deliver to the other party to the contract, a translation of every term and condition in that contract or agreement.”⁵¹ As of the 2016 American Community Survey, these five languages continued to be the most common languages spoken (approximately 82.7 percent) among persons with limited English proficiency.⁵²

TURN argues that the Commission mandate that prospective customers be provided with translated materials in the same language the prospective customer originally received marketing information.⁵³ SCE suggests the

⁴⁹ Greenlining Opening Comments, at 5.

⁵⁰ *Ibid.* at 6.

⁵¹ See Cal. Civ. Code 1632(1)(b).

⁵² U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates, Table B16001: Language spoken at home by ability to speak English for the population 5 years and over.

⁵³ TURN Opening Comments, at 16.

information packet be translated into languages predominantly spoken in IOU territories.⁵⁴ Cal PA recommends that Energy Division consult with the Commission's Public Advisor's Office (PAO) to identify the most appropriate languages for translation.⁵⁵

We agree that the information packet should be provided in additional languages besides English to provide the consumer protection benefits to a broad number of potential solar customers, and particularly the most vulnerable LEP and low-income populations. Vulnerable populations, many of which do not speak English as their first language, are especially in need of not just reliable but also understandable information to counter unscrupulous solar providers.

The Commission is in the process of renewing its bilingual services contract. We find that the Commission's bilingual services program, working together with Energy Division, as necessary, is best situated to translate the information packet for the state's LEP solar consumers. We therefore authorize the News and Outreach Office to translate the information packet through the bilingual services contract. If the renewed contract is not compatible with the timeline in today's decision, Energy Division is authorized to find another cost-effective option for translating the information packet without delay.

We adopt, as a minimum, the recommendation that the information packet be translated into the same languages as required by California Civil Code 1632, including Spanish, Chinese, Tagalog, Vietnamese, and Korean.⁵⁶ Because these

⁵⁴ SCE Opening Comments, at 10.

⁵⁵ Cal PA Opening Comments, at 6.

⁵⁶ See, e.g., Greenlining's Opening Comments, at 5-6, discussing Section 777(b). Originating as Senate Bill (SB) 120 (Lowenthal, 2009), the bill established notice requirements for tenants where

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languages are the most common among customers with limited English proficiency, translating the information packet into these languages will provide the greatest reach. Should the Commission's bilingual services program and/or Energy Division find indication that sales pitches are being made to populations speaking other languages, especially in disadvantaged communities, they may consider translating the information packet into such additional languages. This would align with the AB 1070 requirement that the CSLB's Solar Energy Disclosures Document be written in the same language that was originally used in the sales presentation and marketing material.⁵⁷

In comments to the proposed decision, consistent with its recommendation that we include persons with disabilities in our consideration of 'vulnerable communities', CLICC states "it would be helpful if an audio recording of the information packet (including translated versions in languages identical to those required for the written packet) were made available to visually-impaired customers, accessible via the Internet and through a toll-free number."⁵⁸ We agree and consider an audio recorded information packet to be useful in outreach to other audiences as well. We authorize Commission staff to, at minimum, record an audio version of the solar information packet in English for posting to the CPUC website and social media. We will also authorize Commission staff to investigate the feasibility of offering audio recordings in

the owner is the utility customer of record and falls into arrears. Greenlining points out and we agree that SB 120 is a useful reference for determining how to protect LEP customers.

⁵⁷ See also, Cal. Bus. and Prof. Code Section 7169 and SCE Opening Comments, at 10.

⁵⁸ CLICC Opening Comments on Proposed Decision, at 3.

non-English languages and creating a toll-free number for consumers to access the audio recordings.

2.2.6. Where should the information packet be disseminated and by whom?

All parties generally agree that the information packet should be disseminated with the broadest reach possible: via CPUC and CSLB websites as well as other investor-owned utility, government, trade association, solar vendors' and nonprofit organizations' websites.⁵⁹ As discussed in Section 2.2.3, solar providers are responsible for making the information packet available to their potential customers prior to entering into a sales transaction. This section discusses other means for disseminating the information packet.

We find the information packet should be posted on the Commission's website, as well as websites of the CSLB, utilities/community choice aggregators, CALSSA, solar providers, local governments, and CPUC program websites such as the Solar on Multifamily Affordable Housing (SOMAH) website. In addition, Energy Division should consider making the information packet available in mobile-friendly format as well, in light of the increasing number of people who use their phones as computers, as noted by Greenlining.⁶⁰

However, as previously discussed, we encourage solar providers to give the potential customer a hard copy of the information packet early in the sales process, where the contact is made in person or by telephone, since many customers, especially vulnerable customers such as elderly persons, do not

⁵⁹ For example, Cal PA recommends that the information packet should be widely available to customers on utility websites, GoSolarCalifornia website, solar vendors and governmental websites including this Commission. Cal PA Opening Comments, at 4.

⁶⁰ Greenlining Opening Comments, at 4.

always have digital access. Finally, Energy Division may recommend that digital copies of the information packet (in various translations) be provided to community-based organizations (CBOs) that are part of its community outreach program on time-of-use rates.

In addition, CBOs working with the Community Help and Awareness with Natural Gas and Electricity Services (CHANGES) should be involved. CHANGES supports California's LEP consumers with the energy services they receive, by providing outreach, consumer education, needs assistance, and complaint resolution (between the consumer and its investor-owned utility) to LEP consumers in their primary language. The program started as a pilot in February 2011 and was permanently authorized by the Commission as an ongoing program in D.15-12-047. The CHANGES program was developed and is monitored by the Commission's PAO which is part of the News & Outreach Office in the Executive Division of the Commission. The program is operated on a day-to day basis by a third-party nonprofit organization, which was selected via a competitive bidding process in 2016. The Commission's News and Outreach Office should also notify its stakeholder contact lists, including CBOs, of the availability of the information packet and provide hard copies as appropriate.

