PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

AGENDA ID #16266

ENERGY DIVISION **RESOLUTION E-4906**

March 22, 2018

R E S O L U T I O N

Resolution E-4906. Approval, with modifications, of Southern California Edison Company's, Pacific Gas and Electric Company's, and San Diego Gas & Electric Company's prohibited resources restrictions for demand response programs as directed in Resolution E-4838, and associated Verification Plan.

PROPOSED OUTCOME:

- This Resolution approves, with modifications, prohibited resource restrictions and Verification Plan proposed by Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), and San Diego Gas & Electric Company (SDG&E) (the "Utilities") for all affected demand response (DR) programs.
- This Resolution directs the Utilities to file a joint Application with interval meter and data logger unit and installation costs and functionalities, and affected customer incentive levels and load reductions.

SAFETY CONSIDERATIONS:

- There is no impact on safety.

ESTIMATED COST:

- Approves the Utilities' request to shift existing demand response funds to cover estimated costs of $375,000 (statewide verification administrator) and $185,000 (test installation of interval meters and data loggers).[1]

[1] In AL 3653-E et al. at 8, the Utilities state that, because this estimate is based on the Consultant's initial survey of 33 customers, the actual number may vary as the distribution of customers selecting the different attestation scenarios varies, and actual costs of logger and meter installations are realized. The Utilities suggest that the actual budget would be split by the Utilities pro-rata according to the number of customers.

- Approves SDG&E's request to shift $938,498 in existing demand response funds to cover the costs of implementing the prohibition.

By Advice Letter 3542-E-A (Southern California Edison Company), 4991-E-B (Pacific Gas and Electric Company), and 3031-E-A (San Diego Gas & Electric Company), filed on June 15, 2017; Advice Letter AL 3653-E (Southern California Edison Company), AL 5138-E (Pacific Gas and Electric Company), and AL 3108-E (San Diego Gas & Electric Company), filed on September 1, 2017.

SUMMARY

This Resolution consolidates Advice Letters (AL) 3542-E-A et al., which implements the prohibition of certain resources in Demand Response, and AL 3653-E et al., which approves a verification plan associated with the prohibition. We take this step to ensure consistent review and approval of the Utilities' prohibited resources tariff and contract language changes across all affected DR programs and pilots. These Advice Letters collectively contain Utility tariff and contract language changes to implement the Commission order on prohibited resources applicable to Utility DR programs and pilots, and the implementation of an audit verification mechanism for prohibited resources as directed in D.16-09-056.[2]

This Resolution approves, with modifications, the prohibited resources restrictions proposed by Southern California Edison Company, Pacific Gas and Electric Company, and San Diego Gas & Electric Company (jointly, the "Utilities") to apply to certain DR programs and pilots. Specifically, this Resolution approves tariff and contract language for all affected DR programs and pilots, as directed in D.16-09-056 and Resolution E-4838, and consistent with the extension request approved by the Commission Executive Director on December 29, 2017. The dates listed in the

[2] D.16-09-056 Ordering Paragraphs (OPs) 2 – 5 at pgs. 28-42

extension approval indicated due dates for specific tasks contingent upon Commission approval of this resolution.[3]

This resolution also approves, with modifications, the Utilities' Verification Plan for Prohibited Resources in Demand Response Programs and the Utilities' proposal to conduct a test pilot of interval meter and data logger installation on 10 percent of customers who have attested to owning a prohibited resource that is not used to reduce load during DR events.

For AL 3542 E-A et al., in order to clarify for customers the verification activities and requirements, we require that Utilities, in their tariffs, schedules, contracts, and any associated special conditions do the following:

1. Strike any reference to the customer's need for installing data loggers or interval meters upon the verification administrator or Utility's request;
2. Clarify that conditions of DR program participation require attestations that are subject to verification;
3. Accept commercial and industrial customer electronic or "click" signatures verified by third-party authentication;
4. Accept aggregators' attestation forms for existing customers for Program Year 2018;
5. Accept aggregators' attestation forms for DRAM customers for 2018 and 2019. These forms are to be stored by aggregators and made available to the verification administrator and the Commission upon request;
6. Accept their own (utility) forms from aggregators submitting updated or new attestations beginning in 2019. Aggregators will submit new attestations as part of Utilities' add / delete forms.

[3] Letter from Commission Executive Director Timothy Sullivan granting extension requests of the Utilities and Joint Demand Response Parties, December 29, 2017, p. 2

7. For each service account, accept one attestation form per Attestation Scenario, as proxy for all resources that fall under the particular scenario, with supporting documentation that provides the following substantiation:
   a. Attestation Scenario 1: Service account number;
   b. Attestation Scenario 2: Service account number and nameplate capacity for each resource;
   c. Attestation Scenario 3: Service account number and nameplate capacity for each resource. If multiple resources are under this scenario, the Utility will sum the nameplate capacities for all resources to arrive at a Default Adjustment Value (DAV) total.
8. Prescribe the following process in aggregator contracts for the collection and submission of attestation forms:
   a. The aggregator completes the add / delete form;
   b. The aggregator presents the add / delete form to the customer for signature; and
   c. The aggregator submits the completed form with the customer's signature to the Utility.
9. Include language indicating contractual agreements with Utilities are contingent upon aggregators' compliance with the prohibition and submission of its customers' attestations;
10. Retain language reflecting that the verification administrator or Utility may verify the changes to a customer's DAV due to operational changes; and that operational changes that result in a DAV are not subject to a verification administrator's, but may be subject to a Utility's, approval as required by Commission order;
11. Refer tariff disputes to the Commission's existing formal complaint process.
12. Work with aggregators on developing a consistent outreach and notification plan as directed in E-4838, along with associated targets and metrics, to be filed in a Tier 1 Advice Letter within 30 days of the approval of this Resolution.
13. SDG&E, may shift $934,498 from underspent programs, in order to implement the prohibition.

For AL 3653 E et al., we require that Utilities:

1. File a joint Application within 90 days of the Commission's approval of this Resolution in order to establish the evidence required to determine further policy decisions based on the relative definition of "costly." In its Application, the Utilities should provide information on customer incentives, load reduction, and meter and logger costs. Specifically:
   a. Range of interval generator meter and data logger models, functionalities, and associated unit and installation costs;
   b. Description of customers whose resource usage patterns and scenarios are best evaluated with a meter or a logger;
   c. Customer load reduction and incentive profiles for each affected DR program; and range of meter or logger unit plus installation costs, under prescribed scenarios;
   d. Provide functionalities and associated costs of data loggers that could, in addition to recording the date, time and cumulative hours of operation, provide kW output of the resource, as mentioned by the consultant in its Draft Plan;[4]
   e. Provide functionalities and associated costs of other types of measurement devices that potentially could act as a proxy to the use of an underlying prohibited resource, such as a facility's retail meter.
2. Amend the Plan to require customers who have attested to having a prohibited resource below 50 hp (37 kW) that is *not* used for load reduction during DR events to submit load curtailment plans to the verification administrator, beginning with the first Program Year (2018) and no later than December 2018;
3. Confirm that for customers who attest to not having a prohibited resource (Attestation Scenario 1) or who attest to using a prohibited resource for safety, health, or operational reasons (Attestation Scenario 3), other records such as

[4] Nexant, Inc., *Draft Prohibited Resources Verification Plan for Demand Response Programs*, (June 1, 2017), p. 43

operation manifests, line diagrams, and other documentation may be used to verify against power outage data;

4. Indicate in its contracts and relevant schedules that some scenarios may require additional supporting evidence such as line diagrams and other documentation, and that for non-by passable prohibited resources, this may require inspection of operation data against power outage data;
5. Remove from DRAM customers any cost burden requirements associated with the verification plan for the time being;
6. Submit in a Tier 2 Advice Letter within 45 days of the Commission's approval of this Resolution, additional details to conduct a test of interval meter and data logger installation on 10 percent of Attestation Scenario 2 customers, similar to those directed for filing in the Application process, including the range, functionalities, and associated unit and installation costs for interval meters and data loggers; description of customer usage patterns for which an interval meter or data logger installation would be better suited;
7. Indicate in its tariffs and contracts that disputes involving Type I or Type II violations be resolved using the Commission's formal complaint process. Customers are removed until they are able to "cure" the violation under the rules of the violation or the dispute has been resolved.
8. To direct the verification administrator to conduct verification random sampling on a per program basis.

BACKGROUND

On December 9, 2014, the California Public Utilities Commission (Commission) issued D.14-12-024 in Rulemaking (R.)13-09-011. This Decision included a Commission policy statement that fossil-fueled back-up generation resources would not be allowed as part of DR programs for resource adequacy purposes. D.14-12-024 also directed the Utilities to gather information about use of back-up generation of non-residential customers.[5] In September 2016, the Commission adopted D.16-09-056, which modified and deleted certain Ordering Paragraphs (OPs) in D.14-12-024.

[5] D.14-012-024 at 61

D.16-09-056 modified D.14-12-024 by abandoning the data collection effort for fossil-fueled back-up generation and instead established January 1, 2018 as the date to implement a prohibition on the use of certain resources to reduce load during a DR event.

D.16-09-056 (the "Decision") ordered the Utilities to: (1) prohibit certain resources for use during DR events, (2) modify tariffs and contracts to implement the prohibition, and (3) hire expert consultants to assess how to evaluate compliance and enforcement of the prohibition. OP 4.c. of D.16-09-056 ordered the Utilities to file a Tier 3 advice letter proposing draft language for the new prohibited resources tariff provision for review and approval by the Commission no later than 90 days after the issuance of D.16-09-056. This Decision exempted the following DR programs from the prohibition: Residential and Non-Residential Smart AC™, Optional Binding Mandatory Curtailment (OBMC), Scheduled Load Reduction Program (SLRP), Permanent Load Shift (PLS), Peak Day Pricing (PDP), SmartRate™, and time-of-use (TOU) rates.[6]

The Decision indicated the following list of resources are prohibited to be used to reduce load during DR events beginning on January 1, 2018 in topping cycle Combined Heat and Power (CHP) or non-CHP configuration:

- Distributed generation technologies using diesel;
- Natural gas;
- Gasoline;
- Propane; or,
- Liquefied petroleum gas.

The following resources are exempted from the prohibition:

- Pressure reduction turbines;
- Waste-heat-to-power bottoming cycle CHP; and,

[6] Programs and pilots not on this list shall be referred to as "affected DR programs" or "affected programs."

- Storage and storage coupled with renewable generation that meets the relevant greenhouse gas emissions standards adopted for the Self-Generation Incentive Program (SGIP).

Further, in OP 3 and OP 4(b), the Decision required non-residential customers to attest to either non-use of a prohibited resource to reduce load during a demand response event, or their acceptance of a default adjustment value in cases where a prohibited resource is required for safety reasons. The Decision ordered the Utilities to file Tier 3 Advice Letters proposing modifications to its tariff and contract provision to prohibit the use of certain resources to reduce load during DR events for the applicable DR programs, no later than 90 days after the issuance of the Decision.[7] In compliance, the Utilities filed AL 3542-E (SCE), AL 4991-E (PG&E), and AL 3031-E-A (SDG&E) on January 3, 2017. (These advice letters are collectively referred as "AL 3542-E et al.") PG&E subsequently filed supplemental AL 4991-E-A on January 13, 2017, which superseded AL 4991-E in its entirety and corrected an error in the definition of prohibited resources.

On April 28, 2017, the Commission issued Resolution E-4838 approving, with modifications, AL 3542-E et al.[8] OP 41 of the Resolution outlined specific modifications to the proposed tariffs to ensure consistency across all Utilities and affected programs. The Resolution provided specific language and outlined three attestation scenarios (Attestation Scenario) for the demand response customer:[9]

1. I do not have a Prohibited Resource on-site.
2. I have a Prohibited Resource on-site and I will not use the resource to reduce load during any DR event.

[7] D.16-09-056 OP 3 and OP 4

[8] Resolution E-4838 consolidated Southern California Edison Company (SCE) AL 3542-E, Pacific Gas and Electric (PG&E) AL 4991-E, and San Diego Gas & Electric Company (SDG&E) AL 3031-E, ("AL 3542-E-A et al.") as well as SCE AL 3466-E-A, PG&E AL 4900-E-A, and SDG&E AL 2949-E-A ("AL 3466 et al.").

[9] Resolution E-4838 at 18 and OP 7 at 56

3. I do have a Prohibited Resource on-site and I may have to run the resource(s) to reduce load during DR events for safety reasons, health reasons, or operational reasons. My Prohibited Resource(s) has or have a total nameplate capacity of ____ kW. I understand that this value will be used as the Default Adjustment Value (DAV) to adjust the DR incentives / charge for my account.

The Resolution prescribed consequences for two types of violations or non-compliance with the attestations:[10]

> Type I Violation: Minor clerical or administrative errors that may be resolved with an updated attestation and do not involve the use of a prohibited resource to reduce load during a DR event.
>
> Type II Violation: Using prohibited resource(s) to reduce load during a DR event despite attesting to not doing so, or submitting an invalid nameplate capacity for the prohibited resource(s).

For a Type I Violation, customers may "cure" their non-compliance by submitting a valid attestation within 60 days. Failure to comply will result in removal from the affected DR program. For a Type II Violation, customers will be removed from the affected DR program and are ineligible to enroll in any affected DR program for one year for the first violation. Two or more Type II violations will result in removal for three years.[11]

The Utilities were ordered by Resolution E-4838 to file supplemental compliance advice letters by May 26, 2017. The Commission's Executive Director granted the Utilities' request for an extension for those supplemental filings until June 15, 2017.

The above-referenced advice letter was filed on June 15, 2017. In the advice letter, the Utilities included the following: proposed modifications to affected tariffs,

[10] *Id*., at 22 and OP 15 at 57
[11] *Id*., at 22 and OP 14 at 57

aggregator agreements and associated forms, effective January 1, 2018 including the explanation of the policy, the attestation form, how the DAV affects incentive calculations, consequences of non-compliance, along with initial verification requirements and dispute resolution processes that would be amended according to language included in the Final Plan.

The Utilities also proposed that, if the Commission approved the tariff language, that it authorize a Tier 1 Advice Letter process to insert the language into applicable tariffs. This proposal and the tariff language were collectively filed as Tier 2 Advice Letters (AL) 3542-E-A (SCE), AL 4991-E-B (PG&E), and AL 3031-E-A (SDG&E) on June 15, 2017 with modified tariff language. (Collectively, these advice letters are "AL 3542-E-A et al.")

D.16-09-056 directed the joint Utilities to develop an audit verification mechanism by retaining a consultant to "assess whether it is possible, and if so by what methods and data sources, to evaluate whether non-residential customers are complying with the demand response prohibition requirement."[12] The Utilities were directed to serve the consultant report to the service list of R.13-09-011 no later than April 1, 2017; to host a workshop for the consultant to explain its report; and to file a Tier 3 Advice Letter requesting approval of a final audit verification plan (Plan) which incorporates feedback from the workshop.[13]

After evaluating consultants to develop the Plan, the Utilities hired Nexant, Inc., (the Consultant) on January 23, 2017. Over the next months representatives from the Utilities, the Consultant, and Energy Division met to develop the Plan approach. Based on Nexant's proposed timeline and the Plan's effective date, on March 21, 2017 the IOUs filed an extension request on serving the consultant's report and the Plan effective date. The Commission's Executive Director granted the extension on March 30, 2017. The IOUs served a draft of the Plan (Draft Plan) on June 1, 2017 and

[12] D.16-09-056, OP 5
[13] *Ibid.*

eight parties filed their informal comments on June 30, 2017. These stakeholders were California Large Energy Consumers Association (CLECA);[14] CPower, EnerNoc, Inc., and EnergyHub (the Joint DR Parties);[15] OhmConnect, Inc. (OhmConnect);[16] the Office of Ratepayer Advocates (ORA);[17] PG&E; SCE; Sierra Club and Environmental Defense Fund (Sierra Club);[18] and The Utility Reform Network (TURN).

On August 23, 2017 the Utilities held a workshop,[19] followed by a stakeholder meeting via conference call on August 24, 2017. In compliance with OP 5 of D.16-09-056, the Utilities jointly filed a Final Prohibited Resources Verification Plan for Demand Response Programs ("Plan") in Advice Letters AL 3653-E (SCE), AL 5138-E (PG&E), and AL 3108-E (SDG&E) on September 1, 2017 (collectively, "AL 3653-E et al.").

NOTICE

Notices of the filed Advice Letters AL 3542-E-A, AL 4991-E-B, and AL 3031-E-A ("AL 3542-E-A et al."); and Advice Letters AL 3653-E, AL 5138-E, and AL 3108-E ("AL 3653-E et al.") were made by publication in the Commission's Daily Calendar. SCE, PG&E, and SDG&E state that a copy of both sets of Advice Letters were mailed and distributed in accordance with Section 4 of General Order 96-B.

[14] CLECA, "Informal Comments of CLECA on the Draft Prohibited Resources Verification Plan," June 30, 2017

[15] Joint DR Parties, "Informal Comments of CPower, EnerNoc, Inc., and EnergyHub ("Joint DR Parties") on the Nexant Prohibited Resources Verification Plan," June 30, 2017

[16] OhmConnect, "Informal Comments of OhmConnect, Inc. on the Prohibited Resources Verification Plan," June 30, 2017

[17] ORA, "Comments of the ORA on the Draft Prohibited Resources Verification Plan Presented by Nexant," June 30, 2017

[18] Sierra Club, "Informal Comments of Sierra Club and Environmental Defense Fund on Nexant Consulting's Prohibited Resource Verification Plan," June 30, 2017

[19] Joint Utilities Workshop, "Prohibited Resources Verification Plan" on August 23, 2017, at PG&E, 245 Market Street, Conference Room C

PROTESTS

Advice Letters AL 3542-E-A et al. were timely protested on July 5, 2017 by the California Large Energy Consumers Association (CLECA); the Joint DR Parties;[20] and the Office of Ratepayer Advocates (ORA).[21] The Utilities responded to the protests filed to Advice Letters AL 3542-E-A et al. on July 12, 2017: SCE responded to the protests filed to SCE AL 3542-E-A;[22] PG&E responded to the protests filed to PG&E AL 4991-E-B;[23] and SDG&E responded to the protests filed to SDG&E AL 3031-E-A.[24] Energy Division suspended AL 3542-E-A et al. on June 28, 2017 and further suspended the Advice Letter beyond the initial period on September 18, 2017.

