



**Demand Side Analytics**  
DATA DRIVEN RESEARCH AND INSIGHTS

REPORT

CALMAC ID: SCEo446

## SCE 2019 Demand Response Executive Summary



Submitted to Southern California  
Edison

By Demand Side Analytics, LLC

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This report has been redacted to protect confidential information. Redactions are highlighted in black: XXXX

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## 1 INTRODUCTION

This report summarizes the findings of Southern California Edison's (SCE) demand response load impact evaluations from 2019. The purpose of this report is twofold: first, to provide a high-level overview of the history, methods, impacts, and forecasts of each demand response program, and to comply with the relevant decision<sup>1</sup> by the California Public Utilities Commission (CPUC or Commission) to provide a summary of PY2019 ex post and ex ante impacts.

There were seven demand response programs and one time-of-use pilot evaluated in 2019, some involving multiple customer segments, dispatch strategies, or notification strategies. They are grouped in three overall categories in **Error! Reference source not found.** The composition of SCE's DR portfolio has changed over time, with programs such as Optional Binding Mandatory Curtailment (OBMC) and Scheduled Load Reduction Program (SLRP) not evaluated<sup>2</sup>. Permanent Load Shifting, Demand Bidding Program, and Aggregator Managed Program are no longer available to customers and have not been evaluated since 2017. In 2014, the Commission issued Decision (D.) 14-12-024, which established steps toward full implementation of the bifurcation of demand response into load modifying and supply side resources, as well as the full integration of supply side resources into the California Independent System Operator (CAISO) energy market by 2018. In 2015, SCE began integration of its demand response resources into the California Independent System Operator (CAISO) wholesale energy market and towards bifurcation of its DR portfolio. In a move towards bifurcation, the Commission adopted new budget categories in D.17-12-003, thereby removing the old reliability and price-responsive categories.

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<sup>1</sup> Decision D 10-04-006

<sup>2</sup> OBMC is not considered a demand response program by SCE as it is a program of last resort. SLRP has no participants enrolled and no expected future enrollment.

Table 1: Categorization of SCE DR Programs

| Supply Side   | Load Modifying                       | Pilot  |
|---|--------------------------------------|--|
| Base Interruptible Program with 15-minute advance notice (BIP-15) | Critical Peak Pricing (CPP) - Large  | Residential Time-of-Use Pricing Pilot Rate 4 (D-TOU 4) |
| Base Interruptible Program with 30 minute advance notice (BIP-30) | Critical Peak Pricing (CPP) - Medium | Residential Time-of-Use Pricing Pilot Rate 5 (D-TOU 5) |
| Agricultural and Pumping Interruptible Program (AP-I)             | Critical Peak Pricing (CPP) - Small  |  |
| Capacity Bidding Program with Day-ahead Notification (CBP-DA)     | Real Time Pricing (RTP)              |  |
| Capacity Bidding Program with Day-of Notification (CBP-DO)        |                                      |  |
| Summer Discount Plan – Commercial (SDP-C)                         |                                      |  |
| Summer Discount Plan – Residential (SDP-R)                        |                                      |  |
| Smart Energy Program (SEP)  |                                      |  |

Each evaluation for the programs and pilot listed above was done in compliance with the California Demand Response Load Impact Protocols<sup>3</sup>, which specify the frequency, format, and results required when performing a load impact evaluation. This framework is intended to provide regulators, program staff, and other interested parties key facts about the performance of each program in a consistent manner. While the load impact protocols do not specify the exact analysis to be performed for each program, they do specify the required results of each analysis. At a high level, these requirements include:

- Ex Post Impacts: an estimate of demand reduction by hour for each program and event day, subset in to key segments
  - Impact estimates for each of the 24 hours on various event day types for event based resource options and other day types for non-event based resources;
  - Estimates of the change in overall energy use in a season and/or year;
  - Uncertainty adjusted impacts, reported for the 10th, 30th 50th, 70th, and 90th percentiles, reflecting the uncertainty associated with the precision of the model parameters and potentially reflecting uncertainty in key drivers of demand response, such as weather;

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<sup>3</sup> Relevant decisions can be found here: CPUC Rulemaking (R.) 07-01-041, D.08-04-050, and the full load impact protocols can be found here: [http://www.calmac.org/events/FinalDecision\\_AttachementA.pdf](http://www.calmac.org/events/FinalDecision_AttachementA.pdf)

- Ex Ante estimates: using prior performance to provide a 11-year forecast of program demand response capability under standard weather scenarios
  - Ex ante estimates that utilize all relevant information from ex post evaluations whenever possible, even if it means relying on studies from other utilities or jurisdictions;
- Documented methods: Various statistical measures so that reviewers can assess the accuracy, precision and other relevant characteristics of the impact estimates
- Standardized outputs that utilize a common format
  - Ex Post and Ex Ante estimates rely on slightly different formats, however they are consistent across programs;
- Detailed reports that document the evaluation objectives, impact estimates, methodology, and recommendations for future evaluations.

This report compiles the results of each evaluation and presents the high-level methodology, ex post impacts, ex ante impacts, and recommendations for each program and pilot. Much more detail for each evaluation can be found in the evaluation reports:

- 2019 Statewide Load Impact Evaluation of California Capacity Bidding Programs, *Applied Energy Group*
- 2019 Statewide Load Impact Evaluation of California Non-Residential Critical Peak Pricing Programs, *Applied Energy Group*
- 2019 Load Impact Evaluation of California Statewide Base Interruptible Programs (BIP) for Non-Residential Customers: Ex Post and Ex Ante Report, *Christensen Associates Energy Consulting*
- 2019 SCE Smart Energy Program Load Impact Evaluation, *Demand Side Analytics*
- 2019 SCE Summer Discount Plan Program Year 2019 Load Impact Evaluation, *Demand Side Analytics*
- 2019 SCE Real Time Pricing Demand Response Evaluation, *Demand Side Analytics*
- 2019 SCE Agricultural & Pumping Interruptible Demand Response Evaluation, *Demand Side Analytics*
- 2019 Load Impact Evaluation of Southern California Edison's Default Time of Use Pilot, *Nexant*

The remainder of this report proceeds as follows. An overview of each DR programs is provided, including key facts about program eligibility, incentives, and dispatch method. This is followed by a review of key evaluation methods relevant to all programs, then with program-specific materials. Ex post and ex ante results for each portfolio-level DR program are summarized, and the report concludes

with program-specific recommendations. Additional impact estimates and other evaluation materials can be found in the appendices.



## 2 OVERVIEW OF DEMAND RESPONSE PROGRAMS

SCE has a variety of residential, commercial, agricultural, and industrial demand response programs available for eligible customers. For reporting purposes, they are grouped in to three categories: supply side programs, load modifying programs, and pilots.

The following sections will summarize the eligibility and dispatch conditions for each program, but at a high level, the programs can be grouped in the following way:

- **Supply Side Programs:** Programs that are bid into the CAISO wholesale energy market. Dispatch is based upon CAISO market awards.
- **Load Modifying Programs:** Tariffed dynamic pricing programs that reshape or reduce the net load curve.
- **Pilots:** Programs or activities that may be deployed for longer time horizons and typically include permanent load shifting either from a device or through rate-based mechanisms.

### 2.1 SUPPLY SIDE PROGRAMS

SCE has five supply side programs that are dispatched based upon CAISO market awards. These programs are bid into the CAISO market as Reliability Demand Response Resources (RDRR) or Proxy Demand Response (PDR) resources.

#### BASE INTERRUPTIBLE PROGRAM

Base Interruptible Programs are statewide voluntary programs that offer customers a monthly capacity bill credit in exchange for the commitment to reduce their energy consumption to an amount that meets the customer's minimum operational requirements, also known as a Firm Service Level ("FSL"), when notified of an emergency situation or M&E event. Notification is provided 15 or 30 minutes before an event based on the program option selected by the customer.

All three of California's IOUs offer BIP. SCE's BIP is designed for customers and aggregators with demands of 200 kW and above. The program includes two participation options:

- Option A, which requires a customer or Aggregated Group to reduce its demand to its FSL within 15 minutes of a Notice of Interruption; or
- Option B, which requires a customer or Aggregated Group to reduce its demand to its FSL within 30 minutes of a Notice of Interruption.

Interruption events for an individual BIP customer or aggregated group are limited to no more than one event per day (lasting no more than 6 hours), ten in any calendar month, and a total of 180 hours per calendar year. The BIP offers incentive payments that are provided regardless of whether events are called, and excess energy charges are assessed if customers fail to reduce consumption to their FSL. Non-performing customers may also have their FSL reset or be removed from the program. An

interruption event may be called by the California Independent System Operator ("CAISO") or SCE at any time during the year.

#### **AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM**

The Agricultural & Pumping Interruptible (AP-I) program is a longstanding demand response program in Southern California Edison (SCE)'s territory. In exchange for a monthly bill credit, customers agree to participate in DR events with no notice. During an event, which can be called for CAISO Emergencies, SCE load reduction, system contingencies, or program evaluation, a signal is sent to a switch installed on customer pumps or other agricultural load. At the end of an event, SCE sends another signal to switch pumps back on; however, a subset of pumps must be manually restarted. Events can be called for up to 6 hours each, up to 40 hours per month, or 150 hours per year. Events cannot be called more than once per day or more than four times in a week. Participation incentives are dependent on customer size and take the form of monthly demand charge credits.

#### **SUMMER DISCOUNT PLAN**

SDP is a voluntary demand response program that provides incentives to customers who allow Southern California Edison to curtail or reduce the use of their central air conditioner on summer days with high energy usage or high energy prices. All SDP participants have a load cycling switch device installed on at least one air conditioner unit. The device enables SCE to cycle the customer's air conditioner off and on to reduce load during an SDP event. SCE initiates events by sending a signal to all participating devices through radio frequency transmission. The signals instruct the switch devices to either fully curtail the use of the air conditioning system or to cycle the air condition on and off, reducing the run time of the unit during events, thus reducing demand.

While the underlying technology for load control is the same, the program has multiple program options which allow participants to choose the extent of their commitment. Residential customers can elect to have their central air conditioning units cycled 50% or 100% of the time during an event and commercial customers have the option of choosing between 30%, 50% or 100% cycling. The incentive payments vary based on their level of commitment and the ability of residential customers to opt-out of any given event (commercial customers cannot opt out).

SCE may dispatch SDP any month of the year, but total program dispatch is limited to 180 event hours annually. On a single day, dispatch of SDP is limited to a maximum of 6 hours. While the program is designed to deliver flexible resources under system peaking conditions, SDP resources may be dispatched due to: grid operator warnings or emergencies; adverse reliability conditions on SCE's electric system such as high peak demand or loss of key transmission lines; high wholesale energy prices (based on CAISO bid awards); and measurement and evaluation (M&E) testing.

## SMART ENERGY PROGRAM

SCE's Smart Energy Program (SEP) is a technology-enabled program in which residential customers with a qualified smart thermostat are provided a monthly bill credit in exchange for allowing their smart thermostat provider to temporarily adjust their temperature setpoint. During SEP events, thermostat providers can adjust cooling setpoints upward by as much as four degrees Fahrenheit (°F) to limit air conditioning usage during peak hours. Limiting air conditioning usage lowers electric demand by participating households. Multiple events can be called on a single day, but the number of hours of control cannot exceed four hours in a given day. Dual enrollment in Critical Peak Pricing (CPP), dispatchable pricing tariffs, or the Summer Discount Plan (SDP) program is prohibited.

SEP has evolved considerably in recent years from its predecessor program, Save Power Day (SPD). SEP now relies exclusively on direct load control of central air conditioning systems through Wi-Fi connected smart thermostats. Participants are sent a courtesy notification 30 minutes prior to event dispatch, but are not expected to take any action in response to the event signal.

SCE provides SEP participants with a one-time \$75 bill credit for enrolling and monthly \$10 bill credit for remaining in the program. Events can be called year-round, though customers only receive bill credits for June through September participation. SEP events can be dispatched, or triggered, for multiple reasons: CAISO emergency conditions; at the discretion of SCE's grid control center for load relief in SCE service territory; in response to high wholesale energy prices (e.g. economic dispatch); for program measurement and evaluation or system contingencies.

SEP economic dispatch is limited to 40 hours per year and can only be activated on non-holiday weekdays from 11:00 am to 9:00 pm. SEP dispatch for triggers emergency conditions, load relief, and measurement and evaluation can be activated at any time including weekends and holidays. No more than 180 hours of SEP events can be called in a calendar year for all dispatch triggers combined.

## CAPACITY BIDDING PROGRAM

CBP is a statewide price-responsive program launched in 2007. In CBP, aggregators are entities that contract with eligible residential<sup>4</sup> and non-residential utility customers to act on their behalf with respect to all aspects of the demand response program, including the receipt of notices (day-ahead, DA, or day-of, DO) from the utility under this program, the receipt of incentive payments, and the payment of penalties to the utility. Each aggregator forms a portfolio of individual customers who then participate on an aggregate basis to provide load reduction during events. The aggregators enroll participants under the terms of their own contracts to provide the load reduction capacity. The utilities are not directly involved in the contracts between the aggregators and the participating customers. A

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<sup>4</sup> Since PY2018, the program was open to residential customer enrollment. SCE does not yet have any residential CBP customers.

few customers are enrolled as individual participants in CBP and are classified as self-aggregated. Participating aggregators must have Internet access. Enrolled customers must have a qualifying interval meter and receive Bundled, Direct Access, or Community Choice Aggregation service.

CBP provides monthly capacity payments (\$/kW) to aggregators based on the nominated kW load, the specific operating month, the event duration, and the event notice option. Delivered capacity determines performance. If a CBP aggregator's delivered capacity is less than 50% for SCE and SDG&E or less than 60% for PG&E, the aggregator is assessed a penalty. If no events are called, CBP aggregators receive the full monthly capacity payment in accordance with their nominations, but no energy payments.<sup>5</sup> Additional energy payments (\$/kWh) are made to the aggregator<sup>6</sup> based on the measured kWh reductions (relative to the program baseline) that are achieved when an event is called.

For SCE, CBP events can be triggered by any of the following conditions: high temperatures, resource limitations, a generating unit outage, transmission constraints, a system emergency, an alert called by the CAISO, or market prices go above a given price threshold. Events can be called on any non-holiday weekday year-round, between the hours of 1 PM and 7 PM, with a maximum of five events and 30 event hours per month.

## 2.2 LOAD MODIFYING PROGRAMS

This category of program is dispatched for economic, weather, or other conditions, instead of CAISO market awards. Load modifying programs are defined as resources that reshape or reduce the net load curve.<sup>7</sup>

### CRITICAL PEAK PRICING

CPP programs offer a peak-hour energy price or demand charge reduction in exchange for higher CPP-period energy prices. For SCE, there are 12 events per year. The event window for SCE changed in 2019, from 2-6 PM to 4-9 PM. Customers are provided advanced notice so that they can adjust behavior and schedules. Large commercial customers were defaulted on to CPP rates in 2010, while small and medium businesses (SMB) could opt in to the program starting in 2014<sup>8</sup>. A default rollout to the remaining non-participant SMB customers was completed in 2019.

### REAL TIME PRICING

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<sup>5</sup> Customers participating directly receive up to 80% of the available capacity payment; aggregators receive 100% of the capacity payment for the load reduction received. Note that all of SCE's CBP customers participate through an aggregator.

<sup>6</sup> Customers participating directly receive any additional energy payments directly.

<sup>7</sup> D.17-12-003, page 36.

<sup>8</sup> There is a very small population of residential customers enrolled in the CPP programs, but not reported separately.

The Real Time Pricing (RTP) program is a variable tariff-based demand response program for commercial and industrial customers in SCE's territory. The basis of the tariff is hour-specific generation energy prices that are set based on the daily maximum temperature in Downtown Los Angeles on the prior day. Seven potential day types are available, including three summer weekday schedules, high and low cost winter weekdays, and high and low cost weekends. The rate is available to commercial, industrial, and agricultural customers on rates TOU-8, TOU-8 Standby, TOU-GS1, TOU-GS2, TOU-GS3, TOU-PA2 and TOU-PA3. Customers may dual enroll in the Agricultural and Pumping Interruptible Program, Base Interruptible Program, or the Capacity Bidding Program.

Both RTP and other commercial and industrial rates underwent a dramatic change starting in March 2019, where the peak period changed from 1pm – 6pm to 4pm – 9pm. RTP rates also consolidated their day type structures; from nine separate price schedules to seven; changes that have a dramatic impact on customer usage patterns.

## 2.3 PILOTS

These tariffed programs or activities are quite different from the others in that they provide continuous load reductions rather than solely on event days or event "dispatch". Often these are rate-based in that they provide a financial incentive to shift usage away from the peak on each day.

### RESIDENTIAL DEFAULT TIME-OF-USE PRICING PILOT

A pilot of residential time of use (TOU) rates was implemented in response to California Public Utilities Commission (CPUC) Decision 15-07-001. A key objective of the pilot was to develop insights that will help guide SCE's approach to implementation of default TOU pricing for the majority of residential electricity customers and the CPUC's policy decisions regarding default pricing. The default TOU pilot tested two different TOU rate options: Rate 4 and Rate 5. Approximately 400,000 households were assigned to one of the TOU rates (200,000 to each rate), and an additional 200,000 were retained in the study on the standard tiered rate to act as a control group for those who were placed on the new tariffs. After receiving multiple notifications regarding the fact that their rate will change if they did not take action by a certain date, customers had the option of opting out prior to the rate change and staying either on their otherwise applicable tariff or choosing an alternative rate plan other than the one they were to be defaulted on. If a customer took no action, they were placed on the default rate associated with their assigned group.

The primary objective of the analysis was to document the findings of an ex post (after the fact) study that estimates hourly load impacts for the summer of 2019 (June through September 2019). An additional objective was to provide an ex ante (forward looking) forecast for the next eleven years (2020 to 2030) of program operations. The ex ante study provides estimated hourly load impacts given SCE's default TOU enrollment forecast and given weather conditions that reflect SCE and California Independent System Operator (CAISO) electric system peaks.

## 2.4 PROGRAM ENROLLMENT

Program enrollment is a big driver of aggregate portfolio impacts in the demand response portfolio.

**Error! Reference source not found.** summarizes SCE-projected enrollment growth or decreases until 2030. In general, total portfolio program enrollment is projected to increase, driven primarily by the default of residential customers on to Time of Use rates, and by large increases in the SEP and to a smaller extent, the CPP programs. Legacy AC cycling programs such as SDP-R and SDP-C will decline over time, while the RDRR programs – AP-I and BIP – will remain relatively flat.

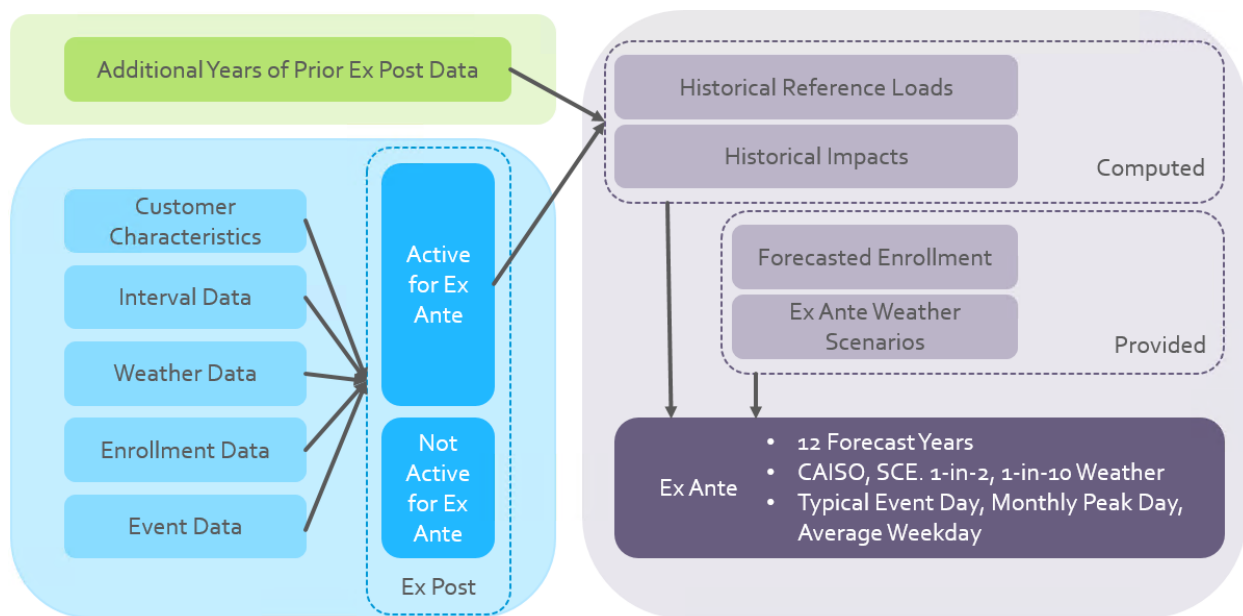
Table 2: SCE DR Portfolio Projected Enrollments for 2020-2030 by Program

| Type                    | Program         | 2020    | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      |
|-------------------------|-----------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Supply Side Programs    | AP-I            | 935     | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       |
|                         | BIP15           | 53      | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        |
|                         | BIP30           | 411     | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       |
|                         | CBP DA          | 384     | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       |
|                         | CBP DO          | 233     | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       |
|                         | SDPC            | 8,092   | 7,182     | 6,376     | 5,667     | 5,043     | 4,493     | 4,008     | 3,580     | 3,201     | 2,866     | 2,569     |
|                         | SDPR            | 207,072 | 187,929   | 177,512   | 169,151   | 161,464   | 154,381   | 147,838   | 141,778   | 136,151   | 130,908   | 126,010   |
|                         | SEP             | 60,249  | 77,971    | 93,863    | 111,367   | 128,338   | 143,327   | 156,565   | 168,257   | 178,584   | 187,704   | 195,759   |
|                         | Subtotal        | 277,429 | 275,061   | 279,730   | 288,164   | 296,824   | 304,180   | 310,390   | 315,594   | 319,915   | 323,457   | 326,317   |
| Load Modifying Programs | CPP Large       | 2,491   | 2,636     | 2,781     | 2,926     | 3,071     | 3,216     | 3,361     | 3,506     | 3,651     | 3,796     | 3,941     |
|                         | CPP Medium      | 30,272  | 32,012    | 33,752    | 35,492    | 37,232    | 38,972    | 40,712    | 42,452    | 44,192    | 45,932    | 47,672    |
|                         | CPP Small       | 219,658 | 232,273   | 244,888   | 257,503   | 270,118   | 282,733   | 295,348   | 307,963   | 320,578   | 333,193   | 345,808   |
|                         | RTP             | 79      | 73        | 66        | 60        | 54        | 54        | 54        | 54        | 54        | 54        | 54        |
|                         | Subtotal        | 252,500 | 266,994   | 281,487   | 295,981   | 310,475   | 324,975   | 339,475   | 353,975   | 368,475   | 382,975   | 397,475   |
| Pilots                  | Residential TOU | 246,710 | 469,464   | 2,232,619 | 2,222,025 | 2,212,635 | 2,204,312 | 2,196,934 | 2,190,395 | 2,184,598 | 2,179,460 | 2,174,906 |
|                         | Subtotal        | 246,710 | 469,464   | 2,232,619 | 2,222,025 | 2,212,635 | 2,204,312 | 2,196,934 | 2,190,395 | 2,184,598 | 2,179,460 | 2,174,906 |
| Total                   | Total           | 776,639 | 1,011,519 | 2,793,836 | 2,806,170 | 2,819,934 | 2,833,467 | 2,846,799 | 2,859,964 | 2,872,988 | 2,885,892 | 2,898,698 |

### 3 METHODOLOGY

The primary goal of any load impact evaluation is to answer two key questions: what were the historic ex post load impacts in the prior evaluation period (i.e. – what are the *ex post* impacts), and what are the estimates of program load impacts going forward (i.e. – what are the *ex ante* impacts)? This second question is of particular importance, as it can be leveraged for long term resource planning, DR impacts for resource adequacy, and other progress reporting. Ex post impacts can similarly be leveraged for customer settlement payments; however, it is our understanding that none of SCE’s programs rely on ex post impacts for customer settlement.

Figure 1: High Level Impact Evaluation Process



**Error! Reference source not found.** summarizes the general process of generating both ex post and ex ante impacts. The process begins with ex post impact estimation, which begins with answering the question of what load reductions were generated as a result of program dispatch in the prior year. This analysis requires several key pieces of information, including customer characteristics and enrollments, granular customer load data, weather and system load data, and historic event data. For customers who will remain enrolled in the program, impacts are combined with prior years of ex post data and results. The inclusion of additional data is recommended to be able to model a wider range of program conditions for ex ante. Using the provided ex ante weather conditions, along with that year’s ex post results and historical results, ex ante impacts are modeled for a standard set of weather scenarios. Enrollment forecasts are provided to scale up per-customer results to their aggregate capability.

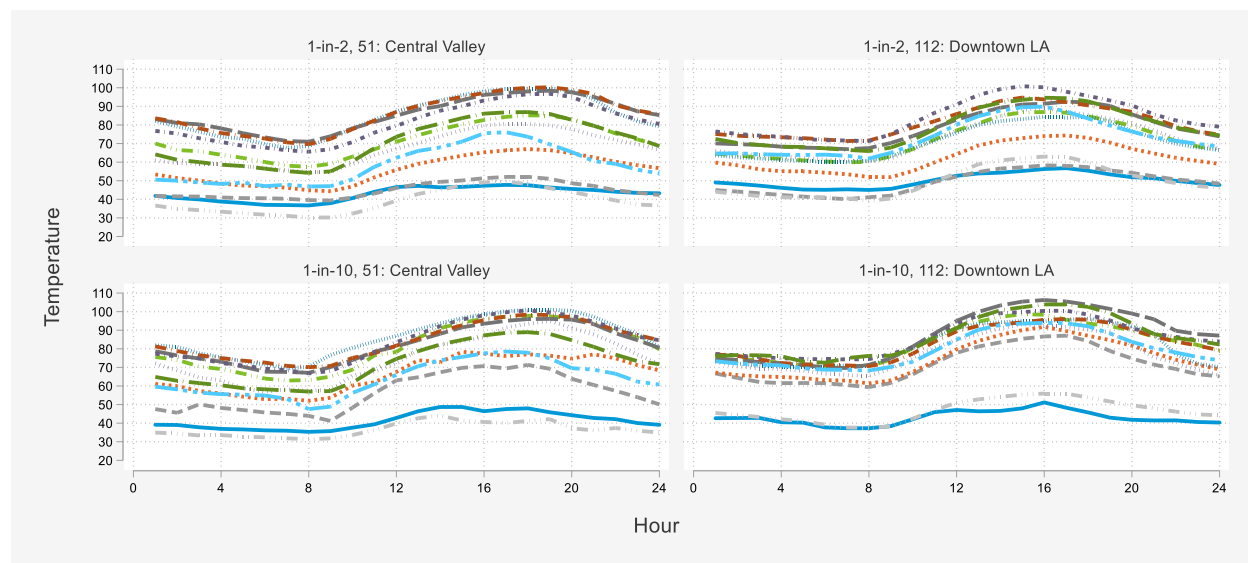
#### 3.1 SELECTION OF EX ANTE WEATHER CONDITIONS

To produce ex ante impacts under standard conditions, four weather scenarios are used to predict reference loads and impacts for each program. These weather scenarios are generated to reflect



temperature conditions under peaking conditions for either SCE or CAISO in an average year (1-in-2) and an extreme year (1-in-10). **Error! Reference source not found.** summarizes ex ante weather conditions for two SCE weather stations during average or extreme weather years. While the ranges represented in this figure vary slightly from scenario to scenario, 1-in-10 summer days are hotter overall than 1-in-2 summer days. Temperature profiles also vary from station to station and scenario to scenario, with Downtown Los Angeles reaching its daily maximum temperature earlier in the day than the station located in the Central Valley. Ex ante weather scenarios were produced for both CAISO and SCE average and extreme conditions for each SCE weather station, for the average monthly weekday, a monthly system peak day, and for a typical August event day.

Figure 2: Ex Ante Weather Conditions on SCE 1-in-2 and 1-in-10 Monthly Peak Days



### EX ANTE WEATHER TREND UPDATE

In 2019, the ex ante 1-in-2 and 1-in-10 weather conditions were updated for both SCE and CAISO peaking conditions. This dataset of standardized hourly weather conditions to be used for estimating ex ante load impacts of Southern California Edison Co. (SCE) demand response (DR) programs, and it was last updated in 2015. Below is a comparison between the new conditions and the conditions established in 2015. Updates to these weather conditions will influence the outcome of the ex ante load impact forecasts and should be taken into consideration when comparing 2019 and 2018 outcomes.

Table 3 summarizes SCE monthly peaking conditions for 1-in-2 and 1-in-10 weather between the 2015 and 2019 evaluations. The table shows that during summer months conditions have increased in every month except for 1-in-2 peaking conditions in June. Mean17 – which is the average temperature from midnight to 5pm – 1-in-10 values in the summer have increased an average of 2.9%.

Table 3. SCE Weather Conditions Comparison (°F)

| SCE Monthly System Peak Mean17 |        |      |         |      |
|--------------------------------|--------|------|---------|------|
| Month                          | 1-in-2 |      | 1-in-10 |      |
|                                | 2015   | 2019 | 2015    | 2019 |
| June                           | 72.2   | 71.7 | 76.6    | 81.0 |
| July                           | 75.7   | 77.8 | 80.0    | 83.2 |
| August                         | 79.4   | 80.7 | 81.7    | 82.0 |
| September                      | 75.8   | 80.2 | 82.3    | 83.4 |

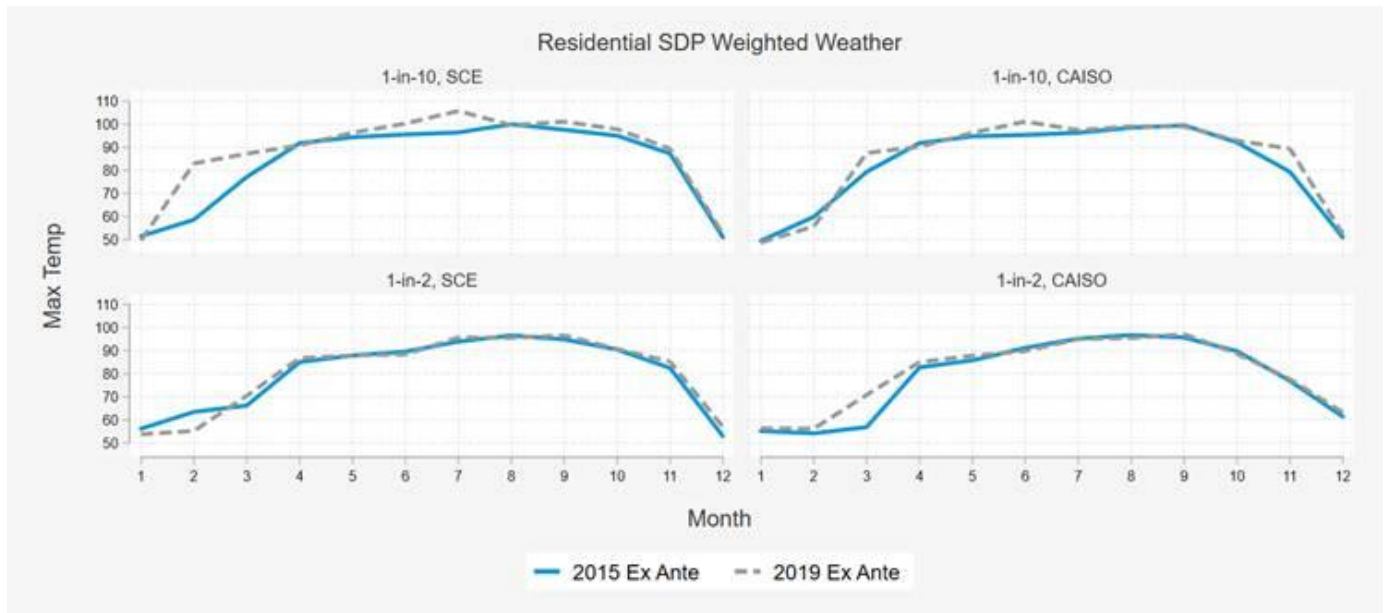
Table 4 summarizes the same information as Table 3 but for CAISO system peaking conditions. Overall, summer mean17 1-in-10 conditions increased by an average of 2.2%.