Finally, to ensure access to this information at a critical early touchpoint in the process of going solar, we will also require the utilities to provide the information packet to customers when those customers authorize the utility to share their energy usage information with a solar provider. We will require the utilities to take this action immediately after the Commission posts the final information packet to its website; this requirement will apply going forward, that is, we will not require the utilities to notify customers who authorized third

party access prior to the completion of the information packet. Currently a customer may authorize third party access to their energy usage data either via the utilities' online account management systems, or via a telephone call among the customer, a utility customer service representative, and the third party.⁶¹ In comments to the proposed decision, the electric utilities request clarification of this requirement, stating it is not feasible to identify every instance in which customers share usage data with solar vendors and reach out to those customers with consumer information. SCE and SDG&E indicate that requiring an automated email notification when a customer authorizes third party access to their energy usage data via Green Button Connect is more feasible and readily implementable. Resolution E-4868, issued August 25, 2017, requires the utilities to send an automatically generated notification after customer authorization is completed. We agree with SCE's recommendation and have modified this requirement to specify that utilities must notify customers about the information packet when customers authorize access to their energy usage data via Green Button Connect, and may do so via the same automated notification required by Resolution E-4868. To the extent that solar consumer protection information reaches customers who were authorizing data for other reasons, we see no harm in this, and the utilities should frame the information to minimize confusion in those instances. Utility customer service representatives should notify customers of the information packet when the customer telephones to authorize third party access to the customer's data, and should either provide a web address or

⁶¹ In comments to the proposed decision, SCE states it does not currently permit customers to authorize data sharing via telephone. See *Opening Comments of Southern California Edison Company (U 338-E) on Proposed Decision Adopting Net Energy Metering Consumer Protection Measures Including Solar Information Packet*, filed September 13, 2018, at 7.

accessible mobile format for accessing the information packet or send a copy via the customer's specified preference (e.g., mail or e-mail). The utilities should also take this opportunity to make customers aware of potential eligibility for low-income solar programs. We will require the utilities to submit a Tier 1 advice letter to present drafts of the automated notification and telephone script, as applicable, that the utilities would provide to customers who authorize access to their energy usage data via Green Button Connect or telephonically. The automated notification and telephone script should be drafted to minimize customer confusion in cases where customers may be authorizing access to their energy usage data for energy efficiency, demand response or other purposes. These Tier 1 advice letters will be due 30 days after the issue date of today's decision.

2.2.7. What verification process is appropriate to ensure customers have received the information packet prior to interconnection?

Parties were asked to comment on whether receipt of the information packet by a solar customer should be verified, as well as what that verification process should be. PG&E, CSE, TURN, SDG&E, SCE, and CALSSA argue that the solar provider should be responsible for verification. SCE, Cal PA, PG&E, and Greenlining recommend that solar vendors obtain the signature verifying the customer received the information packet before the customer signs the contract for solar lease or sale and submits it to the utility as part of the interconnection process. The process would include an attestation from the solar provider that the customer signed the document, which should be included in the NEM interconnection portal application process. To enforce this requirement, CEU recommends that the utilities conduct periodic reviews to

ensure compliance, and Greenlining suggests that it is conceivable for the Commission to spot-audit the utilities' records.⁶²

As to what the customer verification itself should entail, TURN argues that it should indicate receipt by the customer and signature.⁶³ Cal PA argues that there should be a signed form from the customer acknowledging he or she has received and read the information packet. Cal PA states that "if this customer acknowledgement is not submitted with the initial application, the utility should deem the application incomplete and notify the customer and vendor that the customer acknowledgement must be completed."⁶⁴ Cal PA notes that no other customer verification is practical or necessary.⁶⁵ SCE states, "submission of a signed customer attestation should be a mandatory element of customers' NEM applications."⁶⁶

On the other hand, SDG&E argues that IOUs should not be required to track or verify receipt of the information packet by customers, contending that utilities neither regulate contracts with solar parties nor should utilities be required to verify that the customer reviewed the information.⁶⁷ Finally, SEIA notes that no verification requirement can ensure that customers actually use the information.⁶⁸

⁶² Greenlining Opening Comments, at 8.

⁶³ TURN Opening Comments, at 21.

⁶⁴ Cal PA Opening Comments, at 7.

⁶⁵ *Ibid.*

⁶⁶ SCE Opening Comments, at 9.

⁶⁷ SDG&E Opening Comments, at 16.

⁶⁸ SEIA Opening Comments, at 20.

We agree with parties asserting that solar providers should provide copies of signed documents attesting that the customer has read and received the information packet as a mandatory element of the NEM application process and a condition of interconnection with an investor-owned utility's distribution system. Solar providers should upload this information as part of the application process in the interconnection portal. The information should include the signature pages of both the information packet and Solar Energy Disclosures Document, which will serve as verification that the customer has received and read these documents before entering into a solar contract or sale. This customer verification is a critical element of the consumer protection measures we adopt today.

As a next step, we direct PG&E, SCE, and SDG&E to require solar providers, in the interconnection portal, to upload signed signature pages prior to interconnecting a customer's system to verify customers have received both the information packet and the CSLB's Solar Energy Disclosures Document. The utilities are not required to manually review uploaded documents as part of the interconnection application review process, but are directed to track and store these documents as part of the customer's interconnection information, so that these documents can be reviewed for compliance by Commission staff and by the utilities during spot audits.

In comments to the proposed decision, CALSSA and SEIA express uncertainty about how this requirement would apply to California's solar panel requirement for all new home construction beginning January 1, 2020, and point out that AB 1070 does not require provision of the solar disclosures document for agreements involving a new home build. We agree it is reasonable to exempt

interconnection applications involving new home construction from the information packet and solar disclosures document requirement.

Separately, CLICC recommends we require “wet”, i.e., handwritten, signatures on the signature page of the information packet, noting that unscrupulous vendors use tablets to mislead customers into signing documents other than those the customers intend to sign. In reply comments, CALSSA/SEIA suggest we should not adopt this requirement, with reference to the E-SIGN Act, stating the E-SIGN Act “provides that electronic signatures and records satisfy any record or signature requirements.”⁶⁹ The E-SIGN Act, however, concerns interstate and foreign transactions, and further requires customer consent in order to legitimate the exclusive use of electronic records or documents. We agree with CLICC’s suggestion and see no conflict with the E-SIGN Act. We will require a wet signature for customers’ attestation of having received and read the information packet.

We note that the utility interconnection portal is the best venue to track compliance, since every solar installation connecting to an investor-owned utility’s distribution system must be submitted for interconnection. Therefore, to ensure compliance with these new activities, we authorize the Commission’s Utility Audit, Finance and Compliance Branch (UAFCB), or an alternate third-party auditor engaged by the Commission,⁷⁰ to audit the utilities’

⁶⁹ Reply Comments of the California Solar & Storage Association and the Solar Energy Industries Association on the Proposed Decision Adopting Net Energy Metering Consumer Protection Measures Including Solar Information Packet, filed September 18, 2018, at 4, referencing the Electronic Signatures in Global and National Commerce Act (ESIGN, [Pub.L. 106-229](#), 114 [Stat. 464](#), enacted June 30, 2000, [15 U.S.C. ch. 96](#)).

