Attachment 2 Emergency Load Reduction Program (ELRP)

This Attachment has been copied from Phase I Decision, D.21-03-056. The Attachment later received Corrections from D.21-06-027. This document incorporates the corrections from D.21-03-056 as hard-coded text and shows applicable changes via this decision as strikethrough (deletions) /underline (new text).

- 1. Pilot Program Duration
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<u>Pacific Gas & Electric (PG&E), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E)</u> are each directed to develop and administer an administer the Emergency Load Reduction Program (ELRP) pilot with the attributes as described in the following sections. ELRP shall be effective by May 1, 2021, for both Group A and B participants, as defined below.

1. Pilot Program Duration

ELRP duration will be five years (2021-2025), with years 2023-2025 subject to <u>review and</u> revision in the Demand Response (DR) Applications proceeding expected to be initiated November-May 20221.

ELRP design aspects that are subject to review and revision include minimizing <u>the</u> use of diesel backup generators where there are safe, cost-effective, and feasible alternatives; consideration of local air pollution impacts on disadvantaged communities; and other modifications to make the program more effective and consistent with the state's decarbonization goals. To this end, PG&E, SCE, and SDG&E should collect data on backup generator participation in ELRP, including as location, type of fuel used, <u>minimum notification time required to dispatch the generator</u>, and the capacity of the generator, for years 2021 and 2022.

2. Out of Market Framework

ELRP load reduction capacity will be excluded from the Resource Adequacy (RA) / California Energy Commission (CEC) peak forecast framework with no CAISO market obligations.

3. Program Parameters

Program availability:
 May – October; seven days a week; 4 pm – 9 pm

• Event duration: 1-hour minimum; 5-hour maximum

Annual dispatch limit: Up to 60 hours
 Consecutive day dispatches: No constraints

As discussed below, the program parameters for Residential ELRP may differ.

4. Eligible Customers

Eligible participants for ELRP are divided into two groups with several subgroups:

- Group A: Select non-residential Customers and aggregators not participating in Demand Response (DR) programs
 - o A.1. Non-Residential, Non-DR Customers
 - o A.2. Base Interruptible Program (BIP) Non-Residential Aggregators
 - A.3. Rule 21 Exporting Distributed Energy Resources (DERs)
 - o A.4. Virtual Power Plants (VPP) Aggregators
 - A.5. Vehicle-Grid-Integration (VGI) Aggregators
 - A.6. Residential Customers
- Group B: <u>DR providers participating in M-market-integrated supply-side Demand</u>
 Response (DR) programs proxy demand response (PDR) resources
 - B.1. Third-party DR Providers (DRPs)
 - B.2. IOU Capacity Bidding Programs (CBPs)

At any time, a customer can participate in ELRP via either Group A or Group B, but not both groups at the same time. At any time, a Group A customer can participate in ELRP via only one sub-group under Group A.

Eligibility criteria for each group are defined below.

<u>GROUP A ELIGIBILITY:</u> Customers and aggregators not participating in Demand Response (DR) <u>programs</u>

At the time of enrollment, or at designated times during the ELRP pilot, Group A participants, except residential customers enrolled in ELRP sub-group A.6 Residential customers described below, will nominate an estimated target load reduction quantity to be achieved during an ELRP event. Participation during an ELRP event is entirely voluntary, and no financial penalties will result from not meeting or exceeding the nominated target load reduction during the event.

If a customer qualifies for the ELRP under both <u>sub-groups</u> A.1. and A.3. criteria described below, the customer will make an election for participating in the ELRP as part of one or the other sub-group at the time of enrollment, or at designated times during the ELRP pilot.

A.1. Non-Residential, Non-DR Customers Eligibility

Bundled and unbundled non-residential customers of an IOU who meet the following criteria are eligible to enroll and participate in ELRP:

- Customer meets the "Minimum Size Threshold" specified further below, and
- Customer is not currently taking service on a CPP or real time pricing (RTP)-equivalent tariff, and
- Customer is not simultaneously enrolled in another <u>supply-side</u> DR program offered by an IOU, <u>third-party</u> demand response provider (DRP), or <u>community choice aggregator</u> (CCA), with the exception that dual enrollment in an IOU's <u>Base Interruptible Program</u> (BIP) or SCE's Agricultural and Pumping Interruptible (AP-I) program is permitted.

The Minimum Size Threshold parameter for each IOU is as follows:

- For PG&E, the customer must be able to reduce load by a minimum one kilowatt (kW) during an ELRP event.
- For SCE, the non-residential service account must have a peak demand of greater than
 or equal to 200 100 kW with an SCE approved interval meter.
- For SDG&E, the customer agrees to drop a minimum of 100 50 kW during an ELRP event.

A.2. BIP Non-Residential Aggregators Eligibility

BIP aggregators are eligible to participate in ELRP. If a BIP aggregator chooses not to participate, its customers may independently participate in ELRP under A.1, subject to the applicable criteria and requirements.

For SCE, participating <u>BIP</u> aggregators may add and nominate only non-residential customers eligible under A.1. in their ELRP portfolio.

SDG&E may elect to defer the effective date of Group A.2 eligibility to a date no later than May 1, 2022, by filing a Tier 1 advice letter (AL).