[20] Joint DR Parties, "Protest to SCE AL 3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," "Protest to PG&E 4991-E-B (Second Supplemental AL on Tariff Language to Implement Policy on Use of Prohibited Resources for Demand Response)," and "Protest to SDG&E 3031-E-A (Supplemental AL on Revisions & Updates on DR BUG Prohibition)," July 5, 2017

[21] ORA, "Protest to SCE AL 3542-E-A Regarding Supplemental Filing to Comply with Resolution E-4838 Addressing the Prohibition of Backup Generation Resources Pursuant to Resolution E-4838," "Protest to PG&E AL 4991-E-B Regarding Supplemental Filing to Comply with Resolution E-4838 Addressing the Prohibition of Backup Generation Resources Pursuant to Resolution E-4838," "Protest to SDG&E AL 3031-E-A Regarding Supplemental Filing to Comply with Resolution E-4838 Addressing the Prohibition of Backup Generation Resources Pursuant to Resolution E-4838," July 5, 2017

[22] SCE, "Reply to the Protests of ORA and Joint DR Parties to AL 3542-E-A," July 12, 2017

[23] PG&E, "Reply to the Protests of ORA and Joint DR Parties to AL 4991-E-B (June 15, 2017 Second Supplemental: Request for Approval of Tariff Language to Implement the Policy on the Use of Prohibited Resources for Demand Response Approved in Decision 16-09-056)," July 12, 2017

[24] SDG&E, "Reply to the Protests of ORA and Joint DR Parties to SDG&E AL 3031-E-A: Supplemental Filing to Comply with Resolution E-4838 Addressing the Prohibition of Backup Generation Resources," July 12, 2017

Advice Letters AL 3653-E et al. were timely protested on September 21, 2017 by CLECA,[25] the Joint DR Parties,[26] ORA,[27] OhmConnect, Inc.,[28] and Sierra Club and Environmental Defense Fund (EDF).[29] The Utilities responded to the protests filed to Advice Letters AL 3542-E et al. on September 28, 2017.[30]

Energy Division suspended AL 3653-E et al. on September 19.

ENERGY DIVISION REVIEW

We have reviewed Advice Letters AL 3542-E-A, AL 4991-E-B, and AL 3031-E-A ("AL 3542-E-A et al.") and Advice Letters AL 3653-E, AL 5138-E, and AL 3108-E ("AL 3653-E et al."), as well as the associated protests, replies, and Supplemental Advice Letters.

BACKGROUND DETAIL AND PROTESTS

We describe below each protest issue and its background in turn, as they pertain first to AL 3542-E-A et al., then to AL 3653-E et al.

[25] CLECA, "Protest to SCE AL 3653-E, PG&E AL 5138-E, and SDG&E AL 3108-E," September 21, 2017

[26] Joint DR Parties, "Protest to SCE AL 3653-E, PG&E AL 5138-E, and SDG&E AL 3108-E (Prohibited Resource Audit Verification Plan)," September 21, 2017

[27] ORA, "Protest to SCE AL 3653-E, PG&E AL 5138-E, and SDG&E AL 3108-E Regarding Supplemental Filing to Comply with Decision 16-09-056 Addressing the Prohibited Resources Verification Plan for Demand Response Resources," September 21, 2017

[28] OhmConnect, "Protest to SCE AL 3653-E, PG&E AL 5138-E, and SDG&E AL 3108-E (Request for Approval of the Proposed Final Prohibited Resources verification Plan for Demand Response Programs)," September 21, 2017

[29] Sierra Club and EDF, "Protest to SCE AL 3653-E, PG&E AL 5138-E, and SDG&E AL 3108-E on the Proposed Final Prohibited Resources Verification Plan for Demand Response Programs," September 21, 2017

[30] Southern California Edison (SCE), Pacific Gas and Electric (PG&E), and San Diego Gas and Electric (SDG&E), "Response of SCE, PG&E, and SDG&E to Protests Submitted to PG&E's Advice Letter 5138-E et al.," September 28, 2017

I. Advice Letters AL 3542-E-A, AL 4991-E-B, and AL 3031-E-A ("AL 3542-E-A et al."): Terms and Conditions of Prohibited Resources in Tariffs

A. Customer Attestations: Tariff Language on Verification

In accordance with OP 41 of Resolution E-4838,[31] the Utilities submitted revised language for Commission approval of tariffs in part and replacing the proposed draft language for revised tariffs and forms on the verification of prohibited resources.

SCE submitted changes for tariff schedules and associated contracts and forms for Time-of-Use General Service Base Interruptible Program (TOU-BIP), Agricultural Pumping-Interruptible (AP-I), and Capacity Bidding Program (CBP).[32] SCE's tariff schedules indicate that utility customers' and aggregator customers' attestations under their respective tariffs are subject to verification by either the Utility or a third-party Verification Administrator,[33] and that verification activities may require site access.[34]

PG&E's tariff schedule changes for its Base Interruptible Program (BIP) and CBP state that customers are also subject to verification activities conducted by the Utility or a third-party, and that, a utility customer's or an aggregator customer's

[31] Resolution E-4838, OP 41: "Utilities shall file a supplemental compliance AL that includes the modifications to AL 4991-E-A et al. as approved in this resolution, and as summarized in Appendix I, no later than May 26. The protest and reply period to this supplemental compliance AL shall follow the standard timeline," April 27, 2017, at 60

[32] SCE AL 3542-E-A, pp. 3-4

[33] SCE AL 3542-E-A, Form 14-736, "SCE Large Power Interruptible Rate Schedules Essential Use and Exempt Customer Declaration"; Form 14-980, "Authorization for Participation in Aggregated Demand Response Programs"

[34] SCE AL 3542-E-A, Schedule TOU-BIP, Sheet 9; Schedule AP-I, Sheet 7; Schedule CBP, Sheet 11

operational change that results in a modification in the Default Adjustment Value (DAV) is subject to PG&E's verification and approval.[35]

SDG&E submitted proposed changes for tariff schedules for BIP, CBP, and the Armed Forces Pilot (AFP) Program.[36] The advice letters include updated attestation language, with the understanding that verification of attestations will be further determined in future Commission guidance.[37]

All three Utilities require customers to provide facility access for site visits and comply with additional data requests made by either the utility (PG&E and SCE)[38] or a third party auditor (SDG&E) within 20 business days of notice.[39] The Utilities' proposed tariff schedule changes differed on the requirement for the installation of interval meter or data loggers: SDG&E and SCE[40] included the installation of a data logger or "verification metering" at the customer's expense" if such requirement is mutually agreed by the Utility and the customer's aggregator." PG&E did not propose such requirements.

In its protests, the Joint DR Parties state that any requests for data, access, or device installation on the customer's premise should be reasonable and consistent with the Decisions. In addition, the Joint DR Parties ask for clarification on the need for aggregators to include the sum of the nameplate capacity for prohibited resources

[35] PG&E AL 4991-E-B, Electric Schedule E-BIP, Sheet 4; Electric Schedule E-CBP, Sheet 10; Form 79-1080, "Notice to Add or Delete Customers Participating in the Base Interruptible Program", p. 4; Form 79-1075, "Notice to Add or Delete Customers Participating in CBP, "Notice to Add or Delete Customers Participating in the Base Interruptible Program," p. 3

[36] SDG&E AL 3031-E-A, p. 1; Schedule CBP, Sheet 12; Schedule BIP, Sheet 7; Schedule AFP, Sheet 7

[37] *Id*., p. 3

[38] SCE AL 3542-E-A, Schedule CBP, Sheet 11; Schedule TOU-BIP, Sheet 9; and Schedule AP-I, Sheet 7; PG&E, AL 4991-E-B, p. 3 and Schedules E-BIP and E-CBP

[39] SDG&E AL 3031-E-A, Schedule CBP, Sheet 13; Schedule BIP, Sheet 8 and Schedule AFP, Sheet 8 and Form 142-05220, "Armed Forces Pilot Contract," p. 2

[40] SCE AL 3542-E-A, Schedule TOU-BIP, Sheet 9, Schedule AP-I, Sheet 7, and Schedule CBP, Sheet 11

being used to reduce load during DR events.[41] ORA protests SCE and SDG&E's proposals to install data loggers because such a device would only report the aggregate operational hours of a prohibited resource and hourly (interval) metering would avoid "inconclusive dispute resolution processes."[42]

In its response, SCE states that it is opposed to device installations as a means of verification as the DAV eliminates any need for costly metering devices.[43] SCE did not specifically respond to the Joint DR Parties' protest on "reasonable" requests for data and site access, but it did address the issue of additional information requests as they relate to a customer's attestation change. Specifically, SCE notes that, consistent with Resolution E-4838,[44] SCE supports allowing customers to make updates to their attestations at any time, without limitations, provided that such changes are supported by documentation that a change in operations was made. This could be provided in the form of a work order, invoice, or inspection report. [45]

SDG&E responds that it is opposed the insertion of "reasonable" into the tariff language, as the data request requirement was drafted as part of potential verification. SDG&E suggests that aggregator customers who find site visit or data requests to be unreasonable to file formal complaints directly with their aggregator, instead of the Utility.[46]

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[41] Joint DR Parties, "Protest to SCE AL 3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," July 5, 2017, p. 3; "Protest to PG&E AL 4991-E-B (Second Supplemental AL on Tariff Language to Implement Policy on Use of Prohibited Resources for Demand Response)," July 5, 2017, p. 2; and "Protest to SDG&E AL 3031-E-A (Supplemental AL on Revisions and Updates on DR BUG Prohibition," July 5, 2017, p. 3

[42] ORA, "Protest to SCE AL 3542-E-A," p. 2 and "Protest to SDG&E AL 3031-E-A," p. 2

[43] SCE, "Reply to the Protests of ORA and Joint DR Parties to SCE AL 3542-E-A," July 12, 2017, p. 2

[44] Resolution E-4838 at 19

[45] SCE, "Reply to the Protests of ORA and Joint DR Parties to SCE AL 3542-E-A," July 12, 2017, pp. 2-3

[46] SDG&E, "Reply to the Protests of ORA and Joint DR Parties to SDG&E AL 3031-E-A," July 12, 2017, p. 2

B. Customer Attestations: Forms

In accordance with OP 7 of Resolution E-4838,[47] the Utilities submitted customer attestation forms for both their own customers and third-party aggregated customers. SCE filed one proposed attestation form for all of its third-party aggregated customers.[48] It also filed attestation conditions for its own customers participating in Time-of-Use Base Interruptible Program (TOU-BIP), Agricultural Pumping-Interruptible (AP-I), and Capacity Bidding Program (CBP).[49] PG&E filed a proposed attestation form as part of its add / delete form for customers participating through third-party aggregators in the utility's BIP and CBP.[50] PG&E specifies that aggregator customers are directed to use PG&E's specific forms as filed in AL 4991-E-B and loaded onto PG&E's system, with *each* prohibited resource's nameplate capacity. PG&E also filed a proposed attestation form for its own customers participating in BIP and CBP.[51] SDG&E filed a proposed attestation form as part of its add / delete form for customers participating through third-party

[47] Resolution E-4838, OP 7: "Utilities shall modify tariff and contract language for all affected DR programs to require the inclusion in all non-residential customer contracts, including those of third-party aggregators, of a three-part attestation that includes a declaration of whether or not a customer has a prohibited resource on site, as discussed herein," April 27, 2017 at 56

[48] SCE AL 3542-E-A, Form 14-980, "Authorization for Participation in Aggregated Demand Response Programs," Sheet 1

[49] SCE AL 3542-E-A, Schedule TOU-BIP, Sheet 8; Schedule AP-I, Sheet 7; Schedule CBP, Sheet 10; and Form 14-315, "Interruptible Service Agreement"

[50] PG&E AL 4991-E-B, Form 79-1080, "Notice to Add or Delete Customers Participating in the BIP," p. 3; Form 79-1075, "Notice to Add or Delete Customers Participating in the CBP," p. 3

[51] PG&E AL 4991-E-B, Electric Schedule E-BIP, Sheet 3; Electric Schedule E-CBP, Sheet 9

aggregators in the utility's BIP and CBP.[52] For its own customers, SDG&E filed an attestation form for its BIP, CBP, and Armed Forces Pilot (AFP) programs.[53]

In its protest, the Joint DR Parties assert that the requirement for aggregators to use the Utilities' attestation forms is unreasonable and violates the Commission's orders. The Joint DR Parties note that under Resolution E-4838, aggregators are required to collect customer attestation forms but aggregator customers are not required to submit the attestations directly to the Utilities or the verification administrator. In addition, aggregators are not required to seek approval when drafting their own (aggregator) attestation forms, nor are aggregators required to use the Utilities' attestation forms, as both can cause customer confusion and is duplicative.[54] While the Joint DR Parties agree to work with SCE and PG&E on a mutually agreed upon attestation form, reaching an agreement should not be a condition of contract.[55] The Joint DR Parties requests that: (1.) all three Utilities' tariffs allow for aggregators to use their own forms instead of the Utilities' and (2.) SCE and PG&E modify their contracts to indicate that the provision of the *sum* of nameplate capacity for all prohibited resources on site is sufficient.[56]

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[52] SDG&E AL 3031-E-A, Form 142-05216, BIP, "Notice by Third-Party Marketer to Add or Delete Customers," p. 1; Form 142-05302, CBP, Attachment C, "Notice to Add, Change, or Terminate Aggregator for CBP"

[53] SDG&E AL 3031-E-A, Form 142-05300, CBP, Attachment D, "Prohibited Resources Attestation"; Form 142-05220, AFP, Attachment C, "Prohibited Resources Attestation," p. 7

[54] Joint DR Parties, "Protest to SCE AL 3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," July 5, 2017, p. 2; "Protest to PG&E AL 4991-E-B (Second Supplemental AL on Tariff Language to Implement Policy on use of Prohibited Resources for Demand Response)," July 5, 2017, p. 2; "Protest to SDG&E AL 3031-E-A (Supplemental AL on Revisions and Updates on DR Bug Prohibition), July 4, 2017, p. 2

[55] Joint DR Parties, "Protest to SCE AL 3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," July 5, 2017, p. 4; "Protest to PG&E AL 4991-E-B (Second Supplemental AL on Tariff Language to Implement Policy on use of Prohibited Resources for Demand Response)," July 5, 2017, p. 3

[56] Joint DR Parties, "Protest to SCE AL 3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," July 5, 2017, p. 4; "Protest to PG&E AL 4991-E-B (Second Supplemental AL on Tariff Language to Implement Policy on use of Prohibited Resources

SCE responded to the Joint DR Parties by confirming that, based on a workshop of May 16, 2017 and a subsequent email on May 25, 2017, SCE secured support from stakeholders to require attestation submission via the Utilities' Add / Delete form for new customers. SCE also agreed to use aggregators' attestation forms for existing aggregator customers. SCE outlined the specific process it envisions the attestation to follow, consistent with the current process for enrollment. We further discuss these steps and process for new customers in the Discussion section.[57]

For PG&E, aggregator customers are required to complete a new Add form, which contains attestations for both current and new customers. The Joint DR Parties noted that because the CBP begins in May 2018 and has not yet been approved, customers might not be willing to sign a form by December 31, 2017 for a program pending finalization. In its response, PG&E agreed to update its tariffs to indicate that forms must submitted by March 1, 2018. PG&E reiterates that an aggregator's non-compliance with the prohibited resources prohibition and failure to provide customer attestations could result in termination of the aggregator agreement.[58]

In its response to the Joint DR Parties' protest, SDG&E agreed that it cannot require aggregators to use Utilities' Add / Delete forms, and will make tariff modifications accordingly.[59]

In a stakeholder teleconference on August 24, 2017, the Joint DR Parties raised aggregator customer operational scenarios in which large-scale commercial

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for Demand Response)," July 5, 2017, p. 3; "Protest to SDG&E AL 3031-E-A (Supplemental AL on Revisions and Updates on DR Bug Prohibition), July 4, 2017, pp. 3-4

[57] SCE, "Reply to the Protests of ORA and Joint DR Parties to SCE AL 3542-E-A," July 12, 2017, p. 3

[58] PG&E, "Reply to the Protests of ORA and Joint DR Parties to PG&E AL 4991-E-B," July 12, 2017, pp. 2, 4

[59] SDG&E, "Reply to the Protests of ORA and Joint DR Parties to SDG&E AL 3031-E-A," July 12, 2017, p. 2

customers may have multiple resources on-site with varying Attestation Scenarios.[60] For example, one customer may have 10 service accounts that fulfill Attestation Scenario 2 and another five that fulfill Attestation Scenario 3. In such instances, it would be cumbersome for customers to attest to and sign individually for 15 service accounts. Instead, aggregator customers should simply submit one attestation form for each scenario, supported by a table detailing the resources for which that attestation was signed. SCE and SDG&E agreed with this process, while PG&E disagreed.[61]

C. Default Adjustment Value (DAV)

In their advice letters, the Utilities direct third-party aggregators to: (1.) provide the language in their customer contracts that describes the prohibition; (2.) collect and store all customer attestations and make them available either to the Utilities or the Commission; (3.) submit them to the Utility; (4.) remove customers from their portfolio if the customer has not agreed to the prohibition or provided an attestation with a Default Adjustment Value (DAV); and (5.) record and derate the aggregators' portfolio with a summary DAV on a monthly basis. Utilities state that the DAV submitted by aggregators is subject to each Utility's approval. Aggregators failing to comply with the prohibition risk a potential default of their contract with the Utility, which is curable within 30 days after notice.[62]

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[60] Resolution E-4838 pp. 20-21 defines the following Attestation Scenarios:
Attestation Scenario 1: I do not have a Prohibited Resource on-site;
Attestation Scenario 2: I have a Prohibited Resource on-site and I will not use the resource to reduce load during any DR event;
Attestation Scenario 3: I do have a Prohibited Resource on-site and I may have to run the resource(s) to reduce load during DR events for safety reasons, health reasons, or operational reasons. My Prohibited Resource(s) has or have a total nameplate capacity of ___ kW. I understand that this value will be used as the Default Adjustment Value (DAV) to adjust the DR incentives / charge for my account.