⁷⁰ The Commission has prior experience engaging third party auditors, namely the State Controller’s Office, to review ratepayer funded programs. See the State Controller’s Office

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interconnection databases and documentation retention systems and processes. We also direct the utilities to perform spot audits of customer verification. Such audits should be performed at least semi-annually, involve at least 100 interconnection applications, and at minimum, (1) confirm whether a solar provider has a valid CSLB license and entered that license number for its interconnection application, and (2) verify that the customer had signed forms attesting that the customer received and read the information packet and Solar Energy Disclosure Document prior to signing a contract or agreement with the solar provider. Further, the utilities are directed to provide their findings to CSLB to support its enforcement and disciplinary actions against contractors that operate without a valid license or fail to ensure customer verification.⁷¹ This sharing of information is crucial to bolstering the enforcement power of the requirements we adopt in this decision.

2.3. Requirement for a valid CSLB license.

An important consumer protection for rooftop solar customers is to require that solar providers have a valid CSLB license and hold the appropriate license classification, since solar providers must comply with CSLB rules and regulations in order to maintain a valid CSLB license.⁷² The Contractors State

Limited Review Report "Energy Efficiency Program Review" available here https://www.energydataweb.com/cpucFiles/pdaDocs/1791/SCORReport_WithCPUC-EDCoverletter.pdf

⁷¹ We note that a drawback to this process is that the Commission cannot enforce compliance via the interconnection portals within publicly owned utilities' (POU) territory, and thus another mechanism must be found for POU territories, since AB 1070 requires the Solar Energy System Disclosure document to be distributed statewide.

⁷² Pursuant to Resolution E-4760, the utilities are required to collect and submit CSLB numbers for all NEM interconnection applications to the California Solar Statistics contractor.

License Law includes important provisions both for the work quality of any home improvement project, and against fraudulent business practices by licensees and applicants.⁷³ We note that CALSSA's comments highlighted this consumer protection, arguing that only licensed contractors should be allowed to do business in California.⁷⁴ This is a basic consumer protection element that we strengthen today by requiring utilities to ensure in the interconnection portal that only solar providers with valid CSLB licenses interconnect NEM-eligible systems.

Resolution E-4760, issued on March 17, 2016, requires the utilities to collect the CSLB license number from NEM applicants and provide this information to the consultant operating the California Solar Statistic (CSS) website. The Resolution directs the IOUs to add the CSLB number to the fields collected from NEM interconnection applications. The IOUs must then include CSLB numbers in their regular data submissions to the CSS contractor, who includes the CSLB number in the published NEM data. To comply with Resolution E-4760, PG&E, SCE, and SDG&E all currently ask for residential contractors with CSLB licenses to enter their license information in their respective interconnection portals.⁷⁵ However, while filling in the CSLB license field is a condition of interconnection for most systems, there are no methods in place to ensure the validity of the license numbers entered.

⁷³ See Cal. Bus. and Prof. Code Section 7109 and 7161, respectively.

⁷⁴ CALSSA Opening Comments, at 8.

⁷⁵ *Reply Comments of the California Solar Energy Industries Association on the Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed February 9, 2017, at 2, state that in applying for interconnection, all contractors must submit valid CSLB numbers.

Today, we take that further step to protect solar consumers. We direct the IOUs to work with Energy Division and CSLB to ensure that only solar providers that enter or select valid CSLB licenses are authorized to install solar energy systems that interconnect with utility-owned distribution systems. In cases in which a tax equity investor is also listed on the interconnection application, the licensed contractor's CSLB license number will suffice. The goal is to create a mechanism whereby a solar provider will not be allowed or able to participate in the utilities' NEM interconnection process if the CSLB has suspended or revoked that provider's license. Or, in instances where a solar provider has not registered with the CSLB and obtained a bond and a license, that unlicensed provider will not be allowed to participate in the utilities' NEM interconnection process.

In the past, there have been reports of interconnection applicants entering false numbers or a different contractor's number into the license field without consequence. To increase the likelihood that valid CSLB numbers are being entered into the IOUs' interconnection portals, we order the utilities to work with Energy Division and the CSLB to improve the process for collecting CSLB licenses. The IOUs shall create a field in the interconnection portal that requires any applicant that is not a self-installer to select a valid CSLB license number from an auto-populated dropdown menu, which will be updated on a regular basis by the CSLB, insofar as it is technologically feasible. A mock-up example is included in Appendix B, which is based on SCE's interconnection portal format. The portal will ask applicants for additional information (such as a name or address) to cross-reference with the license number to ensure the applicant is providing a valid license. Because the system will automatically verify the CSLB license, IOU staff will not need to manually verify the CSLB license during the

interconnection process. The IOUs shall work with the Energy Division and CSLB to implement this feature in their systems.

Our goal here is not to slow down the interconnection process, and we do not expect that to be a consequence of this protection. Our understanding is that the CSLB and IOUs have the technical ability to create this modern digital feature in their interconnection portals. This strengthened requirement is intended to protect solar consumers by using our authority over the utilities and their interconnection portals to create real-time methods for ensuring that only solar providers with valid CSLB licenses are installing and interconnecting solar systems for customers.

The interconnection portals will still have a separate field for self-installers, i.e., homeowners who install solar systems on their own homes without licenses.⁷⁶ Commission staff (Energy Division and/or Consumer Protection and Enforcement Division) will monitor available datasets to see if the rate of applicants selecting the self-installer field increases, which could indicate that unlicensed solar providers are selecting the self-installer option to avoid entering a valid CSLB number. If the data warrants review, Commission staff is authorized to work with the IOUs to further investigate this issue to close this potential loophole.

⁷⁶ Cal. Bus. and Prof. Code Section 7044 provides an exemption to the contractor's license requirement. It provides that the Contractor's State License Law does not apply to a property owner who improves a structure on his or her property as long as the improvements are not intended for sale and the property owner does all the work alone or does it with his/her bona fide employees. A solar system would be considered an improvement to a structure for the purposes of Section 7044. See http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=BPC§ionNum=7044.

Finally, the utilities are directed to inform the solar provider in the interconnection portal that they may be audited for compliance either by the utility or the Commission.

2.4. Other consumer protection measures

Many parties agree there should be a method for estimating solar generation bill savings. Currently, there are no standardized tools to estimate economic savings and to effectively compare installation bids. Further, varying assumptions used by solar providers regarding time-of-use rates and future rate escalation depend on many factors, which can result in misleading information provided to customers. Many commenters on the December 8, 2016 Ruling urged the Commission to create a standardized approach for solar providers to estimate bill savings.