Table 4. CAISO Weather Conditions Comparison (°F)

| CAISO Monthly System Peak Mean17 |        |      |         |      |
|----------------------------------|--------|------|---------|------|
| Month                            | 1-in-2 |      | 1-in-10 |      |
|                                  | 2015   | 2019 | 2015    | 2019 |
| June                             | 73.0   | 71.1 | 77.1    | 81.0 |
| July                             | 79.0   | 78.2 | 79.4    | 81.0 |
| August                           | 78.7   | 81.4 | 81.0    | 81.0 |
| September                        | 78.1   | 82.3 | 82.7    | 84.1 |

A visual summary of these differences is shown in Figure 3. For summer months, especially for 1-in-10 conditions, there was a noticeable increase in daily maximum temperature. Relative to SCE's historic peak day in August, temperatures were higher in June, July and September in the updated analysis. While this graph was constructed using SDP-R participant weighted average temperatures, the same trend holds true in general.

Figure 3: Participant-Weighted Weather Conditions using Monthly Peak Day Maximum Temperature



### 3.2 OVERVIEW OF EVALUATION METHODS

The primary challenge of an impact evaluation is the need to accurately detect changes in energy consumption while systematically eliminating plausible alternative explanations for those changes, including random chance. Did the dispatch of demand response resources cause a decrease in hourly demand? Or can the differences be explained by other factors? To estimate demand reductions, it is necessary to estimate what demand patterns would have been in the absence of dispatch – this is called the counterfactual or reference load. At a fundamental level, the ability to measure demand reductions accurately depends on four key components:

- **The effect or signal size** – The effect size is most easily understood as the percent change. It is easier to detect large changes than it is to detect small ones. For most DR programs, the percentage change in demand is relatively large.
- **Inherent data volatility or background noise** – The more volatile the load, the more difficult it is to detect small changes. Energy use patterns of homes with air conditioners tend to be more predictable than industrial load patterns.
- **The ability to filter out noise or control for volatility** – At a fundamental level, statistical models, baseline techniques, and control groups – no matter how simple or complex – are tools to filter out noise (or explain variation) and allow the effect or impact to be more easily detected.
- **Sample/population size** – For most of the programs in question, sample sizes are irrelevant because data is analyzed for the full population of participants either using AMI data or thermostat runtime. Sample size considerations aside, it is easier to precisely estimate

average impacts for a large population than for a small population because individual customer behavior patterns smooth out and offset across large populations.

A key factor for many, but not all, demand response resources is the ability to dispatch the resource. The primary intervention – demand response dispatch – is introduced on some days and not on others, making it possible to observe energy use patterns with and without demand reductions. This, in turn, enables us to assess whether the outcome – electricity use – rises or falls with the presence or absence of demand response dispatch instructions.

In general, there are seven main methods for estimating demand reductions, as summarized in **Error! Reference source not found.** The first four only make use of use patterns during days when DR is not dispatched to calculate the baseline. The latter three methods incorporate non-event data but also use an external control group to establish the baseline. The control group consists of customers who are similar to participants, experienced the same event day conditions, but are not dispatched during events (or were not transitioned to time-varying pricing). Control and participant groups should have similar energy usage patterns when the intervention is not in place and diverge when the intervention is in effect. The only systematic difference between the two groups should be that one is dispatched for events (or transitioned to time-varying prices) while the other group is not.

Table 5: Methods for Demand Response Evaluation

| General Approach                                  | Method  | Method Description  |
|---|---|---|
| Use non-event days only to establish the baseline | 1 Day matching baseline                       | This approach relies on electricity use in the days leading up to the event to establish the baseline. A subset of non-event days in close proximity to the event day are identified (e.g., Top 3 of 10 prior days). The electricity use in each hour of the identified days is averaged to produce a baseline. Day matching baselines are often supplemented with corrections to calibrate the baseline to usage patterns in the hours preceding an event – usually referred to as in-day or same-day adjustments. |
|   | 2 Weather matching baseline                   | The process for weather matching baselines is similar to day-matching except that the baseline load profile is selected from non-event days with similar temperature conditions and then calibrated with an in-day adjustment.  |
|   | 3 Regression models (interrupted time series) | Regression models quantify how different observable factors such as weather, hour of day, day of week, and location influence energy use patterns. Regression models can be informed by electricity use patterns in the day prior (day lags) and in the hours before or after an event (lags or leads) and can replicate many of the elements of day and weather matching baselines.  |
|   | 4 Machine learning (w/o external controls)    | Most machine learning approaches (e.g., random forest, neural networks, etc.) rely exclusively on non-event day data to establish the baselines. The algorithms test different model specifications and rely on a training and testing datasets (out-of-sample testing) to identify the best model and avoid overfitting.   |

| General Approach  |   | Method                    | Method Description  |
|---|---|---------------------------|---|
| Use non-event days plus a control group to establish the baseline | 5 | Matched control groups    | Matching is a method used to create a control group out of a pool of nonparticipant customers. This approach relies on choosing customers who have very similar energy use patterns on non-event days and a similar demographic and geographic footprint. The non-event day data is incorporated by either analyzing the data using a regression model, a difference-in-differences model, or both.               |
|   | 6 | Synthetic control groups  | This approach is similar to matching except that multiple controls are used and weighted according to their predictive power during a training period. A key advantage of this approach is that it can be used to produce results for individual customers.   |
|   | 7 | Randomized control trials | Participants are randomly assigned to different groups, and one group (the “control” group) is withheld from dispatch to establish the baseline. The control group provides information about what electricity use would have been in the absence of DR dispatch – the baseline. The estimate is refined by netting out any differences between the two groups on hot non-event days (difference-in-differences). |

Approaches that use an external control group typically provide more accurate and precise results on an aggregate level when there are many customers (i.e., several hundred). They also make use of non-event days to establish the baseline but have the advantage of also being informed by the behavior of the external control group during both event and non-event days. Except for synthetic controls, the two fundamental limitations to control groups have been: the limited ability to disaggregate results, and the inability to use control groups for large, unique customers. The precision of results for control group methods rapidly decrease when results are disaggregated, and a control group cannot be used to estimate outcomes for individual customers (except for synthetic controls).

Methods that rely only on non-event days to establish the baseline – such as individual customer regressions – are typically more useful for more granular segmentation. Individual customer regressions have the benefit of easily producing impact estimates for any number of customer segments. Because they are aggregated from the bottom up, the results from segments add up to the totals. However, the success of individual customer regression hinges on having non-event days comparable to event days. When most of the hottest days are event days, as has been the case historically, estimating the counterfactual requires extrapolating trends to temperature ranges that were not experienced during non-event days. This produces less accurate and less reliable demand reduction estimates for the hottest days when resources are needed most.

### 3.3 PROGRAM SPECIFIC ANALYSIS METHODS

The following section will review analysis methodology specific to each program. Regression specifications for each evaluation can be found in Appendix 8.

### BASE INTERRUPTIBLE PROGRAMS (BIP)

*Ex post* load impacts were estimated from regression analysis of customer-level hourly load data, where the equations modeled hourly load as a function of variables that control for factors affecting consumers' hourly demand levels. BIP load impacts for each event were obtained by summing the estimated hourly event coefficients across the customer-level models. Individual-customer regression equations modeled hourly load as a function of several variables designed to control for factors affecting consumers' hourly demand levels, including:

- Seasonal and hourly time patterns (*e.g.*, year, month, day-of-week, and hour, plus various hour/day-type interactions);
- Weather (*e.g.*, cooling degree hours, including hour-specific weather coefficients);
- Event indicator (dummy) variables. A series of variables was included to account for each hour of each event day, allowing us to estimate the load impacts for each hour of each event day.

Scenarios of *ex ante* load impacts are developed by combining enrollment forecasts with per-customer reference loads and load impacts, which were developed using the results of the *ex post* load impact evaluation. Because BIP events may be called in any month of the year, separate regression models were estimated to simulate winter reference loads. This model is estimated separately from the summer *ex ante* model. It differs from the summer model in two ways: it includes different weather variables; and the month dummies relate to a different set of months.

### AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM (AP-I)

To estimate load impacts, individual customer regressions were estimated which relate pumping consumption with seasonal and weather factors. Each customers' model was used to predict what that customer would have done had they not been dispatched. The difference between this predicted load and what was observed was the impact of the event.

*Ex ante* impacts for the AP-I program are similarly straightforward. First, a regression model, fitting historical consumption patterns to historical weather is estimated, then reference loads for the *ex ante* 1-in-2 and 1-in-10 weather forecasts are predicted using the same relationship. Impacts are related to the overall switch success rate – because any paged switch will set the load on that circuit to essentially 0kW, the percentage of load associated with switches that are successfully triggered is the overall *ex ante* percentage reduction. As part of its switch upgrade process, SCE provided the evaluation team a switch paging success rate forecast alongside the enrollment forecast.

Because customers are no longer allowed to use prohibited resources such as back-up generators and fuel cells to reduce load during demand response events, some legacy AP-I customers have left the program.

### SUMMER DISCOUNT PLAN PROGRAM (SDP)

Because customers enrolled in SDP do not have a natural control group against which to compare loads on event days, one must be constructed. There are many ways to construct a control group, but the evaluation team suggests a blocked propensity score matching process. Propensity score matching is a data pre-processing technique that identifies statistically similar non-participants for each participating customer. It relies on a probit model that relates observed characteristics such as geography, load shapes, industry, and size to whether a given customer has enrolled in a given demand response program – in this case, SDP. The outcome of this model is a propensity score for each participant and non-participant that is the likelihood, given the customer’s characteristics, that the customer enrolled in DR. Participants are then “matched” to non-participants with similar propensity scores. Effectively, propensity score matching produces a cohort of non-participants that have the same overall likelihood to have been treated as the participant group – the only customers that did in fact enroll in the program. A blocked propensity score matching process performs this regression and matching procedure for customers in each key strata separately, effectively ensuring that only participants in a given climate zone, for example, will be matched with non-participants in that same climate zone.

For SDP-R and SDP-C, the evaluation team, in conjunction with SCE, decided to proceed with a matched control group relying on a stratified random sample of subsets of non-participants to act as the control pool. This eliminates the need to develop a two-stage matched control group, streamlining analysis. Essentially, instead of relying on information from all possible non-participants, a control group is constructed from a targeted subset of control candidates that have been pre-screened to belong to sampling cells of influential variables. By oversampling large and/or net energy metering (NEM) customers, and by allowing non-participants to be matched multiple times to different participants, the quality of matching can be improved compared to a random sample, while also removing the need to do two-stage matching on all non-participants in SCE’s territory.

The key difference between ex post and ex ante is to produce weather-normalized reference loads and impacts. There are two key steps in developing ex ante impacts. First, historical participant loads are modeled as a function of key weather variables. Using ex ante weather forecasts provided by SCE for both 1-in-2 and 1-in-10 weather years, ex ante reference loads are predicted using the same regression function. Second, a similar process is followed for historical demand response impacts – the impacts are modeled as a function of key weather variables, then the estimated model is used to predict impacts under ex ante weather conditions.

As with ex post impacts, ex ante estimates are produced for key sub-segments of the participant population so that they can be aggregated in different ways to account for changes in future enrollment or program design. Separate regression models were estimated for each group. Additionally, separate regression models were estimated for each weekday hour and each weekend hour.

The regression model used for estimating ex ante reference loads leveraged two seasons of SDP-R participant load data on non-event summer days. With the same regression specification that was used to estimate 2019 ex post impacts, 2018 ex post impacts were estimated for the 2018 participant pool. Only customers who were active through the end of the 2019 season were included in the development

of 2018 ex post impacts. With two seasons of performance data, the relationship between demand reductions and weather was modeled. Rather than developing separate models for each segment – as was the case for the reference load models discussed above – the segments were included as explanatory variables in the model.

### CRITICAL PEAK PRICING (CPP)

AEG estimated hourly ex post load impacts for each small, medium, and large customers, and event during 2019, using regression analysis of subgroup-level hourly load, weather, and event data. AEG estimated ex post impacts associated with Technical Assistance and Technology Incentives (TA/TI) and Automated Demand Response (AutoDR) participants<sup>9</sup>, and for CPP participants that received vs. did not receive notification.

AEG developed ex ante load impact forecasts by combining enrollment forecasts provided by the IOUs, and per-customer load impacts generated from the analysis of current ex post load impact estimates.

### CAPACITY BIDDING PROGRAM (CBP) (DAY-AHEAD (DA) AND DAY OF (DO))

AEG used customer-specific regression models as the primary evaluation method for both the ex post and ex ante load impact analysis. Customer-specific regressions allow for granularity in the results and can readily be used to control for variables such as weather, geography, and time, as well as for unobservable customer-specific effects. Because the CBP events are called only on isolated days over the course of the program year and participants face identical TOU rates on all other days, a regression model is well-suited to estimating the effect of events relative to usage on non-event days.

The regression models capture variation in hourly customer loads as a function of several primary factors:

- Weather, using hourly weather variables such as cooling and heating degree days.
- Seasonal patterns, such as month of year, day of week, and interactions between seasonal and other variables.
- Events, including CBP event days and events called in other DR programs.
- Daily fluctuations in load unrelated to other variables, captured by an appropriate load adjustment, which can be in an average load in the morning or evening.

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<sup>9</sup> TA/TI and AutoDR participants are customers that have received technology incentives for the purchase and installation of load control equipment and technology that enables a customer's ability to automatically curtail its load during a DR event.



After developing a set of customer-specific regression models to estimate the ex post impacts, AEG used the same models to predict the ex ante impacts under the Utility and CAISO 1-in-2 and 1-in-10 weather scenarios.

### SMART ENERGY PROGRAM (SEP)

For ex post load impacts, DSA utilized a matched control group and regression analysis for the 2019 SEP program evaluation. The matched control group was selected through the use of proxy days and propensity score matching and the regression analysis incorporated a simple difference in difference model. The small differences between the participant and matched control group on proxy days were netted off of the differences observed on event days. The program was evaluated across all customers as well as at a segment level for a variety of categories including sub-LAP, size, tariff rate, and more.

Demand Side Analytics used a difference-in-difference (DiD) panel regression model to estimate the hourly load impacts for SEP. With minor differences between the treatment and matched control group, the DiD approach will net out any unobserved differences from the two groups and the resulting coefficient will indicate the event impact. To capture the best results for each event, DSA individually regressed each event with its three proxy days. Every hour is separately regressed to avoid any heteroscedastic errors. Hourly impacts are then appended to form full event impacts.

Ex ante load impacts are estimated by estimating a total of seven different reference load regression models. One model was developed for all active participants. Separate models were developed for the three LCAs and three regions. The regression coefficients estimated for each model run were then used to predict average hourly demand for electricity for the array of ex ante weather conditions. Weighted average conditions were computed for each of the seven segments using the number of active SEP participants mapped to each constituent weather station.

### REAL TIME PRICING (RTP)

RTP impacts were modeled using individual customer regressions that related price variations on a tariff to changes in hourly consumption. The first step in performing this estimation is to determine the prices that customers face on an RTP and otherwise-applicable rate. Rates have several components that add up to what a customer must respond to in each hour. The appropriate counterfactual is the customer's consumption patterns on the otherwise applicable tariff (OAT). For example, a customer on the GS-2 RTP tariff would otherwise be metered on the standard GS-2 tariff.

The final matching model is identified based on out-of-sample metrics for bias and fit. The process relies on splitting the dataset into training and testing data. The models are developed using the training data and applied, out-of-sample, to the testing data. For each of models specified, standard metrics for bias and goodness of fit are produced. The best model is identified by first narrowing the candidate models to the three with the least bias and then selecting the model with the highest precision.

For the ex post analysis, nine different models were tested, including last year's model. Weather variables, even for weather sensitive customers, can introduce bias in the estimates and should be avoided. The best model for each customer was then used to predict ex post loads on the withheld days.

Ex ante impacts for the RTP program are straightforward. First, a regression model, fitting historical consumption patterns to historical price response and season is estimated, then reference loads for the ex ante 1-in-2 and 1-in-10 weather forecasts are predicted using the same relationship.

#### RESIDENTIAL DEFAULT TIME OF USE RATE PILOT (TOU)

The pilot involves a randomized encouragement experimental design (RED). With a RED structure involving a single rate treatment of interest (for simplicity), the study sample is randomly divided into two groups. One group is offered the treatment and the other is not. The group offered the treatment is referred to as the encouraged group and the group not offered the treatment is referred to as the control group. Some people in the encouraged group will accept the treatment and others will not. With a RED, impacts for those who accept the treatment offer are estimated through a two-step process. In the first step, loads by time period for the encouraged group are subtracted from loads for the control group. As stated above, the encouraged group includes both those who accept the encouragement (that is, those who enroll on the new rate) and those who do not. The estimated load impact based on these two groups of customers is referred to as the intention-to-treat (ITT) effect. In the second analysis step, the ITT estimate is divided by the percent of the encouraged group who take up the treatment offer. This value represents the impact for those who took the treatment (referred to as the impact of the treatment on the treated).

For the pilot, the first stage ITT impact was estimated using what is called a difference-in-differences (DiD) analysis. This method estimates impacts by subtracting treatment customers' loads (or in this first stage, the encouraged customers' loads) from control customers' loads in each hour or time period after the treatments are in place and subtracts from this value the difference in loads between treatment and control customers for the same time period in the pretreatment period. Subtracting any difference between treatment and control customers prior to the treatment going into effect adjusts for any difference between the two groups that might occur due to random chance.

The DiD calculation can be done arithmetically using simple averages or can be done using regression analysis. Customer fixed effects regression analysis allows each customer's mean usage to be modeled separately, which reduces the standard error of the impact estimates without changing their magnitude. Additionally, regression software allows for the calculation of standard errors, confidence intervals, and significance tests for load impact estimates that correctly account for the correlation

in customer loads over time.<sup>10</sup> Implementing a DiD through simple arithmetic would yield the same point estimate but it would not generate confidence intervals.

A typical regression specification for estimating impacts is shown below:

$$kW_{i,t} = \alpha_i + \delta \text{treat}_i + \gamma \text{post}_t + \beta(\text{treatpost})_{i,t} + v_i + \varepsilon_{i,t}$$

In the above equation, the variable  $kW_{i,t}$  equals electricity usage during the time period of interest, which might be each hour of the day, peak or off-peak periods, daily usage or some other period. The index  $i$  refers to customers and the index  $t$  refers to the time period of interest. The estimating database would contain electricity usage data during both the pretreatment and post-treatment periods for both treatment (encouraged) and control group customers. The variable  $\text{treat}$  is equal to 1 for treatment customers and 0 for control customers, while the variable  $\text{post}$  is equal to 1 for days after the TOU rate has been implemented and a value of 0 for days during the pretreatment period. The  $\text{treat post}$  term is the interaction of  $\text{treat}$  and  $\text{post}$  and its coefficient  $\beta$  is a difference-in-differences estimator of the treatment effect that makes use of the pretreatment data. The primary parameter of interest is  $\beta$ , which provides the estimated demand impact during the relevant period. The parameter  $\alpha_i$  is equal to mean usage for each customer for the relevant time period (e.g., hourly, peak period, etc.). The  $v_i$  term is the customer fixed effects variable that controls for unobserved factors that are time-invariant and unique to each customer.

Customer attrition is an important factor to address in the load impact analysis. Customer attrition stems from four factors; customers who move (referred to as churn); customers who become ineligible after enrolling in the pilot; customers who opted out before the pilot began, and customers who dropped off the rate after enrollment because they were unhappy being on the TOU rate. Customer churn and changes in eligibility should be the same for both treatment and control customers. As such, dropping customers from both treatment and control groups due to churn and changes in eligibility does not introduce selection effects.

Estimates for customer segments and climate regions are developed by first partitioning the treatment and control groups into samples for each climate region and/or customer segment of interest and then applying the analysis method outlined above to the partitioned data.

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<sup>10</sup> More accurately, they account for the correlation in regression errors within customers over time.

## 4 EX POST LOAD IMPACT ESTIMATES

This section summarizes load impacts for events that occurred in the summer of 2019 (June through October). Events were called according to dispatch criteria, program rules, and weather conditions. As discussed above, ex post impacts were estimated using a variety of methods.

### 4.1 SUMMARY OF 2019 EVENTS

**Error! Reference source not found.** shows the frequency, time, and duration of each dispatchable demand response program during the summer of 2019. Note that because neither Real Time Pricing nor Residential Time of Use rates are dispatchable, they are not included in this table. In some cases, multiple dispatches were called in a single day; these are denoted with asterisks and the hour ranges represent the widest duration of event hours. All times are denoted in hour-ending convention.

The CBP programs were called the most often, followed by SEP and CPP. As expected for emergency programs, the AP-I and BIP programs were only called once during the summer, for M&V purposes, but on the system peak day (September 4<sup>th</sup>). The two CBP programs were often called on the same days, but not consistently so.

Table 6: Dispatch Times by Program

| Date      | AP-I    | BIP-15  | BIP-30  | SDP     | CPP     | CBP-DA   | CBP-DO   | SEP      |
|-----------|---------|---------|---------|---------|---------|----------|----------|----------|
| 6/11/2019 |         |         |         |         |         | 19 - 19  | 19 - 19  |          |
| 6/12/2019 |         |         |         |         |         | 19 - 19  | 19 - 19  |          |
| 7/12/2019 |         |         |         |         | 17 - 21 |          |          |          |
| 7/15/2019 |         |         |         |         | 17 - 21 |          |          |          |
| 7/16/2019 |         |         |         |         | 17 - 21 |          |          |          |
| 7/23/2019 |         |         |         |         |         | 18 - 19* | 18 - 19* |          |
| 7/24/2019 |         |         |         | 17 - 19 |         | 19 - 19  | 19 - 19  | 19 - 20  |
| 7/25/2019 |         |         |         |         |         | 18 - 19* | 18 - 19* |          |
| 8/5/2019  |         |         |         |         |         |          | 19 - 19  |          |
| 8/6/2019  |         |         |         |         |         | 19 - 19  | 19 - 19  |          |
| 8/13/2019 |         |         |         | 18 - 20 |         |          |          | 18 - 21  |
| 8/14/2019 |         |         |         | 19 - 20 | 17 - 21 | 19 - 19  | 19 - 19  | 18 - 21  |
| 8/15/2019 |         |         |         | 19 - 20 | 17 - 21 | 19 - 19  | 19 - 19  | 18 - 21  |
| 8/21/2019 |         |         |         |         |         |          |          | 19 - 20* |
| 8/22/2019 |         |         |         |         | 17 - 21 |          |          |          |
| 8/23/2019 |         |         |         |         | 17 - 21 |          |          |          |
| 8/26/2019 |         |         |         |         |         |          | 19 - 19  | 19 - 20  |
| 8/27/2019 |         |         |         |         | 17 - 21 | 19 - 19  | 19 - 19  | 19 - 20  |
| 8/28/2019 |         |         |         |         |         | 19 - 19  | 19 - 19  | 19 - 20  |
| 9/3/2019  |         |         |         |         |         |          | 19 - 19  | 19 - 20  |
| 9/4/2019  | 16 - 19 | 16 - 19 | 16 - 19 | 18 - 20 |         | 17 - 19* | 17 - 19* | 18 - 21  |

| Date       | AP-I | BIP-15 | BIP-30 | SDP      | CPP     | CBP-DA   | CBP-DO   | SEP      |
|------------|------|--------|--------|----------|---------|----------|----------|----------|
| 9/5/2019   |      |        |        | 18 - 20  | 17 - 21 | 15 - 19* | 15 - 19* | 18 - 21  |
| 9/6/2019   |      |        |        | 19 - 20* | 17 - 21 | 18 - 19* | 18 - 19* |          |
| 9/9/2019   |      |        |        |          |         | 18 - 19  |          |          |
| 9/12/2019  |      |        |        |          | 17 - 21 | 19 - 19  | 19 - 19  | 19 - 19  |
| 9/13/2019  |      |        |        | 19 - 19  | 17 - 21 |          |          | 19 - 20  |
| 9/24/2019  |      |        |        | 14 - 20* |         |          |          | 18 - 20* |
| 9/25/2019  |      |        |        |          |         |          |          | 19 - 20* |
| 10/7/2019  |      |        |        |          |         |          | 19 - 19  |          |
| 10/8/2019  |      |        |        |          |         | 19 - 19  | 19 - 19  |          |
| 10/14/2019 |      |        |        |          |         |          | 19 - 19  |          |
| 10/15/2019 |      |        |        |          |         | 19 - 19  | 19 - 19  |          |
| 10/16/2019 |      |        |        | 18 - 20* |         | 19 - 19  | 19 - 19  | 14 - 17  |
| 10/21/2019 |      |        |        |          |         | 19 - 19  | 18 - 19  | 19 - 20* |
| 10/22/2019 |      |        |        |          |         | 18 - 19  | 18 - 19  | 19 - 20  |
| 10/23/2019 |      |        |        |          |         | 19 - 19  |          |          |

[Table 7](#) summarizes the ex post impacts for the average event for each dispatchable program in PY2019. The largest impacts came from BIP and SDP-R, which provided approximately 538MW and 151MW, respectively. Of course, these programs could not be more different; BIP enrolls 484 customers that each provide over 1MW during an event, while the average SDP-R customer provides 0.74kW but with over 200,000 participants. BIP customers also deliver the highest percentage load reduction – around 78%, compared to other programs. Some programs shown below – AP-I and BIP for example – had dispatch that did not start and end on the hour, meaning that the first and last hours of the event were perturbed with non-event loads. Therefore, [Table 7](#) reports only full event hours in the average ex post impacts. Additional information can be found in the respective program’s reports, which can provide further context on the performance of each program over the summer of 2019.

Table 7: Average Event Day Program Ex Post Impacts

| Program Type            | Program    | Type           | Ref (kW) | Obs (kW) | Imp (kW) | % Imp | Imp (MW) | Enrolled |
|-------------------------|------------|----------------|----------|----------|----------|-------|----------|----------|
| Supply Side Programs    | AP-I       | Avg. (17 - 18) | 34.91    | 9.72     | 25.19    | 72    | 23.7     | 941      |
|                         | BIP15*     | Avg. (17 - 19) | 3,082.24 | 443.73   | 2,638.51 | 86    | 131.93   | 52       |
|                         | BIP30**    | Avg. (17 - 19) | 1,236.89 | 291.60   | 945.29   | 76    | 405.53   | 432      |
|                         | CBP DA     | Avg. (19 - 19) | 86.73    | 76.43    | 10.30    | 12    | 2.70     | 262      |
|                         | CBP DO     | Avg. (19 - 19) | 132.91   | 117.09   | 15.82    | 12    | 2.39     | 151      |
|                         | SDP-C      | Avg. (18 - 20) | 26.36    | 24.32    | 2.04     | 8     | 17.78    | 8,695    |
|                         | SDP-R      | Avg. (18 - 20) | 2.55     | 1.81     | 0.74     | 29    | 150.68   | 204,529  |
|                         | SEP        | Avg. (19 - 20) | 2.48     | 1.74     | 0.74     | 30    | 38.70    | 52,129   |
|                         | SEP        | Avg. (18 - 21) | 2.50     | 1.97     | 0.53     | 21    | 27.61    | 52,239   |
| Load Modifying Programs | CPP Large  | Avg. (17 - 21) | 194.01   | 190.82   | 3.19     | 2     | 7.03     | 2,201    |
|                         | CPP Medium | Avg. (17 - 21) | 24.65    | 24.69    | -0.04    | 0     | -1.41    | 34,963   |
|                         | CPP Small  | Avg. (17 - 21) | 1.45     | 1.45     | 0.00     | 0     | -0.74    | 235,219  |

\* 50 out of 52 enrolled customers called on event day

\*\* 429 out of 432 enrolled customers called on event day

Both the RTP program and residential TOU pilot have demand response in effect each day: they are not dispatchable for a given event day. Nevertheless, they do provide impacts during peak periods as reported in Table 8. RTP is capable of providing substantial load reductions when customers are subjected to 'Hot Summer Weekday' prices. The residential TOU pilot can provide small but significant impacts during the 4pm-9pm window, which in aggregate can provide between 0.8 and 5.6MW of load reduction during summer peak periods.

Table 8: Peak Period Impacts for Monthly Peak Days for Non-Dispatchable Programs

| Program | Month | Detail                   | Ref (kW) | Obs (kW) | Imp (kW) | % Imp | Imp (MW) | Enrolled |
|---------|-------|--------------------------|----------|----------|----------|-------|----------|----------|
| RTP     | Jan   | Low Cost Winter Weekday  | 226.6    | 223.5    | 3.1      | 1.4   | 0.3      | 104      |
|         | Feb   | Low Cost Winter Weekday  | 226.0    | 222.9    | 3.1      | 1.4   | 0.3      | 104      |
|         | Mar   | Low Cost Winter Weekday  | 219.9    | 218.4    | 1.4      | 0.7   | 0.1      | 104      |
|         | Apr   | Low Cost Winter Weekday  | 234.1    | 236.0    | -1.9     | -0.8  | -0.2     | 106      |
|         | May   | Low Cost Winter Weekday  | 527.9    | 518.1    | 9.8      | 1.8   | 1.0      | 98       |
|         | Jun   | Hot Summer Weekday       | 472.0    | 331.4    | 140.7    | 29.8  | 13.8     | 98       |
|         | Jul   | Hot Summer Weekday       | 476.6    | 328.2    | 148.5    | 31.1  | 15.0     | 101      |
|         | Aug   | Moderate Summer Weekday  | 467.7    | 460.4    | 7.2      | 1.6   | 0.7      | 102      |
|         | Sep   | Hot Summer Weekday       | 455.7    | 315.3    | 140.3    | 30.8  | 14.3     | 102      |
|         | Oct   | High Cost Winter Weekday | 530.4    | 520.2    | 10.2     | 1.9   | 1.0      | 100      |
|         | Nov   | Low Cost Winter Weekday  | 244.1    | 242.6    | 1.5      | 0.6   | 0.2      | 109      |
|         | Dec   | Low Cost Winter Weekday  | 221.8    | 218.7    | 3.1      | 1.4   | 0.3      | 105      |
| Res TOU | Jun   | Rate 4                   | 1.56     | 1.55     | 0.00     | 0.3   | 0.8      | 170,321  |
|         | Jun   | Rate 5                   | 1.59     | 1.57     | 0.02     | 1.5   | 4.1      | 170,186  |
|         | Jul   | Rate 4                   | 1.86     | 1.84     | 0.02     | 1.2   | 3.9      | 168,766  |
|         | Jul   | Rate 5                   | 1.89     | 1.86     | 0.03     | 1.8   | 5.6      | 168,748  |
|         | Aug   | Rate 4                   | 1.70     | 1.69     | 0.02     | 1.0   | 2.9      | 167,382  |
|         | Aug   | Rate 5                   | 1.74     | 1.71     | 0.03     | 1.7   | 4.9      | 167,312  |
|         | Sep   | Rate 4                   | 1.91     | 1.88     | 0.03     | 1.5   | 4.9      | 166,183  |
|         | Sep   | Rate 5                   | 1.89     | 1.86     | 0.03     | 1.7   | 5.4      | 166,128  |

## 4.2 CHANGES COMPARED TO PRIOR EVALUATION YEAR

### BASE INTERRUPTIBLE PROGRAMS (BIP)

Only one BIP event was called in each year: September 27, 2018; and September 4, 2019. Both events were called during the hours 3:20 to 7 p.m.; though results are summarized over the event window of 4 to 7 p.m.