[61] Stakeholder Teleconference on September 24, 2017

[62] SCE AL 3542-E-A, Form 14-777, "CBP Aggregator Agreement," p. 2; Form 14-780, "TOU-BIP Aggregator Agreement," p. 2; Form 14-780, Attachment D, "Additional Terms and Conditions of Aggregator's Participation in TOU-BIP, p. 19; Form 14-736, "SCE Large

For their own direct-enrolled, non-aggregator customers, the Utilities proposed similar changes. SCE's tariff schedules state that any changes associated with (1.) the addition or removal of a prohibited resource; (2.) the status of a prohibited resource to reduce load during a DR event; and (3.) a change in the DAV due to documented changes in operational status of a prohibited resource are all subject to approval and verification by SCE.[63] PG&E's tariff schedules allow for customer changes, provided that the Utility can verify and approve that the customer's DAV change was the result of a prohibited resource's operational status.[64] SDG&E indicated in both its proposed tariff schedules and its marketing and outreach plan that its customers would not be required to sign attestations or select a DAV until the Commission has approved the Verification Plan.[65]

The Joint DR Parties protested all three Utilities' tariff schedule proposals and maintain that if a customer has an operation change that necessitates a change in the DAV, Utilities' should not decide or approve that change for the customer's facility. The Utility should simply verify that the change is accurate and consistent with the Commission's directive.[66]

Power Interruptible Rate Schedules Essential Use and Exempt Customer Declaration." PG&E AL 4991-E-A, Form 79-1075, "Notice to Add or Delete Customers Participating in the CBP," p. 3; Form 79-1076, "Agreement for Aggregators Participating in the CBP," p. 2; Form 79-1080, "Notice to Add or Delete Customers Participating in the BIP," p. 3; Form 79-1079, "Agreement for Aggregators Participating in the BIP," pp. 2-3. SDG&E AL 3031-E-A, Attachment A: Schedule CBP; Attachment B: Rule 30 – Aggregators for CBP; Attachment C: Notice by Aggregators to Add or Delete Customers

[63] SCE AL 3542-E-A, Schedule TOU-BIP, Sheet 9; Schedule AP-I, Sheet 6; and Schedule CBP, Sheet 11

[64] PG&E AL 4991-E-B, Schedule E-BIP, Sheet 3; Schedule E-CBP, Sheet 9

[65] SDG&E AL 3031-E-A, Schedule BIP, Sheet 7; Schedule CBP, Sheet 12; Schedule AFP, Sheet 7; and Attachment C: SDG&E Marketing and Outreach Plan

[66] Joint DRP Protest of SCE AL 3542-E-A, p. 2; PG&E AL 4991-E-B, p. 2; and SDG&E AL 3031-E-A, p. 2

SCE and PG&E responded to this protest by clarifying that Add / Delete form references to "approval" indicate reviewing proof of operational change such as a work order, invoice, or inspection report, and is not intended to insert additional steps.[67] Resolution E-4838 also directs the Utilities to review documentation of operational changes.[68]

D. Customer Attestation Violations and Consequences

In their Advice Letters, the Utilities provide definitions of violations for both its own direct-enrolled and aggregator-enrolled customers. SCE, PG&E, and SDG&E define a Type I violation as: (1.) an administrative or clerical infractions associated with the submission of an invalid attestation or no attestation, but which do not involve the use of a prohibited resource to reduce load during DR events; or (2.) the failure to submit an attestation.

SCE, PG&E, and SDG&E define a Type II violation as when a customer: (1.) attests to not using a prohibited resource to reduce load during a DR event but is found to have used it for this purpose; or (3.) submits an invalid nameplate capacity.[69] In addition, SCE also defines a Type II violation as when a customer attests to not having a prohibited resource, despite having one on site.

The Joint DR Parties protests SCE's definition of a Type II violation because a prohibited resource can be located on site, but not for the purpose of a DR event.

[67] SCE, "Reply to Protests of ORA and Joint DR Parties to SCE AL 3542-E-A," pp. 3-4; PG&E," Reply to Protests of ORA and Joint DR Parties to PG&E AL 4991-E-B," p.2

[68] Resolution E-4838 OP 6 at 55 and 56

[69] SCE AL 3542-E-A, Schedule CBP, Sheets 12-13; Schedule TOU-BIP, Sheets 10-11; Schedule AP-I, Sheets 7-8. PG&E AL 4991-E-B, Schedule E-CBP, Sheets 10 – 11; Schedule E-BIP, Sheet 5. SDG&E AL 3031-E-A, Schedule CBP, Sheets 12-13; Schedule BIP, Sheet 7; Schedule AFP, Sheets 7

They argue that the presence of a prohibited resource on the customer's premise does not mean it is used for the purpose of reducing load during a DR event.[70]

The Joint DR Parties protests SDG&E's special condition, which states that customers with Type I and Type II violations are ineligible to participate after the year for the first offense and three years for subsequent offenses.[71] SDG&E's proposed tariff schedule for CBP also states that Type I violations are ineligible to participate after the first offense for one year, inconsistent with the proposed tariff schedule for BIP, and inconsistent with direction from Resolution E-4838 on Type I violations.[72] Specifically, the Joint DR Parties contest that Resolution E-4838 allows for Type I violations to be cured and reinstated at any time.[73]

In its response to the Joint DR Parties' protest, SCE concurred that a Type II violation occurs when a customer fails to disclose a prohibited resource *and* has used it to reduce load during a DR event. SCE agreed to modify its tariff language accordingly. SDG&E agreed with Joint DR Parties' protest that, consistent with OP 32 in Resolution E-4838, Type I violations are curable up to 60 days. PG&E disagreed with the Joint DR Parties' protest that a customer attesting to not having a prohibited resource when there is one on site is a Type I, not Type II violation. However, PG&E also sought further clarification from the Commission on the issue.

In addition, the Joint DR Parties ask for clarification on reasons for removal of customers from the portfolio in cases of uncured Type I or Type II violations, as the current proposed tariffs are vague and can lead to customer confusion. In its filing, PG&E states that a customer who attests to not having or not using a prohibited resource, but in fact has or uses it, will be committing a Type II violation. The Joint

[70] Joint DR Parties, "Protest to SCE AL 3542-E-A," p. 3
[71] Joint DR Parties, "Protest to SDG&E AL 3031-E-A," p. 3
[72] Joint DR Parties, "Protest to SDG&E AL 3031-E-A," p. 3
[73] Joint DR Parties, "Protest to SDG&E AL 3031-E-A," p. 2

DR Parties contest that this is not consistent with the Resolution's intent and that a customer who fails to disclose a prohibited resource on site is not a Type II violation.

In its protest, ORA contends that attestations under Scenario 2 – those who attest to having a prohibited resource on-site but will not use the resource to reduce load during DR events – cannot be verified without the data provided from hourly generator meter data. ORA asserts that the Utilities' suggestion to allow customers to use data loggers or operating logs as verification methods is insufficient to ensure compliance with the prohibition. The Utilities[74] responded with opposition to any tariff language that would require the installation of hourly meters, as such a requirement is premature in the absence of a cost-benefit determination and an approved Prohibited Resources Verification Plan. Because the subject of metering is under the realm of the Verification Plan, we discuss ORA's issue later in this resolution under the "Prohibited Resources Verification Plan for Demand Response Programs" section.

E. Outreach Metrics

Resolution E-4838 directed PG&E and SCE to provide notification and outreach efforts "pertinent to their own customers that articulate targets for each proposed metric."[75] It further directed all Utilities to also require third-party aggregators to "undertake outreach and notification to all customers informing them of the prohibition" and to "develop metrics, targets, and record keeping systems to assess

[74] SCE, "Reply of Southern California Edison Company to the Protests of Office of Ratepayer Advocates and Joint Demand Response Parties to Advice 3542-E-A," (July 12, 2017), p. 2; PG&E, "PG&E's Reply to Protest of Advice Letter 4991-E-B (June 15, 2017 Second Supplemental: Request for Approval of Tariff Language to Implement the Policy on the Use of Prohibited Resources for Demand Response Approved in Decision 16-09-056)," (July 12, 2017), p. 4; SDG&E, "Reply to Protest of Advice Letter 3031-E-A: Supplemental Filing to Comply with Resolution E-4838 Addressing the Prohibition of Backup Generation Resources," (July 12, 2017), p. 3

[75] Resolution E-4838 OP 28 at 59

the effectiveness of their customer outreach and notification efforts…."[76] The Resolution requires SDG&E to provide an outreach and notification plan that conforms to D.16-09-056;[77] and directs PG&E to ensure that its notification and outreach efforts conform to the timeline of D. 16-09-056. [78]

In the proposed aggregator contracts submitted as part of their Advice Letter filings, SCE[79] and PG&E[80] state that aggregators are responsible for outreach and notification efforts, "which includes developing metrics, targets, and record keeping systems." SCE and PG&E, however, did not demonstrate how they would meet this requirement for their own programs in their Advice Letter filings. On November 17, 2017 Energy Division issued a data request, seeking information on how both Utilities have met compliance with Ordering Paragraphs (OPs) 28 – 29 in Resolution E-4838.[81]

In its response on November 27, SCE provided a table on its prohibited resources education and outreach efforts undertaken in 2017. These continuing efforts began in May 2017 with presentations to direct-enrolled and aggregator customers; additional targeted outreach are pending the approval of the proposed tariff schedules and the verification plan.[82] In its response, PG&E posits that, since outreach and notification may include attestation forms that are pending

[76] Resolution E-4838 OP 34 at 59
[77] Resolution E-4838 OP 30 at 59
[78] Resolution E-4838 OP 29 at 59
[79] SCE Advice Letter (AL) 3542-E-A, Form 14-777: Capacity Bidding Program Aggregator Agreement, p. 2; Form 14-780: Time-of-Use Base Interruptible Program, p. 2
[80] PG&E Advice Letter (AL) 4991-E-B, Form 79-1076: Agreement for Aggregators Participating in the Capacity Bidding Program, p. 2; Form 79-1079: Agreement for Aggregators Participating in the Base Interruptible Program, p. 2
[81] Resolution E-4838, OP 28, "SCE and PG&E shall provide notification and outreach plans pertinent to their own customers that articulate targets for each proposed metric," and OP 29, "PG&E shall ensure that its notification and outreach plan conforms to the timeline requirements of D.16-09-056."
[82] SCE, "Status Update on Education and Outreach on Prohibited Resources," email response attachment to Energy Division data request, (November 17, 2017)

Commission approval, the Utility cannot begin formal outreach to its directly-enrolled customers until the supplemental compliance filing to Resolution E-4838 has been approved.[83]

SDG&E filed a notification and outreach plan for its customers and directed aggregators to develop their own notification and outreach plans, along with the associated metrics.[84]

In its protest, the Joint DR Parties state that SCE's proposed metrics to test the efficacy of aggregators' customer outreach should not be required as it was not directed by Resolution E-4838.[85] As such, SCE cannot require this in their CBP Aggregator and BIP-TOU Aggregator agreements. In their response, SCE referred to the Resolution's requirement that all utilities are to add contract language requiring third-party aggregators to "Develop metrics, targets and record keeping systems to assess the effectiveness of their customer outreach and notification efforts."[86]

F. Fund Shifting

Ordering Paragraph 4c of D. 16-09-056 authorized fund shifting to cover the costs of implementing the prohibition as necessary. SCE and PG&E did not make a request to shift funds. SDG&E filed a request to shift $934,498 in funds;[87] OP 39 of Resolution E-4838 authorized the shift contingent upon SDG&E submitting a revised proposal to draw funds from additional underspent programs. SDG&E's request includes a revised proposal to draw funds from an additional underspent

[83] PG&E, "Response to Energy Division Data Request," email (November 22, 2017), p. 2
[84] SDG&E Advice Letter (AL) 3031-E-A, Attachment C: Prohibition of Backup Generation Resources, SDG&E Marketing and Outreach Plan
[85] Joint DR Parties, "Protest of SCE AL3542-E-A (Supplemental AL on Draft Language for DR Prohibited Resources)," p. 4
[86] SCE, "Reply to the Protests of Office of Ratepayer Advocates and Joint Demand Response Parties to Advice Letter (AL) 3542-E-A," (July 4, 2017), p. 4
[87] SDG&E Advice Letter (AL) 3031-E-A, p. 2

program to avoid depletion of one budget category. Under the revised request, SDG&E would shift a total of $934,498, $1,000 of which is assigned to customer outreach, from *two* Program Categories in the 2017 DR Approved Program Budget: $700,000 from Budget Category 4 –Technology Incentive Program and $234,498 from Budget Category 2 – Capacity Bidding Program.[88] No protests were filed in response to this SDG&E's request.

II. Advice Letters AL 3653-E, AL 5138-E, and AL 3108-E ("AL 3653-E et al."): Prohibited Resources Verification Plan (Plan) for Demand Response (DR) Programs

A. Summary of Consultant's Survey Results Used in Developing the Proposed Verification Plan

The consultant followed a multi-step process in developing the Plan,[89] including conducting a review of stakeholder recommendations, literature review of auditing protocols in other regulatory agencies, and conducting a survey, along with some site visits, of 33 Utility DR customers. Next, the consultant reviewed sample facilities participating in DR programs to determine consistency and reliability with record keeping compliance, metering, and other equipment used to record prohibited resource operations.

The consultant found that, of the 33 service accounts surveyed, 20 sites had generation fueled by a prohibited resource. These 20 sites collectively had a total of 33 prohibited resource units,[90] of which 31 were generators which "service emergency load only, while one services normal load, and another supplements load reduced through DR."[91] Of the customers who owned the 33 prohibited

[88] SDG&E Advice Letter (AL) 3031-E-A, p. 3
[89] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017)
[90] *Ibid*., p. 21
[91] *Ibid*., p. 23

resource units, only six were able to identify the nameplate capacity of their generators.[92]

When asked about manually entered operation manifests, 15 customers confirmed that they were maintaining such manifests.[93] Of these, 12 were able to provide details about what types of information were recorded, but only three of the 15 customers were able to confirm that the start and end times of the resource's use was recorded.[94]

For the 16 customers who attested to having a prohibited resource on-site that is *not* used to reduce load during DR events, a majority cited that the unit and installation cost for loggers is a primary consideration in determining whether to participate in DR programs.[95]

Based on these practices, along with operating requirements, engineering design, and costs to ratepayers and participants, the consultant identified verification protocols. In its Plan, the consultant recommended randomly sampling customers at the service agreement level, per *each* DR program.[96] The verification administrator would then contact these customers to validate their submitted attestations and provide an opportunity to rectify any potential administrative errors. The verification process then follows a different pathway based on the Attestation Scenario each customer selects[97]:

- Attestation Scenario 1: For customers in the sample who attest to not having a prohibited resource on-site, the verifier would check the attestation against

[92] *Ibid*., p. 24
[93] *Ibid*., p. 27
[94] *Id.*
[95] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 29
[96] *Ibid*., p. 2
[97] *Ibid*., pp. 2-3

Utility interconnection and notification records for prohibited resources. If there were no records found, the verification administrator would then submit a data request to the relevant air quality management or air pollution control districts to compare the customer's attestation against the permit records.[98]

- Attestation Scenario 2: Customers in this sample attest to having a prohibited resource on-site, but that they will not use it to reduce load during a DR event. For customers with generators greater than 50 hp (37 kW), the verification administrator would request a written operating log, which customers are required to maintain by the state's Air Toxic Control Measure, and a photo of the generator's hour meter. The verification administrator would then check these operating logs against DR event dates and outage data.[99] For customers with generators less than 50 hp (37 kW), the customer would be required to install a data logger, at the customer's expense, as a condition of participation.

- Attestation Scenario 3: Customers in this sample attest to having a prohibited resource on-site for use during DR events for safety, health, or operational reasons. As part of the attestation, they are asked to provide the resource's total nameplate capacity, which will be used as the DAV to adjust the DR incentives for that customer's service account. For these customers, verification administrator would compare the attested nameplate capacity against Utility interconnection and notification records. If such records are not found, the verification administrator will submit a data request to the relevant air quality management or air pollution control districts to compare the customer's attested nameplate capacity against the permit records.[100]

B. Summary of Utilities' Proposed Approach to Implement the Plan

[98] *Ibid*., p. 34
[99] *Ibid*., p. 38
[100] *Ibid*., p. 40

In their Advice Letter filing the Utilities propose some modifications to the consultant's proposed Verification Plan. First, the Utilities propose a phased approach: In Year One, the verification administrator would conduct a test on a sample (10 percent) of Attestation Scenario 2 customers in affected programs, for the first three to five years from the prohibition implementation date. The test would involve installing ratepayer-funded meters and loggers for 10 percent of these customers.[101] The information gained from this test would inform several determinations, including customer experience, whether a meter is preferable to a logger, the effectiveness of installing measurement equipment, and how to best scale potential installations. Verification for customers in Attestation Scenarios 1 and 3 would commence as proposed. The verification administrator will track compliance and report violations to the Utility, relevant aggregators, and the CPUC as follows: Type I Violations when the 60-day cure period has been exceeded and all Type II Violations. An annual review process of the verification would be conducted for the first three to five years, focusing on rates of compliance with the prohibition across all scenarios.[102]

Second, the Utilities disagree with the consultant's proposal for sampling per program and per attestation scenario. Instead, Utilities propose sampling at the program level, across all three Attestation Scenarios to improve cost-effectiveness of the verification.[103] Utilities note that sampling at the program level yield sufficient data on compliance levels, consistent with the direction of D.16-09-056. Sampling size would be reconsidered annually as additional attestation and violation information becomes available.[104] The Utilities also suggest setting a confidence level at 90 percent, instead of the consultant's suggested 80 percent, would determine the sample size necessary to conduct the compliance test.

[101] AL 3653-E et al., p. 8
[102] *Ibid*., p. 12
[103] *Ibid*., p. 9
[104] *Id*.

Third the Utilities propose that, instead of requiring the installation of data loggers as a condition of participation for customers with generators < 50 hp under Attestation Scenario 2, such customers should instead be ready, when requested by the verification administrator, to demonstrate their compliance through a load curtailment plan, line diagrams, and other documentation.[105] This demonstration would fulfill the terms of verification at a lower cost.