Since comments were submitted in early 2017, AB 1070 has been signed into law, requiring the Commission to develop “standardized inputs and assumptions” for bill savings.⁷⁷ The Commission intends to issue a Request for Proposal for a firm to develop standardized inputs and assumptions to put on the Commission’s website by July 1, 2019, pursuant to AB 1070. With regard to the bill savings issue, the standardized assumptions and inputs website that AB 1070 directs the Commission to develop by mid-2019 should help manage expectations around bill savings. This website will allow customers to confirm whether solar providers are using reasonable assumptions in their bill savings estimates. It will also help the solar industry incorporate reasonable parameters

⁷⁷ Separately, AB 1070 provides that CSLB may include in its disclosure document a “calculator that calculates performance of solar projects to provide solar customers the solar power system’s projected output, which may include a performance-based buydown calculator.” Cal. Bus. and Prof. Code Section 7169(c)(12).

into their calculations since the standardized assumptions and inputs will be updated by Energy Division based on the most recent Commission ratemaking decisions.

We anticipate that both the CSLB Solar Energy Disclosures Document and the Commission's solar information packet will refer customers to the standardized inputs and assumptions on the CPUC website, further empowering potential customers to make the best individual decision regarding going solar. The information packet will also help reduce customer confusion by defining net energy metering concepts such as time-of-use rates and rate escalation. These documents, together with the standardized inputs and assumptions to be developed and published on the CPUC website, will encourage customers to seek multiple solar bids, check bill savings assumptions, compare solar providers and ask the right questions for their particular situation before becoming a solar customer-generator.

In addition, as a deterrence measure against unfair contract terms or conditions, we will direct the utilities to collect the contracts for PPAs, leases, or customer-owned systems being interconnected, from solar providers in the interconnection portal. In comments to the proposed decision, Vote Solar notes "[w]hile the collection of these contracts will require administrative resources, this effort would send an important signal to potential bad actors that state government is watching out for solar consumers."⁷⁸ We agree, and this is a key reason we establish this requirement. The contracts will also help inform the Commission about current trends in solar financing, projected costs and savings,

⁷⁸ *Comments of Vote Solar on the Proposed Decision Adopting Net Energy Metering Consumer Protection Measures*, filed September 13, 2018, at 3.

and consumer protections as it embarks on the upcoming NEM revisit rulemaking in 2019 and conducts a lookback evaluation of the NEM successor tariff. The utilities shall forward contracts to Energy Division upon request. The utilities may not utilize any information included in the collected contracts for any purpose other than a purpose expressly authorized by the Commission's Executive Director or his/her/their designee.

In response to the December 8, 2016 Ruling, Cal PA and Greenlining recommend the Commission fund a centralized clearinghouse for customer questions about solar with a consumer hotline.⁷⁹ While we find some merit in this idea, we do not see a clear need or cost justification at this time for a centralized clearinghouse in addition to the information packet, the CSLB Solar Energy System Disclosure document, and the standardized assumptions and inputs for helping customers estimate solar savings. In Section 2.6, below, we discuss a possible Memorandum of Understanding with other state agencies to coordinate resources and responses to the need for consumer protections for solar customers. The consumer hotline is an idea that may make sense to explore in concert with other state agencies.

2.5. Cost Recovery for Consumer Protection Measures

In comments to the proposed decision, the electric utilities express a need to recover costs associated with modifying their interconnection portals to (1) enable uploading of the signed solar disclosures document and the signed information packet page; (2) implement automated updating of valid CSLB license numbers in their interconnection portals; and (3) collect contracts and

⁷⁹ Greenlining Opening Comments, at 10-11; Cal PA Opening Comments, at 10-11.

periodically transfer them to Energy Division. SDG&E notes that D.16-01-044 directed each of the electric utilities to establish an interconnection fee, based on actual costs recorded in advice letters submitted pursuant to D.14-05-033 and Resolution E-4610. D.16-01-044 restricted the types of costs to be recorded to “Net Energy Metering Processing and Administrative Costs, Distribution Engineering Costs, and Metering Installation/Inspection and Commissioning Costs.”⁸⁰ SDG&E states it “believes the implementation and ongoing administration costs of the [proposed decision]’s consumer protection provisions as part of the interconnection application process fall squarely within the definition of NEM Application and Administration Costs...SDG&E will track the appropriate costs and, as described [in D.16-01-044, at 88], prepare a new fee calculation and submit an advice letter seeking an updated interconnection fee.” We affirm SDG&E’s proposal for treatment and proposed recovery of costs associated with the consumer protection measures we adopt in this decision. We note that we are not directing a periodic transfer of all contracts to Energy Division, so no costs are authorized for that purpose.

2.6. What measurement and evaluation requirements should be put in place for consumer protection measures?

The Ruling asked what measurement and evaluation requirements should be put in place for consumer protection measures. A majority of parties suggested that the Commission track and maintain data on consumer complaints related to solar. We also note Vote Solar proposed that a number of agencies who receive solar consumer complaints could collectively release a yearly

⁸⁰ D.16-01-044, Ordering Paragraph 2.

report.⁸¹ As TURN notes, compiling all consumer complaints into one report will make the report a more useful and effective resource.⁸² We agree that the comprehensive collection of data on solar issues by involved agencies could be improved and will work with other state agencies to make the collective agency report detailing complaints about solar providers a reality.

As a first step, by this decision, we order the utilities to propose within 90 days of the issue date of this decision, via a joint Tier 2 advice letter, a uniform methodology to categorize and quantify solar complaints the utilities receive from customers on a quarterly basis. Specifically, we require one of the categories to be complaints related to third party solar providers, broken down into types of complaints.⁸³ We expect the collection of data on solar complaints across the utilities, Consumer Affairs Branch (CAB), and the CHANGES Program, as allowed under the existing contract, to be as standardized as possible. We will authorize Commission staff to develop a protocol for data collection and categorization.

After Energy Division disposes of the joint Tier 2 advice letter, the utilities will be expected to submit quarterly information-only advice letters to the Energy Division documenting these solar complaint trends. We authorize changes to the frequency and composition of the IOUs' informational filings through a letter from the Director of the Commission's Energy Division, or his/her/their designee.

⁸¹ Vote Solar Opening Comments, at 11.

⁸² TURN Reply Comments, at 9.

⁸³ SCE is already tracking solar contractor complaint incidents, as demonstrated in Attachment A of SCE Opening Comments.