There were 484 enrolled and 479 called customers during the PY2019 event day (five customers were exempt). The enrollment decreased from 545 customers in PY2018. The aggregate reference loads and load impacts also decreased during PY2019. There are a number of contributing factors that result in the PY2019 load impact decreasing by 106 MW (643 MW minus 537 MW). First, there were 73 customers that de-enrolled from BIP that contributed 26 MW to the load impact during PY2018. Second, there were five enrolled customers but exempt from the PY2019 event. These five customers provided a combined **XXX** of load impact in PY2018. Third, the load impact decreased by 15 MW for customers that remained on the program during both years; however, their reference loads were also 13 MW lower in PY2019. Additionally, their FSL increased from 70 to 87 MW. Fourth, there were 12 newly enrolled customers that had an **XXX** PY2019 load impact.

### AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM (AP-I)

Last year, 1,121 customers participated in one AP-I event on September 27, 2018 from 4pm to 7pm. The average reference load was 37.6kW and an impact of 82% yielded 34.6MW, or 30.9kW per customer. However, 2018 impacts for customers who remained active in AP-I in 2019 were smaller on average, than those who left. The reference load for customers who remained on the program was only 29kW during the 2018 event. Because of this, per-customer impacts were also smaller (22.7kW compared to 30.9kW) despite similar percentage impacts.

Viewed in this context, AP-I performed relatively well in 2019. The customers who provided 22.7kW impacts last year increased their per-customer impact in 2019, to 25.2kW, driven by substantially higher reference loads. Higher reference loads could be driven by hotter temperatures or seasonal variation in pumping. Despite a lower percent impact (72.2% in 2019 vs 79.7% in 2018), the same population of participants delivered 23.7MW of load reduction compared to 21.4MW in the prior year.

### SUMMER DISCOUNT PLAN PROGRAM (SDP)

For the residential program:

- The number of event hours in 2018 far exceeded the number of events hours in 2019 (52 to 31). Many of the 2018 events targeted specific load control groups, while most of the 2019 events dispatched the majority of load control groups at the same time.
- There was a greater range in temperature conditions in 2018. Participant weighted temperatures ranged from the mid-60s to over 100 degrees during 2018 events. During 2019 events, the range of participant weighted temperatures was considerably narrower – from about 80 degrees to 95 degrees.
- Though not readily apparent in the figure, the slope of the linear trend was slightly steeper in 2019 than in 2018. The slope was 0.050 kW per degree in 2019 and 0.046 kW per degree in 2018. The confidence intervals for these two slope values overlap, so it cannot be concluded that there is a statistically significant difference between 2018 and 2019.
- Percent impacts are nearly identical between the two program years. In 2018, the average percent impact was 27.2% (weighted by the number of accounts curtailed). When just looking at 2018 percent impacts for weather conditions similar to 2019 events, the average percent impact was 28.6%. The average for 2019 events was 28.1%.

For the commercial program, the key takeaways are similar to the SDP-R takeaways:

- There were considerably more events in 2018.
- There was a broader range in temperature conditions during 2018 SDP-C DR events.
- The relationship between load impacts and weather (represented by the trend lines) was stronger in 2019 than in 2018. The slope was 0.09 in 2019 and 0.12 in 2018. (Recall that these slopes represent the expected increase in the per-participant reduction for every one-degree increase in temperature.) The confidence intervals for these two slope values overlap, so it



cannot be concluded that there is a statistically significant difference between the 2018 and 2019 slopes.

### **CRITICAL PEAK PRICING (CPP)**

Comparing this year's ex-post with last year's ex-post, there is a decrease in enrollment across the large group, and a dramatic increase in enrollment in the small and medium groups. There is also a slight decrease in impacts in all groups, both in aggregate and at the per customer level.

### **CAPACITY BIDDING PROGRAM (CBP)**

For both CBP Day Ahead (DA) and Day Of (DO), there are similar participation and percent impacts in PY2019 compared to PY2018. However, there was a change in customer makeup with the DA program showing higher enrollment and being primarily made up of smaller retail stores in PY2019. This resulted in lower per-customer impacts (10.3 kW), but higher aggregate impacts (2.7 MW) compared to PY2018. The DO program did not experience such a significant change in the program population, but does show lower impacts, on average, due to the October response delivery issues. This resulted in lower per-customer impacts (15.8 kW) and, accordingly, lower aggregate impacts (2.4 MW) compared to PY2018.

### **SMART ENERGY PROGRAM (SEP)**

SEP 2019 events were called later in the day than 2018 events. Peak temperature during the average event days falls between 2pm and 5pm and the events typically started at 5pm or 6pm. In 2017 and 2018, average event hours included the 2pm-6pm window, which is concurrent with the peak temperature of the day. AC load tends to lag behind temperature due to heat buildup and occupancy, suggesting that an event window following the peak temperature of the day may better capture the peak AC usage window. Notice that on an average event day, the average event temperatures are about 8 degrees lower than the daily max. However, despite the window shift, average 2019 event temperatures fall between the 2017 and 2018 event temperatures.

The overall SEP population grew only slightly from 2018 to 2019, but participants are more concentrated in warmer areas of SCE territory with Community Choice Aggregation (CCA) attrition in milder areas backfilled by new enrollments in warmer areas. The customer counts vary by event window because the counts are a weighted average of the events that make up the average event day and customer participation is different for every event.

The average reference load is larger in 2019 for both the four hour and two hour event windows. The load impacts are larger in 2019 (0.53kW and 0.74 kW) than in 2018 (0.42 kW) and the four hour event window is smaller than the 2017 average load impact (0.64kW). For the four hour event windows, 2019 exhibited the smallest percent impact of all three years, but the highest reference loads. Readers should be cautious comparing average impacts from the 6pm-8pm events in 2019 with prior years because SEP impacts are largest during the first two hours of dispatch.

## REAL TIME PRICING PROGRAM (RTP)

As discussed above, comparisons to the prior year's results are difficult to observe because of the magnitude of the changes to the RTP rate. Because RTP day type dispatch criteria changed, simply comparing performance on 'Hot Summer Weekdays' between 2018 and 2019 would not be appropriate. [Table 9](#) summarizes the difference in day type definition between the old and new rate regimes. The three columns on the left show the number of day types reported under the definitions that applied at the time – for example the 2018 event days used the day type definitions that were in use in 2018. The right three columns show what the day type frequency would have been had the day type definitions never been updated. The primary columns to focus on are the PY2019 counts for both the old and new definitions.

Table 9: Distribution of Event Types by Method

| Day Type                     | Using Contemporary Definitions |        |        | Using Consistent (Old) Definitions |        |        |
|------------------------------|--------------------------------|--------|--------|------------------------------------|--------|--------|
|                              | PY2017                         | PY2018 | PY2019 | PY2017                             | PY2018 | PY2019 |
| Extremely Hot Summer Weekday | 3                              | 6      |        | 3                                  | 6      | 7      |
| Very Hot Summer Weekday      | 8                              | 4      |        | 8                                  | 4      | 8      |
| Hot Summer Weekday           | 22                             | 25     | 10     | 22                                 | 25     | 23     |
| Moderate Summer Weekday      | 25                             | 18     | 43     | 25                                 | 18     | 15     |
| Mild Summer Weekday          | 23                             | 28     | 27     | 23                                 | 28     | 27     |
| High Cost Winter Weekday     | 9                              | 2      | 5      | 9                                  | 2      | 5      |
| Low Cost Winter Weekday      | 161                            | 168    | 165    | 161                                | 168    | 165    |
| High Cost Weekend            | 25                             | 20     | 15     | 25                                 | 20     | 15     |
| Low Cost Weekend             | 47                             | 52     | 58     | 47                                 | 52     | 58     |

A few things are clear from this table. First, there were some days hot enough in 2019 such that they would have been considered either 'Extremely Hot' or 'Very Hot' summer weekdays, had those categories not been eliminated. Second, because of the shift in criteria for 'Hot' and 'Moderate' summer weekdays between the two rate regimes, the relative frequency of these two day types shift between the two categorization methods.

Nevertheless, the impact of the change in RTP rates on program impacts were investigated. Using the 2019 model specification results were produced for the 2019 summer assuming that the historic tariffs applied. Similar, though not identical, results were found for the expected RTP rates, with the biggest differences in predicted loads coming in hours 14-16. This is consistent with the change in RTP peak period from 1pm-6pm to 4pm-9pm. The Otherwise Applicable Tariff (OAT) reference loads changed moderately, with increasing loads occurring earlier in the afternoon coincident with the old peak periods. However as always, the RTP day type for a given day has a much larger impact on program impacts than any other program change.

## 5 EX ANTE LOAD IMPACT ESTIMATES

As described in the methodology section, ex ante impacts are a combination of several inputs; including the ex post impacts, enrollment forecasts, and expected weather conditions. While more detail on each of these topics can be found in the respective programs' load impact report, this section will summarize key results that form the basis of SCE's demand response portfolio. The results reported in this section represent average resource adequacy window impacts – what the program could deliver from 4pm to 9pm year-round. In all cases, a simple average of the 4pm-9pm hours is used to compute this value.

Unless otherwise noted in this report, all results are reported at the portfolio level. This method avoids double counting program impacts for customers who may be enrolled in two or more demand response programs. As a result, the values can be summed up to represent SCE's portfolio capability under a given set of weather conditions and event day types. In a fairly significant change from prior years, the amount of observed dual enrollment is minimal across programs, due to a decision<sup>11</sup> from the CPUC that prohibited new dual enrollment between CPP to any of CBP, BIP, AP-I, or SDP for customers. Legacy dual-enrollment is still permitted. Residential customers similarly can only be enrolled in either SDP or SEP. When assigning impact credit for dually enrolled customers, the load impacts of the second program are attributable to the emergency programs – BIP or AP-I. A key question for future years is the extent to which the default TOU rates interact with SDP and SEP programs for residential customers. Some differences were found in SDP and SEP impacts for customers on flat or dynamic pricing, however these cannot yet be attributed to the difference in tariff due to the design of the pilot. See the SEP evaluation report for fuller treatment of this topic.

A summary of ex ante enrollments is shown in **Error! Reference source not found.** In general, total portfolio program enrollment is projected to increase, driven by a default of residential customers on to TOU rates, large increases in the SEP program and to a smaller extent, the CPP programs. Legacy AC cycling programs such as SDP-R and SDP-C will decline over time, while the emergency programs – AP-I and BIP – will remain relatively flat.

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<sup>11</sup> Decision D18-11-029

Table 10: SCE DR Portfolio Projected Enrollments for 2020-2030 by Program

| Type                    | Program         | 2020    | 2021      | 2022      | 2023      | 2024      | 2025      | 2026      | 2027      | 2028      | 2029      | 2030      |
|-------------------------|-----------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Supply Side Programs    | AP-I            | 935     | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       | 910       |
|                         | BIP15           | 53      | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        | 49        |
|                         | BIP30           | 411     | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       | 403       |
|                         | CBP DA          | 384     | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       | 384       |
|                         | CBP DO          | 233     | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       | 233       |
|                         | SDP-C           | 8,092   | 7,182     | 6,376     | 5,667     | 5,043     | 4,493     | 4,008     | 3,580     | 3,201     | 2,866     | 2,569     |
|                         | SDP-R           | 207,072 | 187,929   | 177,512   | 169,151   | 161,464   | 154,381   | 147,838   | 141,778   | 136,151   | 130,908   | 126,010   |
|                         | SEP             | 60,249  | 77,971    | 93,863    | 111,367   | 128,338   | 143,327   | 156,565   | 168,257   | 178,584   | 187,704   | 195,759   |
|                         | Subtotal        | 277,429 | 275,061   | 279,730   | 288,164   | 296,824   | 304,180   | 310,390   | 315,594   | 319,915   | 323,457   | 326,317   |
| Load Modifying Programs | CPP Large       | 2,491   | 2,636     | 2,781     | 2,926     | 3,071     | 3,216     | 3,361     | 3,506     | 3,651     | 3,796     | 3,941     |
|                         | CPP Medium      | 30,272  | 32,012    | 33,752    | 35,492    | 37,232    | 38,972    | 40,712    | 42,452    | 44,192    | 45,932    | 47,672    |
|                         | CPP Small       | 219,658 | 232,273   | 244,888   | 257,503   | 270,118   | 282,733   | 295,348   | 307,963   | 320,578   | 333,193   | 345,808   |
|                         | RTP             | 79      | 73        | 66        | 60        | 54        | 54        | 54        | 54        | 54        | 54        | 54        |
|                         | Subtotal        | 252,500 | 266,994   | 281,487   | 295,981   | 310,475   | 324,975   | 339,475   | 353,975   | 368,475   | 382,975   | 397,475   |
| Pilots                  | Residential TOU | 246,710 | 469,464   | 2,232,619 | 2,222,025 | 2,212,635 | 2,204,312 | 2,196,934 | 2,190,395 | 2,184,598 | 2,179,460 | 2,174,906 |
|                         | Subtotal        | 246,710 | 469,464   | 2,232,619 | 2,222,025 | 2,212,635 | 2,204,312 | 2,196,934 | 2,190,395 | 2,184,598 | 2,179,460 | 2,174,906 |
| Total                   | Total           | 776,639 | 1,011,519 | 2,793,836 | 2,806,170 | 2,819,934 | 2,833,467 | 2,846,799 | 2,859,964 | 2,872,988 | 2,885,892 | 2,898,698 |

5.1 PROJECTED CHANGE IN PORTFOLIO LOAD IMPACTS FROM 2020 TO 2030

Error! Reference source not found. shows how the enrollment forecast affects aggregate portfolio impacts going forward. Impacts remain quite steady over time after reaching a steady state in approximately 2023. While this forecast appears to be quite stable, it is masking a substantial change in the two residential programs. As shown in Table 8, SEP enrollments are forecasted to increase quite dramatically over time, while SDP-R enrollments wane. In effect, the growth in one program will offset the decline in the other. Because both are residential AC programs, they have very similar load reduction potential, so the substitution over time nets out to no change. Table 8 also forecasts a large increase in CPP–S enrollments. This large increase is expected to have very little to no impact on load reduction. Historically, CPP–S has had little to no impact. Table 11 shows the same results from the figure in tabular format.

Figure 4: SCE Portfolio August Monthly Peak Day Load Impacts

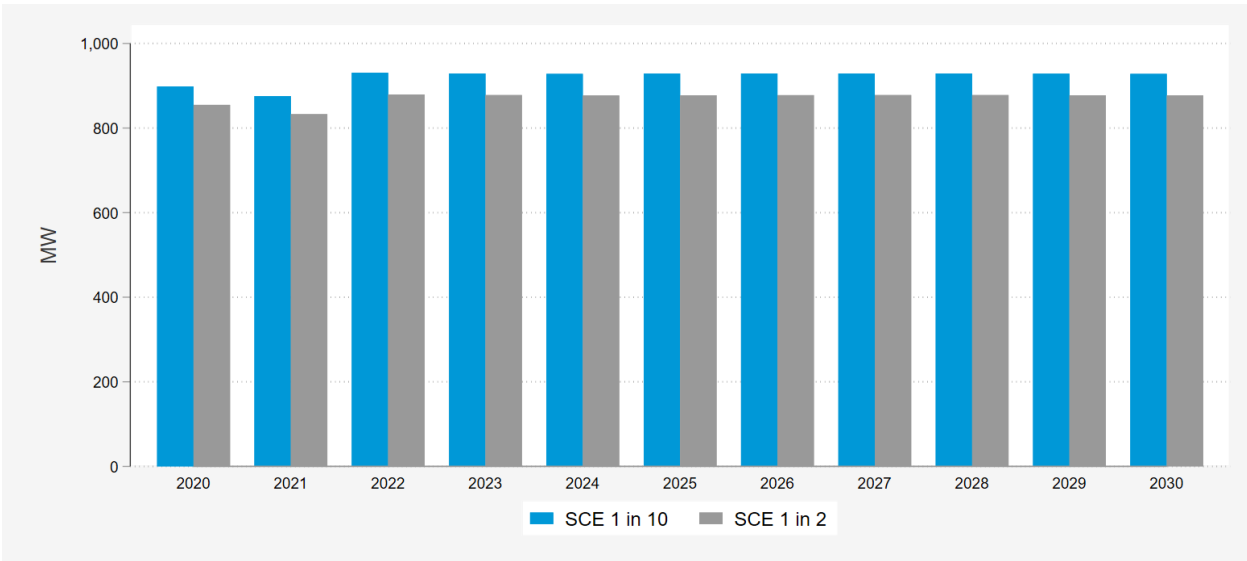


Table 11: Portfolio August Peak Day Impacts by Weather Year and Forecast Year

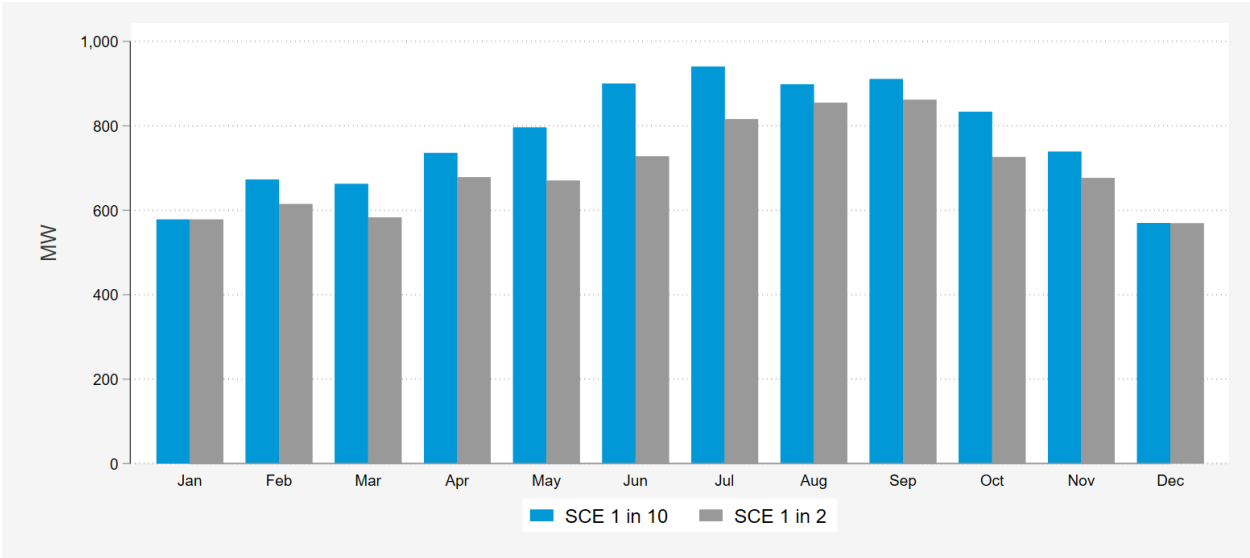
| Weather Year | 2020  | 2021  | 2022  | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SCE 1-in-2   | 831.3 | 811.0 | 859.6 | 859.9 | 860.7 | 861.3 | 861.6 | 861.8 | 861.7 | 861.4 | 861.1 |
| SCE 1-in-10  | 874.7 | 853.9 | 910.8 | 911.2 | 912.0 | 912.6 | 912.9 | 912.9 | 912.7 | 912.3 | 911.9 |

5.2 2020 PORTFOLIO AGGREGATE LOAD IMPACTS BY MONTH

Unsurprisingly, impacts delivered by the portfolio of programs varies throughout the year, peaking in the summer months. This is shown in Error! Reference source not found.. In all cases, load impacts are higher in the SCE 1-in-10 scenario than the 1-in-2 SCE scenario, with a more sustained and hotter

summer overall observed under 1-in-10 conditions. Weather-sensitive residential AC cycling and thermostat programs can only deliver load reductions during periods of cooling which contributes to the peak observed in the June-September months. However, the majority of SCE’s portfolio comes from the BIP program, which is able to be dispatched any time of the year. BIP customers are typically large customers with industrial processes that dominate any cooling loads that they have, meaning that seasonal changes other than temperature tend to influence the amount of load shed available. shows the results of the figure in tabular format.

SCE 2020 Portfolio Aggregate Ex Ante Load Impacts by Month



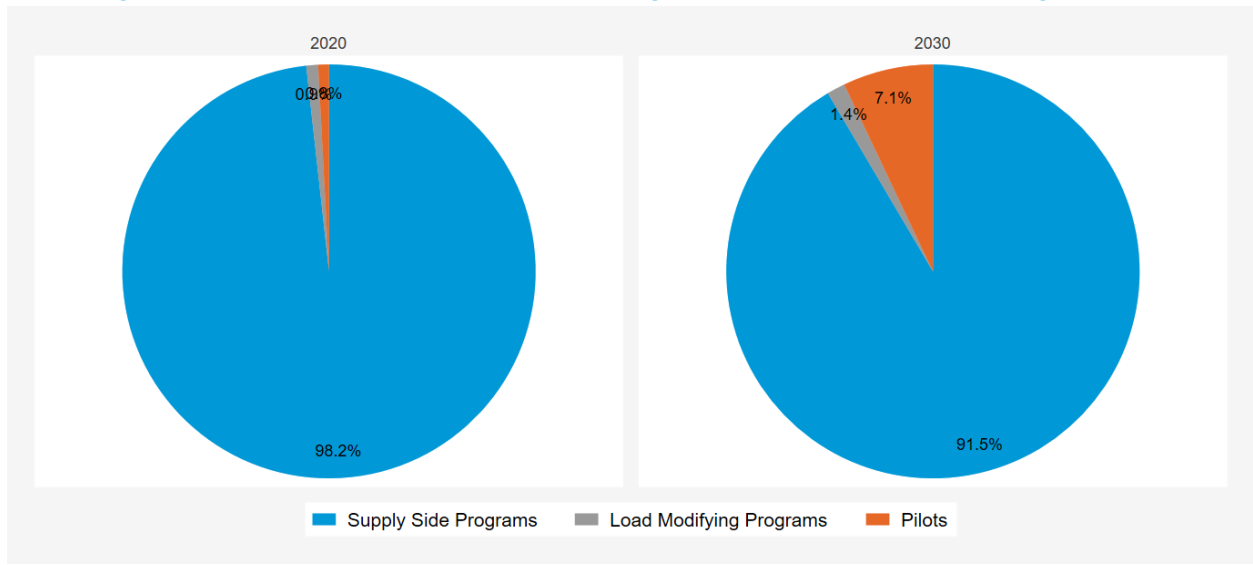
2020 Portfolio Impacts by Monthly Peak Day

| Weather Year | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SCE 1-in-2   | 576.7 | 613.4 | 580.9 | 675.9 | 667.9 | 724.0 | 791.9 | 831.3 | 839.0 | 723.3 | 674.9 | 567.8 |
| SCE 1-in-10  | 576.8 | 671.5 | 660.0 | 733.2 | 793.5 | 876.3 | 916.5 | 874.7 | 887.9 | 831.0 | 737.4 | 568.6 |

### 5.3 PORTFOLIO LOAD IMPACTS BY PROGRAM TYPE

**Error! Reference source not found.** shows the components of portfolio load impacts on an August monthly peak day under SCE 1-in-2 conditions for both 2020 and 2030. In both years, the vast majority of load impacts are provided by supply side programs including BIP and SDP. However, with the default of all residential customers on to TOU rates, 7% of SCE’s portfolio impacts are expected to come from residential TOU customers in 2030.

Figure 6: 2020 & 2030 Portfolio Impacts on August SCE 1-in-2 Peak Day by Program Type



This result can be seen more clearly when looking at the same result broken down by program, not type, as in **Error! Reference source not found..** AP-I, BIP-15 and BIP-30 remain relatively stable over the eleven-year horizon, while SDP-R declines and is substituted nearly 1:1 for SEP portfolio impacts. The growth associated with the residential default TOU pilot can also be clearly seen when comparing across the two years.

Figure 7: 2020 & 2030 Portfolio Impacts on August SCE 1-in-2 Peak Day by Program

[Image redacted to protect confidential information]

Table 9 shows a snapshot of one year of the ex ante forecast on SCE 1-in-2 Monthly Peak Days. These results corroborate the results shown in **Error! Reference source not found..** While the BIP program can deliver consistent load impacts at any time of the year, the residential AC cycling and thermostat programs only truly provide load reductions during times of the year when there is cooling load.

Table 13: Ex Ante Impacts - 2020 Portfolio SCE 1-in-2

| Type                    | Program         | Jan   | Feb   | Mar   | Apr   | May   | Jun   | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   |
|-------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Supply Side Programs    | AP-I            | 9.1   | 8.8   | 12.3  | 19.8  | 22.2  | 27.6  | 27.8  | 28.1  | 26.5  | 21.6  | 14.3  | 9.4   |
|                         | BIP15           | 156.4 | 169.3 | 156.5 | 169.5 | 178.2 | 180.7 | 180.3 | 181.9 | 181.6 | 180.7 | 187.3 | 165.5 |
|                         | BIP30           | 381.0 | 405.6 | 379.4 | 395.7 | 381.3 | 389.8 | 367.0 | 382.6 | 385.8 | 376.0 | 384.1 | 361.3 |
|                         | CBP DA          | 19.9  | 19.9  | 19.9  | 19.9  | XX    | XX    | XX    | XX    | XX    | XX    | 19.9  | 19.9  |
|                         | CBP DO          | 0.7   | 0.7   | 0.7   | 0.7   | XX    | XX    | XX    | XX    | XX    | XX    | 0.7   | 0.7   |
|                         | SDPC            | 0.0   | 0.0   | 3.0   | 14.4  | 15.1  | 15.4  | 20.7  | 20.9  | 22.3  | 18.3  | 13.1  | 0.0   |
|                         | SDPR            | 0.0   | 0.0   | 0.0   | 36.7  | 41.6  | 75.7  | 147.0 | 165.7 | 169.8 | 86.6  | 31.8  | 0.0   |
|                         | SEP             | 0.0   | 0.0   | 0.0   | 9.2   | 11.6  | 15.1  | 27.7  | 29.9  | 29.8  | 19.4  | 12.2  | 0.0   |
|                         | Subtotal        | 567.1 | 604.2 | 571.8 | 665.8 | 657.7 | 711.8 | 778.2 | 816.7 | 823.4 | 710.3 | 663.4 | 556.8 |
| Load Modifying Programs | CPP Large       | 7.2   | 7.2   | 7.3   | 7.9   | 8.0   | 7.8   | 7.7   | 7.8   | 7.8   | 8.3   | 7.5   | 7.2   |
|                         | CPP Medium      | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
|                         | CPP Small       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
|                         | RTP             | 0.1   | 0.1   | 0.3   | 0.4   | 0.3   | 0.8   | -0.0  | -0.2  | -0.4  | 0.3   | 0.1   | 0.0   |
|                         | Subtotal        | 7.4   | 7.3   | 7.6   | 8.3   | 8.4   | 8.6   | 7.7   | 7.6   | 7.4   | 8.6   | 7.5   | 7.2   |
| Pilots                  | Residential TOU | 2.2   | 1.9   | 1.5   | 1.8   | 1.9   | 3.6   | 6.0   | 7.0   | 8.1   | 4.4   | 4.0   | 3.8   |
|                         | Subtotal        | 2.2   | 1.9   | 1.5   | 1.8   | 1.9   | 3.6   | 6.0   | 7.0   | 8.1   | 4.4   | 4.0   | 3.8   |
| Total                   | Total           | 576.7 | 613.4 | 580.9 | 675.9 | 667.9 | 724.0 | 791.9 | 831.3 | 839.0 | 723.3 | 674.9 | 567.8 |

## 5.4 CHANGES COMPARED TO PRIOR EVALUATION YEAR

### BASE INTERRUPTIBLE PROGRAMS (BIP)

The enrollments numbers decreased by 16 customers between the previous and current studies.

Similarly, the aggregate reference load decreased 49 MW.

The aggregate load impact decreased by 36 MW in the current *ex-ante* analysis, which is a result of the lower reference loads and an increase of 18 MW to the FSL. The percentage load impacts are similar; however, the per-customer reference loads and load impacts are slightly smaller in the current study.

### AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM (AP-I)

Compared to PY2018, both customer enrollments and paging success rates were lower in the first years of the forecast. In 2022 and beyond, the forecasts stabilize, with PY2018's paging success rate higher than that of PY2019 but PY2019's enrollment rate higher than that of PY2018. These effects do not



entirely cancel each other out; higher ex ante impacts were reported in PY2018 than PY2019 because the PY2018 evaluation had higher per-customer reference loads for each month.<sup>12</sup>

### SUMMER DISCOUNT PLAN PROGRAM (SDP)

For the residential program, Table 14 shows a comparison of 2018 and 2019 ex ante impacts for the two different weather scenarios. All impacts represent monthly peak impact estimates, and SCE weather conditions are used. In magnitude and direction, the 2018 and 2019 impacts are similar. Though not shown in the table, the confidence intervals for the 2018 results and 2019 results overlap, suggesting the differences are not statistically significant.

Still, differences do exist. The differences can be attributed to a few factors. One of the main factors is the ex ante weather conditions, which were updated in 2019, and the new data is about one degree cooler for the 1-in-2 August monthly peak conditions. Changing the weather conditions should (and does) result in different ex ante impacts. Other key differences include: lower enrollments, differences in the customer mix, differences in which historical ex post impacts are used in developing the ex ante impacts, differences in how ex post impacts are calculated, and differences in ex ante regression model specifications.<sup>13</sup>

Table 14: Comparison of SDP-R Ex Ante Impacts

| Month     | 2018 Ex Ante Impacts (kW) |         | 2019 Ex Ante Impacts (kW) |         |
|-----------|---------------------------|---------|---------------------------|---------|
|           | 1-in-2                    | 1-in-10 | 1-in-2                    | 1-in-10 |
| June      | 0.55                      | 0.77    | 0.37                      | 0.94    |
| July      | 0.72                      | 0.91    | 0.71                      | 1.14    |
| August    | 0.85                      | 0.99    | 0.80                      | 0.95    |
| September | 0.69                      | 0.95    | 0.82                      | 0.99    |

For the commercial program, Table 15 shows a comparison of 2018 and 2019 ex ante impacts for the two different weather scenarios. The impacts are shown at the participant level rather than at the device level because the 2018 ex ante tables did not include per device impacts. All impacts represent monthly peak impact estimates, and SCE weather conditions are used. In magnitude, the 2019 impacts

<sup>12</sup> See the appendix for a full comparison.