Non-BIP aggregators with aggregated bundled or unbundled non-residential customer resources meeting the following criteria are eligible to participate in ELRP:

- The aggregated resource is not simultaneously enrolled in a supply-side DR program offered by an IOU, third-party DRP, or CCA, and
- <u>Customers participating in the aggregation meet the eligibility criteria under A.1 (except</u> the Minimum Size Threshold requirement does not apply), and
- The aggregated resource capacity meets or exceeds Minimum the Aggregation Size Threshold.

If a non-BIP aggregator of non-residential customers chooses not to participate, its customers may independently participate in ELRP under sub-group A.1 Non-Residential customers subject to the applicable criteria and requirements.

The IOUs are authorized to dispatch the aggregated resources offered by the non-BIP aggregators for at least the Minimum Aggregation Dispatch Hours. In addition to the Group A triggers defined below, the IOUs may exercise discretion to dispatch the non-BIP aggregation in response to other forecasted or anticipated grid stress conditions, such as, high locational marginal prices in the CAISO markets, extreme heat waves, etc., to achieve the Minimum Dispatch Hours. The IOUs may negotiate agreements with the non-BIP aggregators to clarify other requirements as needed, including potential administration fees, to implement the Minimum Dispatch Hours and related ELRP compensation.

Minimum Aggregation Size Threshold is set at 500 kW. The Minimum Aggregation Dispatch Hours is set at 10 hours per season.

A.3. Rule 21 Exporting DER Eligibility

Bundled and unbundled non-residential customers of an IOU who meet the following criteria are eligible to enroll and participate in ELRP:

- Customer is not simultaneously enrolled in any market-integrated DR program offered by an IOU, <u>third-party</u> DRP, or CCA, and
- Customer possesses a behind-the-meter (BTM) Rule 21-interconnected device (including Prohibited Resources) with an existing Rule 21 export permit, and
- Customer's BTM Rule 21 interconnected device is able to meets the "Minimum Export
 Threshold" specified further below for at least one hour in compliance with Rule 21 and
 other applicable regulations and permits during an ELRP event.

NEM customers meeting the above requirements are eligible to participate in ELRP. For situations in which electric vehicles owned by a government agency and their associated charging equipment are located on a service that is electrically contiguous to a facility also owned by that agency, with the electrically contiguous facility possessing continuous export permission to operate, it may be necessary for an IOU to consider and grant a limited deviation to facilitate the agency's participation in ELRP under the A.3 sub-group. The IOU is instructed to provide a deviation to its electric Rule 21, with its scope limited to the duration of an ELRP event, for an agency that wishes to export energy from its electric vehicles and can utilize that portion of the previously approved continuous export permission to operate that is unutilized during the ELRP event. This potential interconnection pathway for government fleets to use an existing Rule 21 Permission to Operate, where available, does not limit a government fleet from using any other approved Rule 21 interconnection pathway.

A Tier 1 AL filed either prior or subsequent to the deviation being granted shall be served on parties for both this and the R.17-07-007 proceedings. Any deviation shall be added to the listing of contracts and deviations maintained by the IOU.

An IOU may elect to defer the effective date of ELRP eligibility for A.3 participants to a date no later than May 1, 2022 by filing a Tier 1 AL.

The Minimum Export Threshold is set at 25 kW based on the physical interconnected capacity.

A.4. Virtual Power Plant Aggregators Eligibility

An aggregator managing a BTM hybrid virtual power plant (VPP) aggregation consisting of storage paired with net energy metering (NEM) solar or stand-alone storage deployed with

residential (bundled or unbundled) or non-residential (bundled or unbundled) customers, whose VPP meet the following criteria, is eligible participate in ELRP:

- The VPP or any customer site within the aggregation is not simultaneously enrolled in a market-integrated DR program offered by an IOU, third-party DRP, or CCA, and
- A customer site within the aggregation is not currently taking service on a <u>critical peak</u> <u>pricing (CPP)</u> or <u>real time pricing (RTP)</u>-equivalent tariff, and
- All sites within the VPP aggregation are located within the distribution service area of a single IOU, and
- The aggregated BTM storage capacity of the VPP is able to meets the "Minimum VPP Size Threshold", where the VPP size is determined by summing the Rule 21 interconnected capacity of the individual storage devices comprising the aggregation, and
- Each site within the VPP aggregation has a Rule 21 export permit.

The VPP aggregations shall be dispatched by the IOUs for at least the Minimum VPP Dispatch Hours per season. In addition to the Group A triggers defined below, the IOUs may exercise discretion to dispatch the VPP in response to other forecasted or anticipated grid stress conditions, such as, high locational marginal prices in the CAISO markets, extreme heat waves, etc., to achieve the Minimum Dispatch Hours. The IOUs may negotiate agreements with the VPP aggregators to clarify other requirements as needed, including potential administration fees, to implement the Minimum Dispatch Hours and related ELRP compensation.

The Minimum VPP Size Threshold is set at 500 kW. <u>The Minimum VPP Dispatch Hours is set at 20 hours per season.</u>

An IOU may elect to defer the effective date of ELRP eligibility for A.4 participants to a date no later than May 1, 2022, by filing a Tier 1 AL.