The Utilities posit that the cost of implementing the prohibition should not exceed the benefits derived from these resources from being used to reduce load during DR events. That is, the costs of the prohibition should be "capped" at the benefit level. The benefits of the prohibition are the avoided CO_2, NO_x, and Particulate Matter (PM) emissions. To translate these benefits into financial terms, the Utilities have chosen as a "worst case scenario" the consultant's assumption that 20 percent of customers falsely attest to not using a prohibited resource to reduce load during DR events (Attestation Scenario 2), when in fact they do. The Utilities believe that this is a reasonable assumption, as most customers will comply provided that sufficient enforcement and deterrence are in place. Based on this premise, the Utilities estimate that these violations result in annual environmental benefits of $1.30M for SCE, $650,000 for PG&E, and $8,000 for SDG&E. In effect, the cost to implement the Plan should not exceed a total of $1.9M across all three Utilities. Other than their assumption of non-compliance of 20% for Attestation Scenario 2, the Utilities provide no details, assumptions or explanations as to how they calculated the annual environmental benefits of avoided emissions.

Fourth, the Utilities do not support the consultant's proposed plan to randomly sample from all affected DR participants and install logs, as the requirement, they argue, would go beyond those required by most AQMDs and the Utilities' interconnection requirements, as well as the Decision itself, which only requires Utilities to assess customer compliance.[106] Again, in light of the stated cost-benefit

[105] *Ibid*., p. 10
[106] *Ibid*., p. 11

argument, Utilities propose that the potential high cost of meters necessitates consideration of other, lower-cost options.

Fifth, although the topic was not addressed by the consultant's Plan, the Utilities propose addressing DR in disadvantaged communities (DAC) through other proceedings that are more appropriate, rather than the Verification Plan.[107] The Utilities note that these broader proceedings are more appropriate vehicles as the geography of a DAC corresponds to the census tract, is often much smaller than and incongruent with a LCA footprint.[108] Moreover, focusing verification on DACs could unfairly target certain companies with operations in DACs.

Sixth, as proposed by the consultant,[109] the Utilities propose hiring one third-party verification administrator across all three Utilities for Utility and aggregator programs, including DRAM. Costs could be shared according to the number of non-residential customers, since the verification steps are performed on a customer-by-customer basis.[110] The Utilities and DRAM aggregators would submit their estimated customer counts for the year, which would then be used in the Utilities' Request for Proposals (RFP) to engage a consultant. The selected administrator will then determine the sample size required by program and choose the customers, and conduct the verification.[111]

Finally, the Utilities propose to work to develop a mechanism to transfer the cost for the verification administrator from the 2018-2019 DRAM years' budget.[112] The

[107] *Id*.
[108] *Id*.
[109] Nexant, Inc., "We recommend a centralized verification for the following reasons," *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 36.
[110] AL 3653-E et al., p. 12
[111] *Ibid*., p. 13
[112] *Id*.

estimated cost for the verification administrator is $375,000 annually.[113] Utilities request fund-shifting flexibility for the verification implementation itself, along with the cost of the first year of logger and meter installations for 10 percent of Attestation Scenario 2 customers, which is estimated at $181,000. Should the Plan be more costly than planned, the Utilities request the ability to file a Tier 2 Advice Letter.[114]

C. Prohibited Resource Verification Plan (Plan) for Demand Response Programs: Party Protests –Effectiveness of Verification

In its protest, Sierra Club states that a strong monitoring regime for prohibited resources is required because a even a small percentage of their use could release more emissions than if a natural gas plant had been used, eliminating any air quality benefits of DR.[115] Sierra Club also notes that the health burdens of emissions are inequitably borne by populations exposed to health risks, especially low income, elderly, and minority populations.[116]

ORA protests that the Utility's suggestion to meter 10 percent of Attestation Scenario 2 customers in Year One of the prohibition would leave enforcement of the prohibition unresolved for the balance of 90 percent of such customers, which represents 42 percent of statewide utility DR customers.[117] Further, ORA states that the Utilities' deferment of metering until after an Annual Review Process leaves enforcement uncertain and the prohibition meaningless.[118] In the absence of an effective verification plan, they argue, there is no certainty that DR can be

[113] AL 3653-E et al., p. 8
[114] *Ibid*., p. 14
[115] Sierra Club, "Protest to AL 3653-E et al.," (September 21, 2017), p. 3
[116] *Ibid*., p. 4
[117] ORA, "Protest to AL 3653-E et al., (September 21, 2017), p. 3
[118] *Id*.

considered a clean resource.[119] Hence, ORA and Sierra Club propose a monitoring protocol based on electronic records for all Attestation Scenario 2 customers: ORA proposes interval generation meters for a majority of these customers,[120] while Sierra Club proposes that customers demonstrate that their resource has no bypass switch and can only operate during an outage, or produce electronic records demonstrating that the resource was off during a DR event.[121] Among the subset in the latter scenario, some will not have resources with pre-installed logging capability. For these customers, that Sierra Club proposes the installation of loggers at customer expense.[122]

ORA also protests that the Utilities' proposal for a phased approach does not result in a concrete enforcement mechanism because it does not provide a pathway by which customers can demonstrate that they are not using the prohibited resource to reduce load during a DR event within a specified deadline.[123] ORA provides detailed recommendations to remedy the uncertainty:[124]

1. Because loggers and AQMD operation manifests are inadequate, all Attestation Scenario 2 customers, with the exception of small commercial sector customers,[125] should be required to install a meter or a logger with the understanding that, for the latter, any operation during a DR event translates to noncompliance, in which case the customer has committed a Type II Violation or can choose a DAV.

[119] *Id*.
[120] ORA, "Protest to AL 3653-E et al.,"(September 21, 2017), p. 4
[121] Sierra Club, "Protest to AL 3653-E et al., (September 21, 2017), p. 8
[122] *Id*.
[123] ORA, "Protest to AL 3653-E et al.," (September 21, 2017), p. 9
[124] *Ibid*., p. 11
[125] ORA, "Protest to AL 3653-E et al.," p. 11: "Smaller commercial customers should be allowed flexibility for compliance timing in Year One of the prohibition, but all customers should have verifiable compliance obligations by Year Two."

2. Beginning Year Two, small commercial customers[126] under Attestation Scenario 2 must submit load reduction plans. If such plans demonstrate that they have other means of providing DR other than using a prohibited resource, they will be exempt from the metering requirement.

3. In Year Three, small commercial customers receiving exemption in Year One must resubmit their load reduction plans annually to demonstrate that there is no change from previous years.

In its protest, the Joint DR Parties assert that because there is no data to ascertain that the combination of the attestation process and the verification plan is inadequate, it is premature to make decisions on additional requirements such as metering.[127] OhmConnect contends that the Plan's recommendation is drawn from a limited data set -- gathered from a random sample of 180 service accounts -- that may not be representative of small commercial customers.[128]

CLECA suggests allowing customers to demonstrate compliance by providing a load curtailment plan and line diagrams, instead of logger or meter installations.[129] Similarly, the Joint DR Parties note that there are other reasonable approaches to verification, such as communication with the aggregator on their customer's load curtailment plans.[130] This alternative could obviate the need for data logger installations and cross referencing of records with other state air quality records, because aggregators already know which customers are using prohibited resources and which are not, as a condition of qualifying customer location for DR

[126] According to ORA's "Protest to AL 3653-E et al.," p. 11: "Small commercial customers are defined as those with up to either 20 kW or 75 kW of peak demand, as defined by each Utility's rate schedules."
[127] JDRP, "Protest to AL 3653-E et al.," p. 3
[128] OhmConnect, "Protest to AL 3653-E et al.," p. 2
[129] CLECA," Protest to AL 3653-E et al., p. 4
[130] JDRP, "Protest to AL 3653-E et al., pp. 2-3

participation. Thus, requiring of loggers or meter installation would be superfluous.[131]

OhmConnect opposes the installation of loggers or meters, but should the Commission approve this method, is supportive of the Utilities' proposal for installing meters and loggers on a sample of customers in Attestation Scenario 2.[132]

D. Prohibited Resource Verification Plan (Plan) for Demand Response Programs: Party Protests – Cost Allocation of Plan and Installation of Loggers and Meters

In their protests, CLECA and the Joint DR Parties state their support for the Utilities' proposal that the costs of implementing the Plan be considered alongside the benefits of achieving compliance with the prohibition.[133] CLECA supports the Utilities' proposed cost caps to ensure that ratepayer funded utility expenditures are cost-effective, noting that the Commission has already rejected costly metering and bi-annual site-visits in favor of customer attestations.[134] The Joint DR Parties add that neither the consultant nor ORA have made a factual case that the adopted attestation and penalty processes in place are inadequate in discouraging the use of prohibited resources.[135] ORA protests that the Utilities' cost cap estimates are based on assumed benefits that have not been reviewed and vetted in a stakeholder process.[136] Sierra Club states that the Utilities' cost-effectiveness argument is without merit because it lacks underlying assumptions or any data in the record. For example, the Utilities did not provide how many MWh of DR were contributed by

[131] *Id*.
[132] OhmConnect, "Protest to AL 3653-E et al.," p. 5
[133] CLECA, "Protest to AL 3653-E et al.," p. 3 an JDRP, "Protest to AL 3653-E et al.," p. 3
[134] CLECA, "Protest to AL 3653-E et al.," p. 3
[135] JDRP, "Protest to AL 3653-E et al.," p. 4
[136] ORA, "Protest to AL 3653-E et al.," p. 10

prohibited resources, the mix of resources and their associated emissions profiles, and the benefits to human health of avoided air pollution. [137]

Moreover, ORA assert that the Commission has already concluded that ratepayer-funded DR should not increase the operation of prohibited resources that the DR is intended to avoid. The prohibition is not a DR program, and thus does not fall within the standard Utility DR budget process, which involves an analysis of how DR offsets energy procurement.[138]

In addition, the Joint DR Parties reiterated both its and the Utilities' concern about cost allocation to DRAM participants that were not contemplated in advance of bid evaluations, incentive rates, or contract execution.[139] ORA is in agreement with this argument. ORA states that if data logger or interval generator meter installation becomes a newly required pre-condition for new or continued participation in a DR program or mechanism, the cost should be borne by all ratepayers.[140] The Joint DR Parties assert that doing otherwise would stifle a resource that provides carbon free services to the grid.[141]

In its protest, OhmConnect states that requiring small commercial customers to install logger or meters at their cost would disproportionately impact small commercial customers whose load profiles more closely match large residential customers.[142] Requiring metering and cost sharing by small commercial customers who, not only accrue much smaller incentives than large scale industrial customers, but are also statistically unlikely to be in violation of the prohibition, will result in the unintended consequence of reduced participation. OhmConnect asserts that small commercial customers receiving, on average, $50 to $100 in incentives will be

[137] Sierra Club, "Protest to AL 3653-E et al.," p. 6
[138] ORA, "Protest to AL 3653-E et al.," p. 10
[139] JDRP, "Protest to AL 3653-E et al.," p. 3
[140] ORA, "Protest to AL 3653-E et al.," p. 12
[141] JDRP, "Protest to AL 3653-E et al.," p. 3
[142] OhmConnect, "Protest to AL 3653-E et al.," p. 3

unintentionally "caught" in a net designed to identify customers with a higher probability of violating the prohibition.[143] As such, OhmConnect proposes that small commercial customers be exempt from the requirement to install loggers or meters and any verification requirement. Consequently, because such customers would not incur any costs towards the enforcement, they also should be exempted from any cost sharing requirements.[144]

ORA counters that for small customers, based on public data on Utility programs only, Capacity Bidding Program (CBP) participants receive on average $1,780 per year in incentives, which is adequate to cover the one-time cost of a meter for resources smaller than 1 MW in output.[145] ORA supports this conclusion by citing that, PG&E has 468 CBP customers providing 14 MW.

ORA also notes that the Commission already addressed costs concerns when it offered customers the option to accept a DAV when they use a prohibited resource for operational, health and safety reasons.[146] In adopting this mechanism, the Commission resolves the issue of ratepayer burden, costs to DR customers, and certainty in the quality of DR.

The Joint DR Parties note in its protest that requiring the installation meters or loggers for customers attesting to Scenario 2 is not only beyond the clear direction of the Commission, but would also lead to customer attrition.[147] ORA responds that the joint Utilities and Joint DR Parties' claims of attrition is unsupported by evidence. Based on ORA's analysis using information obtained through data requests, 79 percent of BIP customers receive more than $10,000 annual incentive payments, while a much smaller percentage receive between $1,500 to $10,000 per year.[148] For

[143] *Id*.
[144] OhmConnect, "Protest to AL 3653-E et al.," p. 5
[145] ORA, "Protest to AL 3653-E et al.," pp. 8-9
[146] *Ibid*., p. 7
[147] JDRP, "Protest to AL 3653-E et al.," p. 2
[148] ORA, "Protest to AL 3653-E et al.," p. 7

those who receive less than $1,500 annually, ORA estimates that such customers are in single-digit percentages. Among these, only a portion are likely to have a prohibited resource, with a subset of these having non-by passable switches allowing a resource's use only for emergency purposes. Sierra Club echoes this argument and states that arguments about MW lost due to customer attrition are overstated.[149] In its protest, Sierra Club cites Lawrence Berkeley National Lab's Potential Study which found that over 80 percent of projected DR come from resources and customers that would be unaffected by the Plan. Of the remaining 20 percent, only customers who own a resource without a bypass switch would be required to install a meter; these resources are typically older and likely to produce higher emissions.[150] In addition, Sierra Club notes that because resources that can meet some local AQMD standards tend to be newer, these resources are likely to already have an internal measuring capability.

ORA concedes that, for customers who own a prohibited resource but that declines to take the DAV or meter, the Commission could instead direct them to install a logger instead of a meter, provided that such customers annually submit their load reduction plans to confirm they have adequate load reduction abilities from other sources.[151]

ORA notes that the Utilities' $375,000 estimate for a verification administrator would be substantially reduced in the presence of incontrovertible data from metering. In addition, this certainty would obviate the need (and associated costs) for re-filing of annual Advice Letters on modified tariffs, contract language, and reissuance of attestation forms.[152] ORA proposes that costs for the verification administrator and funding sources will be reconsidered in the DR 2018-2022 Application mid-cycle review.

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[149] Sierra Club, "Protest to AL 3653-E et al.," p. 5
[150] *Ibid*., p. 8
[151] ORA, "Protest to AL 3653-E et al.," p. 12
[152] *Ibid*., p. 9

E. Prohibited Resource Verification Plan (Plan) for Demand Response Programs: Party Protests – Plan Approach, Sampling Methodology, and Installation of Loggers and Meters on a Subset of Customers

The Joint DR Parties support the joint Utilities' proposal that, the Plan implementation take a phased approach, by first assessing the effectiveness of the implementation plan as directed in Resolution E-4838 to determine whether the Plan is producing the desired result, before determining whether further modifications are necessary.[153] ORA opposes the Utilities' proposal for an annual review process because it would be false to assume that a new or additional assessment necessarily leads to better verification, enforcement, and compliance. Rather than creating potentially drastic disruptions, requiring installation of meters for Attestation Scenario 2 customers would provide regulatory and customer certainty.[154]

OhmConnect opposes the Utilities' proposal to sample by program, across all three scenarios and across utilities for statewide programs, as this would incur additional costs. Instead, OhmConnect supports sampling statewide, inclusive of all programs.[155] ORA supports the Utilities' proposal to sample customers within each program, rather than by program and attestations scenario as proposed by the consultant.

ORA proposes that smaller customers be allowed flexibility for compliance in Year One, but should submit their load reduction plans to the verification administrator by the beginning of Year Two.[156] If such plans demonstrate that they have other means of providing DR other than the use of a prohibited resource, they will be

[153] JDRP, "Protest to AL 3653-E et al.," p. 2
[154] ORA, "Protest to AL 3653-E et al.," p. 9
[155] OhmConnect, "Protest to AL 3653-E et al.," p. 5
[156] ORA, "Protest to AL 3653-E et al.," p. 11

exempt from the logger or metering installation requirement. Similarly, Sierra Club is in support of a targeted exemption for small customers.[157]

F. Customer Dispute Resolution

In AL 3653-E et al., the Utilities propose that, "Customers disputing a Type I or Type II Violation shall be permitted to engage in a dispute resolution process with the Verification Administrator, PG&E (IOUs), the Commission, and if Applicable, the customer's aggregator.[158]" The Utilities assert that an expedited dispute resolution processes would allow "for a determination within the period of time necessary for the 60-day cure period (for Type I Violations)[159] or the 30-day removal period (for Type II Violations).[160]" They suggest that that a panel of five members ("Review Panel") be convened, composed of an odd number of participants from each of the following: Energy Division, the applicable Utility, the verification administrator, ORA, and the customer's representative (either from the Utility or, the customer if self-aggregated[161] or direct-enrolled; the third-party aggregator for aggregator programs; or the DRAM Seller for DRAM customers).[162] The Utilities propose that the Commission's Executive Director would act as the final arbiter and issue an Order in cases where the panel cannot provide a consensus determination.[163] Once

[157] Sierra Club, "Protest to AL 3653-E et al.," p. 8

[158] AL 3653-E et al., Attachments B and C

[159] Per Resolution E-4838, FOF 45 at 50 and OP 32 at 57, Type I Violations are clerical or administrative in nature and do not involve the use of a prohibited resource to reduce load during DR events.

[160] Per Resolution E-4838, FOF 45 and 45 at 50 and OP at 33 at 59, Type II Violations are those which involve the use of a prohibited resource to reduce load during DR events and may include cases in which: a. a customer attests to the "no-use" provision but is verified to have used the resource; or b. a customer submits an invalid nameplate capacity value for the resource and the resource was used.

[161] SCE notes that it allows individual customers to self-aggregate for one account or more under SCE CBP Schedule. There is no Third Party Aggregator representation for the self-aggregated CBP customers.