<sup>13</sup> Like the prior evaluation, our ex post evaluation relied on a difference-in-differences framework. The 2018 ex post model relied mainly on pre-event load variables. The 2019 approach leveraged one pre-event load term, but also a weather variable and time variables. Regarding ex ante model specifications, there were several differences. One key distinction in the 2019 ex ante reference load approach was the inclusion of a temperature spline. This was included to capture the effect of temperature on load at different temperature ranges (e.g., increasing the temperature from 65 to 70 does not have the same effect on load as increasing the temperature from 80 to 85).

are larger. Though not shown in the table, the confidence intervals for the 2018 results and 2019 results overlap, suggesting the differences are not statistically significant.

The differences can likely be attributed to a few factors. One of the main factors is the ex ante weather conditions were updated in 2019. Second, additional non-performing sites were removed from the program in 2019. Such a change would necessarily result in higher average impacts per participant. Other key differences include: differences in the customer mix, differences in which historical ex post impacts are used in developing the ex ante impacts, differences in how ex post impacts are calculated, and differences in ex ante regression model specifications.

Table 15: Comparison of SDP-C Ex Ante Impacts

| Month     | 2018 Ex Ante Impacts (kW) |         | 2019 Ex Ante Impacts (kW) |         |
|-----------|---------------------------|---------|---------------------------|---------|
|           | 1-in-2                    | 1-in-10 | 1-in-2                    | 1-in-10 |
| June      | 1.40                      | 1.75    | 1.90                      | 2.99    |
| July      | 1.67                      | 1.99    | 2.56                      | 3.56    |
| August    | 1.93                      | 2.13    | 2.58                      | 2.95    |
| September | 1.66                      | 2.12    | 2.76                      | 3.12    |

#### CRITICAL PEAK PRICING (CPP)

Differences between the current ex-ante and the previous ex-ante are driven largely by changes in the enrollment forecast and the realized ex-post impacts resulting from both the default schedule and changes in the event window.

#### CAPACITY BIDDING PROGRAM (CBP)

As mentioned above, PY2018 ex-ante impact estimates assumes the SCE dispatch window remaining the same through PY2020. A change in the dispatch window to 3 PM – 9 PM to be effective in summer of PY2020 was approved<sup>14</sup>. Consequently, [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

#### SMART ENERGY PROGRAM (SEP)

The 2019 average ex ante impacts across the RA window are smaller than the PY2018 average ex ante impacts on both an absolute and percent basis. However, the PY2019 reference loads are slightly higher.

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<sup>14</sup> On March 11, the CPUC approved SCE Advice Letter 4131-E which proposed a changes to the CBP dispatch window.

While both sets of ex ante results show the largest impact during the first event hour with decaying impacts each subsequent hour, the PY2019 ex ante impacts show a steeper decline in impacts across the event than the PY2018 impacts. Opt outs are a potential explanation for the steeper decline. One hypothesis is that participants are more likely to be home and opt-out of an SEP in the evening (PY2019) than an SEP event in the afternoon (PY2018). The PY2020 impact evaluation will explore the possibility of collecting device-level opt out data from the thermostat providers for analysis.

The lower average kW impact per participant may be a function of methodology. In the PY2018 analysis, the evaluator was required to predict ex ante impacts for the new RA window using historic performance data from events dispatched from 2pm to 6pm. Air conditioning load typically makes up a larger share of premise load during the afternoon hours than in the evening when temperatures are cooling off and more end-uses within the home are activated.

The weighted average temperatures across the SEP participant population vary between the PY2019 and PY2018 ex ante analyses. The direction of the change varies by planning condition. These differences are due to two factors.

- Updated ex ante weather conditions for SCE and CAISO were used in the PY2019 analysis.<sup>15</sup>
- Turnover in the SEP participant population. The loss of participants from CCAs was offset by new enrollments in different areas of SCE territory. This changes the weights of each weather station's records in the composite SEP weather conditions.

### REAL TIME PRICING PROGRAM (RTP)

As with the ex post analysis, comparisons between the PY2018 and PY2019 results are challenging due to the extent of the rate changes. An important note is that while it was known that rates would be changing in the upcoming year, the new rate schedules had not yet been finalized prior to the completion of last year's evaluation. The PY2018 evaluators therefore estimated ex ante impacts using the old rate scheme with the caveat that the true ex ante results could be substantially different. In addition to the rate change, the ex ante weather forecasts were also updated in 2019. Disentangling the effects of both the rate change and weather change is complex, however, some key conclusions can be drawn.

As a result of the ex ante weather update, the general trend was for an increase in the severity of RTP day type assigned to the same monthly peak day. This is consistent with the new ex ante weather being hotter, especially in July, August, and September, than the prior forecast. Because there were fewer summer weekday RTP day types in the new rate schedules, less variation in RTP day types for summer monthly peak days exist in the new regime as well. As a result, ex ante impacts are more consistent

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<sup>15</sup> Updated Ex Ante 1-in-2 and 1-in-10 Weather Conditions for SCE and CAISO memorandum. Produced by Nexant, Inc. for SCE. October 10, 2019

from month to month in the new regime since many monthly peak days share the same assigned RTP day type. Another substantial change that occurred between last year and this year's evaluation is the change in program participants. Due to a relatively hot 2018 summer, customers experienced high bills on the RTP program and subsequently de-enrolled. The customers who remained on the program are likely to be different in terms of their ability to respond to the new price signals.

## 6 RECOMMENDATIONS

### 6.1 SUPPLY SIDE PROGRAMS

#### BASE INTERRUPTIBLE PROGRAM (BIP)

BIP continues to perform well, with its customers providing substantial load impacts with short notice.

#### AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM (AP-I)

The AP-I program has consistently delivered load reductions during periods of peak demand. This year, the program experienced several changes that have important implications for how the program will operate going forward.

- Mapping customer event response across SCE's territory may highlight locations where network reception should be assessed
  - ✓ This can provide additional insight into the root causes of a given year's result and should be continued.
- Pumping loads are driven by on/off operation and not by temperature. Pumping operations are highly seasonal.
  - ✓ This fundamentally limits the available load shed in winter months as fewer pumps are in operation.
  - ✓ Conversely, the program is more valuable in July through August when the percentage of customers pumping is higher.
- Estimating switch paging success based on one event per summer is subject to high volatility, as paging success, pump operation, or customer response is ultimately somewhat stochastic in nature.
  - ✓ Calling more events per summer will provide a more robust picture of how customers operate.
  - ✓ With 15-minute interval data available, these events do not have to be as long as they have been historically. Quick paging tests can provide valuable information about customer response.
- There were 941 customers enrolled in this program on the 2019 event day. A key difference between this year's evaluation and last year is the decline in enrollment associated with the adoption of D.16-09-056, which prohibited certain types of fossil-fuel based backup generation from operating during demand response events. The prohibition went into effect on January 1, 2019. As a result, enrollment in AP-I decreased from 1,121 on 2018's event day to 941 a year later. This decrease in enrollment has important implications for the ex ante enrollment forecast, as the program historically was expected to remain relatively stable in terms of enrollment.

#### CAPACITY BIDDING PROGRAM (CBP):

- SCE's average event day represents a wide range of events with 1 to 6 Sub-LAPs called, 6 to 540 participants nominated, and event windows between the hours of 1 PM and 7 PM. Both the average summer and non-summer event days show results for HE19 (6 PM – 7 PM), which is the window that most events have in common.
- Both the DA and DO programs were unsuccessful in meeting or exceeding their nominated capacities, on average. SCE's CBP was only able to successfully meet capacity nominations on one non-summer event under the DA product offering. However, results for this event are considered confidential under the 15/15 rule. Program management attributes this to several aggregators having struggles in deliveries through the course of the program year.
- Participant retention and enrollment stabilized in PY2019. SCE's drop in summer and non-summer enrollments were mainly due to the CPP rate defaulting in PY2019 and the CPP opt-out process required to re-enroll into the CBP program. By August 2019, both DA and DO programs are back to anticipated program nominations.
- Ex-ante impacts are no longer being under-represented due to SCE's dispatch window (1 PM – 7 PM) not aligning to the Resource Adequacy (RA) window (4 PM – 9 PM). SCE's advice letter (AL 4131-E) requesting to change the dispatch window to 3 PM to 9 PM, currently at 1 PM to 7 PM, was approved to be effective retroactive to January 19<sup>th</sup>, 2020.
- Residential participation is expected to begin in PY2021. This has moved up from previous forecasts to start in PY2023. SCE makes a constant forecast of 3 MW per year through the forecast horizon.

#### SUMMER DISCOUNT PLAN (SDP):

Based on the 2019 ex post and ex ante load impact evaluation results the following is recommended.

- It is recommended to develop estimates of peak period (4-9 pm) weather sensitivity estimates for each participant using all summer non-event days. The approach enables SCE to quantify AC loads for each customer as a function of the weather, which helps both with program operations and in ensuring participants have air conditioner loads during peaking conditions.
- For SDP-R, explore withholding a randomized control group, by CAISO grid area (e.g. sub-load aggregation point or Sub-LAP), for both evaluation and settlement with CAISO. The CAISO baseline settlement rules now allow the use of control groups, which enables better alignment between evaluation and settlement impact estimates. In the case of reliability-based events (which are rare), it is recommended to dispatch all available resources.

- Revisit incentive levels for SDP-C, especially for customers on 50% or 30% cycling. Because the peak period has shifted to 4:00-9:00 PM, the air conditioner loads and impacts for non-residential customers are substantially lower than for hours earlier in the day.
- To the extent possible, avoid dispatching customers on 30% and 50% cycling when participant-weighted temperatures are below 85 °F. At lower temperatures, 30% and 50% cycling do not deliver meaningful demand reductions that can be measured accurately.
- To better define ex ante impacts, ensure the program is dispatched across all ex ante peak hours (4:00 – 9:00 PM). Unless needed for reliability, it is not necessary to call a 5-hour event, but ensuring all the ex ante event hours are included across all the events in a program year improves ex ante modeling. To achieve this, it may be necessary to supplement events called by CAISO with Measurement and Evaluation events.
- To facilitate comparisons between ex post and ex ante results, calling at least one territory-wide event is recommended, ideally on the SCE system peak day or another day with high system loads.
- Use the full non-residential population of medium and large customers and sample of smaller customers to identify control customers for SDP-C. SDP-C has several extremely large customers and is dominated by schools and religious institutions. For PY2019, after discussion with SCE, a sample of non-residential and residential customers was used in the match control group pool to minimize data risk. Use of stratified sample worked well for the SDP-R. However, the SDP-C population varies too much in customer size and has unique mix of customers. As a result, the use of a sample in the matching process led to less precise, though valid, impact estimates.

### SMART ENERGY PROGRAMS (SEP)

Based on the 2019 ex post and ex ante load impact evaluation results, the following considerations are highlighted for program design and future load impact evaluations.

- The most important predictor of SEP load impact is not time of day or weather, but the position of an hour within an event. Impacts are largest during the first event hour and decline sharply in each subsequent hour. Consequently, shorter events show larger average load impacts than longer events.
- If a more consistent load impact across dispatch hours is desired there are several tactics used by other program administrators to mitigate the decay of impacts across the event. It is recommended to discuss the feasibility of these options with the program's thermostat providers.
  - ✓ Stagger the dispatch time so that participants come in and out of the event at different times. This approach reduces the aggregate impact in the first hour, but produces more consistent impacts across event hours.

- ✓ A cascading offset. Instead of implementing a four degree (°F) setback at the beginning of the event, raise the offset one degree per hour over the course of the event.
- ✓ Pre-cooling of homes can also help slow the deterioration of load impacts by extending the amount of time it takes the home to warm to its event setpoint. Pre-cooling can also reduce participant opt-outs through increased participant comfort. The required response time of the program is a key factor in determining whether pre-cooling is a viable option.
- The PY2019 analysis showed a more rapid decline in impacts across event hours than the PY2018 analysis. This may be weather related as outdoor temperatures are declining during the evening hours when PY2019 events were dispatched. Another potential reason for the observed decline is more frequent customer opt-outs due to increased occupancy during evening hours. SEP allows customers to override the thermostat setpoint modification, however marketing materials note that *“At SCE’s discretion, customers may be removed from the Program for overriding all energy events dispatched in a calendar year, when overrides consistently occur within the first hour of events.”*
  - ✓ SCE should request thermostat-level operating data from the SEP thermostat providers. This supplemental information could provide valuable insights into whether customer opt-outs are driving the reduction in impacts in the second, third, and fourth hour of SEP events.
  - ✓ With granular thermostat runtime, setpoint, and indoor temperature data SEP impacts as a function of cooling load could be examined, in addition to whole-house loads.
  - ✓ Thermostat operating data would also allow for an exploration of the changes in indoor temperature within homes during SEP events.
- SCE is deploying default TOU pricing for residential customers in 2020. The transition is scheduled to begin in October 2020 so much of the PY2020 SEP event activity will be prior to the transition. As shown in **Error! Reference source not found.**, less than 20% of SEP participants faced time-varying pricing during PY2019. The rollout of default TOU may alter SEP participant reference loads and potentially change the average load impact of SEP dispatch.
- Participating homes can have more than one thermostat. It would be a useful segmentation variable if the number of controlled thermostats or condensing units in the home was captured.

## 6.2 LOAD MODIFYING

The following recommendations were made for the load-modifying programs:



### CRITICAL PEAK PRICING (CPP):

- Encourage participants to sign up for event notification and offer enhanced support to enable participants to respond on event days. The evaluation shows that notification and additional support are critical to improving customer response.
- Future evaluations should further investigate the effect of notification on customers, potentially by size and industry. It may be appropriate to assume zero impacts for some classes of non-notified customers, which may in-turn affect how the ex ante impacts are estimated.
- Consider conducting a survey of participants regarding their notification choices. The survey could explore why customers chose to be notified (or not), whether they are aware of events, and how they respond on event days.
- Matched control groups were not developed for several of the subgroups for this evaluation because of the small ratios of participants to non-participants and the opt-out nature of the CPP rates which would likely lead to poor matches and introduce self-selection bias. Unfortunately, the within-subjects design may also have led to the introduction of bias, particularly among those groups with very small impacts due to a lack truly comparable event like days. Since all utilities expect their participant population to grow (and the non-participant pools to continue to shrink), future evaluations should consider what can be done to mitigate this bias. The following two options are offered for consideration:
  - ✓ Intentionally call test events on cooler days and, unless absolutely necessary, try not to call events on all the hottest days of the season. This will provide the models with better information as to how participants would behave during events on a wider range of temperatures and improve their performance.
  - ✓ Consider using the non-notified participants as a control group for the notified participants when appropriate. This would accurately estimate the incremental effect of notification, rather than the overall program impact, but this may not be desirable given that the impacts for non-notified customers are very small.

### REAL TIME PRICING (RTP):

RTP customers successfully responded to substantial rate changes that occurred during the 2019 program year. Because of these changes, customers reduced their consumption during the peak period relative to the prior year and exhibited evidence of load shifting between the on peak and off peak periods. The majority of load impacts from this program come from large customers for whom prices can have a significant impact on their bills

The RTP program experienced many major changes in 2019 that make comparison to prior years difficult. These changes included

- Substantial customer churn in the fall of 2018 and spring of 2019
- Change in ex ante weather conditions
- New TOU rate blocks for both RTP and otherwise applicable tariffs
- Narrower peak period RTP pricing
- Consolidation of RTP summer weekday day types from five to three

As a result, considerable changes to the PY2018 and PY2019 ex post and ex ante results were not unexpected. Nevertheless, the program continues to deliver peak period reductions of approximately 30% on Hot Summer Weekdays. Factoring in customer churn, updated consumption patterns, and updated rates for ex ante forecasts, customers can experience nearly 47% impacts during the RA window on Hot Summer Days going forward.

Of considerable interest for subsequent years will be customer response over time as customers become acquainted with the new price schedules. Since the new rates went into effect between March 1 2019 and June 1 2019, they have only experienced between five and six months of the new tariffs as of this evaluation. With more time on the new rates, their response patterns may change and reflect their ability to reduce loads in the 4pm-9pm window more consistently.

## 6.3 PILOTS

### RESIDENTIAL DEFAULT TIME OF USE

SCE's residential default TOU pilot summarized above has produced a large amount of information that will help guide SCE's approach to implementation of default TOU pricing. Differences in load and bill impacts and opt-out rates across customer segments at the service territory level reflect not just differences across segments, but also differences in the mix of customers across climate regions. SCE's income qualified (e.g. California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA)) customers in the hot climate region and Climate Zone 10 were not allowed to be enrolled on TOU tariffs using default recruitment. As such, comparisons across the two hot and two more moderate regions not only reflect differences in climate but also differences in the mix of customers. These differences must be kept in mind when making comparisons across segments and climate regions.

## 7 APPENDIX: REGRESSION SPECIFICATIONS

### 7.1 BASE INTERRUPTIBLE PROGRAM

The following is a general form of the model that was separately estimated for each enrolled BIP customer.

$$\begin{aligned}
 Q_t = & \sum_{i=1}^{24} (b_i^h \times h_{i,t}) + \sum_{Evt=1}^E \sum_{i=1}^{24} (b_{i,Evt}^{BIP} \times h_{i,t} \times BIP_t) + \sum_{DR} \sum_{i=1}^{24} (b_i^{DR} \times h_{i,t} \times OtherEvt_{i,t}^{DR}) \\
 & + \sum_{i=1}^{24} (b_i^{Weather} \times h_{i,t} \times Weather_t) + \sum_{i=1}^{24} (b_i^{MornLoad} \times h_{i,t} \times MornLoad_{i,t}) \\
 & + \sum_{j=2}^5 (b_j^{DTYPE} \times DTYPE_{j,t}) + \sum_{i=2}^{24} (b_i^{MON} \times h_{i,t} \times MON_t) + \sum_{i=2}^{24} (b_i^{FRI} \times h_{i,t} \times FRI_t) \\
 & + \sum_{i=6}^{10} (b_i^{MONTH} \times MONTH_{i,t}) + \sum_{i=2}^{24} (b_i^{SUMMER} \times h_{i,t} \times SUMMER_t) + e_t
 \end{aligned}$$

| Variable Name         | Variable Description   |
|-----------------------|--|
| $Q_t$                 | the demand in hour $t$ for a BIP customer  |
| The various $b$ 's    | the estimated parameters   |
| $h_{i,t}$             | an indicator variable for hour $i$ , equal to one when $t$ corresponds to hour $i$ of a given day  |
| $BIP_t$               | an indicator variable for program event days   |
| $E$                   | the number of program event days that occurred during the program year   |
| $OtherEvt_{i,t}^{DR}$ | an indicator variable for event day $DR$ of other demand response programs in which the customer is enrolled (e.g. $DR$ = CPP Event 1, CPP Event 2, ...) |
| $Weather_t$           | the weather variables selected using our model screening process   |
| $MornLoad_t$          | a variable equal to the average of the day's load in hours 1 through 10 <sup>16</sup> (may be excluded via model screening)                              |
| $DTYPE_{j,t}$         | a series of indicator variables for each day of the week   |
| $MON_t, FRI_t$        | indicator variables for Monday and Friday (Sunday hourly indicator variables are included in models that include weekend dates)                          |
| $MONTH_{j,t}$         | a series of indicator variables for each month (model screening may include separate hourly profiles by month)   |
| $SUMMER_t$            | an indicator variable for the summer pricing season <sup>17</sup>  |
| $e_t$                 | the error term   |

<sup>16</sup> The *MornLoad* variable is averaged over the hours 1 through 6 for the PG&E weekday model because PG&E's weekday events occurred during hours ending 7 through 10.

<sup>17</sup> The summer pricing season is June through September for SCE, May through October for SDG&E, and May through October for PG&E.

Ex ante regression specifications:

$$\begin{aligned}
Q_t = & \sum_{i=1}^{24} (b_i^h \times h_{i,t}) + \sum_{Evt=1}^E \sum_{i=1}^{24} (b_{i,Evt}^{BIP} \times h_{i,t} \times BIP_t) + \sum_{DR} \sum_{i=1}^{24} (b_i^{DR} \times h_{i,t} \times OtherEvt_{i,t}^{DR}) \\
& + \sum_{i=1}^{24} (b_i^{Weather} \times h_{i,t} \times Weather_t) + \sum_{j=2}^5 (b_j^{DTYPE} \times DTYPE_{j,t}) \\
& + \sum_{i=2}^{24} (b_i^{MON} \times h_{i,t} \times MON_t) + \sum_{i=2}^{24} (b_i^{FRI} \times h_{i,t} \times FRI_t) \\
& + \sum_{j=2-4,11-12} (b_j^{MONTH} \times MONTH_{j,t}) + e_t
\end{aligned}$$

| Variable Name         | Variable Description   |
|-----------------------|--|
| $Q_t$                 | the demand in hour $t$ for a customer enrolled in BIP prior to the last event date   |
| The various $b$ 's    | the estimated parameters   |
| $h_{i,t}$             | an indicator variable for hour $i$ , equal to one when $t$ corresponds to hour $i$ of a given day  |
| $BIP_t$               | an indicator variable for program event days   |
| $E$                   | the number of program event days that occurred during the program year   |
| $OtherEvt_{i,t}^{DR}$ | an indicator variable for event day $DR$ of other demand response programs in which the customer is enrolled (e.g. $DR$ = CPP Event 1, CPP Event 2, ...) |
| $Weather_t$           | the weather variables selected using our model screening process   |
| $DTYPE_{j,t}$         | a series of indicator variables for each day of the week   |
| $MON_t, FRI_t$        | indicator variables for Monday and Friday  |
| $MONTH_{j,t}$         | a series of indicator variables for each month   |
| $e_t$                 | the error term   |

## 7.2 AGRICULTURAL AND PUMPING INTERRUPTIBLE PROGRAM

A variety of models were used to predict reference loads for the AP-I program. Each customer had a similar model selected based on individual out of sample testing. The variables included in the set of models are summarized below.

| Model Term     | Description  |
|----------------|--|
| Month          | Month  |
| firsthalf      | Binary flag for first half or second half of month. Intended to capture intra-month pump-load shifts |
| dow            | Day of week  |
| avgtemp        | Daily average temperature  |
| tempf          | Temperature  |
| Daily_precip   | Daily precipitation in customer's region   |
| Precip_7days   | Cumulative precipitation in customer's region in last week   |
| Precip_3months | Cumulative precipitation in customer's region over last three months                                 |

|          |                                |
|----------|--------------------------------|
| CDH_6o   | Cooling degree hours – base 6o |
| CDH6o_sq | CDH squared                    |
| HDH6o    | Heating degree hours – base 6o |
| HDH6_sq  | HDH squared                    |
| CDD      | Cooling degree days – base 6o  |
| CDD_sq   | CDD squared                    |

### 7.3 CRITICAL PEAK PRICING

We developed a set of candidate models which were fit to all subgroups and utilized an algorithm developed in previous Statewide DR evaluations to select the best model for each subgroup.

We can think of regression models as being made up of building blocks, which are in turn made up of one or more explanatory variables. These different sets of variables can be combined in different ways to represent different types of customers. The blocks can be generally categorized into either “baseline” variables, or “impact” variables and could be made up of a single variable (e.g., cooling degree hours, CDH), or a group of variables (e.g., days of the week). The baseline portion of the model explains variation in usage unrelated to demand response events, while the impact portion explains the variation in usage related to a DR event.

The candidate models fit into two basic categories:

- Weather sensitive models which include weather effects and calendar effects.
- Non-weather sensitive models that include the morning load adjustment and calendar effects.

The table below presents the listing of the different variables and variable combinations that were used to develop the candidate models. The table below presents the listing of the different variables and variable combinations used to develop the candidate models.

| Type of Variable             | Variable                        | Description   |
|------------------------------|---------------------------------|---|
| <b>Dependent</b>             | $kWh_{i,t}$                     | Hourly consumption for customer $i$ in hour/day $t$   |
| <b>Baseline Fixed effect</b> | $\alpha_i$                      | Indicator variable for each customer $i$  |
| <b>Baseline Calendar</b>     | Day of Week $t$                 | Indicator variable for each day of the week   |
| <b>Baseline Calendar</b>     | Weekday $t$                     | Indicator variable taking on the value of 1 for each weekday and 0 for weekends and holidays  |
| <b>Baseline Calendar</b>     | Month of Year $t$               | Indicator variable for each month of the year   |
| <b>Baseline Weather</b>      | $CDH_{i,t}$                     | Cooling degree hours (base 65) for customer $i$ in hour/day $t$   |
| <b>Baseline Weather</b>      | Meantemp $_{i,t}$               | Mean temperature for customer $i$ on day $t$  |
| <b>Baseline Adjustment</b>   | Morning Load $_{i,t}$           | Average of hours 5-10 for customer $i$ on day $t$   |
| <b>Baseline Adjustment</b>   | Late morning load $_{i,t}$      | Average of hours 7-12 for customer $i$ on day $t$   |
| <b>Impact</b>                | Event $_{i,t}$                  | Indicator that takes on a value of 1 if customer $i$ participated in event $t$  |
| <b>Impact Interaction</b>    | (Event * Notification) $_{i,t}$ | Interaction between event and notification that takes on a value of 1 if customer $i$ was notified of event $t$                                       |
| <b>Impact Interaction</b>    | (Event * Enhanced Support)      | Interaction between event and notification that takes on a value of 1 if customer $i$ was enrolled in enhanced support during event $t$ <sup>18</sup> |
| <b>Impact Interaction</b>    | (Event * CDH) $_{i,t}$          | Interaction between event and CDH for customer $i$ on event $t$   |
| <b>Impact Interaction</b>    | (Event * month) $_{i,t}$        | Interaction between event and month for customer $i$ on event $t$   |

The following example illustrates the process of estimating the impacts from the final model for a single subgroup. There were ultimately 64 subgroups in the actual analysis, each with their own final model specification determined by the optimization process.

$$kwh_{it} = \beta_0 + \alpha_t + \delta_t + CDH_t + EVNT + (\alpha_t * EVNT) + \varepsilon_{it} \quad (1)$$

Where:

- $kwh_{it}$  is the consumption of customer  $i$  in hour  $t$
- $\beta_0$  is the intercept
- $\alpha_t$  is a vector of segment indicators, i.e. AutoDR, LCA, etc
- $\delta_t$  is a vector of calendar variables, i.e. month, year, and day of week
- $CDH_t$  represents the cooling degree hours for hour  $t$

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<sup>18</sup> Enhanced Support applies only to PG&E participants, see PG&E's ex-post results section for more information on Enhanced Support.

- $EVNT$  is a dummy variable indicating that hour  $t$  was on a CPP or PDP event day
- $(\alpha_t * EVNT)$  is an interaction between the event indicator and the segment indicator variables
- $\varepsilon_{it}$  is the error for participant  $i$  in time  $t$

## 7.4 CAPACITY BIDDING PROGRAM

With the different variables presented, sets of candidate models were created that represent a wide variety of customers and their impacts. Each IOU has customized sets of candidate models, but in general, the candidate models fit into two basic categories:

- Weather-sensitive models include weather effects and calendar effects. These models are less likely to require a load adjustment since much of the day-to-day variation in load is captured by weather terms.
- Non-weather sensitive models include the load adjustment and calendar effects.

Simple weather sensitive example:

$$kwh_{i,d} = \alpha_{i,d} + Month_{i,d} + Weather_{i,d} + P_{i,d} + (P_{i,d} * Month_{i,d}) + (P_{i,d} * EventHour_{i,d}) + \varepsilon_{i,d}$$

where:

$kwh_{i,d}$  is the customer's consumption in hour  $i$  on day  $d$ .

$\alpha_{i,d}$  is the intercept.

$\varepsilon_{i,d}$  is the error for participant in hour  $i$  on day  $d$ .

Simple non-weather sensitive example:

$$kwh_{i,d} = \alpha_{i,d} + MornLoad_{i,d} + DayofWeek_{i,d} + P_{i,d} + \varepsilon_{i,d}$$

where:

$kwh_{i,d}$  is the customer's consumption in hour  $i$  on day  $d$ .

$\alpha_{i,d}$  is the intercept.

$\varepsilon_{i,d}$  is the error for participant in hour  $i$  on day  $d$ .

*Explanatory Variables Included in Candidate Regression Models*

| Variable Name          | Variable Description  |
|------------------------|---|
|                        | <b>Baseline Variables</b>   |
| Weather <sub>i,d</sub> | Weather related variables including average daily temperature, cooling degree hour (CDH) terms with base value of 70, heating degree hour (HDH) with base value of 60, and lagged versions of various weather-related variables |
| Month <sub>i,d</sub>   | A series of indicator variables for each month  |

|                              |   |
|------------------------------|---|
| DayOfWeek <sub>i,d</sub>     | A series of indicator variables for each day of the week  |
| OtherEvt <sub>i,d</sub>      | Equals one on event days of other demand response programs in which the customer is enrolled                            |
| MornLoad <sub>i,d</sub>      | The average of each day's load in hours 4 AM through 10 AM  |
| MidLoad <sub>i,d</sub>       | The average of each day's load in hours 10 AM through 2 PM  |
| EveLoad <sub>i,d</sub>       | The average of each day's load in hours 9 PM through 12 AM  |
|                              | <b>Impact Variables</b>   |
| P <sub>i,d</sub>             | An indicator variable for aggregator program event days   |
| P * Month <sub>i,d</sub>     | An indicator variable for aggregator program event days interacted with the month                                       |
| P*EventHour <sub>i,d</sub>   | An indicator variable for aggregator program event days interacted with an indicator for the hour the event is called   |
| P*EventWindow <sub>i,d</sub> | An indicator variable for aggregator program event days interacted with an indicator for the window the event is called |

After the “best” model was selected for each customer, customer-specific impact was calculated as follows:

- Obtained the actual and predicted load on each hour and day based on the best model specification for each customer.
- Used the estimated coefficients and the baseline portion of the model to predict what this customer would have used on each day and hour if there had been no events. This prediction is the reference load.
- Calculated the difference between the reference load (the estimate based on the baseline variables) and the predicted load (the estimate based on the baseline + impacts variables) on each event day. This difference represents estimated load impact.
- To show the actual observed load (and avoid confusion associated with the predicted load) re-estimated the reference load as the sum of the observed load and the load impact.