A.5. Vehicle-Grid-Integration Aggregators Eligibility

An aggregator managing a Vehicle-Grid-Integration (VGI) aggregation consisting of any combination of electric vehicles and charging stations — including those that are capable of managed one-way charging (V1G) and bi-directional charging and discharging (V2G) deployed with residential (bundled or unbundled) or non-residential (bundled or unbundled) customers that meets the following criteria, is eligible to participate in ELRP:

- The VGI aggregation or any customer site within the aggregation is not simultaneously enrolled in a market-integrated, supply-side DR program offered by an IOU, third-party DRP, or CCA, and
- A customer site within the VGI aggregation is not currently taking service on a CPP or RTP-equivalent tariff, and
- All sites within the VGI aggregation are located within the distribution service area of a single IOU, and
- The VGI aggregation can contribute Incremental Load Reduction (ILR), as defined below, equal to or greater than the Minimum VGI Aggregation Size Threshold for a minimum of one hour during an ELRP event.

NEM customers with electric vehicles meeting the above requirements are eligible to participate in the VGI aggregation.

In recognition of a nascent market, any direct current (DC) V2G electric vehicle supply equipment (EVSE) that has been certified to UL 1741, but not the updated smart inverter certification standard required in Rule 21, may interconnect for the purpose of participating in the ELRP, subject to all other Rule 21 interconnection requirements. IOUs may request the termination of this interconnection pathway via Tier 2 AL after the 2024 ELRP season if the market has developed to provide multiple V2G capable EVSEs that meet the full smart inverter certification standards required in Rule 21. Termination of this pathway would not affect previously interconnected EVSE.

The VGI Aggregation shall be dispatched by the IOUs for at least the Minimum VGI Dispatch
Hours. In addition to the Group A triggers defined below, the IOUs may exercise discretion to
dispatch the VGI Aggregation in response to other forecasted or anticipated grid stress
conditions, such as, high locational marginal prices in the CAISO markets, extreme heat waves,
etc., to achieve the Minimum Dispatch Hours. The IOUs may negotiate agreements with the VGI
aggregators to clarify other requirements as needed, including potential administration fees, to
implement the Minimum Dispatch Hours and related ELRP compensation.

<u>The Minimum VGI Aggregation Size Threshold is set at 25 kW. The Minimum VGI Dispatch Hours is set at 30 hours per season.</u>

A.6. Residential Customer Eligibility

Eligibility

Bundled and unbundled residential customers of an IOU who meet the following criteria are eligible to enroll in ELRP by opting-in to participate:

- The customer is not simultaneously enrolled in another supply-side DR program offered by an IOU, third-party DRP, or CCA; and
- The customer is not taking service on CPP or SmartRate or similar tariff; and
- The customer is not served by a CCA which has elected to exclude its customers from participation in ELRP.

Unenrollment

A customer participating in ELRP is permitted, at any time, to enroll in a supply-side DR program offered by the IOU, third-party DRP, or CCA. The IOU shall arrange to promptly unenroll the customer from ELRP without any action needed on the part of the customer.

<u>Customers can choose to opt-out at any time and IOUs shall ensure the process is simple and easy for customers using methods such as a 1-click digital form or an email or text message.</u>

Opt-In Enrollment of Eligible Customers

Eligible customers may opt-in to enroll in an IOU's Residential ELRP pilot. The IOUs shall ensure that the enrollment process is simple and easy for customers using methods such as a 1-click digital form or an email or text message.

<u>Auto-Enrollment of Select Customers</u>

PG&E's proposed Power Saver Rewards Program (Behavioral DR – Option A), with autoenrollment of "customers who receive PG&E's Home Energy Reports" is approved, as modified herein, as PG&E's Residential ELRP pilot program for the duration of the ELRP pilot, except that Options B & C of PG&E's proposal are not approved.

SCE's proposed Whole Home Savings Pilot, with auto-enrollment of "high usage customers who have opted in to receive transactional emails," is approved, as modified herein, as SCE's Residential ELRP pilot program for the duration of the ELRP pilot, except that SCE proposed dual participation with other supply-side DR programs or SCE's VPP Pilot is not permitted at this time.

SDG&E's "Peak Day" Behavioral DR program, with auto-enrollment of "existing Home Energy Report (HER) customers," is approved, as modified herein, as SDG&E's Residential ELRP pilot program for the duration of the ELRP pilot.

In addition to the IOU-specific auto-enrolled set of select customers specified above, the IOUs shall auto-enroll residential customers on California Alternative Rates for Energy (CARE), and who meet the above specified eligibility criteria for Residential ELRP (sub-group A.6). Whether through email, phone call, text message, bill insert, or mailer, these customers shall be given an opportunity to opt-in to receive ELRP related messaging or opt-out from ELRP.