[162] AL 3653-E et al., Attachment B at 6

[163] *Id*.

the Order has been issued, the complainant and Review Panel may request the Energy Division Director to place the Order on the Commission's meeting agenda as a Draft Resolution for full approval, or approval with modifications.[164]

The Utilities request that, if the Commission approves the proposed process, Energy Division would provide a "launch date" for the Review Panel and "publish a website."[165] The Utilities would then seek authorization to file a Tier 1 Advice Letter to include the language and launch date of the expedited dispute resolution process into relevant tariffs.[166]

In its protest, ORA supports the Utilities' proposal for an expedited dispute resolution process using a committee, but instead proposes that the website be created by the verification administrator, instead of Energy Division, to reduce delays from potential staffing and contracting needs. ORA recognizes that because the Review Panel workload may be high, ORA's own ability to participate may be constrained.[167]

CLECA protested the inclusion of ORA in the Utilities' proposed Review Panel and asserts that, given ORA's stated positions on metering requirements, their inclusion would *not* ensure an unbiased, objective perspective. In addition, the verification administrator should also be exempted from the Review Panel since it may also call upon her to provide evidence.[168]

DISCUSSION

We discuss and resolve each protest issue in turn below, as it pertains first, to AL 3542-E-A et al., then to AL 3653-E et al.

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[164] AL 3653-E et al., Attachment B at 7
[165] AL 3653-E et al., Attachment B at 8
[166] AL 3653-E et al., at 14
[167] ORA Public Protest of AL 3653-E et al. Regarding Supplemental Filing to Comply with D. 16-09-056 at 12
[168] CLECA," Protest of AL 3653-E et al.," at pp. 1-3

III. Advice Letters AL 3542-E-A, AL 4991-E-B, and AL 3031-E-A ("AL 3542-E-A et al."): Terms and Conditions of Prohibited Resources in Tariffs

A. Customer Attestations: Tariff Language on Verification

Confirming the veracity of customer attestations may require additional information. We find that a verification administrator's requests for data and premise access to be reasonable and may be necessary for inspection. We decline to adopt a policy of installing data loggers or metering devices at this time, as we explain later in this resolution. For the present, we conclude that it is reasonable for a verification administrator, through the Utility or an aggregator, to request data and premise access for the purpose of verification, and that the customer is responsible for responding to the request. We direct the Utilities to strike from their tariff schedules references to the customer's need to install data loggers or meters upon the verification administrator or Utility's request, but reiterate that participation conditions must include attestations that are subject to verification. We decline to adopt the term "reasonable" as suggested by the Joint DR Parties as that term could be subject to subjective interpretations. Verification activities should be consistent with the verification plan details that are addressed later in this resolution.

We also restate that, in compliance with Resolution E-4838,[169] while attestations may be updated at any time without limitations, such changes must be supported by documentation on operational changes. We find it reasonable to request this confirmation from customers, which can be provided to the Utility in the form of a work order, invoice, or inspection report. We direct the Utilities to specify that approval of an updated attestation, which may be performed at anytime, is contingent upon customers providing documentation confirming the operational change.

[169] Resolution E-4838 at 19

B. Customer Attestations: Forms

The Joint DR Parties argue that aggregators are responsible for collecting customer attestations, but are not required to use Utilities' forms and that this should not be a contract requirement.[170] As specified, Resolution E-4838 requires aggregators to submit customer attestation forms to Utilities, but does not prescribe using the Utilities' forms. We agree with the Joint DR Parties and find Utilities' proposed requirement to use its own forms would add an additional unnecessary burden for customers and aggregators.

In order to streamline attestations for the initial collection period, existing customer aggregators may use their attestation forms for Program Year 2018. Moving forward and for future program years, for simplicity and consistency, we agree with PG&E that aggregators use the Utilities' attestation forms (if there are changes), which are incorporated as part of Utilities' Add / Delete forms.[171] Also, as mutually agreed upon at a stakeholder teleconference on September 24, 2017, Utilities will accept submissions through an electronic or "click" signature, verified through third-party authentication.

We clarify below the forms to be used for each program year, for Utility and aggregator programs' existing and new customers, and for DRAM existing and new customers. We direct Utilities to revise language for all tariffs, schedules, contracts and special conditions to reflect the obligation for aggregators to collect and submit to the Utilities attestations from customers.

We specify in the below matrix the use of aggregator or Utilities' forms for Program Years 2018 and 2019 and beyond for non-DRAM and DRAM customers.

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[170] JDRP, "Protest to AL 3542-E-A et al.," (Protest to SCE, p. 2; Protest to PG&E, p. 2; Protest to SDG&E, p. 2)

[171] PG&E, "Response to Protests to AL 3542-E-A et al.," p. 3

Program Year	Utility and Aggregator Program: Existing Customers	Utility and Aggregator Programs: New Customers	DRAM: Existing and New Customers[172]
2018	Aggregator customers: Aggregators' attestation forms, to be stored by aggregators and submitted to Utilities and CPUC upon request Utility customers: Utility attestation forms submitted to CPUC upon request.	Utilities' attestation forms and (as part of) Utilities' add / delete forms, to be stored by aggregators and submitted to Utilities and CPUC upon request	Aggregators' attestation forms, stored by aggregators and submitted to Utilities and CPUC upon request
2019 and beyond	Existing aggregators' customer attestations are already on file both with Utilities and aggregators since 2018. Any operational or administrative change requiring an update or correction to existing attestations will be made on the Utilities' forms, to be stored by aggregators and submitted to Utilities and CPUC upon request	Utilities' attestation forms and (as part of) Utilities' add / delete forms to be stored by aggregators and submitted to Utilities and CPUC upon request	Aggregators' attestation forms, stored by aggregators and CPUC upon request

Similarly, we agree with the Joint DR Parties that it would be cumbersome for parties to be required to attest and sign individually for each service account on a property.[173] When a customer has multiple service accounts on one property, we find sufficient the submission of one attestation form per attestation scenario. We also agree with PG&E and SCE that, to ensure recordkeeping for verification and compliance, detailed information must support the attestation form.[174] We address the Joint DR Parties' request for further guidance: In accordance with Resolution

[172] Resolution E-4838 OP 16, "The Utilities shall alter tariff and contract language for all affected DR programs other than the DRAM to indicate that the Utilities will collect attestations from their own returning non-residential customers and will require submittal by third party aggregators of attestations for all of their returning non-residential customers by the Utility-specified date in Q4" and OP 17, "Utilities shall alter DRAM contract language to require third-party aggregators to collect and store attestations for all returning non-residential customers by December 31, 2017, and to make these available upon request to Utilities and / or Commission staffs," at 57

[173] Stakeholder Teleconference on September 24, 2017

[174] *Id*.

E-4838, customers whose prohibited resource is being used to reduce load during demand response events (Attestation Scenario 3), the nameplate capacity of *each* resource will be provided by the customer or the aggregator. These values will be summed and used by the Utilities to create a total value for the DAV. For Scenario 2, we conclude that having the nameplate capacity of the resource may be useful information to include in the attestation form and that there is no harm to the customer in providing it. We direct the Utilities to accept one attestation form per Attestation Scenario, as a proxy for all resources that fall under the particular scenario, with supporting documentation that provides additional substantiation. We provide the below format as guidance:

Scenario 1: I do not have a prohibited resource on-site.	**Scenario 2: I do have a prohibited resource on-site and will not use it to reduce load during DR events**		**Scenario 3: I have a prohibited resource on-site and will use it for operational, health, and safety purposes.**	
Service Acct. #	Service Acct. #	Nameplate capacity for each resource	Service Acct. #	Nameplate capacity for *each* resource (if multiple resources the *Utilities* will sum the nameplate capacities from all resources, totaling to a DAV which will be subtracted from the Full Load Drop Level to arrive at the De-rated Load Drop Level)[175]

In addition, to achieve uniformity and consistency throughout Utilities' attestation processes, we find SCE's proposed step-wise approach preferable in achieving consistency among aggregator attestation processes and direct all Utilities to

[175] Resolution E-4838, Appendix II, p. 65: "De-rated Load Drop Level = Full Load Drop Level – Default Adjustment Value."

prescribe the following process in their aggregator contracts for the submission of attestation forms:[176]

a. The aggregator completes the add / delete form;
b. The aggregator presents the add / delete form to the customer for signature; and
c. The aggregator submits the completed form with the customer's signature to the Utility.

We disagree with PG&E's response to the Joint DR Parties' protest, that an aggregator's contractual agreement with a Utility is contingent upon the type of customer attestation form chosen,[177] as this was not required in Resolution E-4838. We note that the aggregator's contractual agreement *is* however, contingent upon the compliance with the prohibition and submission of customers' attestations, *not* the specific form chosen. We direct the Utilities to include this requirement in their aggregator contracts.

C. Default Adjustment Value (DAV)

Based on Resolution E-4838, we find that a customer's operational changes that may result in modifications to the DAV are in fact subject to confirmation by the Utility.[178] Under D.16-09-056, Utilities are responsible for meeting the prohibition requirements among all their DR customers, whether in Utility or third-party-aggregated programs.[179] We concur with the Joint DR Parties that the verification administrator should not approve a customer's operational change,[180] as her assigned task is to check the veracity of the customer's attestation forms. In this capacity, and as addressed in previous section 1.a. "Customer Attestations: Tariff

[176] SCE, "Response to Protest to AL 3542-E-A et al.," p. 3
[177] PG&E, "Reply to Protests to AL 3542-E-A et al.," p. 2
[178] Resolution E-4838, at 41; FOF 21 at 48; FOF 30 at 49; OP 6 at 55
[179] D.16-09-056, OP 4 at 95
[180] JDRP, "Protest to AL 3542-E-A et al.," (Protest to SCE, pp. 2-3; PG&E, p. 2; SDG&E, p. 2)

Language on Verification," the verification administrator may request data and records (as described in the Verification Plan), as well as site access to confirm the customer's attestation scenario. We find that it is reasonable and within the Utility's operational realm and compliance requirement to verify and approve an alteration to a customer's DAV based on operational changes.

Second, because the addition or removal of a prohibited resource may result in a customer's operational change contributing to a new DAV, such changes are also subject to the utility's verification and approval. To further clarify, "approval" is a step Utilities must take to *review* the documentation supporting a customer's changed operational circumstances before confirming with the aggregator that, for example, the customer's DAV modification is incorporated into the appropriate settlement calculation or that the removal of a prohibited resource from a customer's location shifts a customer from Attestation Scenario 2 to Attestation Scenario 1. We concur with PG&E that this "approval" should not result in additional steps.[181] We find this consistent with Resolution E-4838 OP 6.

We order the Utilities to retain tariff and contract language reflecting that the verification administrator or Utility may verify the changes to a customer's DAV due to operational changes; and that operational changes that result in a DAV are not subject to a verification administrator's approval, but are subject to a Utility's approval as required by Commission order. For consistency we direct both SDG&E and PG&E to include the provision that attestation updates resulting from the removal or addition of a prohibited resource from a customer's site is first subject to the Utility's approval, as such changes may also contribute to an update to the customer's DAV.

D. Attestation Violations

We concur with the Joint DR Parties that Resolution E-4838 defines a Type II Violation as occurring when a customer is using a prohibited resource for the

[181] PG&E, "Response to Protests to AL 3542-E-A et al.," p. 2

purpose of reducing load during a DR event.[182] Hence, a customer who possesses a prohibited resource on-site but is *not* using it for the expressed purpose of reducing load during a DR event falls under a Type I Violation. Because this violation does not involve the use of a prohibited resource to reduce load during a DR event, the customer has an opportunity to cure the violation by updating their attestation under Attestation Scenario 2. Hence, we grant the Joint DR Parties relief and direct Utilities to revise tariff enforcement terms consistent with Ordering Paragraphs 14 and 15 of Resolution E-4838 for all relevant schedules and associated special conditions.

Further, we disagree with the Joint DR Parties' assertion that Resolution E-4838 allows for Type I violations to be cured and reinstated at any time.[183] It is not clear if the Joint DR Parties' protest implies that a customer who does not submit an attestation should not be removed from a program within the 60-day cure period. Resolution E-4838 OP 13 specifies that customers who do not agree to the prohibition or provide a correct attestation will not be eligible to participate, which means removal from the program and / or the aggregator's portfolio.[184] Under this requirement, only when such customers remedy the violation by both agreeing to comply with the prohibition and submitting an attestation can they participate in a DR program; if the customer refuses, she would fall under a Type I violation. All customers under the Type I violation scenario are bound by the 60-day cure period. If such a customer chooses not to comply with the prohibition by submitting a corrected attestation within 60 days, then the customer would not eligible to participate in a DR program until an attestation has been submitted. This is consistent with the intent of Resolution E-4838, which allows for customers to enroll "subject to acceptance (residential) or upon submittal of the updated contract / attestation (non residential)."[185]

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[182] Resolution E-4838, FOF 44 and 45 at 43 and 44; OPs 14 and 15 at 49

[183] JDRP, "Protest to AL 3542-E-A et al.," (Protest to SCE, p. 4; PG&E, pp. 3-4; SDG&E, pp. 2-3

[184] Resolution E-4838, OP 21 at 58

[185] Resolution E-4838, at 25

Here we take the opportunity to clarify that, customers who do not agree with the prohibition and hence, have not submitted an attestation as part of their contract, are not able to enroll in DR. These customers have not committed any contractual violation, as they are not party to a DR agreement with the Utility or an aggregator. These potential customers are simply not DR customers and are consequently not subject to any repercussions from committing violations. If, at some point, such potential customers were interested in enrolling in a DR program, then they would have to agree to the terms of the prohibition and submit an attestation form. Until such time, these potential customers are not subject to the enrollment time limits as dictated by violation rules.

We direct SCE and PG&E, where already stated and consistent with OPs 32 and 33 in Resolution E-4838, to retain proposed tariff schedule language to indicate that Type I violations -- which include refusal to comply with the prohibition by submitting a correct attestation -- are curable within 60-days. Where missing, such as in SDG&E's AL 3031-E-A proposed tariff schedules for CBP, BIP, and AFP, we direct the Utilities to add this language and apply it consistently throughout all proposed tariff schedules. These modifications should indicate that Type I violations are curable within 60-days, after which a customer will be removed from a program and / or the aggregator's portfolio, until such time the customer submits an attestation. If a customer has submitted an incorrect attestation but did not use a prohibited resource to reduce load during DR events, then the customer has opportunity to cure the violation within 60-days and can be reinstated at any time. We agree with the Joint DRPs that this is consistent with Resolution E-4838's direction.[186] Hence, we direct SDG&E to strike the proposed tariff language indicating that a Type I non-compliance is subject to removal for 12 calendar months for a single instance of violation.

We further clarify here Type I and Type II violations and the terms under which customer violation will result in removal for uncured Type I or Type II violations.

[186] Resolution E-4838 OP 32 at 32

First, we reason that not all cases of non-compliance are uniformly grievous. However, because customer's intent is irrelevant in determining non-compliance, Resolution E-4838 explicitly categorized Type I violations as those in which the infraction does not involve the use of a prohibited resource to reduce load during a DR event, while Type II violations involve the use of a prohibited resource to reduce load during a DR event or submitting an invalid nameplate capacity. It then follows that for a customer who attests to Scenario 1 ("I do not have a prohibited resource on site"), but in fact has a prohibited resource on-site that she failed to claim, but did not use the resource to reduce load during a DR event, committed a Type I Violation. Additionally a customer who submits an incorrect nameplate capacity under Scenario 2 has committed a Type 1 violation. The nameplate capacity information in Scenario 2 is for data gathering purposes.
Conversely, a customer who has a prohibited resource but attested to not having one on site (submitted an attestation under Scenario 1) but has used the resource to reduce load during a DR event, has committed a Type II violation. Similarly, a customer who has submitted an attestation that she has a prohibited resource (submitted an attestation under Scenario 3) with the invalid nameplate capacity has committed a Type II violation. Because this violation does involve the use of a prohibited resource to reduce load during a DR event, the customer is removed from the program and is ineligible for enrollment for 12 calendar months.

As such, we direct Utilities to update attestation descriptions to clarify relevant violations. For specificity, we provide the below violation descriptions and scenario examples, and reiterate the resulting actions:

	Type I Violation:	**Type II Violation**
Description	Minor clerical or administrative errors that may be resolved with an updated attestation and *do not involve the use of a prohibited resource to reduce load during a DR event*.	i. Using prohibited resource(s) to reduce load during a DR event despite attesting to not doing so, and / or ii. Submitting an invalid nameplate capacity for a prohibited resource(s) under

		Attestation Scenario 3.
Scenario	Existing customer attests to not having a prohibited resource on site, but in fact has a resource on site. However, customer did not use the resource to reduce load during a DR event.	Customer attests to not using a prohibited resource on site. However, customer used the resource to reduce load during a DR event.
Resulting Actions	Existing customer has 60 days from date of notice to cure non-compliance. If an attestation is not submitted within 60 days (uncured non-compliance), the customer will be removed from the Utility's tariff schedule and / or the aggregator's portfolio until an attestation is provided.	A single instance of non-compliance will result in customer removal from the schedule and ineligibility to enroll in any DR program for 12 calendar months from the removal date. Two or more instances will result in the same removal and ineligibility terms for three years.
Refusal to Accept Prohibition as Term of Participating in Utility or Third-Party Aggregator DR Program		
Description	Customer does not agree with prohibition requirements as term of program participation	
Result	Customer is not in eligible to participate in the DR program until such time customer agrees with prohibition and submits an attestation.	

We also agree with the consultant's recommendation that, because the Utilities and third-party aggregators are responsible for enforcing the prohibition, the CPUC should take steps to discourage leniency.[187] To this end, we direct the Utilities and third-party aggregators to provide a quarterly report to Energy Division that includes the number of DR participants found by the verification administrator to be in violation of the prohibition, and the resulting actions taken.

E. Customer Dispute Resolution

[187] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 56

CLECA seeks relief from having two potentially biased Review Panel members and asks for the removal of ORA and the verification administrator from the panel.[188] Although the inclusion of an aggregator as part of the Review Panel was not contested, the Commission finds that this also would not meet the requirement of objective and non-biased participation.