## 7.5 SUMMER DISCOUNT PLAN

The following is a form of the model that was estimated for both residential and commercial customers for ex post analysis.

$$kW_{ih} = \beta_{0h} + \beta_{1h} * date + \beta_{2h} * treat * eventDay + \beta_{3h} * preadj + \beta_{4h} * CDD + \beta_{5h} * DOW + v_{ih} + \varepsilon_{ih}$$

| Model Term | Description   |
|------------|---|
| $kW_{ih}$  | Net electrical demand in kW for customer i, in hour h |
| $\beta_0$  | Mean demand for all customers on proxy days in hour h |



|                    |  |
|--------------------|--|
| $\beta_1$          | Regression coefficient for the date variable for hour h. Captures date-specific departures from the mean.  |
| date               | Set of indicator variables for event day and selected proxy days   |
| $\beta_2$          | Regression coefficient of interest   |
| treat              | Indicator variable for the SDP participant group   |
| eventDay           | Indicator variable for the SDP event day   |
| treat * eventDay   | Interaction term equal to 1 for treated customers on the event day and 0 otherwise   |
| $\beta_3$          | Regression coefficient for the pre-event hours to calibrate differences between the treatment and matched control groups on the event and proxy days |
| preadj             | Average kW during pre-event hours. Because customers are given little notice, including this term does not affect the validity of the estimates      |
| $\beta_4$          | Regression coefficient for the customers's cooling degree day – which accounts for differences in heat buildup between treatment and matched control |
| CDD                | Cooling degree day using set point defined for the customer  |
| $\beta_5$          | Regression coefficient capturing different load shapes for each day of the week  |
| DOW                | Day of week  |
| $v_{ih}$           | Customer fixed effects variable for customer i in hour h   |
| $\varepsilon_{ih}$ | Error term   |

## 7.6 SMART ENERGY PROGRAM

Ex Post difference-in-difference panel regression model specification in equation below and components are described in table below. The equation shows the regression implemented for every event and every hour of the day.

$$kW_{ih} = \beta_{0h} + \beta_{1h} * date + \beta_{2h} * treat * eventDay + v_{ih} + \varepsilon_{ih}$$

| Model Term       | Description   |
|------------------|---|
| $kW_{ih}$        | Net electrical demand in kW for customer i, in hour h   |
| $\beta_0$        | Mean demand for all customers on proxy days in hour h   |
| $\beta_1$        | Regression coefficient for the date variable for hour h. Captures date-specific departures from the mean. |
| date             | Set of four indicator variables for event day and three proxy days  |
| $\beta_2$        | Regression coefficient of interest  |
| treat            | Indicator variable for the SEP participant group  |
| eventDay         | Indicator variable for the SEP event day  |
| treat * eventDay | Interaction term equal to 1 for treated customers on the event day and 0 otherwise                        |
| $v_{ih}$         | Customer fixed effects variable for customer i in hour h  |

|                    |            |
|--------------------|------------|
| $\varepsilon_{ih}$ | Error term |
|--------------------|------------|

Ex ante reference load regression model specification can be found in the equation below. The model terms and base temperatures for degree day and degree hour terms were selected based on model fit statistics (adjusted R-squared, root mean square error) and the statistical significance of model parameters (standard error and t-statistic). Model terms further defined in table below.

$$Net\ kW_i = \beta_0 + \beta_1 * CDD60 + \beta_2 * HDD60 + \beta_3 * RH + \beta_4 * HDH55 + \beta_5 * CDH70 + \beta_m * Month + \beta_h * Hour + \beta_{h,w} * Hour * (CDH70 + HDH55) + \beta_{m,w} * Month * (CDH70 + HDH55) + \varepsilon_i$$

| Model Term          | Description  |
|---------------------|--|
| Net kW <sub>i</sub> | Average net electrical demand in kW during interval i  |
| $\beta_0$           | The model intercept  |
| CDD60               | Cooling degree days base 60 degrees (F)  |
| $\beta_1$           | Regression coefficient for the CDD60 term  |
| HDD60               | Heating degree days base 60 degrees (F)  |
| $\beta_2$           | Regression coefficient for the HDD60 term  |
| RH                  | Relative humidity  |
| $\beta_3$           | Regression coefficient for the RH term   |
| HDH55               | Heating degree hours base 55 degrees (F)   |
| $\beta_4$           | Regression coefficient for the HDH55 term  |
| CDH70               | Cooling degree hours base 70 degrees (F)   |
| $\beta_5$           | Regression coefficient for the HDH55 term  |
| Month               | Array of indicator variables denoting the month of the year                                  |
| $\beta_m$           | Regression coefficients for the month indicator variables                                    |
| Hour                | Array of indicator variables denoting the hour of the day                                    |
| $\beta_h$           | Regression coefficients for the hour indicator variables                                     |
| $\beta_{h,w}$       | Regression coefficients for the interactions between hour and the degree hour weather terms  |
| $\beta_{m,w}$       | Regression coefficients for the interactions between month and the degree hour weather terms |
| $\varepsilon_i$     | Error term   |

## 7.7 REAL-TIME PRICING

The following equation shows the specifications for the ex post and ex ante analysis. Further explanation of model terms in the following table.

$$kW_{ih} = \alpha_{0h} + \beta_{1h} * price + \beta_{2h} * priceratio + \beta_{3h} * daytype + \beta_{4h} * month + \varepsilon_{ih}$$

| Model Term | Description   |
|------------|---|
| $kW_{ih}$  | Electricity delivered in kW for customer i, in hour h             |
| $\alpha_0$ | Intercept   |
| $\beta_1$  | Regression coefficient for price a customer experiences in hour h |

|                    |  |
|--------------------|--|
| <i>price</i>       | Hourly energy price inclusive of demand charges                                  |
| $\beta_2$          | Regression coefficient of the price ratio- captures load shifting                |
| <i>priceratio</i>  | Ratio of hourly price to daily maximum price for each customer                   |
| $\beta_3$          | Regression coefficient accounting for variability in customer weekly schedules   |
| <i>daytype</i>     | Day of week  |
| $\beta_4$          | Regression coefficient accounting for variability in customer seasonal schedules |
| <i>month</i>       | Month  |
| $\varepsilon_{ih}$ | Error term   |

## 7.8 RESIDENTIAL DEFAULT TIME OF USE

A typical regression specification for estimating impacts is shown below:

$$kW_{i,t} = \alpha_i + \delta \text{treat}_i + \gamma \text{post}_t + \beta(\text{treatpost})_{i,t} + v_i + \varepsilon_{i,t}$$

In the above equation, the variable  $kW_{i,t}$  equals electricity usage during the time period of interest, which might be each hour of the day, peak or off-peak periods, daily usage or some other period. The index  $i$  refers to customers and the index  $t$  refers to the time period of interest. The estimating database would contain electricity usage data during both the pretreatment and post-treatment periods for both treatment (encouraged) and control group customers. The variable  $\text{treat}$  is equal to 1 for treatment customers and 0 for control customers, while the variable  $\text{post}$  is equal to 1 for days after the TOU rate has been implemented and a value of 0 for days during the pretreatment period. The  $\text{treat post}$  term is the interaction of  $\text{treat}$  and  $\text{post}$  and its coefficient  $\beta$  is a difference-in-differences estimator of the treatment effect that makes use of the pretreatment data. The primary parameter of interest is  $\beta$ , which provides the estimated demand impact during the relevant period. The parameter  $\alpha_i$  is equal to mean usage for each customer for the relevant time period (e.g., hourly, peak period, etc.). The  $v_i$  term is the customer fixed effects variable that controls for unobserved factors that are time-invariant and unique to each customer.

## 8 APPENDIX: EX ANTE IMPACTS BY PROGRAM AND YEAR

### Ex Ante Impacts - 2020 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.4          | 13.4         | 19.1         | 24.4         | 26.8         | 28.4         | 27.2         | 27.7         | 27.7         | 23.0         | 17.2         | 11.2         |
|                         | BIP-15          | 155.5        | 169.2        | 155.9        | 168.4        | 179.7        | 181.6        | 181.3        | 182.1        | 182.1        | 180.0        | 186.6        | 164.4        |
|                         | BIP-30          | 381.7        | 408.9        | 384.9        | 397.8        | 389.1        | 397.8        | 374.5        | 385.1        | 388.6        | 381.7        | 387.6        | 361.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 11.9         | 14.9         | 17.6         | 22.0         | 24.2         | 28.8         | 23.9         | 25.2         | 23.7         | 16.9         | 0.0          |
|                         | SDP-R           | 0.0          | 28.6         | 43.8         | 82.6         | 138.2        | 195.1        | 235.6        | 197.3        | 205.9        | 172.5        | 79.0         | 0.0          |
|                         | SEP             | 0.0          | 9.2          | 10.7         | 11.5         | 19.9         | 27.3         | 44.3         | 35.3         | 34.8         | 29.5         | 17.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>567.2</b> | <b>661.8</b> | <b>650.1</b> | <b>723.0</b> | <b>783.2</b> | <b>862.0</b> | <b>899.3</b> | <b>859.1</b> | <b>871.8</b> | <b>818.1</b> | <b>725.6</b> | <b>557.6</b> |
| Load Modifying Programs | CPP Large       | 7.4          | 7.6          | 8.1          | 8.1          | 8.1          | 7.7          | 7.5          | 7.8          | 7.8          | 8.3          | 8.0          | 7.4          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.6          | 1.3          | 2.8          | 2.9          | 2.9          | 21.6         | 22.1         | 21.9         | 21.0         | 2.8          | 1.5          | 1.3          |
|                         | <b>Subtotal</b> | <b>9.0</b>   | <b>8.9</b>   | <b>10.9</b>  | <b>11.0</b>  | <b>11.0</b>  | <b>29.3</b>  | <b>29.6</b>  | <b>29.7</b>  | <b>28.8</b>  | <b>11.1</b>  | <b>9.5</b>   | <b>8.7</b>   |
| Pilots                  | Residential TOU | 2.2          | 2.2          | 1.7          | 1.8          | 2.0          | 6.7          | 9.9          | 8.2          | 8.8          | 4.5          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>2.2</b>   | <b>1.7</b>   | <b>1.8</b>   | <b>2.0</b>   | <b>6.7</b>   | <b>9.9</b>   | <b>8.2</b>   | <b>8.8</b>   | <b>4.5</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Portfolio Total</b>  |                 | <b>578.3</b> | <b>672.9</b> | <b>662.6</b> | <b>735.8</b> | <b>796.2</b> | <b>898.0</b> | <b>938.8</b> | <b>897.0</b> | <b>909.4</b> | <b>833.7</b> | <b>739.1</b> | <b>570.1</b> |

Ex Ante Impacts - 2021 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 15.0         | 21.4         | 27.3         | 29.8         | 31.5         | 30.0         | 30.5         | 30.6         | 25.5         | 19.1         | 12.4         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 10.6         | 13.2         | 15.6         | 19.5         | 21.5         | 25.6         | 21.2         | 22.4         | 21.0         | 15.0         | 0.0          |
|                         | SDP-R           | 0.0          | 26.0         | 39.8         | 75.0         | 125.5        | 177.1        | 213.8        | 179.1        | 186.8        | 156.6        | 71.7         | 0.0          |
|                         | SEP             | 0.0          | 11.2         | 13.2         | 14.3         | 25.0         | 34.7         | 56.8         | 45.7         | 44.7         | 37.6         | 22.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>640.8</b> | <b>629.9</b> | <b>698.5</b> | <b>755.0</b> | <b>830.3</b> | <b>868.7</b> | <b>830.1</b> | <b>841.4</b> | <b>789.1</b> | <b>701.3</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 8.0          | 8.5          | 8.6          | 8.5          | 8.1          | 7.9          | 8.2          | 8.2          | 8.7          | 8.4          | 7.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.5          | 1.3          | 2.7          | 2.8          | 2.8          | 20.2         | 20.6         | 20.1         | 19.3         | 2.6          | 1.4          | 1.2          |
|                         | <b>Subtotal</b> | <b>9.3</b>   | <b>9.3</b>   | <b>11.2</b>  | <b>11.4</b>  | <b>11.3</b>  | <b>28.3</b>  | <b>28.5</b>  | <b>28.4</b>  | <b>27.6</b>  | <b>11.3</b>  | <b>9.8</b>   | <b>9.0</b>   |
| Pilots                  | Residential TOU | 3.9          | 4.0          | 3.0          | 3.2          | 3.4          | 13.1         | 19.6         | 15.9         | 21.4         | 7.4          | 10.8         | 11.9         |
|                         | <b>Subtotal</b> | <b>3.9</b>   | <b>4.0</b>   | <b>3.0</b>   | <b>3.2</b>   | <b>3.4</b>   | <b>13.1</b>  | <b>19.6</b>  | <b>15.9</b>  | <b>21.4</b>  | <b>7.4</b>   | <b>10.8</b>  | <b>11.9</b>  |
| <b>Total</b>            |                 | <b>562.5</b> | <b>654.1</b> | <b>644.1</b> | <b>713.1</b> | <b>769.7</b> | <b>871.6</b> | <b>916.7</b> | <b>874.4</b> | <b>890.4</b> | <b>807.8</b> | <b>721.9</b> | <b>560.3</b> |

Ex Ante Impacts - 2022 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 9.4          | 11.7         | 13.9         | 17.3         | 19.1         | 22.7         | 18.8         | 19.9         | 18.7         | 13.3         | 0.0          |
|                         | SDP-R           | 0.0          | 24.5         | 37.6         | 70.8         | 118.5        | 167.3        | 202.0        | 169.2        | 176.5        | 147.9        | 67.7         | 0.0          |
|                         | SEP             | 0.0          | 13.9         | 16.4         | 17.5         | 30.5         | 42.1         | 68.7         | 55.0         | 53.7         | 45.2         | 26.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>641.3</b> | <b>630.0</b> | <b>696.9</b> | <b>752.6</b> | <b>826.9</b> | <b>867.2</b> | <b>828.5</b> | <b>839.0</b> | <b>786.8</b> | <b>701.0</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 8.2          | 8.5          | 9.0          | 9.1          | 9.0          | 8.6          | 8.3          | 8.7          | 8.7          | 9.2          | 8.9          | 8.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.4          | 1.2          | 2.5          | 2.6          | 2.5          | 18.5         | 18.9         | 18.4         | 17.7         | 2.4          | 1.3          | 1.1          |
|                         | <b>Subtotal</b> | <b>9.6</b>   | <b>9.6</b>   | <b>11.5</b>  | <b>11.6</b>  | <b>11.5</b>  | <b>27.0</b>  | <b>27.2</b>  | <b>27.1</b>  | <b>26.3</b>  | <b>11.6</b>  | <b>10.2</b>  | <b>9.3</b>   |
| Pilots                  | Residential TOU | 15.5         | 16.8         | 13.6         | 14.0         | 17.0         | 61.5         | 92.5         | 73.9         | 82.5         | 21.5         | 19.8         | 16.9         |
|                         | <b>Subtotal</b> | <b>15.5</b>  | <b>16.8</b>  | <b>13.6</b>  | <b>14.0</b>  | <b>17.0</b>  | <b>61.5</b>  | <b>92.5</b>  | <b>73.9</b>  | <b>82.5</b>  | <b>21.5</b>  | <b>19.8</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>574.7</b> | <b>667.8</b> | <b>655.1</b> | <b>722.5</b> | <b>781.1</b> | <b>915.4</b> | <b>986.8</b> | <b>929.6</b> | <b>947.8</b> | <b>819.8</b> | <b>731.0</b> | <b>566.2</b> |

Ex Ante Impacts - 2023 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 8.3          | 10.4         | 12.3         | 15.4         | 17.0         | 20.2         | 16.7         | 17.7         | 16.6         | 11.8         | 0.0          |
|                         | SDP-R           | 0.0          | 23.4         | 35.8         | 67.5         | 112.9        | 159.4        | 192.5        | 161.2        | 168.2        | 140.9        | 64.5         | 0.0          |
|                         | SEP             | 0.0          | 16.7         | 19.5         | 20.9         | 36.4         | 50.1         | 81.5         | 65.2         | 63.5         | 53.3         | 31.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>641.9</b> | <b>630.1</b> | <b>695.4</b> | <b>750.9</b> | <b>824.8</b> | <b>868.0</b> | <b>828.7</b> | <b>838.3</b> | <b>785.8</b> | <b>701.1</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 8.6          | 8.9          | 9.5          | 9.5          | 9.5          | 9.0          | 8.7          | 9.1          | 9.1          | 9.7          | 9.3          | 8.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.3          | 1.1          | 2.2          | 2.3          | 2.3          | 16.8         | 17.1         | 16.7         | 16.0         | 2.1          | 1.1          | 1.0          |
|                         | <b>Subtotal</b> | <b>9.9</b>   | <b>10.0</b>  | <b>11.7</b>  | <b>11.9</b>  | <b>11.8</b>  | <b>25.8</b>  | <b>25.9</b>  | <b>25.9</b>  | <b>25.1</b>  | <b>11.8</b>  | <b>10.5</b>  | <b>9.6</b>   |
| Pilots                  | Residential TOU | 17.8         | 17.2         | 13.5         | 13.9         | 16.9         | 61.2         | 92.1         | 73.6         | 82.1         | 21.3         | 19.7         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>17.2</b>  | <b>13.5</b>  | <b>13.9</b>  | <b>16.9</b>  | <b>61.2</b>  | <b>92.1</b>  | <b>73.6</b>  | <b>82.1</b>  | <b>21.3</b>  | <b>19.7</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>577.3</b> | <b>669.0</b> | <b>655.3</b> | <b>721.1</b> | <b>779.5</b> | <b>911.8</b> | <b>986.0</b> | <b>928.2</b> | <b>945.5</b> | <b>819.0</b> | <b>731.3</b> | <b>566.4</b> |

Ex Ante Impacts - 2024 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 7.4          | 9.3          | 11.0         | 13.7         | 15.1         | 18.0         | 14.9         | 15.7         | 14.8         | 10.5         | 0.0          |
|                         | SDP-R           | 0.0          | 22.3         | 34.2         | 64.4         | 107.8        | 152.1        | 183.7        | 153.9        | 160.5        | 134.5        | 61.6         | 0.0          |
|                         | SEP             | 0.0          | 19.4         | 22.7         | 24.3         | 42.2         | 58.0         | 94.2         | 75.2         | 73.0         | 61.1         | 36.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>642.7</b> | <b>630.6</b> | <b>694.4</b> | <b>749.9</b> | <b>823.6</b> | <b>869.7</b> | <b>829.5</b> | <b>838.2</b> | <b>785.4</b> | <b>701.3</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 9.1          | 9.3          | 9.9          | 10.0         | 9.9          | 9.4          | 9.2          | 9.6          | 9.6          | 10.2         | 9.8          | 9.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.2          | 1.0          | 2.0          | 2.1          | 2.1          | 15.1         | 15.4         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.2</b>  | <b>10.3</b>  | <b>11.9</b>  | <b>12.1</b>  | <b>12.0</b>  | <b>24.5</b>  | <b>24.6</b>  | <b>24.6</b>  | <b>24.1</b>  | <b>12.1</b>  | <b>10.9</b>  | <b>10.0</b>  |
| Pilots                  | Residential TOU | 17.7         | 17.1         | 13.4         | 13.8         | 16.8         | 60.9         | 91.7         | 73.2         | 81.8         | 21.2         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>17.1</b>  | <b>13.4</b>  | <b>13.8</b>  | <b>16.8</b>  | <b>60.9</b>  | <b>91.7</b>  | <b>73.2</b>  | <b>81.8</b>  | <b>21.2</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>577.5</b> | <b>670.1</b> | <b>655.9</b> | <b>720.3</b> | <b>778.6</b> | <b>909.0</b> | <b>985.9</b> | <b>927.3</b> | <b>944.1</b> | <b>818.7</b> | <b>731.8</b> | <b>566.7</b> |



Ex Ante Impacts - 2025 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 6.6          | 8.2          | 9.8          | 12.2         | 13.4         | 16.0         | 13.3         | 14.0         | 13.1         | 9.4          | 0.0          |
|                         | SDP-R           | 0.0          | 21.3         | 32.7         | 61.6         | 103.1        | 145.5        | 175.7        | 147.1        | 153.5        | 128.6        | 58.9         | 0.0          |
|                         | SEP             | 0.0          | 22.0         | 25.7         | 27.4         | 47.4         | 65.1         | 105.4        | 84.0         | 81.3         | 67.9         | 40.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>643.5</b> | <b>631.0</b> | <b>693.4</b> | <b>748.9</b> | <b>822.4</b> | <b>870.9</b> | <b>829.9</b> | <b>837.8</b> | <b>784.7</b> | <b>701.5</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 9.5          | 9.8          | 10.4         | 10.5         | 10.4         | 9.9          | 9.6          | 10.0         | 10.0         | 10.6         | 10.3         | 9.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.6</b>  | <b>10.7</b>  | <b>12.3</b>  | <b>12.5</b>  | <b>12.4</b>  | <b>24.7</b>  | <b>24.8</b>  | <b>25.0</b>  | <b>24.6</b>  | <b>12.6</b>  | <b>11.3</b>  | <b>10.4</b>  |
| Pilots                  | Residential TOU | 17.6         | 17.0         | 13.4         | 13.8         | 16.8         | 60.7         | 91.4         | 73.0         | 81.5         | 21.1         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>17.0</b>  | <b>13.4</b>  | <b>13.8</b>  | <b>16.8</b>  | <b>60.7</b>  | <b>91.4</b>  | <b>73.0</b>  | <b>81.5</b>  | <b>21.1</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>577.7</b> | <b>671.1</b> | <b>656.8</b> | <b>719.7</b> | <b>778.1</b> | <b>907.8</b> | <b>987.1</b> | <b>928.0</b> | <b>943.9</b> | <b>818.4</b> | <b>732.4</b> | <b>567.1</b> |

Ex Ante Impacts - 2026 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 5.9          | 7.4          | 8.7          | 10.9         | 12.0         | 14.3         | 11.8         | 12.5         | 11.7         | 8.4          | 0.0          |
|                         | SDP-R           | 0.0          | 20.4         | 31.3         | 59.0         | 98.7         | 139.3        | 168.2        | 140.9        | 147.0        | 123.2        | 56.4         | 0.0          |
|                         | SEP             | 0.0          | 24.3         | 28.3         | 30.1         | 52.1         | 71.3         | 115.3        | 91.7         | 88.7         | 74.0         | 43.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>644.2</b> | <b>631.4</b> | <b>692.5</b> | <b>747.9</b> | <b>821.0</b> | <b>871.6</b> | <b>830.0</b> | <b>837.2</b> | <b>783.9</b> | <b>701.5</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 9.9          | 10.2         | 10.9         | 10.9         | 10.8         | 10.3         | 10.0         | 10.5         | 10.5         | 11.1         | 10.7         | 9.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.0</b>  | <b>11.1</b>  | <b>12.8</b>  | <b>12.9</b>  | <b>12.9</b>  | <b>25.2</b>  | <b>25.2</b>  | <b>25.5</b>  | <b>25.0</b>  | <b>13.1</b>  | <b>11.8</b>  | <b>10.8</b>  |
| Pilots                  | Residential TOU | 17.6         | 16.9         | 13.3         | 13.7         | 16.7         | 60.5         | 91.1         | 72.7         | 81.3         | 21.0         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>16.9</b>  | <b>13.3</b>  | <b>13.7</b>  | <b>16.7</b>  | <b>60.5</b>  | <b>91.1</b>  | <b>72.7</b>  | <b>81.3</b>  | <b>21.0</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>578.2</b> | <b>672.2</b> | <b>657.5</b> | <b>719.1</b> | <b>777.4</b> | <b>906.7</b> | <b>988.0</b> | <b>928.2</b> | <b>943.5</b> | <b>818.0</b> | <b>732.7</b> | <b>567.4</b> |

Ex Ante Impacts - 2027 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 5.3          | 6.6          | 7.8          | 9.7          | 10.7         | 12.7         | 10.6         | 11.2         | 10.5         | 7.5          | 0.0          |
|                         | SDP-R           | 0.0          | 19.6         | 30.0         | 56.6         | 94.6         | 133.6        | 161.3        | 135.1        | 141.0        | 118.1        | 54.1         | 0.0          |
|                         | SEP             | 0.0          | 26.4         | 30.6         | 32.5         | 56.2         | 76.8         | 124.1        | 98.6         | 95.2         | 79.3         | 46.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>644.7</b> | <b>631.6</b> | <b>691.6</b> | <b>746.8</b> | <b>819.5</b> | <b>872.0</b> | <b>829.8</b> | <b>836.3</b> | <b>783.0</b> | <b>701.4</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 10.3         | 10.6         | 11.3         | 11.4         | 11.3         | 10.8         | 10.5         | 10.9         | 10.9         | 11.6         | 11.2         | 10.3         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.4</b>  | <b>11.5</b>  | <b>13.3</b>  | <b>13.4</b>  | <b>13.3</b>  | <b>25.6</b>  | <b>25.6</b>  | <b>25.9</b>  | <b>25.5</b>  | <b>13.5</b>  | <b>12.2</b>  | <b>11.2</b>  |
| Pilots                  | Residential TOU | 17.5         | 16.8         | 13.3         | 13.7         | 16.6         | 60.3         | 90.9         | 72.5         | 81.0         | 21.0         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>16.8</b>  | <b>13.3</b>  | <b>13.7</b>  | <b>16.6</b>  | <b>60.3</b>  | <b>90.9</b>  | <b>72.5</b>  | <b>81.0</b>  | <b>21.0</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>578.5</b> | <b>673.0</b> | <b>658.2</b> | <b>718.7</b> | <b>776.7</b> | <b>905.4</b> | <b>988.5</b> | <b>928.3</b> | <b>942.8</b> | <b>817.5</b> | <b>733.1</b> | <b>567.8</b> |

Ex Ante Impacts - 2028 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 4.7          | 5.9          | 7.0          | 8.7          | 9.6          | 11.4         | 9.4          | 10.0         | 9.4          | 6.7          | 0.0          |
|                         | SDP-R           | 0.0          | 18.8         | 28.8         | 54.3         | 90.9         | 128.3        | 154.9        | 129.7        | 135.4        | 113.4        | 51.9         | 0.0          |
|                         | SEP             | 0.0          | 28.1         | 32.7         | 34.7         | 59.8         | 81.7         | 131.9        | 104.6        | 101.0        | 84.1         | 49.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.2</b> | <b>631.8</b> | <b>690.6</b> | <b>745.6</b> | <b>818.0</b> | <b>872.0</b> | <b>829.4</b> | <b>835.3</b> | <b>781.9</b> | <b>701.2</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 10.8         | 11.1         | 11.8         | 11.9         | 11.8         | 11.2         | 10.9         | 11.4         | 11.4         | 12.1         | 11.6         | 10.8         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.9</b>  | <b>12.0</b>  | <b>13.7</b>  | <b>13.9</b>  | <b>13.8</b>  | <b>26.0</b>  | <b>26.1</b>  | <b>26.4</b>  | <b>25.9</b>  | <b>14.0</b>  | <b>12.7</b>  | <b>11.7</b>  |
| Pilots                  | Residential TOU | 17.4         | 16.8         | 13.2         | 13.6         | 16.6         | 60.2         | 90.7         | 72.3         | 80.8         | 20.9         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>16.8</b>  | <b>13.2</b>  | <b>13.6</b>  | <b>16.6</b>  | <b>60.2</b>  | <b>90.7</b>  | <b>72.3</b>  | <b>80.8</b>  | <b>20.9</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>578.8</b> | <b>673.9</b> | <b>658.7</b> | <b>718.1</b> | <b>776.0</b> | <b>904.2</b> | <b>988.8</b> | <b>928.1</b> | <b>942.0</b> | <b>816.8</b> | <b>733.3</b> | <b>568.1</b> |

Ex Ante Impacts - 2029 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 4.2          | 5.3          | 6.2          | 7.8          | 8.6          | 10.2         | 8.5          | 8.9          | 8.4          | 6.0          | 0.0          |
|                         | SDP-R           | 0.0          | 18.1         | 27.7         | 52.2         | 87.4         | 123.4        | 149.0        | 124.7        | 130.1        | 109.1        | 49.9         | 0.0          |
|                         | SEP             | 0.0          | 29.7         | 34.5         | 36.6         | 63.0         | 86.0         | 138.7        | 110.0        | 106.1        | 88.2         | 51.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.5</b> | <b>631.8</b> | <b>689.7</b> | <b>744.4</b> | <b>816.3</b> | <b>871.7</b> | <b>828.8</b> | <b>834.1</b> | <b>780.7</b> | <b>700.9</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 11.2         | 11.5         | 12.3         | 12.3         | 12.2         | 11.6         | 11.3         | 11.8         | 11.8         | 12.5         | 12.1         | 11.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.3</b>  | <b>12.4</b>  | <b>14.2</b>  | <b>14.3</b>  | <b>14.2</b>  | <b>26.5</b>  | <b>26.5</b>  | <b>26.8</b>  | <b>26.4</b>  | <b>14.5</b>  | <b>13.1</b>  | <b>12.1</b>  |
| Pilots                  | Residential TOU | 17.4         | 16.7         | 13.2         | 13.6         | 16.5         | 60.0         | 90.5         | 72.1         | 80.7         | 20.8         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>16.7</b>  | <b>13.2</b>  | <b>13.6</b>  | <b>16.5</b>  | <b>60.0</b>  | <b>90.5</b>  | <b>72.1</b>  | <b>80.7</b>  | <b>20.8</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>579.2</b> | <b>674.6</b> | <b>659.2</b> | <b>717.6</b> | <b>775.1</b> | <b>902.8</b> | <b>988.7</b> | <b>927.7</b> | <b>941.2</b> | <b>816.0</b> | <b>733.4</b> | <b>568.6</b> |

Ex Ante Impacts - 2030 Program SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 3.8          | 4.7          | 5.6          | 7.0          | 7.7          | 9.1          | 7.6          | 8.0          | 7.5          | 5.4          | 0.0          |
|                         | SDP-R           | 0.0          | 17.4         | 26.7         | 50.3         | 84.1         | 118.7        | 143.4        | 120.1        | 125.3        | 105.0        | 48.1         | 0.0          |
|                         | SEP             | 0.0          | 31.1         | 36.1         | 38.2         | 65.8         | 89.8         | 144.7        | 114.7        | 110.6        | 92.0         | 54.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.8</b> | <b>631.9</b> | <b>688.8</b> | <b>743.1</b> | <b>814.6</b> | <b>871.1</b> | <b>827.9</b> | <b>832.9</b> | <b>779.5</b> | <b>700.6</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 11.6         | 11.9         | 12.7         | 12.8         | 12.7         | 12.1         | 11.7         | 12.3         | 12.3         | 13.0         | 12.5         | 11.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.7</b>  | <b>12.8</b>  | <b>14.6</b>  | <b>14.8</b>  | <b>14.7</b>  | <b>26.9</b>  | <b>26.9</b>  | <b>27.3</b>  | <b>26.8</b>  | <b>15.0</b>  | <b>13.6</b>  | <b>12.5</b>  |
| Pilots                  | Residential TOU | 17.3         | 16.7         | 13.1         | 13.5         | 16.5         | 59.9         | 90.3         | 72.0         | 80.5         | 20.8         | 19.3         | 16.4         |
|                         | <b>Subtotal</b> | <b>17.3</b>  | <b>16.7</b>  | <b>13.1</b>  | <b>13.5</b>  | <b>16.5</b>  | <b>59.9</b>  | <b>90.3</b>  | <b>72.0</b>  | <b>80.5</b>  | <b>20.8</b>  | <b>19.3</b>  | <b>16.4</b>  |
| <b>Total</b>            |                 | <b>579.6</b> | <b>675.3</b> | <b>659.6</b> | <b>717.1</b> | <b>774.3</b> | <b>901.4</b> | <b>988.3</b> | <b>927.2</b> | <b>940.2</b> | <b>815.3</b> | <b>733.5</b> | <b>568.9</b> |