Other Program Elements

In their marketing, education, outreach, and event notification efforts focused on auto-enrolled customers as well as customers in DACs, the IOUs shall incorporate the marketing aspect of CEJA's Just Flex Rewards proposal, such as the following:

- Accessibility, In-Language: Marketing shall be done in accessible, in-language
 communication, when that information is known, whether that be through text, email,
 or phone messaging. The Disadvantaged Communities Advisory Group may choose if it
 wishes to evaluate the language of the communications for accessibility and make
 recommendations to the IOUs.
- Specific Outreach for DAC and CARE customers: Targeted marketing and messaging should be designed for CARE and DAC households. The IOUs shall partner with their Energy Savings Assistance (ESA) contractors and Community Based Organizations to help reach these customers, inform them of their enrollment status, potential compensation rate, and voluntary participation with no penalty.

The IOUs shall establish a process for a CCA to inform the IOU of its election to exclude its customers from ELRP. The CCA shall make its election by January 31 of a new ELRP pilot year.

The IOUs shall collaborate to establish common program parameters, including a minimum dispatch window (which must be at least 2 hours), the start time of the dispatch, marketing that limits customer confusion with state-wide Flex Alert campaign, and state-wide unified branding. The IOUs shall file a Tier 2 Advice Letter within 60 days of issuance of this decision to establish the parameters for its ELRP Residential pilot program and advise the CPUC of the associated costs.

<u>GROUP B ELIGIBILITY:</u> DR providers participating in market-integrated supply-side Demand Response (DR) programs

At the time of enrollment, or at designated times during the ELRP pilot, Group B participants will list the Proxy Demand Resources (PDRs) that will participate in ELRP and nominate an estimated target load reduction quantity (August) to be achieved during an ELRP event by each participating PDR resource. Participation during an ELRP event is entirely voluntary, and no financial penalties will result from not meeting or exceeding the nominated target load reduction quantity during the event.

B.1. Third-party DR Providers (DRPs) Eligibility

A third-party DRP with a market-integrated <u>proxy demand resource</u> (PDR) resource is eligible to participate in ELRP.

B.2. IOU Capacity Bidding Programs (CBPs) Eligibility

An IOU's CBP Capacity Bidding Program's PDRs resources are eligible to participate in ELRP.

5. Program Event Triggers

ELRP will utilize both day-ahead (DA) and day-of (DO) triggers.

Day-Ahead (DA) Trigger

The ELRP DA trigger for Group B resources is activated when a DA Alert, per the "Alert, Warning, Emergency (AWE)" process defined by the CAISO Operating Procedure 4420, is declared by the CAISO. The start time and duration specified in the DA Alert defines the Group B ELRP event window.

Following a DA Alert declaration by the CAISO, the IOUs will exercise discretion to activate the DA trigger for Group A participants, either selectively staggered over time or all DA participants at the same time. The start time and duration specified by the IOU defines the ELRP event window for the Group A participants called by the IOU.

In addition to the Group A Day-Ahead trigger as described above, the IOUs shall dispatch the Residential ELRP customers (sub-group A.6) in response to a CAISO Flex Alert declaration.

Backup Generation Dispatch Sequence

If Group B is triggered in the DA, backup generators associated with customers participating in Group B and not exempted under the Prohibited Resources policy and located in Disadvantaged Communities¹ shall not be dispatched.

If Group A is triggered in the DA, backup generators associated with customers participating in Group A and not exempted under the Prohibited Resources policy and located in Disadvantaged Communities shall not be dispatched. These backup generators may be dispatched six hours prior to the start of the ELRP event and may be used in compliance with Rule 21 and other applicable regulations and permits if in the day-of following a DA trigger, the IOUs through Joint ELRP Operations Board consultations determine that backup generators support may be needed based on anticipated grid stress conditions.

Day-Of (DO) Trigger

Following any AWE declaration by the CAISO, the IOUs will exercise discretion to activate the DO trigger for Group A participants, either selectively staggered over time or all participants at the same time. The start time and duration specified by the IOU defines the ELRP event window for the Group A participants called by the IOU for the DO trigger.

The ELRP DO trigger for Group B resources is activated when a Warning or Emergency, per the AWE process, is declared by the CAISO. The start time and duration specified in the CAISO's declaration defines the Group B ELRP event window.

There is no ELRP Day Of trigger for Group A or Group B defined at this time.

Backup Generation Dispatch Sequence

If Group A or B is triggered in the DO, backup generators associated with the customers participating in the respective Groups and not exempted under the Prohibited Resources policy

¹ Pursuant to Section 39711 of the Health and Safety Code, the California Environmental Protection Agency (CalEPA), Disadvantaged Communities are defined as (1) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation and (2) Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

and located in Disadvantaged Communities may be dispatched at the same time as other resources and may be used in compliance with Rule 21 and other applicable regulations and permits.

Other Trigger Related Guidelines

An ELRP event cannot be triggered by an IOU for a localized transmission or distribution emergency.

For coordination among and guidance to the IOUs in the exercise of discretion for Group A trigger activation, the IOUs shall form a continue to work with the "Joint ELRP Operations Board," with consisting of representatives from each IOU's grid operations group and an invited representative from the CAISO's grid operations group. Following an AWE declaration by the CAISO, the Board will periodically assess the current and forecasted grid conditions and provide guidance on target load reductions to be sought by the IOUs from Group A participants.