At this time, we also direct the CHANGES third-party nonprofit administrator to collect and report data on solar complaints in its annual reports (required by D.15-12-047) in a form that is as close to this uniform format as is practicable based on its permissible collection and reporting procedures. The Commission, via CAB and Energy Division, will also streamline the process for forwarding solar complaints related to third party providers to the CSLB. This will allow the CSLB to investigate individual complaints as appropriate and ensure these complaints are captured in its new annual report required by AB 1070. And, while we do not have direct authority over solar trade groups such as CALSSA and SEIA, we strongly encourage them to provide complaints received relating to solar providers to the CSLB if they do not already do so.

Standardized data collection will facilitate future efforts to understand and further assess consumer protection issues in the rooftop solar market. As noted above, the Commission has also started to explore working together with other agencies to establish information-sharing guidelines, roles and responsibilities, potential gaps in enforcement authority, and investigation and enforcement procedures regarding third party solar providers. As CMUA recommends, a next step is outreach to identify other applicable state agencies that should or already do play a role in addressing consumer protection issues and to possibly hold a series of Joint Agency Workshops.⁸⁴ One possibility available is to explore entering into a memorandum of understanding (MOU) with one or more agencies. We intend to continue discussions with other agencies about interagency coordination and clarification of roles via the MOU process. For

⁸⁴ *Comments of the California Municipal Utilities Association on Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues*, filed January 24, 2017, at 5.

example, as mentioned above, standardized reporting of solar customer complaints could be an issue for interagency coordination.⁸⁵ This is a topic we intend to take up with other agencies in discussing an MOU.

In comments to the proposed decision, CLICC recommends we explore the creation of a complaint database shared with the CSLB, Department of Business Oversight, California Department of Justice, and local law enforcement authorities, modeled on the Federal Trade Commission's Consumer Sentinel Network. We will authorize staff to investigate this type of complaint clearinghouse as part of the process for standardizing complaints across agencies.

Beyond measuring customer complaints, we take this opportunity to provide for evaluation of the broader NEM successor tariff program codified in Public Utilities Code Section 2827.1. An important element of consumer and ratepayer protection is the provision of a formal and independent lookback evaluation of the program, which analyzes the costs and benefits of distributed generation taking service on the NEM successor tariff. In anticipation of the NEM revisit being considered in 2019, the December 8, 2016 Ruling asked questions about what type of measurement and evaluation and marketing and outreach efforts could help inform any changes to the NEM successor tariff program. Parties suggested various pathways to measure the growth of distributed generation on NEM, including analysis of adoption rates, bill savings, and demographic attributes of NEM customers — including income level and ethnicity.

⁸⁵ See, e.g., Vote Solar Opening Comments, at 11.

Impact and process evaluations as well as market transformation and characterization studies are vehicles that may be appropriate for this type of inquiry and provide the necessary independent analysis to inform the Commission on successes and limitations of the current NEM tariff. While we do not direct the specific research questions or research methodology here, we will authorize a budget of up to \$2 million co-funded from the large electric IOUs' public purpose program surcharges, to be set aside for measurement and evaluation of the NEM successor tariff.

Energy Division is authorized to select an independent evaluation consultant through a request for proposal (RFP) process managed by SDG&E on behalf of the Commission for this evaluation work. Energy Division staff will draft the RFP and make the final decision on the winning bidder. Key aspects of the evaluation, including the draft research plan developed by the selected consultant, will be distributed to this proceeding service list for public review and comment. Stakeholder input will be considered and acted on, where warranted. In coordination with Energy Division, the winning consultant will host a public workshop or webinar to allow stakeholders and interested parties to comment and provide input on the study.

Within 90 days after the effective date of the contract or agreement with the selected consultant, SDG&E shall submit a Tier 2 advice letter detailing key aspects of the evaluation, including the draft research plan developed by the selected consultant, and serve the advice letter on this proceeding's service list for public review and comment. Subsequently, the selected consultant for measurement and evaluation of the NEM successor tariff shall coordinate with Energy Division to host a public workshop or webinar to allow stakeholders and interested parties to comment and provide input on the study. The

Commission's Energy Division Director or his/her /their designee will approve a final research plan by letter.

3. Conclusion

The protections established in this decision are significant improvements that have the potential to transform the customer experience with rooftop solar and reduce consumer protection concerns in the future. Since by nature these are future-oriented improvements, they cannot correct or resolve violations that have already occurred, nor do these improvements fully mobilize resources and authority of this Commission and other agencies to resolve issues that have already transpired. A potential MOU and targeted coordination with other relevant agencies, as discussed in this decision, could help build upon the protections advanced here and also better address solar customer complaints for continuing abuses, which may include persistent robocalls, predatory lending practices, and misleading information about bill credits and charges under different purchase and lease arrangements. We will also continue considering ways to address existing and future NEM consumer protection issues such as establishment of an independent consumer advocate, complaint mediation, enhanced enforcement, citation, or administrative penalty mechanisms under our authority, in the remaining phase of this proceeding or its successor proceeding.

4. Comments on Proposed Decision

The proposed decision of Commissioner Guzman Aceves in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on September 13, 2018 by California Low-Income Consumer Coalition (CLICC), PG&E, TURN, SCE,

SDG&E, Greenlining, GRID, Vote Solar, CSE and CALSSA/SEIA, and reply comments were filed on September 18, 2018 by CLICC, PG&E, SDG&E, CALSSA/SEIA and SCE.

Most parties either oppose or express concerns with our determination to require the utilities to collect solar contracts/agreements, identifying potential data breaches, privacy concerns and competition issues with this requirement, as specified in the proposed decision. In light of these concerns, we have modified Section 2.4 to specify that the utilities should not transmit contracts/agreements to Energy Division periodically but only upon request. As with all confidential and private information the utilities must protect, the utilities must also take any necessary actions to safeguard consumer privacy with respect to collecting and maintaining solar contracts and agreements. Finally, we make clear that the utilities may not utilize solar contracts/agreements for any purpose not explicitly authorized by the Commission's Executive Director or his/her/their designee. We have made other revisions to the proposed decision based on parties' comments, as noted throughout this decision and in Appendix A.

5. Assignment of Proceeding

Commissioner Martha Guzman Aceves is the assigned Commissioner and Mary McKenzie and Valerie U. Kao are the assigned ALJs in this proceeding.

Findings of Fact

1. D.16-01-044 directed Energy Division staff to work with parties to develop an information packet for utility customers considering installing rooftop solar.
2. As a first step in considering consumer protection measures directed by D.16-01-044, Energy Division staff held a workshop on October 20, 2016 to identify consumer protection issues that NEM customers have encountered.

3. Following the workshop, on December 8, 2016 an Administrative Law Judge's Ruling Seeking Comment on Consumer Protection and Related Issues (December 8, 2016 Ruling or Ruling) issued, requesting comments on consumer protection issues.