### Ex Ante Impacts - 2020 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.1          | 8.8          | 12.3         | 19.8         | 22.2         | 27.6         | 27.8         | 28.1         | 26.5         | 21.6         | 14.3         | 9.4          |
|                         | BIP-15          | 156.4        | 169.3        | 156.5        | 169.5        | 178.2        | 180.7        | 180.3        | 181.9        | 181.6        | 180.7        | 187.3        | 165.5        |
|                         | BIP-30          | 381.0        | 405.6        | 379.4        | 395.7        | 381.3        | 389.8        | 367.0        | 382.6        | 385.8        | 376.0        | 384.1        | 361.3        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 3.0          | 14.4         | 15.1         | 15.4         | 20.7         | 20.9         | 22.3         | 18.3         | 13.1         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 36.7         | 41.6         | 75.7         | 147.0        | 165.7        | 169.8        | 86.6         | 31.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 9.2          | 11.6         | 15.1         | 27.7         | 29.9         | 29.8         | 19.4         | 12.2         | 0.0          |
|                         | <b>Subtotal</b> | <b>567.1</b> | <b>604.2</b> | <b>571.8</b> | <b>665.8</b> | <b>657.7</b> | <b>711.8</b> | <b>778.2</b> | <b>816.7</b> | <b>823.4</b> | <b>710.3</b> | <b>663.4</b> | <b>556.8</b> |
| Load Modifying Programs | CPP Large       | 7.4          | 7.4          | 7.4          | 8.0          | 8.2          | 7.9          | 7.9          | 8.0          | 8.0          | 8.5          | 7.6          | 7.4          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.6          | 1.3          | 2.6          | 2.7          | 2.7          | 4.6          | 22.1         | 21.9         | 21.0         | 2.8          | 1.5          | 1.3          |
|                         | <b>Subtotal</b> | <b>8.9</b>   | <b>8.7</b>   | <b>10.0</b>  | <b>10.7</b>  | <b>10.9</b>  | <b>12.5</b>  | <b>30.0</b>  | <b>29.9</b>  | <b>29.0</b>  | <b>11.3</b>  | <b>9.1</b>   | <b>8.7</b>   |
| Pilots                  | Residential TOU | 2.2          | 1.9          | 1.5          | 1.8          | 1.9          | 3.6          | 6.0          | 7.0          | 8.1          | 4.4          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>1.9</b>   | <b>1.5</b>   | <b>1.8</b>   | <b>1.9</b>   | <b>3.6</b>   | <b>6.0</b>   | <b>7.0</b>   | <b>8.1</b>   | <b>4.4</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Total</b>            |                 | <b>578.3</b> | <b>614.8</b> | <b>583.3</b> | <b>678.4</b> | <b>670.5</b> | <b>727.9</b> | <b>814.2</b> | <b>853.5</b> | <b>860.5</b> | <b>726.0</b> | <b>676.5</b> | <b>569.2</b> |

### Ex Ante Impacts - 2021 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 9.8          | 13.8         | 22.1         | 24.7         | 30.6         | 30.7         | 31.0         | 29.3         | 23.9         | 15.8         | 10.5         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.6          | 12.7         | 13.4         | 13.6         | 18.4         | 18.6         | 19.8         | 16.3         | 11.6         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 33.3         | 37.7         | 68.7         | 133.4        | 150.4        | 154.1        | 78.6         | 28.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 11.4         | 14.6         | 19.1         | 35.6         | 38.7         | 38.2         | 24.8         | 15.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.1</b> | <b>584.6</b> | <b>553.7</b> | <b>644.9</b> | <b>636.7</b> | <b>688.9</b> | <b>752.3</b> | <b>789.5</b> | <b>795.2</b> | <b>686.9</b> | <b>642.1</b> | <b>538.3</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 7.8          | 7.8          | 8.5          | 8.7          | 8.4          | 8.3          | 8.5          | 8.5          | 9.0          | 8.1          | 7.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.5          | 1.3          | 2.5          | 2.6          | 2.6          | 4.2          | 20.6         | 20.1         | 19.3         | 2.6          | 1.4          | 1.2          |
|                         | <b>Subtotal</b> | <b>9.3</b>   | <b>9.1</b>   | <b>10.3</b>  | <b>11.1</b>  | <b>11.3</b>  | <b>12.6</b>  | <b>28.9</b>  | <b>28.6</b>  | <b>27.8</b>  | <b>11.6</b>  | <b>9.4</b>   | <b>9.0</b>   |
| Pilots                  | Residential TOU | 4.0          | 3.6          | 2.8          | 3.1          | 3.2          | 6.4          | 11.3         | 13.4         | 19.6         | 7.2          | 10.6         | 12.2         |
|                         | <b>Subtotal</b> | <b>4.0</b>   | <b>3.6</b>   | <b>2.8</b>   | <b>3.1</b>   | <b>3.2</b>   | <b>6.4</b>   | <b>11.3</b>  | <b>13.4</b>  | <b>19.6</b>  | <b>7.2</b>   | <b>10.6</b>  | <b>12.2</b>  |
| <b>Total</b>            |                 | <b>562.4</b> | <b>597.3</b> | <b>566.9</b> | <b>659.0</b> | <b>651.2</b> | <b>708.0</b> | <b>792.5</b> | <b>831.5</b> | <b>842.6</b> | <b>705.7</b> | <b>662.2</b> | <b>559.5</b> |



### Ex Ante Impacts - 2022 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.3          | 11.3         | 11.9         | 12.1         | 16.3         | 16.5         | 17.6         | 14.4         | 10.3         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 31.5         | 35.6         | 64.9         | 126.0        | 142.0        | 145.5        | 74.3         | 27.2         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 14.0         | 17.9         | 23.3         | 43.0         | 46.6         | 46.0         | 29.7         | 18.5         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.9</b> | <b>645.0</b> | <b>637.4</b> | <b>689.0</b> | <b>751.6</b> | <b>788.4</b> | <b>793.6</b> | <b>686.8</b> | <b>643.0</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 8.2          | 8.2          | 8.3          | 9.0          | 9.2          | 8.8          | 8.8          | 8.9          | 8.9          | 9.5          | 8.5          | 8.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.4          | 1.2          | 2.3          | 2.4          | 2.4          | 3.9          | 18.9         | 18.4         | 17.7         | 2.4          | 1.3          | 1.1          |
|                         | <b>Subtotal</b> | <b>9.6</b>   | <b>9.4</b>   | <b>10.5</b>  | <b>11.3</b>  | <b>11.5</b>  | <b>12.7</b>  | <b>27.7</b>  | <b>27.4</b>  | <b>26.6</b>  | <b>11.8</b>  | <b>9.8</b>   | <b>9.3</b>   |
| Pilots                  | Residential TOU | 15.7         | 15.2         | 12.6         | 13.8         | 16.4         | 31.9         | 56.0         | 62.6         | 75.4         | 20.9         | 19.5         | 17.2         |
|                         | <b>Subtotal</b> | <b>15.7</b>  | <b>15.2</b>  | <b>12.6</b>  | <b>13.8</b>  | <b>16.4</b>  | <b>31.9</b>  | <b>56.0</b>  | <b>62.6</b>  | <b>75.4</b>  | <b>20.9</b>  | <b>19.5</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>574.7</b> | <b>609.5</b> | <b>577.1</b> | <b>670.2</b> | <b>665.3</b> | <b>733.6</b> | <b>835.3</b> | <b>878.3</b> | <b>895.5</b> | <b>719.5</b> | <b>672.3</b> | <b>565.3</b> |

### Ex Ante Impacts - 2023 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.1          | 10.1         | 10.6         | 10.8         | 14.5         | 14.6         | 15.6         | 12.8         | 9.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 30.0         | 34.0         | 61.8         | 120.1        | 135.3        | 138.7        | 70.8         | 26.0         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 16.7         | 21.3         | 27.7         | 51.1         | 55.3         | 54.4         | 35.1         | 21.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.7</b> | <b>645.0</b> | <b>637.8</b> | <b>689.0</b> | <b>752.0</b> | <b>788.6</b> | <b>793.2</b> | <b>687.1</b> | <b>643.9</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 8.6          | 8.6          | 8.7          | 9.4          | 9.6          | 9.3          | 9.3          | 9.4          | 9.4          | 10.0         | 8.9          | 8.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.3          | 1.1          | 2.1          | 2.2          | 2.1          | 3.5          | 17.1         | 16.7         | 16.0         | 2.1          | 1.1          | 1.0          |
|                         | <b>Subtotal</b> | <b>9.9</b>   | <b>9.7</b>   | <b>10.8</b>  | <b>11.6</b>  | <b>11.8</b>  | <b>12.8</b>  | <b>26.4</b>  | <b>26.1</b>  | <b>25.4</b>  | <b>12.1</b>  | <b>10.1</b>  | <b>9.6</b>   |
| Pilots                  | Residential TOU | 18.1         | 15.5         | 12.6         | 13.7         | 16.3         | 31.7         | 55.8         | 62.3         | 75.0         | 20.7         | 19.4         | 17.1         |
|                         | <b>Subtotal</b> | <b>18.1</b>  | <b>15.5</b>  | <b>12.6</b>  | <b>13.7</b>  | <b>16.3</b>  | <b>31.7</b>  | <b>55.8</b>  | <b>62.3</b>  | <b>75.0</b>  | <b>20.7</b>  | <b>19.4</b>  | <b>17.1</b>  |
| <b>Total</b>            |                 | <b>577.4</b> | <b>610.1</b> | <b>577.0</b> | <b>670.3</b> | <b>665.8</b> | <b>733.5</b> | <b>834.1</b> | <b>877.0</b> | <b>893.5</b> | <b>719.9</b> | <b>673.3</b> | <b>565.5</b> |

### Ex Ante Impacts - 2024 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.9          | 8.9          | 9.4          | 9.6          | 12.9         | 13.0         | 13.9         | 11.4         | 8.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 28.6         | 32.4         | 59.0         | 114.6        | 129.2        | 132.4        | 67.6         | 24.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 19.4         | 24.7         | 32.0         | 59.0         | 63.7         | 62.5         | 40.2         | 24.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.4</b> | <b>645.2</b> | <b>638.5</b> | <b>689.4</b> | <b>752.8</b> | <b>789.2</b> | <b>793.2</b> | <b>687.5</b> | <b>644.8</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 9.1          | 9.1          | 9.1          | 9.9          | 10.1         | 9.8          | 9.7          | 9.8          | 9.8          | 10.5         | 9.4          | 9.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.2          | 1.0          | 1.9          | 2.0          | 1.9          | 3.2          | 15.4         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.2</b>  | <b>10.0</b>  | <b>11.0</b>  | <b>11.8</b>  | <b>12.0</b>  | <b>12.9</b>  | <b>25.1</b>  | <b>24.8</b>  | <b>24.4</b>  | <b>12.4</b>  | <b>10.4</b>  | <b>10.0</b>  |
| Pilots                  | Residential TOU | 18.0         | 15.5         | 12.5         | 13.6         | 16.2         | 31.6         | 55.6         | 62.0         | 74.7         | 20.6         | 19.3         | 17.1         |
|                         | <b>Subtotal</b> | <b>18.0</b>  | <b>15.5</b>  | <b>12.5</b>  | <b>13.6</b>  | <b>16.2</b>  | <b>31.6</b>  | <b>55.6</b>  | <b>62.0</b>  | <b>74.7</b>  | <b>20.6</b>  | <b>19.3</b>  | <b>17.1</b>  |
| <b>Total</b>            |                 | <b>577.6</b> | <b>610.4</b> | <b>576.9</b> | <b>670.7</b> | <b>666.7</b> | <b>733.9</b> | <b>833.5</b> | <b>876.1</b> | <b>892.3</b> | <b>720.5</b> | <b>674.5</b> | <b>565.8</b> |

### Ex Ante Impacts - 2025 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.7          | 8.0          | 8.4          | 8.5          | 11.5         | 11.6         | 12.4         | 10.2         | 7.3          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 27.4         | 31.0         | 56.4         | 109.6        | 123.5        | 126.6        | 64.6         | 23.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 21.9         | 27.8         | 35.9         | 66.1         | 71.2         | 69.6         | 44.7         | 27.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.2</b> | <b>645.5</b> | <b>639.1</b> | <b>689.6</b> | <b>753.4</b> | <b>789.6</b> | <b>793.1</b> | <b>687.9</b> | <b>645.5</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 9.5          | 9.5          | 9.5          | 10.3         | 10.6         | 10.2         | 10.2         | 10.3         | 10.3         | 10.9         | 9.8          | 9.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.6</b>  | <b>10.4</b>  | <b>11.3</b>  | <b>12.2</b>  | <b>12.4</b>  | <b>13.3</b>  | <b>25.3</b>  | <b>25.3</b>  | <b>24.8</b>  | <b>12.9</b>  | <b>10.9</b>  | <b>10.4</b>  |
| Pilots                  | Residential TOU | 17.9         | 15.4         | 12.5         | 13.5         | 16.1         | 31.4         | 55.4         | 61.8         | 74.5         | 20.6         | 19.3         | 17.0         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.4</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>16.1</b>  | <b>31.4</b>  | <b>55.4</b>  | <b>61.8</b>  | <b>74.5</b>  | <b>20.6</b>  | <b>19.3</b>  | <b>17.0</b>  |
| <b>Total</b>            |                 | <b>577.9</b> | <b>610.7</b> | <b>577.1</b> | <b>671.2</b> | <b>667.6</b> | <b>734.4</b> | <b>834.2</b> | <b>876.7</b> | <b>892.4</b> | <b>721.3</b> | <b>675.7</b> | <b>566.2</b> |

### Ex Ante Impacts - 2026 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.5          | 7.1          | 7.5          | 7.6          | 10.3         | 10.4         | 11.1         | 9.1          | 6.5          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 26.2         | 29.7         | 54.0         | 105.0        | 118.3        | 121.2        | 61.9         | 22.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 24.1         | 30.5         | 39.4         | 72.3         | 77.8         | 76.0         | 48.7         | 30.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.0</b> | <b>645.6</b> | <b>639.6</b> | <b>689.8</b> | <b>753.8</b> | <b>789.7</b> | <b>792.7</b> | <b>688.0</b> | <b>646.1</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 9.9          | 9.9          | 10.0         | 10.8         | 11.0         | 10.7         | 10.6         | 10.8         | 10.8         | 11.4         | 10.2         | 9.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.0</b>  | <b>10.8</b>  | <b>11.8</b>  | <b>12.7</b>  | <b>12.9</b>  | <b>13.8</b>  | <b>25.8</b>  | <b>25.8</b>  | <b>25.3</b>  | <b>13.4</b>  | <b>11.3</b>  | <b>10.8</b>  |
| Pilots                  | Residential TOU | 17.9         | 15.3         | 12.4         | 13.4         | 16.1         | 31.3         | 55.2         | 61.5         | 74.3         | 20.5         | 19.2         | 16.9         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.1</b>  | <b>31.3</b>  | <b>55.2</b>  | <b>61.5</b>  | <b>74.3</b>  | <b>20.5</b>  | <b>19.2</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>578.3</b> | <b>611.0</b> | <b>577.2</b> | <b>671.7</b> | <b>668.6</b> | <b>734.9</b> | <b>834.8</b> | <b>876.9</b> | <b>892.3</b> | <b>721.9</b> | <b>676.6</b> | <b>566.5</b> |

Ex Ante Impacts - 2027 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.3          | 6.4          | 6.7          | 6.8          | 9.2          | 9.3          | 9.9          | 8.1          | 5.8          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 25.1         | 28.5         | 51.8         | 100.7        | 113.4        | 116.2        | 59.3         | 21.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 26.0         | 32.9         | 42.4         | 77.8         | 83.6         | 81.6         | 52.2         | 32.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.9</b> | <b>645.7</b> | <b>640.0</b> | <b>689.8</b> | <b>753.9</b> | <b>789.5</b> | <b>792.1</b> | <b>688.0</b> | <b>646.6</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 10.3         | 10.3         | 10.4         | 11.3         | 11.5         | 11.1         | 11.1         | 11.2         | 11.2         | 11.9         | 10.7         | 10.3         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.4</b>  | <b>11.2</b>  | <b>12.2</b>  | <b>13.1</b>  | <b>13.4</b>  | <b>14.2</b>  | <b>26.2</b>  | <b>26.2</b>  | <b>25.8</b>  | <b>13.9</b>  | <b>11.7</b>  | <b>11.2</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.3         | 12.4         | 13.4         | 16.0         | 31.2         | 55.0         | 61.4         | 74.0         | 20.4         | 19.1         | 16.9         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.0</b>  | <b>31.2</b>  | <b>55.0</b>  | <b>61.4</b>  | <b>74.0</b>  | <b>20.4</b>  | <b>19.1</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>578.6</b> | <b>611.5</b> | <b>577.5</b> | <b>672.3</b> | <b>669.4</b> | <b>735.3</b> | <b>835.1</b> | <b>877.1</b> | <b>891.9</b> | <b>722.3</b> | <b>677.5</b> | <b>566.9</b> |

### Ex Ante Impacts - 2028 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.2          | 5.7          | 6.0          | 6.1          | 8.2          | 8.3          | 8.8          | 7.2          | 5.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 24.1         | 27.3         | 49.7         | 96.7         | 108.9        | 111.6        | 57.0         | 20.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 27.8         | 35.0         | 45.1         | 82.7         | 88.7         | 86.5         | 55.4         | 34.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.7</b> | <b>645.8</b> | <b>640.3</b> | <b>689.7</b> | <b>753.8</b> | <b>789.2</b> | <b>791.4</b> | <b>687.9</b> | <b>647.1</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 10.8         | 10.8         | 10.8         | 11.7         | 12.0         | 11.6         | 11.5         | 11.7         | 11.7         | 12.4         | 11.1         | 10.7         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.8</b>  | <b>11.7</b>  | <b>12.6</b>  | <b>13.6</b>  | <b>13.9</b>  | <b>14.7</b>  | <b>26.7</b>  | <b>26.7</b>  | <b>26.2</b>  | <b>14.3</b>  | <b>12.2</b>  | <b>11.7</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.2         | 12.3         | 13.3         | 16.0         | 31.1         | 54.9         | 61.2         | 73.9         | 20.3         | 19.1         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>16.0</b>  | <b>31.1</b>  | <b>54.9</b>  | <b>61.2</b>  | <b>73.9</b>  | <b>20.3</b>  | <b>19.1</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>578.9</b> | <b>611.8</b> | <b>577.7</b> | <b>672.7</b> | <b>670.1</b> | <b>735.5</b> | <b>835.4</b> | <b>877.1</b> | <b>891.5</b> | <b>722.6</b> | <b>678.3</b> | <b>567.2</b> |

### Ex Ante Impacts - 2029 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.1          | 5.1          | 5.4          | 5.4          | 7.3          | 7.4          | 7.9          | 6.5          | 4.6          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 23.2         | 26.3         | 47.8         | 93.0         | 104.7        | 107.3        | 54.8         | 20.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 29.3         | 36.9         | 47.5         | 87.0         | 93.2         | 90.8         | 58.1         | 35.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.6</b> | <b>645.8</b> | <b>640.5</b> | <b>689.6</b> | <b>753.5</b> | <b>788.6</b> | <b>790.5</b> | <b>687.7</b> | <b>647.4</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 11.2         | 11.2         | 11.2         | 12.2         | 12.5         | 12.0         | 12.0         | 12.1         | 12.1         | 12.9         | 11.6         | 11.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.3</b>  | <b>12.1</b>  | <b>13.0</b>  | <b>14.1</b>  | <b>14.3</b>  | <b>15.2</b>  | <b>27.1</b>  | <b>27.1</b>  | <b>26.7</b>  | <b>14.8</b>  | <b>12.6</b>  | <b>12.1</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.2         | 12.3         | 13.3         | 15.9         | 31.1         | 54.8         | 61.0         | 73.7         | 20.3         | 19.0         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.1</b>  | <b>54.8</b>  | <b>61.0</b>  | <b>73.7</b>  | <b>20.3</b>  | <b>19.0</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>579.3</b> | <b>612.2</b> | <b>578.0</b> | <b>673.1</b> | <b>670.7</b> | <b>735.8</b> | <b>835.4</b> | <b>876.8</b> | <b>890.9</b> | <b>722.9</b> | <b>679.0</b> | <b>567.7</b> |



Ex Ante Impacts - 2030 Program SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 0.9          | 4.6          | 4.8          | 4.9          | 6.6          | 6.6          | 7.1          | 5.8          | 4.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 22.3         | 25.3         | 46.0         | 89.5         | 100.8        | 103.3        | 52.7         | 19.3         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 30.6         | 38.5         | 49.6         | 90.7         | 97.2         | 94.7         | 60.6         | 37.2         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.5</b> | <b>645.7</b> | <b>640.6</b> | <b>689.3</b> | <b>753.0</b> | <b>788.0</b> | <b>789.6</b> | <b>687.5</b> | <b>647.6</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 11.6         | 11.6         | 11.7         | 12.7         | 12.9         | 12.5         | 12.4         | 12.6         | 12.6         | 13.4         | 12.0         | 11.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.7</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>14.5</b>  | <b>14.8</b>  | <b>15.6</b>  | <b>27.6</b>  | <b>27.6</b>  | <b>27.1</b>  | <b>15.3</b>  | <b>13.1</b>  | <b>12.5</b>  |
| Pilots                  | Residential TOU | 17.6         | 15.1         | 12.3         | 13.3         | 15.9         | 31.0         | 54.7         | 60.9         | 73.6         | 20.2         | 19.0         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>15.1</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.0</b>  | <b>54.7</b>  | <b>60.9</b>  | <b>73.6</b>  | <b>20.2</b>  | <b>19.0</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>579.7</b> | <b>612.5</b> | <b>578.3</b> | <b>673.5</b> | <b>671.3</b> | <b>735.9</b> | <b>835.3</b> | <b>876.5</b> | <b>890.3</b> | <b>723.0</b> | <b>679.7</b> | <b>568.1</b> |

Ex Ante Impacts - 2020 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.4          | 8.7          | 19.5         | 23.6         | 26.8         | 28.6         | 28.5         | 28.8         | 28.6         | 25.9         | 17.2         | 11.2         |
|                         | BIP-15          | 154.8        | 168.1        | 155.3        | 167.9        | 179.7        | 181.6        | 180.6        | 182.0        | 182.2        | 179.3        | 186.0        | 163.8        |
|                         | BIP-30          | 381.3        | 404.2        | 385.2        | 400.0        | 389.1        | 398.2        | 368.0        | 383.3        | 388.9        | 377.1        | 387.6        | 361.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 15.3         | 17.8         | 22.0         | 24.9         | 22.1         | 23.7         | 24.2         | 19.0         | 16.9         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 43.1         | 82.6         | 138.2        | 198.9        | 175.8        | 185.3        | 198.8        | 120.0        | 79.0         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 11.0         | 12.8         | 19.9         | 28.5         | 30.9         | 33.0         | 33.9         | 21.3         | 17.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>566.1</b> | <b>601.6</b> | <b>650.1</b> | <b>725.4</b> | <b>783.2</b> | <b>868.3</b> | <b>813.5</b> | <b>843.7</b> | <b>864.1</b> | <b>750.2</b> | <b>724.9</b> | <b>557.0</b> |
| Load Modifying Programs | CPP Large       | 7.4          | 7.4          | 8.2          | 8.4          | 8.1          | 7.7          | 7.8          | 7.7          | 7.9          | 8.1          | 8.0          | 7.4          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.6          | 1.3          | 2.8          | 2.9          | 2.9          | 21.6         | 22.1         | 21.9         | 21.0         | 2.8          | 1.5          | 1.3          |
|                         | <b>Subtotal</b> | <b>8.9</b>   | <b>8.7</b>   | <b>11.0</b>  | <b>11.3</b>  | <b>11.0</b>  | <b>29.3</b>  | <b>29.9</b>  | <b>29.6</b>  | <b>28.8</b>  | <b>10.9</b>  | <b>9.5</b>   | <b>8.7</b>   |
| Pilots                  | Residential TOU | 2.2          | 1.9          | 1.7          | 1.9          | 2.0          | 7.1          | 6.2          | 7.6          | 8.5          | 4.4          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>1.9</b>   | <b>1.7</b>   | <b>1.9</b>   | <b>2.0</b>   | <b>7.1</b>   | <b>6.2</b>   | <b>7.6</b>   | <b>8.5</b>   | <b>4.4</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Total</b>            |                 | <b>577.3</b> | <b>612.2</b> | <b>662.7</b> | <b>738.6</b> | <b>796.2</b> | <b>904.7</b> | <b>849.6</b> | <b>880.9</b> | <b>901.5</b> | <b>765.5</b> | <b>738.4</b> | <b>569.4</b> |

Ex Ante Impacts - 2021 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 9.8          | 21.9         | 26.4         | 29.8         | 31.7         | 31.5         | 31.7         | 31.5         | 28.6         | 19.1         | 12.4         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 13.6         | 15.8         | 19.5         | 22.1         | 19.6         | 21.0         | 21.4         | 16.8         | 15.0         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 39.1         | 75.0         | 125.5        | 180.5        | 159.6        | 168.2        | 180.4        | 108.9        | 71.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 13.5         | 16.0         | 25.0         | 36.3         | 39.6         | 42.7         | 43.5         | 27.1         | 22.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.2</b> | <b>582.1</b> | <b>630.0</b> | <b>701.2</b> | <b>755.0</b> | <b>836.5</b> | <b>785.7</b> | <b>815.3</b> | <b>834.3</b> | <b>724.7</b> | <b>700.7</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 7.8          | 8.7          | 8.9          | 8.5          | 8.1          | 8.2          | 8.2          | 8.3          | 8.6          | 8.4          | 7.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.5          | 1.3          | 2.7          | 2.8          | 2.8          | 20.2         | 20.6         | 20.1         | 19.3         | 2.6          | 1.4          | 1.2          |
|                         | <b>Subtotal</b> | <b>9.3</b>   | <b>9.1</b>   | <b>11.3</b>  | <b>11.7</b>  | <b>11.3</b>  | <b>28.3</b>  | <b>28.8</b>  | <b>28.3</b>  | <b>27.6</b>  | <b>11.2</b>  | <b>9.8</b>   | <b>9.0</b>   |
| Pilots                  | Residential TOU | 3.9          | 3.6          | 3.1          | 3.3          | 3.4          | 13.9         | 11.4         | 14.6         | 20.7         | 7.2          | 10.8         | 11.9         |
|                         | <b>Subtotal</b> | <b>3.9</b>   | <b>3.6</b>   | <b>3.1</b>   | <b>3.3</b>   | <b>3.4</b>   | <b>13.9</b>  | <b>11.4</b>  | <b>14.6</b>  | <b>20.7</b>  | <b>7.2</b>   | <b>10.8</b>  | <b>11.9</b>  |
| <b>Total</b>            |                 | <b>561.5</b> | <b>594.8</b> | <b>644.5</b> | <b>716.2</b> | <b>769.7</b> | <b>878.6</b> | <b>825.9</b> | <b>858.3</b> | <b>882.7</b> | <b>743.0</b> | <b>721.3</b> | <b>559.7</b> |

Ex Ante Impacts - 2022 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 12.1         | 14.0         | 17.3         | 19.6         | 17.4         | 18.7         | 19.0         | 15.0         | 13.3         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 36.9         | 70.9         | 118.5        | 170.5        | 150.7        | 158.9        | 170.4        | 102.9        | 67.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 16.7         | 19.6         | 30.5         | 44.1         | 48.0         | 51.4         | 52.3         | 32.6         | 26.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.3</b> | <b>699.9</b> | <b>752.6</b> | <b>833.1</b> | <b>784.4</b> | <b>813.8</b> | <b>832.2</b> | <b>723.5</b> | <b>700.4</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 8.2          | 8.2          | 9.1          | 9.4          | 9.0          | 8.5          | 8.7          | 8.6          | 8.8          | 9.0          | 8.9          | 8.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.4          | 1.2          | 2.5          | 2.6          | 2.5          | 18.5         | 18.9         | 18.4         | 17.7         | 2.4          | 1.3          | 1.1          |
|                         | <b>Subtotal</b> | <b>9.6</b>   | <b>9.4</b>   | <b>11.6</b>  | <b>12.0</b>  | <b>11.5</b>  | <b>27.0</b>  | <b>27.5</b>  | <b>27.1</b>  | <b>26.4</b>  | <b>11.4</b>  | <b>10.2</b>  | <b>9.3</b>   |
| Pilots                  | Residential TOU | 15.5         | 15.2         | 13.8         | 14.6         | 17.0         | 65.0         | 57.1         | 68.1         | 79.7         | 20.8         | 19.8         | 16.9         |
|                         | <b>Subtotal</b> | <b>15.5</b>  | <b>15.2</b>  | <b>13.8</b>  | <b>14.6</b>  | <b>17.0</b>  | <b>65.0</b>  | <b>57.1</b>  | <b>68.1</b>  | <b>79.7</b>  | <b>20.8</b>  | <b>19.8</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>573.7</b> | <b>607.0</b> | <b>655.7</b> | <b>726.5</b> | <b>781.1</b> | <b>925.1</b> | <b>869.0</b> | <b>909.0</b> | <b>938.3</b> | <b>755.7</b> | <b>730.4</b> | <b>565.6</b> |

Ex Ante Impacts - 2023 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 10.7         | 12.5         | 15.4         | 17.4         | 15.5         | 16.6         | 16.9         | 13.3         | 11.8         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 35.2         | 67.5         | 112.9        | 162.5        | 143.6        | 151.4        | 162.4        | 98.0         | 64.5         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 19.9         | 23.4         | 36.4         | 52.4         | 57.0         | 60.9         | 61.9         | 38.4         | 31.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.4</b> | <b>698.8</b> | <b>750.9</b> | <b>831.3</b> | <b>784.3</b> | <b>813.9</b> | <b>831.6</b> | <b>722.9</b> | <b>700.5</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 8.6          | 8.6          | 9.6          | 9.9          | 9.5          | 9.0          | 9.1          | 9.1          | 9.2          | 9.5          | 9.3          | 8.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.3          | 1.1          | 2.2          | 2.3          | 2.3          | 16.8         | 17.1         | 16.7         | 16.0         | 2.1          | 1.1          | 1.0          |
|                         | <b>Subtotal</b> | <b>9.9</b>   | <b>9.7</b>   | <b>11.8</b>  | <b>12.2</b>  | <b>11.8</b>  | <b>25.7</b>  | <b>26.2</b>  | <b>25.8</b>  | <b>25.2</b>  | <b>11.6</b>  | <b>10.5</b>  | <b>9.6</b>   |
| Pilots                  | Residential TOU | 17.8         | 15.6         | 13.7         | 14.5         | 16.9         | 64.7         | 56.9         | 67.8         | 79.4         | 20.7         | 19.7         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.6</b>  | <b>13.7</b>  | <b>14.5</b>  | <b>16.9</b>  | <b>64.7</b>  | <b>56.9</b>  | <b>67.8</b>  | <b>79.4</b>  | <b>20.7</b>  | <b>19.7</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>576.3</b> | <b>607.8</b> | <b>656.0</b> | <b>725.5</b> | <b>779.5</b> | <b>921.7</b> | <b>867.5</b> | <b>907.4</b> | <b>936.2</b> | <b>755.2</b> | <b>730.7</b> | <b>565.8</b> |

Ex Ante Impacts - 2024 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 9.6          | 11.1         | 13.7         | 15.5         | 13.8         | 14.8         | 15.1         | 11.8         | 10.5         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 33.6         | 64.4         | 107.8        | 155.1        | 137.1        | 144.5        | 155.0        | 93.6         | 61.6         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 23.2         | 27.2         | 42.2         | 60.7         | 65.8         | 70.2         | 71.1         | 44.0         | 36.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.9</b> | <b>698.1</b> | <b>749.9</b> | <b>830.2</b> | <b>784.9</b> | <b>814.4</b> | <b>831.6</b> | <b>722.5</b> | <b>700.8</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 9.1          | 9.1          | 10.1         | 10.4         | 9.9          | 9.4          | 9.6          | 9.5          | 9.7          | 10.0         | 9.8          | 9.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.2          | 1.0          | 2.0          | 2.1          | 2.1          | 15.1         | 15.4         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.2</b>  | <b>10.0</b>  | <b>12.1</b>  | <b>12.5</b>  | <b>12.0</b>  | <b>24.5</b>  | <b>24.9</b>  | <b>24.5</b>  | <b>24.2</b>  | <b>11.9</b>  | <b>10.9</b>  | <b>10.0</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.5         | 13.6         | 14.4         | 16.8         | 64.4         | 56.6         | 67.5         | 79.1         | 20.6         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.5</b>  | <b>13.6</b>  | <b>14.4</b>  | <b>16.8</b>  | <b>64.4</b>  | <b>56.6</b>  | <b>67.5</b>  | <b>79.1</b>  | <b>20.6</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>576.5</b> | <b>608.0</b> | <b>656.6</b> | <b>725.0</b> | <b>778.6</b> | <b>919.1</b> | <b>866.5</b> | <b>906.5</b> | <b>934.9</b> | <b>755.0</b> | <b>731.2</b> | <b>566.1</b> |