The IOUs are directed to coordinate with the CAISO in providing timely information on the status and expected load reduction under ELRP from Group A.

Future Alert Warning Event (AWE) Declarations

In the future, when the CAISO completes the transition from the current AWE process to the North American Electric Reliability Corporation (NERC) Energy Emergency Alert (EEA) standards, then the AWE declarations shall be replaced by the equivalent CAISO issued day-ahead EEA level notices in the above guidelines, per the following table:

Table. Alert Warning Event Levels

| AWE Levels | NERC EEA Levels | Comments | | | | | |
|--|-----------------|--|--|--|--|--|--|
| Restricted Maintenance Operations | | Issued in real time or in advance | | | | | |
| Transmission Emergency | | Issued in real time | | | | | |
| Notifications of forecasted reserve deficiencies | | | | | | | |
| Alert | EEA-1 | Issued in advance – day ahead by 1500 | | | | | |
| Warning | EEA-1 | Issued in real time | | | | | |
| Warning – triggering DR programs | EEA-2 | Issued in real time | | | | | |
| Stage 1 | EEA-2 | Issued in real time | | | | | |
| Stage 2 | EEA-3 | Issued in real time | | | | | |
| Stage 3 | EEA-3 | Issued in real time | | | | | |

6. Compensation

Incremental \vdash Load \vdash Reduction (ILR) is defined as the load reduction achieved during an ELRP event incremental to the non-event applicable baseline and any other existing commitment. Only ILR is eligible for compensation under ELRP.

Any load reduction technology may be used during an ELRP event to achieve ILR. Prohibited resources² may be used in compliance with Rule 21 and other applicable regulations and permits, subject to the backup generation dispatch sequence described earlier, during an ELRP event to achieve ILR, including during the overlapping period with an independently triggered event in a dual-enrolled DR program, but only for achieving load reduction incremental to any other existing commitment (e.g., under a dual-enrolled DR program).

² As directed in Resolution E-4906 (see Ordering Paragraphs 45 and 47 at 104), customers previously using a prohibited resource fuel may switch the resource to a renewable fuel that has met CARB certification. Allowable fuels are those that have met the agency's <u>Low Carbon Fuel Standard (LCFS) Tier 2 Pathway.</u> Customers may update their required attestations upon making this operational change.

General ELRP compensation parameters for all customers include the following:

- After-the-fact pay-for-performance will be made at a prefixed energy-only ELRP Compensation Rate applied to ILR.
- There are no "capacity-like" payments. or enrollment incentive.
- There are no penalties for non- or under-performance.

The ELRP Compensation Rate (ECR) for Group A is set at $$2\frac{1}{2}$$ / kilowatt-hour (kWh) (or $$4\frac{2}{2}$$ 000 / megawatt-hour (MWh)).

The <u>ELRP Compensation Rate ECR</u> for Group B PDRs is also set at \$2\frac{1}{2} / kWh (or \$\frac{1}{2}000 / MWh).

GROUP A COMPENSATION

For Group A eligible participants, the compensation for load reduction delivered during an ELRP event is determined by calculating the product of ILR and <u>ELRP Compensation RateECR</u>. <u>ELRP compensation for an event is bounded for Group A participants between 50 percent and 200 percent of pre-nominated load shed or exported energy quantity.</u>

An IOU may choose to defer the effective date of counting export energy in ILR, as described below, to a date no later than May 1, 2022, by filing a Tier 1 AL.

A.1. Non-Residential, Non-DR-Customers Compensation

Baseline

The ELRP baseline will be constructed by all IOUs according to the method described below.

- 1. A customer's Adjusted Energy Baseline (AEB) for an ELRP event is calculated by multiplying the energy baseline (EB) by the optional day-off (DO) adjustment.
- 2. The EB will be calculated on an hourly basis using the average of either 1) the previous 10 calendar days, or 2) the previous 10 similar days.
- 3. The days selected in step 2 above shall exclude days when a) the customer was subject to an ELRP event or an event in a dual-enrolled DR program, or b) there was a grid outage during similar hours.
- 4. The DO adjustment value shall be either 1) not less than 1.00 or greater than 1.40, or 2) not less than 0.60 or greater than 1.40. The DO adjustment is a ratio of (a) the average load of the first three hours of the four hours prior to the event to (b) the average load of the same hours from the last 10 days selected in accordance with step 2 above.

Special Considerations

- 1. In the case of overlapping BIP and ELRP events, only the incremental reduction below the customer's pre-committed firm service level (FSL) is counted in ILR.
 - a. Load reduction by dual-enrolled BIP customers during an ELRP event outside of a BIP event is excluded from ILR (and not eligible for ELRP compensation).
 - b. Load reduction by dual-enrolled BIP customers during an ELRP event on a day with no BIP event is excluded from ILR (and not eligible for ELRP compensation).
- 2. If the customer has a Rule 21 interconnected device with export capability and permit, the customer may choose to count exported energy in ILR. In that case, the applicable ELRP baseline is modified to account for exported energy during non-event days and count exported energy in ILR.
- 3. If the customer is currently taking a CPP or real-time pricing (RTP) equivalent tariff, any ILR during overlapping hours between the dynamic rate and the ELRP event is attributed to ELRP.