4. Parties filed opening comments on January 24, 2017 and reply comments on February 9, 2017.

5. There was widespread consensus on the need for an information packet.

6. No party opposed the idea of an information packet.

7. Parties commented on what issues should be covered by the information packet, who should prepare it, who should provide it to potential customers, what format should the information packet be provided in, what languages should it be translated into, where it should be disseminated to and by whom, and what should the verification process be.

8. AB 1070, enacted in 2017, requires several consumer protection measures including a Solar Energy System Disclosures Document (Solar Disclosures Document) for solar customers to be developed by the Contractors State License Board, and standardized inputs and assumptions for bill savings calculations to be developed by the Commission.

9. The Solar Energy Disclosures Document, the information packet and the standardized inputs and assumptions to be developed by the Commission in 2019 may reduce or eliminate the need for an independent consumer advocate.

10. Appendix A details the information that is useful and important for potential consumers of solar rooftop when they are considering whether to purchase, lease a system, or enter a PPA and take service under a NEM tariff.

11. Information about low income programs and the dangers of predatory lending also merits inclusion in the consumer information packet.

12. By gearing the information packet to the needs of customers in vulnerable communities, all customers will benefit.

13. The information packet, while geared toward residential IOU customers, should provide useful information for both nonresidential and POU customers as well.

14. The solar information packet should be in a consumer-friendly format and should be consistent with the Commission's other demand-side program messaging.

15. The development of a solar information packet to protect consumers is discussed in the current Five-Year Roadmap for EUC. Stakeholders in this proceeding may wish to consider seeking inclusion of the task of finalizing the information packet in the next EUC Joint Consumer Action Plan.

16. The Commission will have standardized assumptions and inputs on its website that will help customers compare bill savings estimates by July 1, 2019.

17. By developing an information packet that is connected to the EUC program by the same look, feel, and content, potential solar customers are more likely to learn about complementary demand-side management programs.

18. The information packet will be most useful when a solar provider mails or provides a copy of it during the first contact with the potential customer.

19. It is reasonable to require verification that a customer has received and read the information packet before their system is approved for interconnection with the utility's distribution system. Before a customer-generator's system is interconnected, utilities should require that solar providers upload signature sheets from both the information packet and Solar Disclosures Document, attesting that customers have received and read these documents.

20. The information packet should include a recommendation that the customer take at least 48 hours to review.

21. The information packet should be available in a variety of formats to make it as user-friendly as possible.

22. The information packet should be provided in additional languages to ensure consumer protection benefits to a broad number of potential solar customers in the most vulnerable LEP, senior and low-income populations.

23. The Commission's bilingual service program, working together with Energy Division, as necessary, is best situated to translate the information packet for customers with limited English proficiency.

24. California Civil Code Section 1632 finds that, among consumers with limited English proficiency, the five most common languages are Spanish, Chinese, Tagalog, Vietnamese, and Korean. California Civil Code Section 1632 requires marketers who negotiate in these languages to provide a copy of the contract or agreement in the same language in which they negotiated.

25. Solar providers who market or negotiate primarily in Spanish, Chinese, Tagalog, Vietnamese, and Korean should provide the information packet to consumers in the same language as the language in which they initially contact consumers.

26. Other consumer protection ideas, such as an independent consumer advocate and a centralized clearinghouse for complaints and a consumer hotline, were not unanimously supported and are not adopted today.

27. Resolution E-4760 requires the utilities to add the CSLB license as a field in their interconnection portals.

28. While utilities collect the solar provider's CSLB number in the field provided for the NEM interconnection applications, there is no method currently to ensure validity of CSLB license numbers.

29. Ensuring that solar providers have a valid CSLB license is an important consumer protection measure because solar providers must comply with CSLB rules and regulations, including prohibitions on fraudulent business practices, in order to maintain a valid CSLB license.

30. The utilities should work with Energy Division and CSLB to ensure that solar providers without a valid CSLB license in the appropriate license classification are not allowed to participate in the utilities' interconnection portals and NEM interconnection application process.

31. Adopting an information packet, a verification process to ensure customers have received and read both the information packet and the Solar Disclosures Document, requiring the utilities to ensure that solar providers applying for interconnection under NEM have valid CSLB licenses, and requiring utilities to collect solar contracts and submit them to Energy Division upon request are reasonable steps to take at present for customer protection.

32. Multiple different entities, including the utilities and other state agencies, receive solar consumer complaints.

33. The comprehensive collection of data on solar complaints should be improved.

34. Additional consumer protections within the Commission's authority, beyond those adopted in this decision, may be warranted.

35. In response to AB 1070, the CSLB posted a one-page disclosure document in English and Spanish to its website on June 29, 2018 and received authority

from its Board to commence stakeholder meetings to draft the second portion of the disclosure document.

36. Resolution M-4836 endorsing the CSLB disclosure document is on the Commission voting agenda for August 23, 2018.

37. The utility interconnection portals could be modified similar to Appendix B to reduce the risk of unlicensed solar providers giving false license information.

38. Costs associated with the consumer protection measures adopted in this decision, to the extent they are incurred, are Net Energy Metering Processing and Administrative Costs as identified in and pursuant to D.16-01-044.

Conclusions of Law

1. While AB 1070 contains important new consumer protections, mooted several questions in the December 8, 2016 Ruling, much of the record on the information packet provided by parties' comments in early 2017 remains relevant and provides the basis for today's decision.

2. It is reasonable to require that the information packet be translated into the same languages as required by California Civil Code Section 1632, including Spanish, Chinese, Tagalog, Vietnamese, and Korean. If the bilingual services program or Energy Division finds evidence that sales pitches are being made to populations speaking other languages, especially in disadvantaged communities, they may consider broadening this requirement to include such languages.

3. It is reasonable to authorize Energy Division, in consultation with the News and Outreach Office, to lead the process for designing and developing the information packet, with input from stakeholders.

4. Today's decision discusses and adopts key elements for the information packet in Appendix A, and provides a process for Energy Division to solicit

stakeholder input into further design and development of the information packet, including consideration of developing the information packet into a consumer-friendly resource that is aligned with the Commission's statewide ME&O platform.

5. It is reasonable to direct the utilities to require that solar providers verify that customers have received and read both the information packet developed by the Commission and the solar disclosures document developed by the CSLB and approved by the Commission prior to signing the solar rooftop contract or agreement. It is reasonable to exempt interconnection applications involving new home construction from this requirement.