Factually, there is no order issued by the Commission to create or establish a dispute resolution process separate from the existing Commission processes where customers dispute Utility interpretation of tariffs. The creation of a Review Panel is unnecessary and may instead pose additional delays due to members' staffing constraints, as expressed by ORA, or conflicts of interest, as raised by CLECA. As such, we direct disputes involving Type I or Type II violations be resolved using the Commission's formal complaint process, which is an adjudicatory proceeding assigned to a hearing officer.[189] We find the existing process to be reasonable, allowing for resolution for each type of violation, while providing the certainty of a Commission decision. As with other tariff disputes, contractual terms such as bills and incentives will be determined by the existing Arbitration of Disputes rules as set forth by each Utility, and the customer remains on the tariff until the dispute has been resolved. Any dispute regarding the customers' contractual status during the formal complaint process is a factual matter and a policy decision subject to the Commission's existing formal complaint process.

Under the formal complaint process, complainants have the opportunity for a hearing under an Expedited Complaint Procedure, in which a hearing is typically held within 30 days, or under the Regular Complaint Procedure, which allows for attorney representation and for cases in any amount to be heard.[190] Because these procedures as part of an adjudicatory proceeding, complaints require a Commission

[188] CLECA, "Protest to AL 3542-E-A et al.," p. 3
[189] CPUC, *Rules of Practice and Procedure*, California Code of Regulations, Title 20, Division 1, Chapter 1, Article 4, (July 1, 2017), pp. 40-42
[190] *Id*.

final decision will be issued within 12 months of filing. A rehearing may be requested on this decision.[191] If a Complainant is not satisfied with the rehearing, she may appeal the Commission's decision to the State Court of Appeal in the District. We direct the Utilities, customers and / or aggregators to refer tariff disputes arising from the verification process to the existing Commission's formal complaint process.

F. Outreach Metrics

The Joint DR Parties' protest against SCE on this issue is rejected. SCE was directed by Resolution E-4838 to add contract language requiring aggregators to develop metrics for outreach and notification. SCE is not dictating what those metrics are, but merely indicating aggregators' responsibilities in the contract.

SCE and PG&E did not provide the outreach and notification plans (including specific metrics against which the efficacy of outreach and notification are to be measured) for Utility programs as directed by Resolution E-4838. We repeat our directive that SCE and PG&E are to develop an outreach and notification plan as directed in E-4838, along with associated targets and metrics, in a Tier 1 Advice Letter 45 days within the approval of this Resolution. SDG&E's proposed notification plan should be updated with detailed metrics to ensure that customers are appropriately notified of the updated tariffs, contracts, attestation, and verification terms as approved in this resolution. SDG&E shall submit a Tier 1 Advice Letter for that purpose within 45 days of this Resolution. We also direct the Utilities to confer and coordinate with aggregators on the latter's outreach plans to ensure consistency across programs and customers.

G. Costs and Fund Shifting

We approve SDG&E's request to fund shift $934,498 from underspent programs to avoid depletion of one budget category.[192] Under the revised request, SDG&E will

[191] *Id*.
[192] SDG&E AL 3031-E-A, p. 3

shift a total of $934,498 (of which $1,000 is assigned to customer outreach), from *two* Program Categories in the 2017 DR Approved Program Budget: $700,000 from Budget Category 4 –Technology Incentive Program and $234,498 from Budget Category 2 – Capacity Bidding Program.[193]

IV. Advice Letters AL 3653-E, AL 5138-E, and AL 3108-E ("AL 3653-E et al."): Prohibited Resource Verification Plan (Plan) for Demand Response (DR) Programs

A. Adoption of Modified Plan and Utilities' Proposal to Install Meters and Loggers

We adopt the Utilities' Prohibited Resources Verification Plan for DR Programs with modifications. We adopt the following verification implementation steps as outlined in the consultant's Plan: "The common aspects of the verification plan, regardless of attestation scenario, include random sampling from each group of attestations and first contacting customers in the sample to validate the submitted attestation to catch and rectify potential administrative errors. After these two activities, the verification plan becomes attestation-specific."[194] Here, the Commission adopts the Plan for Attestation Scenario 1 and Attestation Scenario 3.

For Attestation Scenario 2 customers, or those who have attested to having a prohibited resource that is *not* used for load reduction during DR events, we direct the Utilities to amend the Plan as follows for the present, and provide further reasoning in subsequent sections:

- "Scenario 2: For generators greater than 50 hp (37 kW), request written operating manifests, as required by Air Toxic Control Measure (ATCM), and

[193] *Id*.

[194] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 3

> a date and time-stamped photo of the generator's hour logger.[195] By end of program year one (December 2018), for generators less than 50 hp, load curtailment plans must be submitted on an annual basis. If such plans cannot demonstrate that the customer can provide DR other than with a prohibited resource output, they fall under a Type II violation. For all customers with generators greater or less than 50 hp, visually confirm the resource's nameplate capacity and compare the operation manifests to DR event dates and outage data, either through a date and time-stamped photo or a site visit. Other information about the resource (*e.g.*, single line diagrams, location, capacity, etc.), as required by CPUC Rule 21[196] and the California Health and Safety Code (HSC)[197] should also be requested from the Utility."

We concur with the consultant's recommendation that, since records for both CPUC Rule 21 and HSC cover nearly all prohibited resources of any size, with the exception of agricultural pumps,[198] these records can be used as documentation resource in the Plan.

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[195] Per California Air Resources Board (CARB) Air Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines § 93115.10(a), customers with generators greater than 50 hp are required to maintain operation manifests and to have a non-resettable hour logger to show the aggregate number of hours the generator has been operated. ATCM compliance requirements are enforced by financial penalty fees depending upon the type, duration, and history of violations at the facility.

[196] On-site resources that are not connected to a Utility's distribution system are not required to enter into an interconnection agreement, but are nevertheless subject to Rule 21 requirements when the resource is operating in momentary parallel operation mode. In such cases, the resource must be reviewed and approved by the Utility.

[197] Per California Health and Safety Code (HSC) § 119085(b), customers with resources operating in isolated mode are not required to enter into an interconnection agreement, but must submit information, including location, to satisfy the Utility's notice requirements.

[198] Rule 21 does not cover agricultural pumps as these resources are not interconnected to a Utility's distribution system.

The verification process adopted above for Scenario 2 participants is a reasonable approach at this time. It will provide some degree of compliance while also providing clear rules for participants to meet their compliance obligations. For reasons explained in Section B. below we do not adopt at this time meters or loggers as a method of verification for Scenario 2 participants.

We recognize that there may be cases in which the verification process for all attestation scenarios may require additional supporting evidence such as line diagrams and other documentation. The Commission also notes that, since non-by passable prohibited resources are not capable of being used for DR events, verification may simply require inspection of operation data against power outage data.[199] We direct Utilities to indicate these requirements in all relevant schedules and contracts.

We agree with the Joint DR Parties and ORA that because the Commission did not factor the cost of verification when directing DRAM contracts,[200] they should be exempt from cost burdens until the next DRAM cycle, which begins in 2020. We direct the Utilities to remove any reference of cost burdens associated with the verification plan being born by DRAM customers.

Since small commercial customers are required to submit load curtailment plans on an annual basis, then they too must share the proportional cost burdens for the verification administrator. We direct the Utilities to indicate these requirements in all relevant contract agreements and program conditions.

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[199] In its Plan, the consultant states, "In the simplest case, the customer's prohibited resource that does not have a bypass switch and has an automatic transfer switch that closes under loss of power will not be able to operate a prohibited resource during a DR event. These types of generators are designed and used for the safe shutdown of the facility and to support only essential controls and emergency lighting." (Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 8.

[200] JDRP, "Protest to AL 3653-E et al.," p. 3 and ORA, "Protest to AL 3653-E et al.," p. 12

In addition, we approve the Utilities' request to test the installation of loggers and meters in 10 percent of Attestation Scenario 2 customers[201] with the below modifications. We direct the Utilities to file a Tier 2 Advice Letter within 30 days of the Commission's approval of this Resolution, with the following details:

1. Provide the range of interval meters, functionalities, and associated costs of the units that will be installed.
   a. Install interval meters in cases where the prohibited resource is used during both DR event and non-event hours (e.g., for customers who may have CHP units used for baseload); and in cases where the prohibited resource has a bypass switch.
   b. Provide and describe the resource usage patterns and scenarios of customers whose prohibited resource will be tested using interval meters;
   c. Provide descriptions of other existing scenarios in which the installation of an interval meter instead of a data logger is more appropriate for customers. Describe scenarios and usage patterns best evaluated by an interval meter.

2. Provide the range of data loggers, functionalities, and associated costs of the units that will be installed:
   a. Provide and describe the usage patterns and scenarios of customers whose prohibited resource will be tested using data loggers;
   b. Provide description of existing scenarios in which the installation of a data logger instead of an interval meter is more appropriate for customers. Describe scenarios and usage patterns best captured by a data logger.

3. Provide any additional budgets from which fund shifting may be necessary, in addition to the proposed 2018-2019 DRAM year, to cover the $181,000 cost of data logger and interval meter unit and installation costs.

[201] AL 3653-E et al., p. 8

The Tier 2 Advice Letter filing should also include a final version of the Prohibited Resources Verification Plan for Demand Response Programs, incorporating relevant amendments as directed in this Resolution.

The Year One interval meter and data logger installation test results are to be filed in a Tier 3 Advice Letter and presented in the first annual review of the Plan implementation and prohibition compliance. The Advice Letter should include Utility recommendations and stakeholder input on if and how the Plan can be improved. Based on the results from this initial review, the Commission will make a determination on the frequency of annual reviews for subsequent years.

We interpret the Utilities' fund shifting request to be seeking funds from their 2018-22 portfolios[202]. No party is opposed to the Utilities' proposal to shift existing demand response funds to cover the first-year verification plan costs and the installation of interval meters and loggers. The Utilities request for fund shifting is reasonable so we authorize the Utilities to shift the funds from their 2018-22 demand response portfolios for these purposes. The Utilities shall file a Tier 1 joint advice letter detailing the specific budgets from which the funds will come from.

B. Weighing Verification Efficacy Against Cost

The Commission recognizes that a prohibition is only as effective as the supporting enforcement regime; and enforcement is built on verification. In this case, a verification plan should provide an acceptable level of certainty that DR resources are in compliance with the prohibition.

Several verification options have been suggested that would provide certainty, but the Commission elected not to adopt them, such as "costly" metering or bi-annual

[202] The Utilities fund shifting proposal (pg. 14 of AL 3653-E) references shifting funds from the 2015-16 portfolios to fund the initial DRAM pilots (OP 5d of D.14-12-024). Since the 2015-16 portfolios no longer exist, the Utilities fund shift request was interpreted as an application of the principle that was authorized for funding DRAM.

site visits[203]. While these methods provide a high level of certainty, we were concerned about the associated cost in maintaining surveillance and achieving certainty of compliance. A reasonable and preferable outcome would be one that produces a high level of confidence in the verification results while avoiding "costly" measures. While no parties refuted the statutory directives in DR, the remaining issue of what constitutes "costly" verification remains elusive.

Here, we note here that the issue of "costly" is relative to (a.) who pays for the cost, (b.) the actual cost of the unit and its installation (labor), and (c.) the incentive the customer receiving. While the determination on (a.) is outside the scope of these Advice Letters, the information on (b.) and (c.) -- which have been raised by stakeholders -- remains elusive.

Because the primary contested issue is about the installation of potentially "costly" devices such as data loggers and interval meters, we take the opportunity to detail and address party comments on the subject, but first clarify both terms in the context of verifying prohibited resource output and as suggested in the Plan.

For the purposes of this Resolution, "data loggers" are electronic measuring equipment that displays the dates and time stamps of a resource's operations. The logger would show whether the prohibited resource was on or off during a DR event. Loggers are limited in their information because, for example, they may show periodic testing of a prohibited resource or its use associated with load management for demand charges, neither of which is prohibited, unless required by local air quality standards. In addition, loggers do not record hourly level of output from a resource but instead record cumulative runtime.

Second, "meters" are electronic measuring devices that record hourly interval usage, with time-stamped data of the prohibited resource's output. The meter can demonstrate that such output does not increase during a DR event and, for example,

[203] D.16-09-056 at 39 and 42

would allow a verification administrator to distinguish whether a Combined Heat and Power (CHP) unit was being used for normal load management operations, which is *not* prohibited, or whether it increased output during DR events, which *is* prohibited. Both types of measuring devices – loggers and meters – can be factory-installed or after-market installed on the output leads of the prohibited resource.

Third, parties refer to records that capture operating details of the resource, which are either manual or digital. Customers with certain prohibited resources are sometimes required by their respective local air districts to maintain these records. Because of the potential confusion between this term and the above-referenced *electronic* data log, we use the term "operation manifests" to indicate documentation that resource owners use to manually record the date, time, and the number of hours a resource was in use.

As noted by ORA, there are limits to this type of manual documentation as it primarily relies on self-reporting and interpretation of a district's requirements. ORA argues that cumulative operating data from air quality district operation manifests is inadequate to determine when a resource has been in use.[204] One of the consultant's key observations from site visits found that the information reported to the local air quality management district, varies by customer: "…(*e.g.*, one customer reports only emissions test results versus all of the dates and hours of operations)…."[205] Moreover, only three of the 15 customers who maintained operation manifests were able to confirm that these manifests recorded the start and end times of their prohibited resource.[206]

Given the inherent weaknesses in manual documentation, we return to the subject of electronic interval meters and cumulative loggers. Based on the information filed

[204] ORA, "Protest to AL 3653-E et al.," p. 4
[205] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 2, 2017), p. 31
[206] *Ibid*., p. 30

to date, we note the inconsistency and lack of specificity in cost estimates for the purchase and installation of loggers and meters. For example, in their Advice Letter filings, the Utilities estimate that a meter for large customers would cost $2,000, and its installation another $2,000, without referencing the peak demand scenario suited for this type of meter.[207] In its response to a data request and as stated in ORA's protest, PG&E only provides the consultant's estimate for loggers and higher-cost revenue-grade metering,[208] which they assert is costly.[209] SCE and SDG&E provide both meter and installation costs ranging from $487 to $850 for customers with peak demand of 100 kW.[210] For customers with 20 MW of peak demand, the meter and installation costs range from "up to $1,450" for SCE, to $10,000 for SDG&E.[211] It is unclear why there is up to a $363 difference in cost between the Utilities for the 100 kW peak demand scenario and up to an $8,550 difference for the 20 MW peak demand scenario. In its Plan, the consultant offers that the meters and installation costs would range between $500 to $2,000. The consultant quotes the cost of loggers to be approximately $585.[212] Due to these significant price differences between units it would be inaccurate to rely on an average estimate as a measure of cost: The cost of units quoted either populate the lower end or the upper end of the range. It may be that the cost estimates vary because the parties and the consultant are using varying definitions of a meter.

Here we also note ORA's findings on AP-I, BIP, and CBP Utility program incentives, interval meters would be affordable and not unduly burdensome for "42 percent of DR customers (some of which may have an exemption to operate during DR events

[207] SCE, AL 3653-E et al., p. 6
[208] PG&E, "Response to ORA Data Request of May 30, 2017," June 6, 2017, p. 2
[209] During, "Backup Generator Workshop," held on January 13, 2016, PG&E stated that, "the costs of revenue-grade metering can be high."
[210] SCE, "Response to ORA Data Request of May 30, 2017," June 6, 2017, pp. 2-3; SDG&E "Response to ORA Data Request of May 30, 2017," June 6, 2017, p. 1
[211] *Id*.
[212] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), pp. 44 - 45

with a DAV…)"[213] assuming a customer will have only one meter[214]. While this may hold true for customers receiving an average minimum incentive of $1,780, conversely, the $581 average meter cost may be unaffordable for the other 58 percent of smaller Utility DR customers who have 100 kW of peak demand.[215]

While ORA provides data that compares meter costs to DR program incentives, that data is limited to only Utility DR customers participating directly in the BIP, CBP and AP-I (SCE only) programs. Incentives that DR participants are paid by aggregators in those programs or through aggregator DRAM contracts was not made available by any stakeholder in the advice letter process[216]. Without information on incentives for all DR participants, we are unable to fully ascertain the impact of metering or logger requirement. Such data would be critical in informing any policy decisions about metering or logging.

The Utilities proposed capping costs relative to the benefits accrued from avoided emissions, translated into dollar-value terms. We find the estimates problematic for several reasons: The proposal lacked supporting data and or rationale for its underlying assumptions. The proposal excluded any source for the values on human health and environmental benefits, along with any details of the emission profiles of the 20 percent Attestation Scenario 2 customers assumed to be the "worst offenders." Foremost, the proposal introduced a cost-benefit concept that was never entered into the proceeding for stakeholder review and debate, nor adopted by the Commission. For these reasons, the Utilities proposed cap on costs based on its avoided emissions cost-benefit analysis is rejected.

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[213] ORA, "Protest to AL 3653-E et al.," pp. 2-3

[214] *Ibid*., p. 8

[215] *Ibid*., p. 6

[216] On September 28, 2017 ORA submitted in R.13-09-011 a Motion to Compel EnerNOC and CPower to respond to ORA data requests concerning participation and incentive levels of their customers in DRAM and IOU DR programs. According to ORA, the information it sought would be relevant in ascertaining if meters were unduly costly for DR participants. This motion was opposed by EnerNOC and CPower. To date, the Commission has taken no action on the Motion.

In sum, there is no data in the record on incentive revenues received by customers participating in demand response through aggregators. Further, we find that the record in the proceeding demonstrates disputed evidence that have been produced by parties to support their relative positions on incentive revenue and equipment costs.[217] Consequently there is lack of sufficient data to accurately determine affordability *or* unaffordability, which is a necessary step in avoiding "costly metering" as directed by D.16-09-056.[218]

There is significant factual dispute regarding the potential costs for purchase and installation of digital loggers and meters for the benefits they provide as well as policy decisions that must be made regarding what costs may reasonably be allocated to various types of DR program participants based on their generation capacity and compensation scheme.