For SCE, the effective date of compensation for ILR during overlapping BIP and ELRP events is deferred to May 1, 2022.

An IOU may choose to defer the effective date of excluding grid outages from an ELRP baseline to a date no later than May 1, 2022, by filing a Tier 1 AL.

An IOU may choose to implement the ELRP baseline with only one option for the ten-day selection or one option for the DO adjustment by filing a Tier 1 AL.

A.2. BIP Non-Residential Aggregators Compensation

Same guidelines as A.1 apply.

A.3. Rule 21 Exporting DER Compensation

For a customer on a CPP or RTP equivalent tariff, the ELRP baseline is deemed to be zero and only exported energy is counted in ILR.

For a customer not on a CPP or RTP equivalent tariff, the ELRP baseline defined under A.1 is utilized and modified to account for exported energy during non-event days and exported energy is counted in ILR.

Only during ELRP dispatch hours, a customer with control over multiple electrically contiguous sites is permitted to virtually aggregate the load and generation to fully utilize the sum of the net export allowed by any Rule 21 permit(s) associated with the sites. Two sites are considered electrically contiguous when they have electric service derived from the same utility distribution transformer secondary and there are no devices on the utility distribution system that can interrupt power flow to only one site.

A.4. Virtual Power Plant Aggregators Compensation

The aggregator selected CPUC approved baseline for IOU's CBP is utilized and modified to account for exported energy, to the extent allowed by a site's Rule 21 export permit, during non-event days and count exported energy in ILR.

The above baseline method may be used in conjunction with a meter or a sub-meter associated with a storage device that directly measures the energy flows into/out of the storage device to determine the ILR for the ELRP settlement.

A.5. Vehicle-to-Grid Aggregators Compensation

An EVSE meter, or EVSE sub-meter if the EVSE is taking service through the host site meter, may be used to determine the ILR for ELRP settlement. The EVSE sub-meter must meet applicable standards established by the CPUC when adopted.

Only during IOU dispatched hours, the VGI aggregator is permitted to virtually aggregate separately metered EVSE with other load and generation (if any) at an electrically contiguous host site to allow export from the EVSE to reduce the host site's load and export from such aggregation up to the sum of the net export allowed by any available Rule 21 permits of the EVSE site and the host site.

Two sites are considered electrically contiguous when they have electric service derived from the same utility distribution transformer secondary and there are no devices on the utility distribution system that can interrupt power flow to only one site.

A.6. Residential Customers Compensation

The ELRP baseline will be similar to that used in SCE's residential CBP pilot authorized in D21-03-056: a 5-in-10 baseline with 40% day-of adjustment. The 5-in-10 baseline is the average load

during the same hours as the DR event, of the 5 days with the highest usage, selected from the past 10 business days. The day of adjustment is a ratio of (a) the average load of the first three out of the four hours prior to the event to (b) the average load of the same hours from the historical days selected for the baseline.

GROUP B COMPENSATION

ELRP Baseline for Group B

To construct the ELRP baseline for measuring a Group B PDR's ILR contribution during an ELRP event, the applicable CAISO baseline will be modified to account for the following:

- 1) Count net exports to the distribution grid by customer locations within the PDR aggregation that comply with Rule 21 and other applicable permits,
- 2) Exclude prior days with other ELRP events when selecting the set of "non-event, but similar" days when calculating the baseline,
- 3) Exclude applicable preceding hours with either CAISO market awards or another ELRP event on the day of the ELRP event when calculating the same-day adjustment (SDA) to the calculated baseline in step 2, and
- 4) Allow the SDA same day adjustment in step 3 to be no greater than 100%.

ELRP Settlement for Group B

For participation in ELRP under Group B, a DRP must construct a PDR Portfolio consisting of only 1) PDRs with RA assignment or PDRs without RA assignment (but not both) and 2) PDRs limited to the service area of one IOU (thus, a DRP may have up to six PDR portfolios participating in ELRP).

The CAISO settled aggregated load during an ELRP event is modified to count net energy exported to the distribution grid by any customer location within the PDR aggregation.

Following an ELRP event, the DRP's scheduling coordinator is responsible for determining the following:

1. ELRP Event Performance (total load reduction during the ELRP event) of each PDR in the DRP's PDR Portfolio by applying the applicable ELRP modified baseline to the PDR's modified aggregated load settled during the ELRP event.

- 2. ILR of each PDR by subtracting the CAISO scheduled award quantities, inclusive of dayahead market (DAM) and real-time market (RTM), from the PDR's ELRP Event Performance. If the total market award for the PDR during the ELRP event is zero, then ILR of the PDR equals the ELRP Event Performance.
- 3. The ELRP Event Compensation due for each PDR by adding all interval-specific ELRP Compensations across all applicable intervals of the ELRP event, subject to the following:
 - a. The interval-specific ELRP Compensation in each applicable interval of the ELRP event is obtained by subtracting 1) any CAISO market payments for any portion of the load reduction counted in the interval-specific ILR and 2) the interval-specific CAISO Opportunistic Revenue (COR), defined below, from 3) the interval-specific Product of the <u>ELRP Compensation Rate ECR</u> and the interval-specific ILR (see illustration below).