6. It is reasonable to require that only solar providers with valid CSLB licenses in the appropriate license classification are authorized to install solar energy systems that interconnect with investor-owned utility distribution systems.

7. It is reasonable to require utilities to ensure that only solar providers with valid CSLB licenses in the appropriate license classification are allowed to interconnect NEM-eligible systems with the utilities' distribution systems.

8. It is reasonable to require the utilities to conduct spot audits of customer verification and the valid CSLB license requirements adopted today.

9. Adopting an information packet for solar customers, a verification process to ensure customers have received and read both the information packet and the Solar Disclosures Document, and the requirement that solar providers applying for interconnection have valid CSLB licenses in the appropriate license classification are within this Commission's authority over utilities and their interconnection portals.

10. It is reasonable to require the utilities to collect the installation contracts/agreements for PPAs, leases, or customer-owned systems in the interconnection portal and to transmit them to Energy Division upon request.

11. It is reasonable to require the utilities to provide notification of the information packet to customers when those customers elect to share their energy usage information with an energy service provider either via Green Button Connect or telephonically. The utilities should email a copy or link of the information packet to customers who authorize third party access to an energy service provider via Green Button Connect. Utility customer service representatives should notify customers of the information packet when they authorize third party access to an energy service provider via telephone, and either provide a web address or other means for accessing the information packet or send a copy via the customer's specified preference (e.g., mail or email). The utilities should also take this opportunity to make customers aware of potential eligibility for low-income solar programs.

12. It is reasonable for the electric utilities to seek recovery for costs incurred to implement the consumer protection measures adopted in this decision, pursuant to the process described in Section 2.14.1.1 of D.16-01-044.

13. This proceeding should be kept open for considering additional consumer protections and our enforcement authority over solar providers.

14. The utility interconnection portals should be modified similar to Appendix B to reduce the risk of unlicensed solar providers giving invalid or false license information.

O R D E R

IT IS ORDERED that:

1. The elements set forth in Appendix A of this decision, shall form the basis of the solar information packet to be developed pursuant to this decision. Energy Division shall be responsible for further development and refinement of the information packet, and shall work with stakeholders and other Commission Divisions and programs, as appropriate, using the process set forth in this decision.

2. Energy Division shall manage the process for developing and designing the solar information packet pursuant to Section 2.2 of this decision.

3. No later than 30 days after Commission staff post a copy of the final solar information packet on the Commission's website, Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company (together, the utilities) shall reconfigure their interconnection portals to require solar providers to upload signed, in handwriting, signature pages stating that customers have received both the Commission's solar consumer information packet and the Contractors State License Board's Solar Disclosures Document, prior to interconnecting a customer's system. The utilities are further

directed to track and store these documents, as part of customers' interconnection information, and provide these documents to the Commission. Interconnection applications for new home construction are exempt from the requirement to provide verification that customers have received the Commission's solar consumer information packet and the Contractors State License Board's Solar Disclosures Document.

4. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall work with the Energy Division and the Contractors State License Board to develop improvements and procedures connected to the interconnection portal that will ensure that only solar providers with valid Contractors State License Board licenses are authorized to install solar energy systems that interconnect with investor-owned utility distribution systems. In cases where a tax equity investor is also listed on the interconnection application, the licensed contractor's CSLB license number will suffice.

5. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (together, the utilities) must provide notification of the information packet and potential eligibility for low-income solar programs when customers authorize access to their energy usage data via Green Button Connect. Within 30 days after the issue date of this decision, the utilities shall each submit a Tier 1 advice letter to present a draft of the automated notification and telephone script, as applicable, that they would provide to customers who elect to share their energy usage data with an energy service provider via Green Button Connect or telephonically. Immediately after the Energy Division posts the information packet to its website, the utilities shall commence providing notification of the information packet to customers who

elect to share their energy usage data with an energy service provider via Green Button Connect or telephonically.

6. Within 90 days after the issue date of this decision, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (the utilities) shall propose, via a Joint Tier 2 advice letter, a methodology to categorize and quantify solar complaints they receive. Specifically, we require one of the categories to be complaints related to third party providers, broken down into types of complaints. To the extent requested, the utilities shall assist Commission staff and relevant Commission programs, in developing a process to ensure the efficient and accurate collection of data on solar complaints across the utilities, including complaints made to the Commission's Consumer Affairs Branch and the Community Help and Awareness with Natural Gas and Electricity Services Program, and to streamline the process for forwarding solar complaints related to third party providers to the Contractors State License Board.

7. Within 90 days after Energy Division disposes of the Joint Tier 2 Advice Letter required in Ordering Paragraph 6, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (together, the electric utilities) shall begin quarterly submission of information-only advice letters to the Energy Division documenting solar complaint trends. We authorize changes to the frequency, submission deadline, and composition of the electric utilities' information-only advice letters by letter from the Commission's Energy Division Director or his/her/their designee.

8. The Community Help and Awareness with Natural Gas and Electricity Services third-party nonprofit administrator is directed to collect and report data on solar complaints consistent with the uniform format developed, in its

D.15-12-047-directed annual reports, to the extent practicable based on its permissible collection and reporting procedures.

9. The Commission's Utility Audit, Finance and Compliance Branch or alternate third-party auditor is authorized to audit the utilities' interconnection databases and documentation retention systems and processes to ensure compliance with this decision.

10. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (together, the electric utilities) shall conduct spot audits as described in Section 2.2.7 of this decision. The electric utilities shall provide audit findings to the Contractors State License Board to substantiate grounds for disciplining contractors for violations of Contractors State License Board rules and regulations. The electric utilities shall also cooperate with the Utility Enforcement Branch's audit activities as authorized in Ordering Paragraph 9.

11. Commission staff is authorized to monitor utility interconnection application datasets to assess whether the rate of applicants selecting the self-installer field increases, which could indicate that unlicensed solar providers are selecting the self-installer option to avoid entering a valid Contractors State License Board number. If the data warrants review, Commission staff is authorized to work with the utilities to further investigate and seek remedies to this issue.

12. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company (together, the electric utilities) are required to collect the installation contracts for power purchase agreements, leased, or customer-owned systems in the interconnection portal and transmit them to Energy Division upon request. The electric utilities may not utilize any

information included in collected contracts for any purpose other than a purpose expressly authorized by the Commission's Executive Director or his/her/their designee.