We conclude that the advice letter process is ill-equipped to resolve factual disputes or complex policy considerations as described above. General Order (GO) 96-B states: "The advice letter process provides a quick and simplified review of the types of utility requests that are expected neither to be controversial nor to raise important policy questions. The . . . process does not provide for an evidentiary hearing; a matter that requires an evidentiary hearing may be considered only in a formal proceeding."[219] Because the advice letter process is not designed to effectively resolve these issues, the Utilities are hereby directed to file a joint formal Application requesting Commission consideration of these issues to ascertain whether the Commission should adopt the use of loggers and meters in the prohibited resources verification plan. The Commission determines that the

[217] Nexant, Inc., *Prohibited Resources Verification Plan for Demand Response Programs*, (September 1, 2017), p. 29: "Overall, most respondents touched on the cost of the loggers and installation as the reason they would or would not continue to participate in demand response."

[218] D.16-09-056 at 39

[219] General Order (G.O.) 96-B, General Rule 5.1

Application process would allow evidence development within the record of a formal proceeding on the costs of loggers and meters, and enable the Commission to weigh those costs against the benefits that loggers and meters provide.

We direct the utilities to file the joint Application within 90 days of the Commission's approval of this Resolution, with the following information on both Utility and its third-party-aggregated customers.

1. Non revenue-grade and settlement-quality interval generator meters
   a. The full range of models, along with their functionalities, and associated unit and installation costs;
   b. Description of customers whose resource usage patterns and scenarios are best evaluated with this meter installation;
2. Revenue-grade and settlement-quality interval generator meters
   a. The full range of models, along with their functionalities, and associated unit and installation costs;
   b. Description of customers whose resource usage patterns and scenarios are best evaluated with this meter installation;
3. Cumulative data loggers
   a. Range of models, along with their functionalities, and associated unit and installation costs;
   b. Description of customers whose resource usage patterns and scenarios are best evaluated with a meter installation;
c. Customer load reduction and incentive profiles for each affected DR program; and range of meter or logger unit plus installation costs, under the prescribed scenarios in the below section;
d. Percentage of customers providing the below-listed levels of demand response capacity (peak demand minus firm service level, expressed by "x") and the corresponding range (lowest to highest), mean, and median incentive levels. We provide the below table as a request for information on values

below 1 MW, and require the same information in 1 MW increments for output and load reductions from 1 MW to 20 MW:

	x ≤ 100 kW	100 kW ≤ x ≤ 500 kW	500 kW ≤ x ≤ 1 MW
Incentive Range			
Incentive Mean			
Incentive Median			
% of Customers Providing Reduction			
Range of Non Revenue-Grade and Settlement-Quality Meter Cost (per Resource Unit)			
Range of Non Revenue-Grade and Settlement-Quality Meter Installation Cost (per Resource Unit)			
Range of Revenue-Grade and Settlement-Quality Meter Cost (per Resource Unit)			
Range of Revenue-Grade and Settlement-Quality Meter Installation Cost (per Resource Unit)			
Range of Logger Cost (per Resource Unit)			
Range of Logger Installation Cost (per Resource Unit)			

5. Provide and describe functionalities and associated costs of data loggers that could, in addition to recording the date, time and cumulative hours of operation, provide kW output of the resource, as mentioned by the consultant in its Plan.[220]
6. Provide and describe functionalities and associated costs of other types of measurement devices that could act as proxy to the use of an underlying prohibited resource. Explain whether such a unit could provide sufficiently granular information to determine compliance or violation. (For example, could a building's retail meter capture a resource's output on event and non-event days?)
7. Provide the approximate percentage of demand response participants whose usage pattern or resource type may require multiple installations of a measuring device, whether meters or loggers.

C. Plan: Sampling Methodology

We agree with the Utilities, the consultant, CLECA, and the Joint DR Parties that other verification methods exist, such as verifying customers' potential use of a resource against using interconnection, permit records, and operation manifests. Because we find this reasonable and cost effective for customers who attest to not having a prohibited resource on premise (Attestation Scenario 1) or attest to using a prohibited resource for safety, health, or operational reasons (Attestation Scenario 3), we approve the Plan's verification strategy for customers under these attestation scenarios. For Attestation Scenario 2, we determined in the previous section that such customers with a prohibited resource below 50 hp (37 kW) that is *not* used for load reduction during DR events, must submit load curtailment plans on an annual basis, beginning with the first Program Year (2018) and no later than its conclusion in December 2018. As such, it is reasonable for small commercial customers to share

[220] Nexant, Inc., *Draft Prohibited Resources Verification Plan for Demand Response Programs*, (June 1, 2017), p. 43

a proportional cost for verification, as these load curtailment plans will require review by the third-part administrator.

On sampling methodology, we support ORA and the Utilities' proposal[221] to sample customers within each program, rather than by program and attestations scenario as proposed by the consultant,[222] as this would yield more compliance information per program, and elucidate program-specific behavior due to the different types of customers in each program. Rather than collecting program-wide data points, data points on a per-program basis would yield more conclusive findings from which future sample designs could be created and sample sizes determined. We direct the verification random sampling to be conducted on a per program basis, with a sample size sufficient to produce a 90 percent confidence interval.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

FINDINGS

1. Ordering Paragraph (OP) 41 of Resolution E-4838 directed Southern California Edison (SCE) Company, Pacific Gas and Electric (PG&E) Company, and San Diego Gas & Electric (SDG&E) Company (jointly, the "Utilities") to file supplemental compliance Advice Letters (AL) that modify SCE AL 3542-E, PG&E

[221] AL 3653-E-A et al., p. 9 and ORA, "Protest to AL 3653-E et al.," p. 12

[222] Nexant, Inc., *Draft Prohibited Resources Verification Plan for Demand Response Programs*, (June 1, 2017), p. 43

AL 4991-E-A, , and SDG&E AL 3031-E (jointly, AL 3542-E, et al.) in accordance with Resolution E-4838 and its Appendix I.

2. The Utilities filed supplemental Advice Letters (AL) 3542-E-A (SCE), AL 4991-E-B (PG&E), and 3031-E-A (SDG&E) (jointly, AL 3542-E-A, et al.) on June 15, 2017.
3. Ordering Paragraph 5(f) of D.16-09-056 directed the Utilities to file a Tier 3 Advice Letter (AL) with a proposed Prohibited Resources Audit Verification Plan (Final Plan).
4. The Utilities filed their proposed Prohibited Resources Audit Verification Plan in AL 3653-E (SCE), AL 5138-E (PG&E) and AL 3108-E (SDG&E) (jointly AL 3653-E et. al.) on September 1, 2017.
5. In both AL 3542-E-A et al. and AL 3653-E et al. the Utilities included proposals for, and clarifications on, the requirements of D.16-09-056 on aggregator requirements, customer attestations, Default Adjustment Values (DAV), violation types, and utility contracts with aggregators.
6. In filing AL 3653-E et al. the Utilities complied with the requirements of D.16-09-056 OP 5(f).
7. Resolution E-4838 directed utilities to modify and clarify all tariff language for all affected DR programs.
8. The Utilities, in AL 3542 E-A et al., identified the following programs subject to the new prohibition provisions: the Capacity Bidding Program (CBP) and the Base Interruptible Program for SCE, PG&E, and SDG&E; the Agricultural Interruptible Program (AP-I) for SCE; and the Air Force Pilot (AFP) for SDG&E.
9. It is reasonable that the tariff and contract provisions to implement the prohibition as specified in Resolution E-4838 and the implementation of the verification plan as directed in D.16-09-056 be reviewed for consistent application across all affected DR programs and addressed in a single resolution.
10. OP 10 in Resolution E-4838 requires Utilities to modify tariff language for all affected DR programs to indicate that customer compliance with the prohibition is subject to verification.
11. SCE in AL 3542-E-A and PG&E in AL 4991-E-B state that utility and aggregator customers' attestations are subject to verification by either the Utility or a third-

party administrator; SDG&E in AL 3031-E-A states that attestations are subject to verification by a third-party administrator. SDG&E indicated that additional exact language on the verification of attestations would be determined by further Commission guidance.

12. In AL 3542-E-A et al. the Utilities state that verification activities may require site access or request for additional data within 20 days of notice.
13. It is reasonable for utility and aggregator customers' attestations to be subject to verification by a third-party administrator, consistent with Resolution E-4838. It is reasonable that verification of attestations may require additional data requests or site visits by a verification administrator.
14. Resolution E-4838 allows for updates to DAVs provided that they are the result of a verifiable operational change.
15. SCE in AL 3542-E-A indicates that any changes associated with the following scenarios are subject to SCE's approval and verification: a.) the addition or removal of a prohibited resource; b.) the status of a prohibited resource to reduce load during a DR event; and c.) a change in the DAV due to documented change in operational status.
16. PG&E, in AL 4991-E-B, allows for customer changes, provided that the Utility can verify and approve that the customer's DAV change was the result of a prohibited resource's operational status.
17. SDG&E in AL 3031-E-A states that customers' updates to attestations are subject to the Utility's approval. In its marketing and outreach plan SDG&E also indicates that customers would not be required to sign attestations or select a DAV until the Commission has approved the Verification Plan.
18. It is reasonable for changes to attestations and / or changes in operations that result in a change in a customer's DAV, to be made at anytime, but they must be supported by documentation in the form of a work order, invoice, or inspection report. It is reasonable that Utilities confirm and verify that the information submitted is accurate and consistent with the customer's change in DAV.
19. SCE in AL 3542-E-A and SDG&E in AL 3031-E-A included the installation of a data logger and "verification metering" at the customer's expense if the

requirement is mutually agreed upon by the Utility and customer's aggregator. SCE states that the Default Adjustment Value (DAV) eliminates the need for any costly metering devices.

20. PG&E in AL 4991-E-B did not propose the installation of a data logger or interval generator meter at the customer's expense.
21. It is reasonable not to require installation of data loggers or interval generator meter at the customer's expense at this time.
22. Resolution E-4838, at OPs 16, 17, and 20, requires third-party aggregators to store their customers' attestations, including those who are participating in DRAM, and to make them available to the Utility and Commission upon request.
23. In AL 3542-E-A, SCE filed proposed attestation forms for its own customers and third-party aggregator customers. New and existing customers would file attestations under the Utility's Add / Delete forms. In a subsequent workshop on May 16, 2017 and in email communications of May 26, 2017 between SCE and third-party aggregators, SCE was able to reach agreement on allowing third-party aggregators to use their own forms for existing customers enrolling in the 2018 Program Year.
24. PG&E in AL 4991-E-B filed proposed attestation forms for its own customers and third-party aggregator customers. For new and existing customers, attestations are submitted as part of the Utility's Add form. Each customer is to provide the nameplate capacity for each prohibited resource.
25. In AL 3031-E-A SDG&E filed a proposed attestation form for its own customers and third-party aggregator customers, with new and existing customers signing attestations as part of the Utility's Add / Delete form. SDG&E also subsequently acknowledged that it has no authority to require aggregators to use SDG&E's Add / Delete forms and proposed to file modifications accordingly.
26. It is reasonable for Utilities to use their own forms for existing customers participating in Utility programs.
27. It is reasonable *not* to require existing aggregator customers (non-DRAM) enrolling in the 2018 Program Year to use Utilities' attestation forms to avoid duplication and customer confusion.

28. It is reasonable for new and existing DRAM customers, to utilize aggregators' attestation forms for Program Year 2018 and beyond.
29. It is reasonable to require new aggregator customers (non-DRAM) to use the Utilities' attestation forms for Program Year 2018 and beyond.
30. It is reasonable for customers to provide one electronic signature for each attestation scenario, under which one or more prohibited resources could be attested. It is reasonable that customers list the nameplate capacity for *each* prohibited resource, which Utilities will sum to arrive at a DAV.
31. It is reasonable that new or existing customers, who do not agree with the prohibition and hence, have not submitted an attestation as part of their contract, are not able to enroll in a DR program.
32. It is reasonable to require aggregators to store all attestation forms for existing, new, and DRAM customers and to make them available to the Utilities and the Commission upon request.
33. In AL 3542-E-A et al. the Utilities provide definitions of violations. All three Utilities indicate Type I violations as: a.) an administrative or clerical infraction associated with the submission of an invalid attestation or no attestation, but which do not involve the use of a prohibited resource to reduce load during DR events; or b.) the failure to submit an attestation.
34. SCE, in AL 3542-E-A, defines a Type II violation as when a customer attests to not having a prohibited resource, despite having one on site.
35. Consistent with Resolution E-4838, it is reasonable that a customer under Attestation Scenario 2 who submits an incorrect nameplate capacity has committed a Type I Violation, whereas a customer under Attestation Scenario 3 who submits an incorrect nameplate capacity has committed a Type II Violation.
36. Consistent with Resolution E-4838, it is reasonable that a Type II violation involves the use of a prohibited resource to reduce load during a DR event. The presence of a prohibited resource on the customer's premise does not necessarily mean it is used for such a purpose.
37. A customer who has a prohibited resource but attested to not having one on site, but did not use the resource to reduce load during the DR event, has committed a

Type I violation. A customer who has a prohibited resource on site but attested to not having one on site, but has used the resource to reduce load during the DR event, has committed a Type II violation.

38. SCE, in AL 3653-E-A, and PG&E, in AL 4991-E-B, indicate that Type I violations are curable within 60 days, after which a customer will be removed, until such time the customer submits an attestation.
39. SDG&E, in AL 3031-E-A, indicates Type I violations are curable within 60 days, after which a customer is removed for 12 calendar months.
40. Consistent with Resolution E-4838, it is reasonable to allow customers to cure Type I violations within 60 days, after which a customer will be removed from the Utility's program and / or the aggregator's portfolio, until such time the customer submits an attestation.
41. It is reasonable for the Commission to receive notification from the Utilities and third-party aggregators of which DR participants were found by the verification administrator to be in violation of the prohibition, and the resulting actions taken.
42. In AL 3653-E-A et al., the Utilities propose an expedited dispute resolution process that would establish a Review Panel to resolve Type I and Type II violation disputes.
43. Neither D.16-09-056 nor Resolution E-3848 directed the creation of a new dispute resolution process for prohibited resource disputes, separate from existing Commission processes.
44. It is reasonable that complainants use existing formal complaint processes, which allows for either the Expedited Complaint Procedure, or the Regular Complaint Procedure.
45. It is reasonable that, as with other Utility programs, customers who chose to use the Commission's formal complaint processes are subject to the terms of said processes, including the determination of whether the customer can remain on a program or tariff during the process. Consistent with this process, contractual terms such as bills and incentives will be determined by the existing Arbitration of Disputes rules as set forth by each Utility.

46. Resolution E-4838 required Utilities to provide outreach and notification plans for customers.
47. The Utilities, in AL 3653-E-A et al. indicated that aggregators are responsible for outreach and notification efforts to their customers. The Utilities did not indicate specific requirements for aggregators to demonstrate metrics, targets, and record keeping systems as required by Resolution E-4838.
48. SCE, in AL 3653-E-A, and PG&E, in AL 4991-E-B, did not provide a notification and outreach plan with specific metrics, targets, and record keeping systems for Utility customers. SDG&E, in AL 3031-E-A, provided a notification and outreach plan, but did not include a detailed demonstration of metrics and record keeping systems.
49. SCE and PG&E did not comply with Resolution E-4838 regarding notification and outreach and SDG&E did not provide sufficient detail in its marketing and outreach proposal.
50. SDG&E, in AL 3031-E-A, indicated that it requests to shift $934,498 from additional underspent programs, as directed by OP 39 of Resolution E-4838. SDG&E's revised filing proposes to draw funds from two (Categories 2 and 4), instead of one (Category 4), Program Categories in the 2017 DR Approved Program Budget.
51. It is reasonable that SDG&E utilize funds from the prescribed categories.
52. SCE, in AL 3542-E-A, and PG&E, in AL 4991-E-B, did not request fund shifting authority as authorized in D.16-09-056 to cover the costs of implementing the prohibition.
53. In the proposed Plan, the Utilities' consultant recommended randomly sampling customers at the service agreement level, per each DR program. Customers are then contacted to validate their submitted attestations or rectify any attestation errors. Thereafter, the verification would proceed depending upon the attestation scenario that each customer has selected.
54. The Plan indicates that, for customers who attest to not having a prohibited resource (Attestation Scenario 1), the verifier would check attestations against interconnection and notification records for prohibited resources. If no records are

found, the verifier would then submit a data request to the relevant air quality management or air pollution control districts to compare the customer's attestation against the permit records.

55. The Plan indicates that, for customers who attest to having a prohibited resource on-site, but who do not use such a resource to reduce load during DR events (Attestation Scenario 2), if the customer's resource is greater than 50 hp (37 kW), the verifier would request a written operation log that customers are required to maintain by the state's Air Toxic Control Measure (ATCM) and a photo of the generator's hour meter. The verifier would check these operating logs against DR event dates and outage data. For customers with a resource less than 50 hp (37 kW), the customer would be required to install a data logger as a condition for participation.
56. The Plan indicates that, for customers who attest to having a prohibited resource on-site for use during DR events for safety, health, or operational reasons, the verifier would compare the attested nameplate capacity against Utility interconnection and notification records. If no records are found, the verifier will submit a data request to the relevant air quality management or air pollution control districts to compare the customer's attested nameplate capacity against the permit records.
57. In AL 3653-E-A et al., the Utilities instead propose sampling at the program level, across all three Attestation Scenarios to reduce costs.
58. In AL 3653-E-A et al., the Utilities propose a confidence level at 90 percent instead of the consultant's proposal of 80 percent.
59. In AL 3653-E-A et al., the Utilities proposed the installation of a data logger and an interval generator meter, at ratepayers' cost, for 10 percent, instead of all of its customers under Attestation Scenario 2.
60. In AL 3653-E-A et al., the Utilities proposed that, for the other 90 percent of customers under Attestation Scenario 2, customers should be ready to demonstrate their compliance through a load curtailment plan, line diagrams, and other documentation.