If the interval-specific ILR is negative, then the interval-specific ELRP Compensation is set to zero in that interval.

If the interval-specific COR is greater than the interval-specific Product, then the interval-specific ELRP Compensation is set to zero in that interval.

- b. The interval-specific COR is the product of the interval-specific Market Eligible Capacity (MEC), defined below based on the interval-specific CAISO Market Event Performance (MEP) determined under the-applicable CAISO market baseline, and the interval-specific CAISO Clearing Price Delta (CCPD), defined below (see illustration below).
 - i. MEC:

If the total CAISO scheduled award quantity in an interval is non-zero:

 If the total CAISO scheduled award quantity in an interval is nonzero a And if the interval-specific MEP is less than or equal to the total CAISO scheduled award quantity in the interval, then the interval-specific MEC is set to zero.

- 2. If the total CAISO scheduled award quantity in an interval is non-zero aAnd if the interval-specific MEP is greater than the total CAISO scheduled award quantity in the interval and less than or equal to the Qualifying Capacity (QC) of the PDR in that interval, then the interval-specific MEC is equal to the interval-specific MEP minus the interval-specific total CAISO scheduled award quantity.
- 3. If the total CAISO scheduled award quantity in an interval is non-zero aAnd if the interval-specific MEP is greater than the Qualifying Capacity (QC) of the PDR in that interval, then the interval-specific MEC is equal to the interval-specific QC of the PDR minus the interval-specific total CAISO scheduled award quantity.

If the total CAISO scheduled award quantity in an interval is zero, then the interval-specific MEP in the above cases is set to the interval-specific ILR.

If the PDR has no assigned QC in the above cases, then the QC is replaced by the PDR's "PMin" parameter on record in the CAISO Master File applicable to the interval. Additionally, if the PMin value is less than the total CAISO scheduled award quantity in an interval, then the interval-specific MEC is set to zero.

ii. CAISO Clearing Price Delta (CCPD):

For a PDR participating in the DAM only (that is, "long-start" PDR), the interval-specific CCPD is the DAM clearing price in that interval.

For a PDR participating in the RTM, the interval-specific CCPD is equal to the higher of the DAM or RTM clearing price in that interval minus the lower of the DAM or RTM clearing price in that interval.

4. PDR-Portfolio Level Net Event Compensation across all PDRs in the third-party DRP's Portfolio.

| ELRP Comp | ensation for I | PDR for ILR de | elivered duri | ng ELRP eve | nts (with ov | erlapping CAISO market event) | |
|-----------|----------------|--|---------------|-------------|--|--|--------------------|
| | | | | | | | |
| | 5 | | | | | | |
| 10 |) | | | | | Rev1, Rev2, and Rev3 paid by CAISO markets | |
| 9 | | | | | | Rev4, Rev5, and Rev6 paid by ELRP | |
| 8 | | | Rev4 | | | COR = CAISO Opportunistic Revenue forfeited by the PDI | |
| 7 | | . | | Rev5 | | | |
| 6 | DAM\$ | | | | Rev6 | | |
| 5 | | | "COR" | | | | |
| 4 | Rev1 | | | | | | |
| 3 | | RTM\$ | | | | | |
| 2 | | Rev2 | Rev2Rev3 | | | | |
| 1 | | Kev2 | , inc | VS | | | |
| | | | | | MW | | |
| | | | | | | If MEP<=AwardQ, | MEC=0 |
| | | | | | | If MEP>AwardQ and MEP<=QC, | MEC = MEP- Award Q |
| | Q | Qualifying Capacity (QC) | | | If MEP>QC, | MEC = QC - Award Q | |
| _ | DAM Award | RTM Award | <= MEC ==> | | | = Market Eligible Capacity | |
| PDR | market ev | market event performance (MEP), per CAISO baseline | | | = MEP under CAISO baseline exceeding Award Q | | |
| _ | | <======= ILR =======> | | | = ILR under ELRP (AwardQ > 0) | | |
| | | ELRP event performance (EEP), per ELRP baseline | | | | | |
| | <====== | <===================================== | | | | = ILR under ELRP (AwardQ = 0) | |

To receive ELRP compensation, the third-party DRP shall submit an aggregate invoice for the Cumulative Portfolio Level Net Event Compensation of each PDR Portfolio for May-June-July (First Quarter) period by September 30 and for August-September-October (Second Quarter) by December 31 of the program year. for each of its PDR Portfolio to the applicable IOU's team administering Demand Response Auction Mechanism invoices. The Cumulative Portfolio Level Net Event Compensation of a PDR Portfolio over one Quarter is determined by summing the Portfolio Level Net Event Compensation across all ELRP events in that Quarter.

The invoice shall be accompanied with the supporting data for each event, including but not limited to PDR-specific ELRP Event Performance, ILR, applicable market awards during the event, applicable CAISO market payments for load reductions counted in the ILR, and ELRP Event Compensation. The IOU may audit and verify the invoice as needed. The aggregate invoice amount must be equal to or larger than the ELRP Minimum Invoice Threshold to be eligible for compensation by the IOUs. The IOU shall settle the invoice within 60 days of the invoice date.