13. We authorize up to \$2 million co-funded proportionally according to 2018 retail electric revenue, from Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (together, the electric utilities), to be set aside for measurement and evaluation of the net energy metering successor tariff. Within 30 days of the issue date of this decision, each of the electric utilities shall submit a Tier 2 advice letter establishing a balancing account to collect its proportionate share of the \$2 million budget, and will collect those costs through their respective public purpose program surcharges. Energy Division is authorized to select the independent evaluation consultant through a request for proposal process managed by San Diego Gas & Electric Company on behalf of the Commission for the measurement and evaluation work consistent with today's decision. San Diego Gas & Electric Company is responsible for filing the draft research plan, coordinating the webinar, and taking any other steps necessary to be consistent with Section 2.5 of this decision.

14. The categorization of matters related to consumer protection on as quasi-legislative, set out in the Fourth Amended Scoping Memo (March 29, 2018) is affirmed.

15. Rulemaking 14-07-002 remains open.

This order is effective today.

Dated September 27, 2018, at Sacramento, California.

CARLA J. PETERMAN
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
Commissioners

I dissent.

MICHAEL PICKER
President

Appendix A

Information Packet Outline

Appendix A: Information Packet Outline

I. Overview

Includes information on:

- The purpose of the information packet;
- The role of the California Public Utilities Commission (CPUC) and Contractors State License Board (CSLB) in the creation of the packet;
- The requirement that solar providers must present this document to a customer to read and sign before the customer enters into a contract for a PPA, lease or purchased solar system;
- How to report a contractor that fails to comply with the above requirement; and
- The CSLB Solar Disclosures Document, and how it relates to the Information Packet.

II. How to Choose a Contractor

Includes information on:

- Importance of obtaining multiple bids and using third party bid comparison tools;
- How to verify a contractor is licensed with the CSLB;
- A consumer's right to a three day right to cancel a contract;
- Fraudulent or misleading sales tactics to be aware of;
- Key items to look for in a contract (e.g. warranty and maintenance provisions, performance guarantees, home ownership transfer provisions); and
- Actions to take if contractor defaults or goes bankrupt.

III. How Solar Financing Works

Includes information on:

- The difference between financing a system that is owned, leased, or contracted through a power purchase agreement (PPA);

- How Property-Assessed Clean Energy (PACE) is financed, with a link to CSLB's PACE Financing Estimate and Disclosure form;
- Predatory lending tactics to look out for;
- Federal, state and other incentives available; and
- Importance of seeking tax advice from a professional.

IV. What to Be Aware of When Receiving Bill Savings Estimates

Includes information on:

- How bill savings estimates are uncertain due to dynamic factors, including energy use patterns, utility rates, and equipment performance;
- A reasonable range for price escalators;
- The importance of reviewing the standardized inputs and assumptions for bill saving calculations that will be posted on CPUC's website starting July 1, 2019, per AB 1070; and
- Hidden costs and risks, such as balloon payments.

V. What is Net Energy Metering?

Includes information on:

- The basics of how net energy metering (NEM) works;
- What to expect on one's monthly and 12-month cycle billing statements, including fixed charges like the minimum bill;
- The basics of time-of-use rates and how underlying rates may change over time; and
- What renewable energy credits (RECs) are, and how to claim / determine ownership and compensation for them.

VI. Understanding the Role of Your Utility and Your Solar Provider

Includes information on:

- How to identify what utility serves the customer;

- The fact that solar programs may differ depending on whether the utility is investor-owned, publicly owned, a cooperative, or a community choice aggregator;
- The role the utility plays in the solar interconnection process and where to learn more about utility NEM programs; and
- The different services and responsibilities of solar vendors, installers, financing entities, and contractors involved in a solar sale, lease, or PPA.

VII. Importance of Energy Management

Includes information on:

- Benefits of integrating energy efficiency with solar;
- Bill reductions associated with demand response offerings; and
- How to access Energy Upgrade California (EUC) resources.

VIII. Low-Income Options

Includes information on:

- The Single Family Affordable Solar Homes (SASH) program and other residential solar programs with options for low-income homeowners and renters; and
- Solar options for customers living in Disadvantaged Communities (DACs).

IX. Technologies that Combine with Solar

Includes information on:

- Options for pairing solar with storage;
- Incentives available under the Self-Generation Incentive (SGIP) Program; and
- Options for powering zero emissions vehicles (ZEVs) with solar systems.

X. Consumer Checklist

Includes:

- A list of questions to consider before making a financial investment in solar (for example, “How much will I pay up front, how much over time, and for how long?” and “How long will it take to get approval from utility to hook up solar system to the grid?”); and
- A list of questions to ask a contractor before entering into a contract (for example, “What are the potential impacts on selling or refinancing my property?” and “Are there warranties for equipment and workmanship?”).

XI. Important Resources

Includes:

- Links to investor-owned utility NEM resources; and
- Links to other informational solar guides, such as the Clean Energy States Alliance (CESA) *A Homeowner’s Guide to Solar Financing*, and the Solar Energy Industries Association (SEIA) *Residential Consumer Guide to Solar Power*.

XII. Signature Box

Includes:

- Statement that the CPUC recommends the customer take 48 hours to review this form and the CSLB Solar Disclosure Document before entering into a contract;
- Reminder that the customer has a three day right to cancel the contract after signing;
- A line for the solar provider to identify what language was principally used in the sales presentation given to the customer;
- A line for the customer to affirm and sign that they have read this document before entering into a contract for a PPA, lease or purchased solar system;

- A line for the solar provider to affirm and sign that this document was given to the customer to read before the customer entered into a contract for a PPA, lease or purchased solar system; and
- Statement that some utilities will require a copy of this page of the information packet before interconnecting a customer's solar system to the grid.

(End of Appendix A)

Appendix B

Sample Format for CSLB License Requirement in Utility Interconnection Portals

CONTRACTOR/INSTALLER INFORMATION		*Indicates Required Field
Are you a Self-Installer? (i.e. Homeowner, Service Account Holder, etc)*		
Select...	▼	
Yes		
No		
<i>If "No" is selected, applicant proceeds to this question:</i>		
Who is the main project contact for this application?*		
Select...	▼	
Customer Contact Person		
Contractor/Installer		
Please select your Contractors State License Board number from the field below.*		
Select...	▼	
862678		
921371		
942742		
780158		
765896		
1005963		
... all valid CSLB A, C10, and C46 licenses to be listed here, updated in real time		
What is official name of the license holder?*		
Type Answer		
What is the address of the license holder?*		
Type Answer		
<i>The official name and address are cross-referenced against the CSLB license number selected.</i>		
<i>If they do not match, contractor may not proceed. If they match, the information below is requested.</i>		
Please Contractor/Installer information below.		
Name*		
First	Last	
Company*		
Company Name		
Address*		
Street		
City	State and Zip	
Email*		
Email Address		
Phone*		
Phone Number		