61. CPUC Rule 21 and the California Health and Safety Code (HSC) requirements and records cover nearly all prohibited resources of any size, with the exception of agricultural pumps.
62. It is reasonable that verifiers utilize records for both CPUC Rule 21 and the state's HSC as an initial and primary resource in verification for all programs except for Agricultural Pumping-Interruptible (AP-I).
63. It is reasonable at this time that customers under Attestation Scenario 2 whose resources are greater than 50 hp (37 kW) provide written operating manifests, as required by Air Toxic Control Measure (ATCM), and a date and time-stamped photo of the generator's hour logger to the verifier.
64. It is reasonable at this time that customers under Attestation Scenario 2 whose resources are less than 50 hp (37 kW) must have submitted their load curtailment plans to the verification administrator by the end of Year One (2018) and on annual basis thereafter.
65. It is reasonable that small commercial customers are exempt from the proposed data logger / interval meter installation testing for Attestation Scenario 2 customers.
66. D.16-09-056 did not specify the sampling methodology and levels best suited to assess compliance.
67. Neither D.16-09-056 nor Resolution E-4838 directed that the verification plan focus on Disadvantaged Communities (DACs).
68. In AL 3653-E-A et al., the Utilities propose hiring one verification administrator to serve as the third-party auditor for all Utility and aggregator programs across the state, including DRAM.
69. The Utilities estimate that the Verification Administrator would cost $375,000 per year, and that the test installation of loggers and meters would cost $181,000 per year, based on the Consultant's initial survey of 33 customers.
70. It is reasonable that costs for the third-party administrator would be borne proportionally according to the number of non-residential customers who are subject to the prohibition, per Utility.

71. The Utilities' proposal to shift existing demand response funds from their 2018-2022 portfolios to cover the first-year verification plan costs and the installation of interval meters and loggers is reasonable.
72. It is reasonable that costs for the verification administrator also be shared by small commercial customers with resources less than 50 hp (37 kW) as they will be required to submit load curtailment plans on an annual basis, which are subject to verification by a third-party administrator.
73. The Commission did not include the cost of verification when it directed the implementation of DRAM. It is reasonable that DRAM participants are exempt from the costs of verification until the 2020 DRAM cycle.
74. "Data loggers" are electronic measuring devices that display dates and time stamps of a resource's operations. The logger would show whether the prohibited resource was on or off during a DR event. The device can be factory- or after-market installed on the output leads of the resource.
75. "Meters" are electronic measuring equipment that records hourly interval usage, with time-stamped data of the resource's output. The meter can demonstrate that such output does not increase during a DR event and, for example, would allow a verification administrator to distinguish whether a Combined Heat and Power (CHP) unit was being used for normal load management operations, which is permitted, or whether it increased output during DR events, which is prohibited. The device can be factory- or after-market installed on the output leads of the resource.
76. "Operation manifests" are manually-entered logs that are either manual or digital, which document the date, time, and the number of hours a resource is in use. Local air districts sometimes require owners of certain resources to maintain these manifests.
77. There is lack of consistency and specificity in cost estimates provided for the unit and installation of both loggers and meters. Estimates quoted in Advice Letter filings and data request responses vary greatly, with unexplained cost differentials between units. The cost of units provided are either in the lower end or upper end of the cost range.

78. There is insufficient data, supporting analysis, stakeholder review, record development on, nor prior Commission approval of, the Utilities' proposal to cap costs at the level of environmental benefits derived from the prohibition.
79. There is lack of sufficient data on incentive revenue received by customers participating in DR programs. Consequently, there is insufficient data to determine affordability or unaffordability, which is a necessary step in avoiding "costly metering."
80. The Advice Letter process does not provide for evidentiary hearings to resolve factual disputes.
81. Matters that involve factual disputes should be considered in a formal proceeding through a formal Application process to establish facts that are used to inform policy.
82. It is reasonable for Utilities to conduct a test, as approved and modified herein, to install a combination of loggers and meters on 10 percent of Attestation Scenario 2 customers.
83. It is reasonable to employ cost-effective, secondary verification methods that can be used to verify customers under Attestation Scenario 1 and Attestation Scenario 3.
84. It is reasonable to find that random sampling of customers from each program would yield more information and elucidate program-specific behavior due to the different types of customers in each program. It is reasonable that such data would yield more conclusive findings from which future sample designs could be created and sample sizes determined.
85. It is reasonable to gather the sufficient sample population necessary to produce a 90 percent confidence interval.

THEREFORE IT IS ORDERED THAT:

1. Advice Letters 3542-E-A (Southern California Edison Company), 4991-E-B (Pacific Gas and Electric Company), and 3031-E-A (San Diego Gas & Electric Company) filed on June 15, 2017 are approved as modified herein.

2. Advice Letters 3653-E (Southern California Edison Company), 5138-E (Pacific Gas and Electric Company), and 3108-E (San Diego Gas & Electric Company) filed on September 1, 2017 are approved as modified herein.
3. Utilities shall remove the requirement to install data loggers or interval meter devices from tariff schedules, contracts, and special conditions of all DR programs and pilots not exempted from the prohibition requirements in D.16-09-056.
4. Utilities shall modify tariff schedules and contract language for all affected DR programs to clarify that customers are required to submit attestations as a condition of participation, and that attestations are subject to verification. Because verification may require data requests and premise access, customers are responsible for responding to such requests.
5. Utilities shall modify tariff schedules and contract language for all affected DR programs to indicate that new or existing customers who do not agree to the prohibition and submit an attestation cannot participate in any DR program.
6. Utilities shall modify tariff schedules and contract language to:
    a. Confirm that all non-DRAM customer attestation forms will be collected and stored by the Utilities;
    b. Confirm that DRAM customer attestations will be stored by third-party aggregators, to be made available to Utilities, verification administrators, or the Commission upon request;
    c. Accept third-party aggregators' attestation forms for existing aggregator customers in program year 2018;
    d. Use the Utilities'attestation forms, as part of their add / delete forms, for new utility and aggregator customers in program year 2018; and
    e. Accept third-party aggregators' attestation forms (which will be stored by aggregators) for existing and new DRAM customers in Program Years 2018 and beyond.
7. Utilities shall specify that attestations may be updated at any time. Such updates are contingent upon customers providing documentation that confirms the operational change.

8. The Utilities shall use their own attestation forms for existing customers participating in Utility programs. Such forms are to be made available to verification administrators and the Commission upon request.
9. The Utilities shall instruct aggregators to use the Utilities' attestation forms, which incorporate the Utilities' Add / Delete forms, for program years after 2018.
10. The Utilities shall accept attestation submissions through an electronic or "click" signature verified through third-party authentication.
11. The Utilities shall accept documented operational or administrative changes submitted on the Utilities' attestation forms for Program Years 2019 and beyond.
12. For new customers in Program Years 2018 and beyond, the Utilities shall use their own attestation forms, which are part of the Utilities' Add / Delete forms, for utility and aggregator programs.
13. The Utilities shall contractually require all aggregators to store customer attestations and to make them available to the Utilities or Commission upon request.
14. The Utilities shall accept one attestation form per attestation scenario, with the following information according to Attestation Scenario:
    a. Attestation Scenario 1: Service Account
    b. Attestation Scenario 2: Service Account and Nameplate Capacity
    c. Attestation Scenario 3: Service Account and Nameplate Capacity for each resource (if multiple resources, the *Utilities* will sum the nameplate capacities from all resources, totaling to a DAV to be subtracted from the Full Load Drop Level to arrive at the De-rated Load Drop Level)
15. The Utilities shall prescribe the following process in their aggregator contracts for the submission of attestation forms:
    a. The aggregator completes the Add / Delete form;
    b. The aggregator presents the Add / Delete form to the customer for signature; and
    c. The aggregator submits the completed form with the customer's signature to the Utility.
16. The Utilities shall modify all relevant agreements to indicate that the aggregator's contractual agreement is contingent upon the compliance with the

prohibition and submission of aggregator customers' attestations as directed in the previous relevant Ordering Paragraphs addressing Attestation Scenario forms.

17. The Utilities shall retain language reflecting that the verification administrator or Utility may verify the changes to a customer's DAV due to operational changes and that changes which result in a DAV are not subject to a verification administrator's approval, but may be subject to a Utility's approval, as required by Commission order.
18. PG&E shall include a provision that attestation updates resulting from the removal or addition of a prohibited resource from a customer's site is subject to the Utility's verification and approval, as such changes may also contribute to an update to the customer's DAV.
19. The Utilities shall revise tariff enforcement terms consistent with Resolution E-4838 OPs 14 and 15 for all relevant schedules and associated special conditions. Specifically, Utilities shall indicate that a customer who possesses a prohibited resource on-site that is not used for the purpose of reducing load during a DR event, but fails to disclose the prohibited resource by filing an attestation, falls under a Type I Violation. Utilities shall allow such customers the opportunity to cure their violation by updating their attestation under the terms of Attestation Scenario 2.
20. SCE and PG&E, as consistent with Resolution E-4838 OPs 32 and 33, shall retain proposed tariff schedule language to indicate that Type I violations are curable within 60 days.
21. SDG&E shall update its tariff schedules to indicate that Type I violations are curable within 60 days, after which a customer will be removed from a program and / or the aggregator's portfolio, until such time the customer submits an attestation. SDG&E shall strike the proposed tariff language indicating that a Type I non-compliance is subject to removal for 12 calendar months for a single instance of violation.
22. We direct the Utilities to clarify and define in relevant tariffs, contracts, and attestations, the following Types of Violations and Non-Compliance:

	Type I Violation:	**Type II Violation**

Description	Minor clerical or administrative errors that may be resolved with an updated attestation and *do not involve the use of a prohibited resource to reduce load during a DR event*.	1. Using prohibited resource(s) to reduce load during a DR event despite attesting to not doing so, and / or 2. Submitting an invalid nameplate capacity for a prohibited resource(s) also used to reduce load during a DR event under Attestation Scenario 3.
Scenario	Existing customer attests to not having a prohibited resource on site, but in fact has a resource on site. However, customer did not use the resource to reduce load during a DR event.	Customer attests to not using a prohibited resource on site. However, customer used the resource to reduce load during a DR event.
Resulting Actions	Existing customer has 60 days from date of notice to cure non-compliance. If an attestation is not submitted within 60 days (uncured non-compliance), the customer will be removed from the Utility's tariff schedule and / or the aggregator's portfolio until an attestation is provided.	A single instance of uncured non-compliance will result in customer removal from the schedule and ineligibility to enroll in any DR program for 12 calendar months from the removal date. Two or more instances will result in the same removal and ineligibility terms for three years.
Refusal to Accept Prohibition as Term of Participating in Utility or Third-Party Aggregator DR Program		
Description	Customer does not agree with prohibition requirements as term of program participation	
Result	Customer is not in eligible to participate in the DR program until such time customer agrees with prohibition and submits an attestation.	

23. The Utilities and third-party aggregators shall provide a quarterly report to Energy Division that includes the number of DR participants found by the verification administrator to be in violation of the prohibition, and the resulting actions taken.
24. The Utilities shall refer tariff disputes to the Commission's existing formal complaint process.

25. PG&E and SCE shall submit a customer outreach and notification plan along with associated targets and metrics, in a Tier 1 Advice Letter within 30 days of the approval of this Resolution.
26. The Utilities shall confer and coordinate with aggregators in their development of an outreach and notification plan, and associated metrics, for their customers, to ensure consistency across programs and customers.
27. SDG&E shall submit an updated notification plan with associated targets and metrics in a Tier 1 Advice Letter within 30 days of the approval of this Resolution.
28. SDG&E's request to fund $934,498 from the following two budget categories in the 2017 DR Approved Program Budget: $700,000 from Budget Category 4 – Technology Incentive Program and $234,498 from Budget Category 2 – Capacity Bidding Program, is approved.
29. The Utilities shall implement the verification implementation steps of the Plan as submitted by the consultant, for Attestation Scenarios 1 and 3.
30. The Utilities shall implement the following for Attestation Scenario 2:
    - For generators greater than 50 hp (37 kW), request written operating manifests, as required by Air Toxic Control Measure (ATCM), and a date and time-stamped photo of the generator's hour logger.[223] By end of program year one (December 2018), for generators less than 50 hp, load curtailment plans must be submitted on an annual basis. If such plans cannot demonstrate that the customer can provide DR other than with a prohibited resource output, they fall under a Type II violation. For all generators, visually confirm the resource's nameplate capacity and compare the operation manifests to DR event dates and outage data, either through a date and time-stamped photo or a site visit. Other information about the resource (*e.g.*, single line diagrams,

[223] Per California Air Resources Board (CARB) Air Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines § 93115.10(a), customers with generators greater than 50 hp are required to maintain operation manifests and to have a non-resettable hour logger to show the aggregate number of hours the generator has been operated. ATCM compliance requirements are enforced by financial penalty fees depending upon the type, duration, and history of violations at the facility.

location, capacity, etc.), as required by CPUC Rule 21[224] and the California Health and Safety Code (HSC)[225] should also be requested from the Utility.

31. Since resources with non-by passable prohibited resources are not capable of being used for DR events, the Utilities shall indicate that verification for such resources requires comparison of operational data against power outage data.
32. The Utilities shall indicate, in their relevant contractual agreements and program conditions, proportional cost burdens for the verification administrator and Plan implementation across associated customers, including small commercial customers.
33. The Utilities shall remove any reference of cost burdens associated with the verification plan being born by DRAM customers.
34. The Utilities shall file a joint formal Application with the Commission to allow appropriate consideration and allow for evidence development on the issue of loggers and meters. The joint Application shall be filed within 90 days of the Commission's approval of this Resolution, with the following information on both Utility and its third-party-aggregated customers:
    a. Non revenue-grade and settlement-quality interval generator meters
        1.) The full range of models, along with their functionalities, and associated unit and installation costs;
        2.) Description of customers whose resource usage patterns and scenarios are best evaluated with this meter installation;
    b. Revenue-grade and settlement-quality interval generator meters
        1.) The full range of models, along with their functionalities, and associated unit and installation costs;

[224] On-site resources that are connected to a Utility's distribution system are not required to enter into an interconnection agreement, but are nevertheless subject to Rule 21 requirements when the resource is operating in momentary parallel operation mode. In such cases, the resource must be reviewed and approved by the Utility.

[225] Per California Health and Safety Code (HSC) § 119085(b), customers with resources operating in isolated mode are not required to enter into an interconnection agreement, but must submit information, including location, to satisfy the Utility's notice requirements.

2.) Description of customers whose resource usage patterns and scenarios are best evaluated with this meter installation;

c. Cumulative data loggers

1.) Range of models, along with their functionalities, and associated unit and installation costs;

2.) Description of customers whose resource usage patterns and scenarios are best evaluated with a meter installation.

d. Customer load reduction and incentive profiles for each affected DR program; and range of meter or logger unit plus installation costs, under the prescribed scenarios in the below section.

e. Percentage of customers providing the below-listed levels of demand response capacity (peak demand minus firm service level, expressed by "x") and the corresponding range (lowest to highest), mean, and median incentive levels. We provide the below table as a request for information on values below 1 MW, and require the same information in 1 MW increments for output and load reductions from 1 MW to 20 MW:

	$x \leq 100$ kW	100 kW $\leq x \leq$ 500 kW	500 kW $\leq x \leq$ 1 MW
Incentive Range			
Incentive Mean			
Incentive Median			
% of Customers Providing Reduction			
Range of Non Revenue-Grade and Settlement-Quality Meter Cost (per Resource Unit)			
Range of Non Revenue-Grade and Settlement-Quality Meter Installation Cost (per Resource Unit)			
Range of Revenue-Grade			

and Settlement-Quality Meter Cost (per Resource Unit)			
Range of Revenue-Grade and Settlement-Quality Meter Installation Cost (per Resource Unit)			
Range of Logger Cost (per Resource Unit)			
Range of Logger Installation Cost (per Resource Unit)			

f. Provide and describe functionalities and associated costs of data loggers that could, in addition to recording the date, time and cumulative hours of operation, provide kW output of the resource, as mentioned by the consultant in its Plan.[226]
g. Provide and describe functionalities and associated costs of other types of measurement devices that could act as a proxy to the use of an underlying prohibited resource. Explain whether such a unit could provide sufficiently granular information to determine compliance or violation. (For example, could a building's retail meter capture a resource's output on event and non-event days?)
h. Provide the approximate percentage of demand response participants whose usage pattern or resource type may require multiple installations of a measuring device, whether meters or loggers.

35. The Utilities' request to test the installation of loggers and meters in 10 percent of Attestation Scenario 2 customers,[227] is approved with modifications.

[226] Nexant, Inc., *Draft Prohibited Resources Verification Plan for Demand Response Programs*, (June 1, 2017), p. 43
[227] AL 3653-E et al., p. 8

36. The Utilities shall file a Tier 2 Advice Letter within 30 days of the Commission's approval of this Resolution, with similar details as those required for the Application previously described:
    a. Provide the range of interval meters, functionalities, and associated costs of the units that will be installed.
        i. Install interval meters in cases where the prohibited resource is used during both DR event and non-event hours (e.g., for customers who may have CHP units used for baseload); and in cases where the prohibited resource has a bypass switch.
        ii. Provide and describe the resource usage patterns and scenarios of customers whose prohibited resource will be tested using interval meters;
        iii. Provide descriptions of other existing scenarios in which the installation of an interval meter instead of a data logger is more appropriate for customers. Describe scenarios and usage patterns best evaluated by an interval meter.
    b. Provide the range of data loggers, functionalities, and associated costs of the units that will be installed:
        i. Provide and describe the usage patterns and scenarios of customers whose prohibited resource will be tested using data loggers;
        ii. Provide a description of existing scenarios in which the installation of a data logger instead of an interval meter is more appropriate for customers. Describe scenarios and usage patterns best captured by a data logger.
37. The Utilities shall file supplemental advice letters for AL 3653-E et al. with the final version of the Prohibited Resources Verification Plan for Demand Response Programs, incorporating relevant amendments as directed herein within 30 days of the approval of this Resolution.
38. The Utilities shall file supplemental advice letters for AL 3542-E-A et al. that include all tariff and contract changes adopted herein within 30 days of this resolution.
39. The Utilities shall file a Tier 3 Advice Letter by December 1, 2018 with the results from the Year One interval meter and data logger installation test as part of the first annual review of the Plan implementation and prohibition compliance. The

Advice Letter should include Utility recommendations on if and how the Plan can be improved.

40. The Utilities shall conduct a workshop to review the results of Year One testing with parties and stakeholders in January 2019.
41. The Utilities shall instruct the third-party verification administrator to conduct random sampling within each program, with a sample size sufficient to produce a 90 percent confidence interval.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on March 22, 2018, the following Commissioners voting favorably thereon:

ALICE STEBBINS
Executive Director