The ELRP Minimum Invoice Threshold is set at zero at this time.

7. Other Program Elements

Test Events

The IOUs shall conduct one test event, with two-hour duration, per year for Group A participants.

ELRP Group A.1 and A.3 participants, except for those relying exclusively on prohibited resources, are required to participate in the test events. Use of prohibited resources during a test event is not permitted and will not be compensated. Incremental Lioad Rieduction (ILR) delivered during an ELRP test event is eligible for ELRP compensation.

ELRP sub-group A.6 Residential customers are exempt from testing requirements.

The IOUs are directed to collaborate with the CAISO and the CEC in the testing process and provide data regarding ELRP response to the CAISO and the CEC to facilitate forecasting.

Advice Letters

Within 30 days of this Decision, the IOUs shall jointly file a Tier 1 AL incorporating the modifications by this Decision ELRP terms and conditions for Group A. Limited deviations to accommodate IOU specific implementations due to IT and billing systems are permitted. The filing shall include the details necessary to implement the ELRP guidelines set forth above and address various aspects of ELRP pilot design and processes, including enrollment, the process to update enrollment related program parameters, ELRP event notification and customer acknowledgment, ILR measurement, and settlement.

Within 60 days of this Decision, the IOUs shall jointly file a Tier 1 AL incorporating the modifications by this Decision ELRP terms and conditions for Group B. Limited deviations to accommodate IOU specific implementations due to IT and billing systems are permitted. The filing shall include the details necessary to implement the ELRP guidelines set forth above and address various aspects of ELRP pilot design and processes, including enrollment, the process to update enrollment related program parameters, ELRP event notification, ILR measurement, and settlement and invoicing.

An IOU's Tier 1 AL filing to defer implementation of certain ELRP design elements, where permitted, shall include an explanation for why the delay is necessary or reasonable.

As experienced in ELRP is gained, the IOUs may seek to modify various aspects of ELRP design by jointly filing via an IOU-specific or joint IOU a-Tier 2 AL as appropriate before or by December 31 of each program year to manage program enrollment, improve program efficiency, increase potential load reduction available to ELRP, and improve program value, and reduce program

cost. The change request shall be limited to technical aspects of the program design related to program participation eligibility criteria or requirements (including various minimum size threshold parameters), dual participation between ELRP and another DR program, program trigger(s), minimum dispatch hours, Group A baselines and settlement, and Group B baselines, settlement, and invoicing guidelines. A request to allow a particular dual participation option should be accompanied with an explanation and methodology to demonstrate how the ILR during overlapping event could be attributed uniquely to ELRP participation and avoid double compensation. Changes to sub-group A.1 Minimum Size Threshold parameter could be sought via an IOU specific Tier 2 AL.

8. Balancing Accounts and Cost Recovery

PG&E, SCE, and SDG&E are authorized to establish-shall continue to use the one-way balancing accounts authorized in D.21-03-056 regarding the development, implementation, and operation of the ELRP pilot program, along with incentives paid under the program. The balancing accounts shall be effective as of the date of this decision. These three electric IOUs shall file Tier 1 advice letters within 5 days of the issuance of this decision establishing the new one-way balancing accounts.

This ELRP budget reflects projected costs for IOU program administration, including IT, evaluation, measurement, and verification costs, in addition to costs for compensating eligible customers who have contributed load reductions in response to an ELRP event. Customer compensation costs for each IOU assume a the ELRP Ceompensation Reate specified earlier of \$1/kilowatt-hour for both Groups A and B, for up to the 60-hour annual limit; however, if no ELRP events are called, customer compensation costs are assumed to be zero.

These balancing accounts shall have the following annual caps:

- PG&E \$3.9 million for administration and \$28.6 million for customer compensation.
- SCE \$2.9 million for administration and \$33.8 million for customer compensation, and
- SDG&E \$1.6 million for administration and \$14.8 million for customer compensation.

 These balancing accounts shall have the following annual caps for program administration across all ELRP sub-groups, except ELRP sub-group A.6 (Residential customers):
 - PG&E \$7.3 million,
 - SCE \$5.7 million, and
 - SDG&E \$3.0 million.

Additionally, these balancing accounts shall have the following caps for Residential ELRP (subgroup A.6) program administration and marketing, education, and outreach:

PG&E:

- 2022: \$9.4 million for administration and \$2.5 million for marketing, education, and outreach.
- 2023: \$8.7 million for administration and \$2.0 million for marketing, education, and outreach.

• <u>SCE:</u>

- 2022: \$10.0 million for administration and \$2.5 million for marketing, education, and outreach.
- 2023: \$9.0 million for administration and \$1.6 million for marketing, education, and outreach.

SDG&E:

- 2022: \$3.0 million for administration and \$0.75 million for marketing, education, and outreach.
- 2023: \$2.7 million for administration and \$0.5 million for marketing, education, and outreach.

Additionally, these balancing accounts shall have the following annual caps for Incremental Load Reduction compensation across all ELRP sub-groups, including the ELRP sub-group A.6 (Residential customers):

- PG&E \$94.0 million,
- SCE \$76.6 million, and
- SDG&E \$30.8 million.