Ex Ante Impacts - 2025 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 8.5          | 9.9          | 12.2         | 13.8         | 12.3         | 13.2         | 13.4         | 10.5         | 9.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 32.1         | 61.6         | 103.1        | 148.3        | 131.1        | 138.2        | 148.2        | 89.5         | 58.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 26.2         | 30.6         | 47.4         | 68.1         | 73.6         | 78.4         | 79.2         | 49.0         | 40.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>631.4</b> | <b>697.5</b> | <b>748.9</b> | <b>829.1</b> | <b>785.2</b> | <b>814.7</b> | <b>831.3</b> | <b>722.1</b> | <b>700.9</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 9.5          | 9.5          | 10.5         | 10.9         | 10.4         | 9.9          | 10.0         | 10.0         | 10.1         | 10.4         | 10.3         | 9.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.6</b>  | <b>10.4</b>  | <b>12.5</b>  | <b>12.9</b>  | <b>12.4</b>  | <b>24.7</b>  | <b>25.2</b>  | <b>25.0</b>  | <b>24.7</b>  | <b>12.4</b>  | <b>11.3</b>  | <b>10.4</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.4         | 13.6         | 14.3         | 16.8         | 64.2         | 56.4         | 67.3         | 78.8         | 20.5         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.4</b>  | <b>13.6</b>  | <b>14.3</b>  | <b>16.8</b>  | <b>64.2</b>  | <b>56.4</b>  | <b>67.3</b>  | <b>78.8</b>  | <b>20.5</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>576.8</b> | <b>608.3</b> | <b>657.5</b> | <b>724.7</b> | <b>778.1</b> | <b>918.0</b> | <b>866.8</b> | <b>907.0</b> | <b>934.7</b> | <b>755.0</b> | <b>731.8</b> | <b>566.5</b> |

Ex Ante Impacts - 2026 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 7.6          | 8.8          | 10.9         | 12.3         | 11.0         | 11.7         | 12.0         | 9.4          | 8.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 30.8         | 59.0         | 98.7         | 142.0        | 125.5        | 132.3        | 141.9        | 85.7         | 56.4         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 28.9         | 33.7         | 52.1         | 74.6         | 80.6         | 85.7         | 86.4         | 53.3         | 43.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>631.8</b> | <b>696.9</b> | <b>747.9</b> | <b>827.9</b> | <b>785.3</b> | <b>814.6</b> | <b>830.7</b> | <b>721.5</b> | <b>700.9</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 9.9          | 9.9          | 11.0         | 11.3         | 10.8         | 10.3         | 10.5         | 10.4         | 10.6         | 10.9         | 10.7         | 9.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.0</b>  | <b>10.8</b>  | <b>12.9</b>  | <b>13.4</b>  | <b>12.9</b>  | <b>25.2</b>  | <b>25.6</b>  | <b>25.4</b>  | <b>25.1</b>  | <b>12.8</b>  | <b>11.8</b>  | <b>10.8</b>  |
| Pilots                  | Residential TOU | 17.6         | 15.4         | 13.5         | 14.3         | 16.7         | 64.0         | 56.3         | 67.0         | 78.6         | 20.4         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>15.4</b>  | <b>13.5</b>  | <b>14.3</b>  | <b>16.7</b>  | <b>64.0</b>  | <b>56.3</b>  | <b>67.0</b>  | <b>78.6</b>  | <b>20.4</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>577.1</b> | <b>608.7</b> | <b>658.3</b> | <b>724.6</b> | <b>777.4</b> | <b>917.0</b> | <b>867.2</b> | <b>907.1</b> | <b>934.5</b> | <b>754.8</b> | <b>732.2</b> | <b>566.8</b> |



Ex Ante Impacts - 2027 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 6.8          | 7.9          | 9.7          | 11.0         | 9.8          | 10.5         | 10.7         | 8.4          | 7.5          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 29.5         | 56.6         | 94.6         | 136.2        | 120.4        | 126.9        | 136.1        | 82.2         | 54.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 31.3         | 36.4         | 56.2         | 80.4         | 86.7         | 92.1         | 92.8         | 57.2         | 46.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.1</b> | <b>696.3</b> | <b>746.8</b> | <b>826.5</b> | <b>785.1</b> | <b>814.4</b> | <b>830.0</b> | <b>720.9</b> | <b>700.8</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 10.3         | 10.3         | 11.5         | 11.8         | 11.3         | 10.7         | 10.9         | 10.9         | 11.0         | 11.4         | 11.2         | 10.3         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.4</b>  | <b>11.2</b>  | <b>13.4</b>  | <b>13.8</b>  | <b>13.3</b>  | <b>25.6</b>  | <b>26.1</b>  | <b>25.9</b>  | <b>25.6</b>  | <b>13.3</b>  | <b>12.2</b>  | <b>11.2</b>  |
| Pilots                  | Residential TOU | 17.5         | 15.3         | 13.4         | 14.2         | 16.6         | 63.8         | 56.1         | 66.8         | 78.4         | 20.4         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>15.3</b>  | <b>13.4</b>  | <b>14.2</b>  | <b>16.6</b>  | <b>63.8</b>  | <b>56.1</b>  | <b>66.8</b>  | <b>78.4</b>  | <b>20.4</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>577.5</b> | <b>609.0</b> | <b>658.9</b> | <b>724.3</b> | <b>776.7</b> | <b>915.9</b> | <b>867.3</b> | <b>907.0</b> | <b>934.0</b> | <b>754.6</b> | <b>732.5</b> | <b>567.2</b> |

Ex Ante Impacts - 2028 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 6.1          | 7.0          | 8.7          | 9.8          | 8.8          | 9.4          | 9.6          | 7.5          | 6.7          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 28.3         | 54.3         | 90.9         | 130.8        | 115.6        | 121.9        | 130.7        | 78.9         | 51.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 33.3         | 38.8         | 59.8         | 85.5         | 92.1         | 97.7         | 98.4         | 60.6         | 49.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.3</b> | <b>695.6</b> | <b>745.6</b> | <b>825.0</b> | <b>784.7</b> | <b>813.9</b> | <b>829.1</b> | <b>720.1</b> | <b>700.6</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 10.8         | 10.7         | 12.0         | 12.3         | 11.8         | 11.2         | 11.3         | 11.3         | 11.5         | 11.8         | 11.6         | 10.8         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.8</b>  | <b>11.7</b>  | <b>13.9</b>  | <b>14.3</b>  | <b>13.8</b>  | <b>26.0</b>  | <b>26.5</b>  | <b>26.3</b>  | <b>26.0</b>  | <b>13.8</b>  | <b>12.7</b>  | <b>11.7</b>  |
| Pilots                  | Residential TOU | 17.5         | 15.2         | 13.4         | 14.1         | 16.6         | 63.6         | 56.0         | 66.6         | 78.2         | 20.3         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>15.2</b>  | <b>13.4</b>  | <b>14.1</b>  | <b>16.6</b>  | <b>63.6</b>  | <b>56.0</b>  | <b>66.6</b>  | <b>78.2</b>  | <b>20.3</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>577.9</b> | <b>609.3</b> | <b>659.6</b> | <b>724.0</b> | <b>776.0</b> | <b>914.7</b> | <b>867.2</b> | <b>906.8</b> | <b>933.3</b> | <b>754.2</b> | <b>732.7</b> | <b>567.6</b> |

Ex Ante Impacts - 2029 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 5.4          | 6.3          | 7.8          | 8.8          | 7.8          | 8.4          | 8.6          | 6.7          | 6.0          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 27.2         | 52.2         | 87.4         | 125.7        | 111.1        | 117.2        | 125.7        | 75.9         | 49.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 35.2         | 40.9         | 63.0         | 90.0         | 96.9         | 102.7        | 103.3        | 63.6         | 51.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.4</b> | <b>694.8</b> | <b>744.4</b> | <b>823.5</b> | <b>784.1</b> | <b>813.2</b> | <b>828.0</b> | <b>719.3</b> | <b>700.3</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 11.2         | 11.2         | 12.4         | 12.8         | 12.2         | 11.6         | 11.8         | 11.7         | 11.9         | 12.3         | 12.1         | 11.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.3</b>  | <b>12.1</b>  | <b>14.4</b>  | <b>14.8</b>  | <b>14.2</b>  | <b>26.5</b>  | <b>27.0</b>  | <b>26.7</b>  | <b>26.5</b>  | <b>14.2</b>  | <b>13.1</b>  | <b>12.1</b>  |
| Pilots                  | Residential TOU | 17.4         | 15.2         | 13.4         | 14.1         | 16.5         | 63.5         | 55.8         | 66.5         | 78.0         | 20.2         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>15.2</b>  | <b>13.4</b>  | <b>14.1</b>  | <b>16.5</b>  | <b>63.5</b>  | <b>55.8</b>  | <b>66.5</b>  | <b>78.0</b>  | <b>20.2</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>578.2</b> | <b>609.7</b> | <b>660.2</b> | <b>723.8</b> | <b>775.1</b> | <b>913.4</b> | <b>866.9</b> | <b>906.4</b> | <b>932.5</b> | <b>753.7</b> | <b>732.8</b> | <b>568.0</b> |

Ex Ante Impacts - 2030 Program CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 4.9          | 5.6          | 7.0          | 7.9          | 7.0          | 7.5          | 7.7          | 6.0          | 5.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 26.2         | 50.3         | 84.1         | 121.0        | 107.0        | 112.8        | 121.0        | 73.0         | 48.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 36.8         | 42.7         | 65.8         | 94.0         | 101.1        | 107.1        | 107.7        | 66.3         | 54.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.5</b> | <b>694.1</b> | <b>743.1</b> | <b>821.8</b> | <b>783.4</b> | <b>812.3</b> | <b>826.8</b> | <b>718.5</b> | <b>700.0</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 11.6         | 11.6         | 12.9         | 13.3         | 12.7         | 12.1         | 12.2         | 12.2         | 12.4         | 12.8         | 12.5         | 11.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.9          | 2.0          | 2.0          | 14.9         | 15.2         | 15.0         | 14.5         | 1.9          | 1.1          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.7</b>  | <b>12.5</b>  | <b>14.8</b>  | <b>15.3</b>  | <b>14.7</b>  | <b>26.9</b>  | <b>27.4</b>  | <b>27.2</b>  | <b>26.9</b>  | <b>14.7</b>  | <b>13.6</b>  | <b>12.5</b>  |
| Pilots                  | Residential TOU | 17.4         | 15.2         | 13.3         | 14.0         | 16.5         | 63.3         | 55.7         | 66.3         | 77.8         | 20.2         | 19.3         | 16.4         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>15.2</b>  | <b>13.3</b>  | <b>14.0</b>  | <b>16.5</b>  | <b>63.3</b>  | <b>55.7</b>  | <b>66.3</b>  | <b>77.8</b>  | <b>20.2</b>  | <b>19.3</b>  | <b>16.4</b>  |
| <b>Total</b>            |                 | <b>578.6</b> | <b>610.2</b> | <b>660.6</b> | <b>723.4</b> | <b>774.3</b> | <b>912.0</b> | <b>866.5</b> | <b>905.8</b> | <b>931.5</b> | <b>753.4</b> | <b>732.9</b> | <b>568.3</b> |

Ex Ante Impacts - 2020 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 8.8          | 8.8          | 12.2         | 21.3         | 24.8         | 28.3         | 27.5         | 28.1         | 26.1         | 23.6         | 11.1         | 8.6          |
|                         | BIP-15          | 156.5        | 169.3        | 156.5        | 169.6        | 178.2        | 180.8        | 180.4        | 182.0        | 182.2        | 180.7        | 187.3        | 165.7        |
|                         | BIP-30          | 381.1        | 404.6        | 379.4        | 394.1        | 379.9        | 389.3        | 367.3        | 382.7        | 387.5        | 374.5        | 380.8        | 361.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 3.0          | 12.9         | 14.8         | 16.2         | 20.4         | 20.8         | 22.3         | 16.3         | 7.5          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 18.5         | 47.6         | 75.3         | 144.8        | 164.7        | 176.6        | 75.6         | 2.9          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 11.2         | 15.3         | 27.5         | 29.6         | 30.3         | 17.5         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>567.0</b> | <b>603.3</b> | <b>571.6</b> | <b>637.0</b> | <b>664.1</b> | <b>712.7</b> | <b>775.4</b> | <b>815.5</b> | <b>832.6</b> | <b>695.8</b> | <b>610.1</b> | <b>556.6</b> |
| Load Modifying Programs | CPP Large       | 7.4          | 7.4          | 7.4          | 8.2          | 8.1          | 7.9          | 8.0          | 8.1          | 8.2          | 8.4          | 7.3          | 7.3          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.6          | 1.3          | 2.6          | 2.7          | 2.7          | 4.6          | 22.1         | 21.9         | 21.0         | 2.8          | 1.5          | 1.3          |
|                         | <b>Subtotal</b> | <b>8.9</b>   | <b>8.7</b>   | <b>10.0</b>  | <b>10.9</b>  | <b>10.9</b>  | <b>12.4</b>  | <b>30.1</b>  | <b>29.9</b>  | <b>29.2</b>  | <b>11.2</b>  | <b>8.7</b>   | <b>8.6</b>   |
| Pilots                  | Residential TOU | 2.3          | 1.9          | 1.5          | 1.8          | 1.9          | 3.6          | 5.9          | 6.9          | 8.1          | 4.3          | 3.9          | 3.9          |
|                         | <b>Subtotal</b> | <b>2.3</b>   | <b>1.9</b>   | <b>1.5</b>   | <b>1.8</b>   | <b>1.9</b>   | <b>3.6</b>   | <b>5.9</b>   | <b>6.9</b>   | <b>8.1</b>   | <b>4.3</b>   | <b>3.9</b>   | <b>3.9</b>   |
| <b>Total</b>            |                 | <b>578.3</b> | <b>613.9</b> | <b>583.1</b> | <b>649.7</b> | <b>676.9</b> | <b>728.7</b> | <b>811.4</b> | <b>852.3</b> | <b>869.9</b> | <b>711.3</b> | <b>622.7</b> | <b>569.2</b> |

Ex Ante Impacts - 2021 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.0         | 9.9          | 13.6         | 23.8         | 27.6         | 31.4         | 30.3         | 30.9         | 28.8         | 26.1         | 12.2         | 9.6          |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.7          | 11.5         | 13.1         | 14.3         | 18.1         | 18.4         | 19.8         | 14.5         | 6.6          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 16.8         | 43.2         | 68.3         | 131.4        | 149.5        | 160.3        | 68.6         | 2.6          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 14.1         | 19.4         | 35.2         | 38.3         | 38.9         | 22.3         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>548.9</b> | <b>583.8</b> | <b>553.6</b> | <b>615.9</b> | <b>642.9</b> | <b>689.9</b> | <b>749.6</b> | <b>788.3</b> | <b>803.8</b> | <b>673.4</b> | <b>588.6</b> | <b>538.0</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 7.8          | 7.8          | 8.6          | 8.6          | 8.3          | 8.4          | 8.5          | 8.7          | 8.9          | 7.7          | 7.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.5          | 1.3          | 2.5          | 2.6          | 2.6          | 4.2          | 20.6         | 20.1         | 19.3         | 2.6          | 1.3          | 1.2          |
|                         | <b>Subtotal</b> | <b>9.3</b>   | <b>9.1</b>   | <b>10.3</b>  | <b>11.2</b>  | <b>11.2</b>  | <b>12.6</b>  | <b>29.0</b>  | <b>28.7</b>  | <b>28.0</b>  | <b>11.4</b>  | <b>9.0</b>   | <b>8.9</b>   |
| Pilots                  | Residential TOU | 4.0          | 3.6          | 2.8          | 3.1          | 3.2          | 6.3          | 11.0         | 13.0         | 19.7         | 7.1          | 10.4         | 12.5         |
|                         | <b>Subtotal</b> | <b>4.0</b>   | <b>3.6</b>   | <b>2.8</b>   | <b>3.1</b>   | <b>3.2</b>   | <b>6.3</b>   | <b>11.0</b>  | <b>13.0</b>  | <b>19.7</b>  | <b>7.1</b>   | <b>10.4</b>  | <b>12.5</b>  |
| <b>Total</b>            |                 | <b>562.3</b> | <b>596.4</b> | <b>566.7</b> | <b>630.2</b> | <b>657.2</b> | <b>708.8</b> | <b>789.6</b> | <b>830.0</b> | <b>851.5</b> | <b>691.9</b> | <b>608.0</b> | <b>559.5</b> |

Ex Ante Impacts - 2022 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.4          | 10.2         | 11.7         | 12.7         | 16.1         | 16.4         | 17.6         | 12.9         | 5.9          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 15.9         | 40.8         | 64.5         | 124.1        | 141.2        | 151.4        | 64.8         | 2.5          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 17.2         | 23.6         | 42.6         | 46.1         | 46.7         | 26.7         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.7</b> | <b>614.5</b> | <b>643.2</b> | <b>690.0</b> | <b>749.0</b> | <b>787.2</b> | <b>801.9</b> | <b>673.6</b> | <b>588.3</b> | <b>538.5</b> |
| Load Modifying Programs | CPP Large       | 8.2          | 8.2          | 8.3          | 9.1          | 9.1          | 8.8          | 8.9          | 9.0          | 9.1          | 9.3          | 8.1          | 8.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.4          | 1.2          | 2.3          | 2.4          | 2.4          | 3.9          | 18.9         | 18.4         | 17.7         | 2.4          | 1.2          | 1.1          |
|                         | <b>Subtotal</b> | <b>9.6</b>   | <b>9.4</b>   | <b>10.5</b>  | <b>11.5</b>  | <b>11.4</b>  | <b>12.6</b>  | <b>27.7</b>  | <b>27.4</b>  | <b>26.8</b>  | <b>11.7</b>  | <b>9.3</b>   | <b>9.3</b>   |
| Pilots                  | Residential TOU | 15.8         | 15.2         | 12.6         | 13.7         | 16.2         | 31.9         | 54.9         | 60.9         | 75.9         | 20.7         | 19.0         | 17.6         |
|                         | <b>Subtotal</b> | <b>15.8</b>  | <b>15.2</b>  | <b>12.6</b>  | <b>13.7</b>  | <b>16.2</b>  | <b>31.9</b>  | <b>54.9</b>  | <b>60.9</b>  | <b>75.9</b>  | <b>20.7</b>  | <b>19.0</b>  | <b>17.6</b>  |
| <b>Total</b>            |                 | <b>574.6</b> | <b>608.7</b> | <b>576.9</b> | <b>639.7</b> | <b>670.8</b> | <b>734.6</b> | <b>831.7</b> | <b>875.5</b> | <b>904.6</b> | <b>706.0</b> | <b>616.6</b> | <b>565.3</b> |

Ex Ante Impacts - 2023 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.1          | 9.0          | 10.4         | 11.3         | 14.3         | 14.6         | 15.6         | 11.4         | 5.2          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 15.1         | 38.9         | 61.5         | 118.3        | 134.5        | 144.3        | 61.8         | 2.4          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 20.5         | 28.1         | 50.6         | 54.7         | 55.3         | 31.5         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.5</b> | <b>612.7</b> | <b>643.3</b> | <b>690.0</b> | <b>749.4</b> | <b>787.3</b> | <b>801.3</b> | <b>674.0</b> | <b>587.5</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 8.6          | 8.6          | 8.7          | 9.6          | 9.5          | 9.2          | 9.3          | 9.4          | 9.6          | 9.8          | 8.5          | 8.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.3          | 1.1          | 2.1          | 2.2          | 2.1          | 3.5          | 17.1         | 16.7         | 16.0         | 2.1          | 1.1          | 1.0          |
|                         | <b>Subtotal</b> | <b>9.9</b>   | <b>9.7</b>   | <b>10.8</b>  | <b>11.7</b>  | <b>11.7</b>  | <b>12.7</b>  | <b>26.5</b>  | <b>26.2</b>  | <b>25.6</b>  | <b>12.0</b>  | <b>9.6</b>   | <b>9.6</b>   |
| Pilots                  | Residential TOU | 18.2         | 15.5         | 12.5         | 13.6         | 16.1         | 31.7         | 54.6         | 60.6         | 75.5         | 20.5         | 18.9         | 17.6         |
|                         | <b>Subtotal</b> | <b>18.2</b>  | <b>15.5</b>  | <b>12.5</b>  | <b>13.6</b>  | <b>16.1</b>  | <b>31.7</b>  | <b>54.6</b>  | <b>60.6</b>  | <b>75.5</b>  | <b>20.5</b>  | <b>18.9</b>  | <b>17.6</b>  |
| <b>Total</b>            |                 | <b>577.3</b> | <b>609.3</b> | <b>576.7</b> | <b>638.0</b> | <b>671.1</b> | <b>734.5</b> | <b>830.5</b> | <b>874.1</b> | <b>902.4</b> | <b>706.4</b> | <b>616.0</b> | <b>565.6</b> |



### Ex Ante Impacts - 2024 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.9          | 8.0          | 9.2          | 10.1         | 12.7         | 13.0         | 13.9         | 10.2         | 4.7          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 14.4         | 37.1         | 58.7         | 112.9        | 128.4        | 137.7        | 58.9         | 2.2          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 23.8         | 32.5         | 58.5         | 63.0         | 63.5         | 36.1         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.2</b> | <b>611.0</b> | <b>643.7</b> | <b>690.4</b> | <b>750.3</b> | <b>788.0</b> | <b>801.3</b> | <b>674.5</b> | <b>586.8</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 9.1          | 9.1          | 9.1          | 10.0         | 10.0         | 9.7          | 9.8          | 9.9          | 10.1         | 10.3         | 8.9          | 9.0          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.2          | 1.0          | 1.9          | 2.0          | 1.9          | 3.2          | 15.4         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.2</b>  | <b>10.0</b>  | <b>11.0</b>  | <b>12.0</b>  | <b>11.9</b>  | <b>12.8</b>  | <b>25.2</b>  | <b>24.9</b>  | <b>24.6</b>  | <b>12.2</b>  | <b>9.9</b>   | <b>9.9</b>   |
| Pilots                  | Residential TOU | 18.1         | 15.4         | 12.5         | 13.5         | 16.0         | 31.6         | 54.4         | 60.3         | 75.2         | 20.4         | 18.8         | 17.5         |
|                         | <b>Subtotal</b> | <b>18.1</b>  | <b>15.4</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>16.0</b>  | <b>31.6</b>  | <b>54.4</b>  | <b>60.3</b>  | <b>75.2</b>  | <b>20.4</b>  | <b>18.8</b>  | <b>17.5</b>  |
| <b>Total</b>            |                 | <b>577.5</b> | <b>609.5</b> | <b>576.7</b> | <b>636.5</b> | <b>671.6</b> | <b>734.9</b> | <b>829.9</b> | <b>873.2</b> | <b>901.1</b> | <b>707.1</b> | <b>615.6</b> | <b>565.9</b> |

Ex Ante Impacts - 2025 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.7          | 7.2          | 8.2          | 9.0          | 11.3         | 11.5         | 12.4         | 9.1          | 4.2          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 13.8         | 35.5         | 56.1         | 108.0        | 122.8        | 131.7        | 56.4         | 2.1          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 26.8         | 36.5         | 65.5         | 70.4         | 70.8         | 40.2         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.0</b> | <b>609.5</b> | <b>644.0</b> | <b>690.7</b> | <b>750.9</b> | <b>788.3</b> | <b>801.0</b> | <b>674.9</b> | <b>586.2</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 9.5          | 9.5          | 9.5          | 10.5         | 10.5         | 10.1         | 10.3         | 10.4         | 10.6         | 10.8         | 9.3          | 9.4          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>10.6</b>  | <b>10.4</b>  | <b>11.3</b>  | <b>12.4</b>  | <b>12.3</b>  | <b>13.2</b>  | <b>25.4</b>  | <b>25.4</b>  | <b>25.1</b>  | <b>12.7</b>  | <b>10.4</b>  | <b>10.4</b>  |
| Pilots                  | Residential TOU | 18.0         | 15.4         | 12.4         | 13.4         | 16.0         | 31.4         | 54.2         | 60.1         | 75.0         | 20.3         | 18.8         | 17.4         |
|                         | <b>Subtotal</b> | <b>18.0</b>  | <b>15.4</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.0</b>  | <b>31.4</b>  | <b>54.2</b>  | <b>60.1</b>  | <b>75.0</b>  | <b>20.3</b>  | <b>18.8</b>  | <b>17.4</b>  |
| <b>Total</b>            |                 | <b>577.8</b> | <b>609.9</b> | <b>576.8</b> | <b>635.3</b> | <b>672.3</b> | <b>735.4</b> | <b>830.6</b> | <b>873.7</b> | <b>901.1</b> | <b>707.9</b> | <b>615.4</b> | <b>566.2</b> |

Ex Ante Impacts - 2026 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.5          | 6.4          | 7.3          | 8.0          | 10.1         | 10.3         | 11.1         | 8.1          | 3.7          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 13.2         | 34.0         | 53.8         | 103.4        | 117.6        | 126.1        | 54.0         | 2.1          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 29.4         | 40.0         | 71.6         | 76.9         | 77.3         | 43.8         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.9</b> | <b>608.1</b> | <b>644.2</b> | <b>690.9</b> | <b>751.3</b> | <b>788.3</b> | <b>800.5</b> | <b>675.1</b> | <b>585.7</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 9.9          | 9.9          | 10.0         | 11.0         | 10.9         | 10.6         | 10.7         | 10.8         | 11.0         | 11.3         | 9.8          | 9.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.0</b>  | <b>10.8</b>  | <b>11.8</b>  | <b>12.8</b>  | <b>12.8</b>  | <b>13.7</b>  | <b>25.9</b>  | <b>25.8</b>  | <b>25.6</b>  | <b>13.2</b>  | <b>10.8</b>  | <b>10.8</b>  |
| Pilots                  | Residential TOU | 17.9         | 15.3         | 12.4         | 13.4         | 15.9         | 31.3         | 54.1         | 59.9         | 74.7         | 20.3         | 18.7         | 17.3         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>15.9</b>  | <b>31.3</b>  | <b>54.1</b>  | <b>59.9</b>  | <b>74.7</b>  | <b>20.3</b>  | <b>18.7</b>  | <b>17.3</b>  |
| <b>Total</b>            |                 | <b>578.1</b> | <b>610.2</b> | <b>577.0</b> | <b>634.4</b> | <b>672.9</b> | <b>735.9</b> | <b>831.3</b> | <b>874.1</b> | <b>900.8</b> | <b>708.6</b> | <b>615.2</b> | <b>566.5</b> |

Ex Ante Impacts - 2027 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.3          | 5.7          | 6.5          | 7.1          | 9.0          | 9.2          | 9.9          | 7.2          | 3.3          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 12.7         | 32.6         | 51.6         | 99.2         | 112.7        | 120.9        | 51.8         | 2.0          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 31.7         | 43.1         | 77.1         | 82.6         | 82.9         | 46.9         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.7</b> | <b>606.9</b> | <b>644.4</b> | <b>690.9</b> | <b>751.4</b> | <b>788.1</b> | <b>799.9</b> | <b>675.2</b> | <b>585.2</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 10.3         | 10.3         | 10.4         | 11.4         | 11.4         | 11.0         | 11.2         | 11.3         | 11.5         | 11.7         | 10.2         | 10.3         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.4</b>  | <b>11.2</b>  | <b>12.2</b>  | <b>13.3</b>  | <b>13.3</b>  | <b>14.1</b>  | <b>26.3</b>  | <b>26.3</b>  | <b>26.0</b>  | <b>13.7</b>  | <b>11.2</b>  | <b>11.2</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.2         | 12.3         | 13.3         | 15.9         | 31.2         | 53.9         | 59.7         | 74.5         | 20.2         | 18.6         | 17.3         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.2</b>  | <b>53.9</b>  | <b>59.7</b>  | <b>74.5</b>  | <b>20.2</b>  | <b>18.6</b>  | <b>17.3</b>  |
| <b>Total</b>            |                 | <b>578.4</b> | <b>610.5</b> | <b>577.2</b> | <b>633.5</b> | <b>673.5</b> | <b>736.3</b> | <b>831.7</b> | <b>874.1</b> | <b>900.4</b> | <b>709.1</b> | <b>615.0</b> | <b>566.9</b> |

Ex Ante Impacts - 2028 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.2          | 5.1          | 5.9          | 6.4          | 8.1          | 8.2          | 8.8          | 6.5          | 3.0          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 12.2         | 31.3         | 49.5         | 95.2         | 108.3        | 116.1        | 49.7         | 1.9          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 33.8         | 45.8         | 81.9         | 87.7         | 87.9         | 49.7         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.6</b> | <b>605.8</b> | <b>644.4</b> | <b>690.8</b> | <b>751.3</b> | <b>787.8</b> | <b>799.0</b> | <b>675.1</b> | <b>584.8</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 10.8         | 10.8         | 10.8         | 11.9         | 11.9         | 11.5         | 11.6         | 11.8         | 12.0         | 12.2         | 10.6         | 10.7         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>11.9</b>  | <b>11.7</b>  | <b>12.6</b>  | <b>13.8</b>  | <b>13.7</b>  | <b>14.6</b>  | <b>26.8</b>  | <b>26.8</b>  | <b>26.5</b>  | <b>14.2</b>  | <b>11.6</b>  | <b>11.6</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.2         | 12.3         | 13.3         | 15.8         | 31.1         | 53.8         | 59.6         | 74.4         | 20.1         | 18.6         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.8</b>  | <b>31.1</b>  | <b>53.8</b>  | <b>59.6</b>  | <b>74.4</b>  | <b>20.1</b>  | <b>18.6</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>578.9</b> | <b>611.0</b> | <b>577.5</b> | <b>632.9</b> | <b>674.0</b> | <b>736.5</b> | <b>831.9</b> | <b>874.1</b> | <b>899.9</b> | <b>709.4</b> | <b>615.0</b> | <b>567.2</b> |

Ex Ante Impacts - 2029 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.1          | 4.6          | 5.2          | 5.7          | 7.2          | 7.4          | 7.9          | 5.8          | 2.6          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 11.7         | 30.1         | 47.6         | 91.6         | 104.1        | 111.7        | 47.8         | 1.8          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 35.6         | 48.2         | 86.1         | 92.2         | 92.4         | 52.2         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.4</b> | <b>604.8</b> | <b>644.4</b> | <b>690.7</b> | <b>751.1</b> | <b>787.2</b> | <b>798.1</b> | <b>675.0</b> | <b>584.4</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 11.2         | 11.2         | 11.2         | 12.4         | 12.3         | 11.9         | 12.1         | 12.2         | 12.4         | 12.7         | 11.0         | 11.1         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.3</b>  | <b>12.1</b>  | <b>13.0</b>  | <b>14.3</b>  | <b>14.2</b>  | <b>15.0</b>  | <b>27.3</b>  | <b>27.2</b>  | <b>27.0</b>  | <b>14.6</b>  | <b>12.0</b>  | <b>12.0</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.1         | 12.3         | 13.2         | 15.8         | 31.1         | 53.7         | 59.4         | 74.2         | 20.1         | 18.6         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.1</b>  | <b>12.3</b>  | <b>13.2</b>  | <b>15.8</b>  | <b>31.1</b>  | <b>53.7</b>  | <b>59.4</b>  | <b>74.2</b>  | <b>20.1</b>  | <b>18.6</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>579.2</b> | <b>611.3</b> | <b>577.8</b> | <b>632.2</b> | <b>674.4</b> | <b>736.8</b> | <b>832.0</b> | <b>873.8</b> | <b>899.2</b> | <b>709.8</b> | <b>615.0</b> | <b>567.6</b> |

### Ex Ante Impacts - 2030 Program CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.0          | 4.1          | 4.7          | 5.1          | 6.5          | 6.6          | 7.1          | 5.2          | 2.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 11.3         | 29.0         | 45.8         | 88.1         | 100.2        | 107.5        | 46.0         | 1.8          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 37.2         | 50.4         | 89.9         | 96.1         | 96.3         | 54.4         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.3</b> | <b>603.9</b> | <b>644.4</b> | <b>690.4</b> | <b>750.7</b> | <b>786.5</b> | <b>797.0</b> | <b>674.9</b> | <b>584.0</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 11.6         | 11.6         | 11.7         | 12.9         | 12.8         | 12.4         | 12.5         | 12.7         | 12.9         | 13.2         | 11.4         | 11.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 1.1          | 0.9          | 1.8          | 1.9          | 1.9          | 3.1          | 15.2         | 15.0         | 14.5         | 1.9          | 1.0          | 0.9          |
|                         | <b>Subtotal</b> | <b>12.7</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>14.7</b>  | <b>14.7</b>  | <b>15.5</b>  | <b>27.7</b>  | <b>27.7</b>  | <b>27.4</b>  | <b>15.1</b>  | <b>12.4</b>  | <b>12.5</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.1         | 12.2         | 13.2         | 15.7         | 31.0         | 53.5         | 59.3         | 74.1         | 20.0         | 18.5         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.1</b>  | <b>12.2</b>  | <b>13.2</b>  | <b>15.7</b>  | <b>31.0</b>  | <b>53.5</b>  | <b>59.3</b>  | <b>74.1</b>  | <b>20.0</b>  | <b>18.5</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>579.6</b> | <b>611.7</b> | <b>578.0</b> | <b>631.8</b> | <b>674.7</b> | <b>736.9</b> | <b>831.9</b> | <b>873.5</b> | <b>898.6</b> | <b>710.0</b> | <b>615.0</b> | <b>568.0</b> |

Ex Ante Impacts - 2020 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.4          | 13.4         | 19.1         | 24.4         | 26.8         | 28.4         | 27.2         | 27.7         | 27.7         | 23.0         | 17.2         | 11.2         |
|                         | BIP-15          | 155.5        | 169.2        | 155.9        | 168.4        | 179.7        | 181.6        | 181.3        | 182.1        | 182.1        | 180.0        | 186.6        | 164.4        |
|                         | BIP-30          | 381.7        | 408.9        | 384.9        | 397.8        | 389.1        | 397.8        | 374.5        | 385.1        | 388.6        | 381.7        | 387.6        | 361.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 11.9         | 14.9         | 17.6         | 22.0         | 24.2         | 28.8         | 23.9         | 25.2         | 23.7         | 16.9         | 0.0          |
|                         | SDP-R           | 0.0          | 28.6         | 43.8         | 82.6         | 138.2        | 195.1        | 235.6        | 197.3        | 205.9        | 172.5        | 79.0         | 0.0          |
|                         | SEP             | 0.0          | 9.2          | 10.7         | 11.5         | 19.9         | 27.3         | 44.3         | 35.3         | 34.8         | 29.5         | 17.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>567.2</b> | <b>661.8</b> | <b>650.1</b> | <b>723.0</b> | <b>783.2</b> | <b>862.0</b> | <b>899.3</b> | <b>859.1</b> | <b>871.8</b> | <b>818.1</b> | <b>725.6</b> | <b>557.6</b> |
| Load Modifying Programs | CPP Large       | 7.2          | 7.4          | 7.9          | 8.0          | 7.9          | 7.5          | 7.3          | 7.6          | 7.6          | 8.1          | 7.8          | 7.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.4          | 0.4          | 0.4          | 0.1          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.5</b>   | <b>8.3</b>   | <b>8.4</b>   | <b>8.3</b>   | <b>7.6</b>   | <b>7.3</b>   | <b>7.4</b>   | <b>7.2</b>   | <b>8.4</b>   | <b>7.9</b>   | <b>7.2</b>   |
| Pilots                  | Residential TOU | 2.2          | 2.2          | 1.7          | 1.8          | 2.0          | 6.7          | 9.9          | 8.2          | 8.8          | 4.5          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>2.2</b>   | <b>1.7</b>   | <b>1.8</b>   | <b>2.0</b>   | <b>6.7</b>   | <b>9.9</b>   | <b>8.2</b>   | <b>8.8</b>   | <b>4.5</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Total</b>            |                 | <b>576.8</b> | <b>671.5</b> | <b>660.0</b> | <b>733.2</b> | <b>793.5</b> | <b>876.3</b> | <b>916.5</b> | <b>874.7</b> | <b>887.9</b> | <b>831.0</b> | <b>737.4</b> | <b>568.6</b> |



Ex Ante Impacts - 2021 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 15.0         | 21.4         | 27.3         | 29.8         | 31.5         | 30.0         | 30.5         | 30.6         | 25.5         | 19.1         | 12.4         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 10.6         | 13.2         | 15.6         | 19.5         | 21.5         | 25.6         | 21.2         | 22.4         | 21.0         | 15.0         | 0.0          |
|                         | SDP-R           | 0.0          | 26.0         | 39.8         | 75.0         | 125.5        | 177.1        | 213.8        | 179.1        | 186.8        | 156.6        | 71.7         | 0.0          |
|                         | SEP             | 0.0          | 11.2         | 13.2         | 14.3         | 25.0         | 34.7         | 56.8         | 45.7         | 44.7         | 37.6         | 22.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>640.8</b> | <b>629.9</b> | <b>698.5</b> | <b>755.0</b> | <b>830.3</b> | <b>868.7</b> | <b>830.1</b> | <b>841.4</b> | <b>789.1</b> | <b>701.3</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 7.7          | 7.9          | 8.4          | 8.4          | 8.3          | 7.9          | 7.7          | 8.1          | 8.1          | 8.6          | 8.2          | 7.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.4          | 0.3          | 0.1          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.8</b>   | <b>7.9</b>   | <b>8.7</b>   | <b>8.8</b>   | <b>8.7</b>   | <b>8.0</b>   | <b>7.7</b>   | <b>7.9</b>   | <b>7.7</b>   | <b>8.8</b>   | <b>8.3</b>   | <b>7.7</b>   |
| Pilots                  | Residential TOU | 3.9          | 4.0          | 3.0          | 3.2          | 3.4          | 13.1         | 19.6         | 15.9         | 21.4         | 7.4          | 10.8         | 11.9         |
|                         | <b>Subtotal</b> | <b>3.9</b>   | <b>4.0</b>   | <b>3.0</b>   | <b>3.2</b>   | <b>3.4</b>   | <b>13.1</b>  | <b>19.6</b>  | <b>15.9</b>  | <b>21.4</b>  | <b>7.4</b>   | <b>10.8</b>  | <b>11.9</b>  |
| <b>Total</b>            |                 | <b>560.9</b> | <b>652.7</b> | <b>641.5</b> | <b>710.5</b> | <b>767.1</b> | <b>851.4</b> | <b>896.0</b> | <b>853.9</b> | <b>870.5</b> | <b>805.3</b> | <b>720.4</b> | <b>559.0</b> |

Ex Ante Impacts - 2022 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 9.4          | 11.7         | 13.9         | 17.3         | 19.1         | 22.7         | 18.8         | 19.9         | 18.7         | 13.3         | 0.0          |
|                         | SDP-R           | 0.0          | 24.5         | 37.6         | 70.8         | 118.5        | 167.3        | 202.0        | 169.2        | 176.5        | 147.9        | 67.7         | 0.0          |
|                         | SEP             | 0.0          | 13.9         | 16.4         | 17.5         | 30.5         | 42.1         | 68.7         | 55.0         | 53.7         | 45.2         | 26.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>641.3</b> | <b>630.0</b> | <b>696.9</b> | <b>752.6</b> | <b>826.9</b> | <b>867.2</b> | <b>828.5</b> | <b>839.0</b> | <b>786.8</b> | <b>701.0</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 8.1          | 8.3          | 8.8          | 8.9          | 8.8          | 8.4          | 8.2          | 8.5          | 8.5          | 9.0          | 8.7          | 8.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.1          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>8.3</b>   | <b>9.1</b>   | <b>9.2</b>   | <b>9.1</b>   | <b>8.5</b>   | <b>8.1</b>   | <b>8.3</b>   | <b>8.2</b>   | <b>9.3</b>   | <b>8.7</b>   | <b>8.1</b>   |
| Pilots                  | Residential TOU | 15.5         | 16.8         | 13.6         | 14.0         | 17.0         | 61.5         | 92.5         | 73.9         | 82.5         | 21.5         | 19.8         | 16.9         |
|                         | <b>Subtotal</b> | <b>15.5</b>  | <b>16.8</b>  | <b>13.6</b>  | <b>14.0</b>  | <b>17.0</b>  | <b>61.5</b>  | <b>92.5</b>  | <b>73.9</b>  | <b>82.5</b>  | <b>21.5</b>  | <b>19.8</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>573.2</b> | <b>666.5</b> | <b>652.7</b> | <b>720.1</b> | <b>778.7</b> | <b>896.8</b> | <b>967.8</b> | <b>910.8</b> | <b>929.7</b> | <b>817.5</b> | <b>729.5</b> | <b>565.0</b> |

Ex Ante Impacts - 2023 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 8.3          | 10.4         | 12.3         | 15.4         | 17.0         | 20.2         | 16.7         | 17.7         | 16.6         | 11.8         | 0.0          |
|                         | SDP-R           | 0.0          | 23.4         | 35.8         | 67.5         | 112.9        | 159.4        | 192.5        | 161.2        | 168.2        | 140.9        | 64.5         | 0.0          |
|                         | SEP             | 0.0          | 16.7         | 19.5         | 20.9         | 36.4         | 50.1         | 81.5         | 65.2         | 63.5         | 53.3         | 31.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>641.9</b> | <b>630.1</b> | <b>695.4</b> | <b>750.9</b> | <b>824.8</b> | <b>868.0</b> | <b>828.7</b> | <b>838.3</b> | <b>785.8</b> | <b>701.1</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 8.5          | 8.7          | 9.3          | 9.4          | 9.3          | 8.8          | 8.6          | 9.0          | 9.0          | 9.5          | 9.1          | 8.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.1          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.6</b>   | <b>8.8</b>   | <b>9.5</b>   | <b>9.7</b>   | <b>9.5</b>   | <b>8.9</b>   | <b>8.6</b>   | <b>8.8</b>   | <b>8.7</b>   | <b>9.7</b>   | <b>9.2</b>   | <b>8.5</b>   |
| Pilots                  | Residential TOU | 17.8         | 17.2         | 13.5         | 13.9         | 16.9         | 61.2         | 92.1         | 73.6         | 82.1         | 21.3         | 19.7         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>17.2</b>  | <b>13.5</b>  | <b>13.9</b>  | <b>16.9</b>  | <b>61.2</b>  | <b>92.1</b>  | <b>73.6</b>  | <b>82.1</b>  | <b>21.3</b>  | <b>19.7</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>575.9</b> | <b>667.8</b> | <b>653.2</b> | <b>718.9</b> | <b>777.3</b> | <b>894.9</b> | <b>968.7</b> | <b>911.2</b> | <b>929.1</b> | <b>816.9</b> | <b>730.0</b> | <b>565.3</b> |

Ex Ante Impacts - 2024 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 7.4          | 9.3          | 11.0         | 13.7         | 15.1         | 18.0         | 14.9         | 15.7         | 14.8         | 10.5         | 0.0          |
|                         | SDP-R           | 0.0          | 22.3         | 34.2         | 64.4         | 107.8        | 152.1        | 183.7        | 153.9        | 160.5        | 134.5        | 61.6         | 0.0          |
|                         | SEP             | 0.0          | 19.4         | 22.7         | 24.3         | 42.2         | 58.0         | 94.2         | 75.2         | 73.0         | 61.1         | 36.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>642.7</b> | <b>630.6</b> | <b>694.4</b> | <b>749.9</b> | <b>823.6</b> | <b>869.7</b> | <b>829.5</b> | <b>838.2</b> | <b>785.4</b> | <b>701.3</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 8.9          | 9.1          | 9.7          | 9.8          | 9.7          | 9.3          | 9.0          | 9.4          | 9.4          | 10.0         | 9.6          | 8.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.0</b>   | <b>9.2</b>   | <b>10.0</b>  | <b>10.1</b>  | <b>10.0</b>  | <b>9.3</b>   | <b>9.0</b>   | <b>9.3</b>   | <b>9.1</b>   | <b>10.2</b>  | <b>9.6</b>   | <b>8.9</b>   |
| Pilots                  | Residential TOU | 17.7         | 17.1         | 13.4         | 13.8         | 16.8         | 60.9         | 91.7         | 73.2         | 81.8         | 21.2         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>17.1</b>  | <b>13.4</b>  | <b>13.8</b>  | <b>16.8</b>  | <b>60.9</b>  | <b>91.7</b>  | <b>73.2</b>  | <b>81.8</b>  | <b>21.2</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>576.3</b> | <b>669.0</b> | <b>654.0</b> | <b>718.2</b> | <b>776.6</b> | <b>893.8</b> | <b>970.4</b> | <b>912.0</b> | <b>929.1</b> | <b>816.8</b> | <b>730.6</b> | <b>565.6</b> |

Ex Ante Impacts - 2025 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 6.6          | 8.2          | 9.8          | 12.2         | 13.4         | 16.0         | 13.3         | 14.0         | 13.1         | 9.4          | 0.0          |
|                         | SDP-R           | 0.0          | 21.3         | 32.7         | 61.6         | 103.1        | 145.5        | 175.7        | 147.1        | 153.5        | 128.6        | 58.9         | 0.0          |
|                         | SEP             | 0.0          | 22.0         | 25.7         | 27.4         | 47.4         | 65.1         | 105.4        | 84.0         | 81.3         | 67.9         | 40.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>643.5</b> | <b>631.0</b> | <b>693.4</b> | <b>748.9</b> | <b>822.4</b> | <b>870.9</b> | <b>829.9</b> | <b>837.8</b> | <b>784.7</b> | <b>701.5</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 9.3          | 9.6          | 10.2         | 10.3         | 10.2         | 9.7          | 9.4          | 9.9          | 9.8          | 10.4         | 10.1         | 9.3          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.4</b>   | <b>9.6</b>   | <b>10.4</b>  | <b>10.5</b>  | <b>10.4</b>  | <b>9.8</b>   | <b>9.4</b>   | <b>9.7</b>   | <b>9.6</b>   | <b>10.6</b>  | <b>10.1</b>  | <b>9.3</b>   |
| Pilots                  | Residential TOU | 17.6         | 17.0         | 13.4         | 13.8         | 16.8         | 60.7         | 91.4         | 73.0         | 81.5         | 21.1         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>17.0</b>  | <b>13.4</b>  | <b>13.8</b>  | <b>16.8</b>  | <b>60.7</b>  | <b>91.4</b>  | <b>73.0</b>  | <b>81.5</b>  | <b>21.1</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>576.6</b> | <b>670.1</b> | <b>654.9</b> | <b>717.8</b> | <b>776.1</b> | <b>892.8</b> | <b>971.7</b> | <b>912.6</b> | <b>928.9</b> | <b>816.5</b> | <b>731.2</b> | <b>566.0</b> |

Ex Ante Impacts - 2026 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 5.9          | 7.4          | 8.7          | 10.9         | 12.0         | 14.3         | 11.8         | 12.5         | 11.7         | 8.4          | 0.0          |
|                         | SDP-R           | 0.0          | 20.4         | 31.3         | 59.0         | 98.7         | 139.3        | 168.2        | 140.9        | 147.0        | 123.2        | 56.4         | 0.0          |
|                         | SEP             | 0.0          | 24.3         | 28.3         | 30.1         | 52.1         | 71.3         | 115.3        | 91.7         | 88.7         | 74.0         | 43.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>644.2</b> | <b>631.4</b> | <b>692.5</b> | <b>747.9</b> | <b>821.0</b> | <b>871.6</b> | <b>830.0</b> | <b>837.2</b> | <b>783.9</b> | <b>701.5</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 9.8          | 10.0         | 10.7         | 10.7         | 10.6         | 10.1         | 9.9          | 10.3         | 10.3         | 10.9         | 10.5         | 9.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.8</b>   | <b>10.1</b>  | <b>10.9</b>  | <b>11.0</b>  | <b>10.9</b>  | <b>10.2</b>  | <b>9.9</b>   | <b>10.2</b>  | <b>10.0</b>  | <b>11.1</b>  | <b>10.6</b>  | <b>9.8</b>   |
| Pilots                  | Residential TOU | 17.6         | 16.9         | 13.3         | 13.7         | 16.7         | 60.5         | 91.1         | 72.7         | 81.3         | 21.0         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>16.9</b>  | <b>13.3</b>  | <b>13.7</b>  | <b>16.7</b>  | <b>60.5</b>  | <b>91.1</b>  | <b>72.7</b>  | <b>81.3</b>  | <b>21.0</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>577.0</b> | <b>671.1</b> | <b>655.6</b> | <b>717.2</b> | <b>775.4</b> | <b>891.7</b> | <b>972.6</b> | <b>912.9</b> | <b>928.5</b> | <b>816.0</b> | <b>731.5</b> | <b>566.3</b> |

Ex Ante Impacts - 2027 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 5.3          | 6.6          | 7.8          | 9.7          | 10.7         | 12.7         | 10.6         | 11.2         | 10.5         | 7.5          | 0.0          |
|                         | SDP-R           | 0.0          | 19.6         | 30.0         | 56.6         | 94.6         | 133.6        | 161.3        | 135.1        | 141.0        | 118.1        | 54.1         | 0.0          |
|                         | SEP             | 0.0          | 26.4         | 30.6         | 32.5         | 56.2         | 76.8         | 124.1        | 98.6         | 95.2         | 79.3         | 46.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>644.7</b> | <b>631.6</b> | <b>691.6</b> | <b>746.8</b> | <b>819.5</b> | <b>872.0</b> | <b>829.8</b> | <b>836.3</b> | <b>783.0</b> | <b>701.4</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 10.2         | 10.4         | 11.1         | 11.2         | 11.1         | 10.6         | 10.3         | 10.7         | 10.7         | 11.4         | 11.0         | 10.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.3</b>  | <b>10.5</b>  | <b>11.3</b>  | <b>11.5</b>  | <b>11.3</b>  | <b>10.6</b>  | <b>10.3</b>  | <b>10.6</b>  | <b>10.5</b>  | <b>11.6</b>  | <b>11.0</b>  | <b>10.2</b>  |
| Pilots                  | Residential TOU | 17.5         | 16.8         | 13.3         | 13.7         | 16.6         | 60.3         | 90.9         | 72.5         | 81.0         | 21.0         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>16.8</b>  | <b>13.3</b>  | <b>13.7</b>  | <b>16.6</b>  | <b>60.3</b>  | <b>90.9</b>  | <b>72.5</b>  | <b>81.0</b>  | <b>21.0</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>577.3</b> | <b>672.0</b> | <b>656.3</b> | <b>716.7</b> | <b>774.7</b> | <b>890.5</b> | <b>973.2</b> | <b>912.9</b> | <b>927.8</b> | <b>815.6</b> | <b>731.9</b> | <b>566.8</b> |

Ex Ante Impacts - 2028 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 4.7          | 5.9          | 7.0          | 8.7          | 9.6          | 11.4         | 9.4          | 10.0         | 9.4          | 6.7          | 0.0          |
|                         | SDP-R           | 0.0          | 18.8         | 28.8         | 54.3         | 90.9         | 128.3        | 154.9        | 129.7        | 135.4        | 113.4        | 51.9         | 0.0          |
|                         | SEP             | 0.0          | 28.1         | 32.7         | 34.7         | 59.8         | 81.7         | 131.9        | 104.6        | 101.0        | 84.1         | 49.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.2</b> | <b>631.8</b> | <b>690.6</b> | <b>745.6</b> | <b>818.0</b> | <b>872.0</b> | <b>829.4</b> | <b>835.3</b> | <b>781.9</b> | <b>701.2</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 10.6         | 10.9         | 11.6         | 11.7         | 11.6         | 11.0         | 10.7         | 11.2         | 11.2         | 11.9         | 11.4         | 10.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.7</b>  | <b>10.9</b>  | <b>11.8</b>  | <b>11.9</b>  | <b>11.8</b>  | <b>11.1</b>  | <b>10.7</b>  | <b>11.0</b>  | <b>10.9</b>  | <b>12.1</b>  | <b>11.5</b>  | <b>10.6</b>  |
| Pilots                  | Residential TOU | 17.4         | 16.8         | 13.2         | 13.6         | 16.6         | 60.2         | 90.7         | 72.3         | 80.8         | 20.9         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>16.8</b>  | <b>13.2</b>  | <b>13.6</b>  | <b>16.6</b>  | <b>60.2</b>  | <b>90.7</b>  | <b>72.3</b>  | <b>80.8</b>  | <b>20.9</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>577.6</b> | <b>672.9</b> | <b>656.8</b> | <b>716.2</b> | <b>774.0</b> | <b>889.2</b> | <b>973.4</b> | <b>912.7</b> | <b>927.0</b> | <b>814.9</b> | <b>732.0</b> | <b>567.1</b> |



Ex Ante Impacts - 2029 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 4.2          | 5.3          | 6.2          | 7.8          | 8.6          | 10.2         | 8.5          | 8.9          | 8.4          | 6.0          | 0.0          |
|                         | SDP-R           | 0.0          | 18.1         | 27.7         | 52.2         | 87.4         | 123.4        | 149.0        | 124.7        | 130.1        | 109.1        | 49.9         | 0.0          |
|                         | SEP             | 0.0          | 29.7         | 34.5         | 36.6         | 63.0         | 86.0         | 138.7        | 110.0        | 106.1        | 88.2         | 51.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.5</b> | <b>631.8</b> | <b>689.7</b> | <b>744.4</b> | <b>816.3</b> | <b>871.7</b> | <b>828.8</b> | <b>834.1</b> | <b>780.7</b> | <b>700.9</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 11.0         | 11.3         | 12.0         | 12.1         | 12.0         | 11.4         | 11.1         | 11.6         | 11.6         | 12.3         | 11.9         | 11.0         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.1</b>  | <b>11.4</b>  | <b>12.3</b>  | <b>12.4</b>  | <b>12.3</b>  | <b>11.5</b>  | <b>11.1</b>  | <b>11.5</b>  | <b>11.4</b>  | <b>12.5</b>  | <b>11.9</b>  | <b>11.0</b>  |
| Pilots                  | Residential TOU | 17.4         | 16.7         | 13.2         | 13.6         | 16.5         | 60.0         | 90.5         | 72.1         | 80.7         | 20.8         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>16.7</b>  | <b>13.2</b>  | <b>13.6</b>  | <b>16.5</b>  | <b>60.0</b>  | <b>90.5</b>  | <b>72.1</b>  | <b>80.7</b>  | <b>20.8</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>578.1</b> | <b>673.6</b> | <b>657.3</b> | <b>715.7</b> | <b>773.1</b> | <b>887.8</b> | <b>973.3</b> | <b>912.3</b> | <b>926.2</b> | <b>814.1</b> | <b>732.2</b> | <b>567.5</b> |

Ex Ante Impacts - 2030 Portfolio SCE 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.9         | 15.5         | 22.2         | 28.3         | 31.0         | 32.8         | 31.4         | 31.9         | 32.0         | 26.7         | 19.9         | 13.0         |
|                         | BIP-15          | 143.7        | 156.4        | 144.2        | 155.7        | 166.1        | 167.9        | 167.6        | 168.4        | 168.4        | 166.4        | 172.5        | 152.0        |
|                         | BIP-30          | 374.3        | 401.0        | 377.4        | 390.1        | 381.5        | 390.1        | 367.2        | 377.7        | 381.0        | 374.3        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 3.8          | 4.7          | 5.6          | 7.0          | 7.7          | 9.1          | 7.6          | 8.0          | 7.5          | 5.4          | 0.0          |
|                         | SDP-R           | 0.0          | 17.4         | 26.7         | 50.3         | 84.1         | 118.7        | 143.4        | 120.1        | 125.3        | 105.0        | 48.1         | 0.0          |
|                         | SEP             | 0.0          | 31.1         | 36.1         | 38.2         | 65.8         | 89.8         | 144.7        | 114.7        | 110.6        | 92.0         | 54.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.5</b> | <b>645.8</b> | <b>631.9</b> | <b>688.8</b> | <b>743.1</b> | <b>814.6</b> | <b>871.1</b> | <b>827.9</b> | <b>832.9</b> | <b>779.5</b> | <b>700.6</b> | <b>540.0</b> |
| Load Modifying Programs | CPP Large       | 11.4         | 11.7         | 12.5         | 12.6         | 12.5         | 11.9         | 11.6         | 12.1         | 12.1         | 12.8         | 12.3         | 11.4         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.5</b>  | <b>11.8</b>  | <b>12.7</b>  | <b>12.9</b>  | <b>12.7</b>  | <b>12.0</b>  | <b>11.6</b>  | <b>11.9</b>  | <b>11.8</b>  | <b>13.0</b>  | <b>12.4</b>  | <b>11.4</b>  |
| Pilots                  | Residential TOU | 17.3         | 16.7         | 13.1         | 13.5         | 16.5         | 59.9         | 90.3         | 72.0         | 80.5         | 20.8         | 19.3         | 16.4         |
|                         | <b>Subtotal</b> | <b>17.3</b>  | <b>16.7</b>  | <b>13.1</b>  | <b>13.5</b>  | <b>16.5</b>  | <b>59.9</b>  | <b>90.3</b>  | <b>72.0</b>  | <b>80.5</b>  | <b>20.8</b>  | <b>19.3</b>  | <b>16.4</b>  |
| <b>Total</b>            |                 | <b>578.4</b> | <b>674.3</b> | <b>657.7</b> | <b>715.1</b> | <b>772.3</b> | <b>886.5</b> | <b>972.9</b> | <b>911.9</b> | <b>925.2</b> | <b>813.3</b> | <b>732.3</b> | <b>567.8</b> |

Ex Ante Impacts - 2020 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.1          | 8.8          | 12.3         | 19.8         | 22.2         | 27.6         | 27.8         | 28.1         | 26.5         | 21.6         | 14.3         | 9.4          |
|                         | BIP-15          | 156.4        | 169.3        | 156.5        | 169.5        | 178.2        | 180.7        | 180.3        | 181.9        | 181.6        | 180.7        | 187.3        | 165.5        |
|                         | BIP-30          | 381.0        | 405.6        | 379.4        | 395.7        | 381.3        | 389.8        | 367.0        | 382.6        | 385.8        | 376.0        | 384.1        | 361.3        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 3.0          | 14.4         | 15.1         | 15.4         | 20.7         | 20.9         | 22.3         | 18.3         | 13.1         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 36.7         | 41.6         | 75.7         | 147.0        | 165.7        | 169.8        | 86.6         | 31.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 9.2          | 11.6         | 15.1         | 27.7         | 29.9         | 29.8         | 19.4         | 12.2         | 0.0          |
|                         | <b>Subtotal</b> | <b>567.1</b> | <b>604.2</b> | <b>571.8</b> | <b>665.8</b> | <b>657.7</b> | <b>711.8</b> | <b>778.2</b> | <b>816.7</b> | <b>823.4</b> | <b>710.3</b> | <b>663.4</b> | <b>556.8</b> |
| Load Modifying Programs | CPP Large       | 7.2          | 7.2          | 7.3          | 7.9          | 8.0          | 7.8          | 7.7          | 7.8          | 7.8          | 8.3          | 7.5          | 7.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.4          | 0.3          | 0.8          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.3</b>   | <b>7.6</b>   | <b>8.3</b>   | <b>8.4</b>   | <b>8.6</b>   | <b>7.7</b>   | <b>7.6</b>   | <b>7.4</b>   | <b>8.6</b>   | <b>7.5</b>   | <b>7.2</b>   |
| Pilots                  | Residential TOU | 2.2          | 1.9          | 1.5          | 1.8          | 1.9          | 3.6          | 6.0          | 7.0          | 8.1          | 4.4          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>1.9</b>   | <b>1.5</b>   | <b>1.8</b>   | <b>1.9</b>   | <b>3.6</b>   | <b>6.0</b>   | <b>7.0</b>   | <b>8.1</b>   | <b>4.4</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Total</b>            |                 | <b>576.7</b> | <b>613.4</b> | <b>580.9</b> | <b>675.9</b> | <b>667.9</b> | <b>724.0</b> | <b>791.9</b> | <b>831.3</b> | <b>839.0</b> | <b>723.3</b> | <b>674.9</b> | <b>567.8</b> |

Ex Ante Impacts - 2021 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 9.8          | 13.8         | 22.1         | 24.7         | 30.6         | 30.7         | 31.0         | 29.3         | 23.9         | 15.8         | 10.5         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.6          | 12.7         | 13.4         | 13.6         | 18.4         | 18.6         | 19.8         | 16.3         | 11.6         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 33.3         | 37.7         | 68.7         | 133.4        | 150.4        | 154.1        | 78.6         | 28.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 11.4         | 14.6         | 19.1         | 35.6         | 38.7         | 38.2         | 24.8         | 15.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.1</b> | <b>584.6</b> | <b>553.7</b> | <b>644.9</b> | <b>636.7</b> | <b>688.9</b> | <b>752.3</b> | <b>789.5</b> | <b>795.2</b> | <b>686.9</b> | <b>642.1</b> | <b>538.3</b> |
| Load Modifying Programs | CPP Large       | 7.6          | 7.6          | 7.7          | 8.3          | 8.5          | 8.2          | 8.2          | 8.3          | 8.3          | 8.8          | 7.9          | 7.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.7          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.8</b>   | <b>7.7</b>   | <b>8.0</b>   | <b>8.6</b>   | <b>8.8</b>   | <b>8.9</b>   | <b>8.2</b>   | <b>8.1</b>   | <b>7.9</b>   | <b>9.0</b>   | <b>8.0</b>   | <b>7.6</b>   |
| Pilots                  | Residential TOU | 4.0          | 3.6          | 2.8          | 3.1          | 3.2          | 6.4          | 11.3         | 13.4         | 19.6         | 7.2          | 10.6         | 12.2         |
|                         | <b>Subtotal</b> | <b>4.0</b>   | <b>3.6</b>   | <b>2.8</b>   | <b>3.1</b>   | <b>3.2</b>   | <b>6.4</b>   | <b>11.3</b>  | <b>13.4</b>  | <b>19.6</b>  | <b>7.2</b>   | <b>10.6</b>  | <b>12.2</b>  |
| <b>Total</b>            |                 | <b>560.8</b> | <b>595.9</b> | <b>564.5</b> | <b>656.6</b> | <b>648.7</b> | <b>704.3</b> | <b>771.7</b> | <b>811.0</b> | <b>822.7</b> | <b>703.2</b> | <b>660.7</b> | <b>558.1</b> |

Ex Ante Impacts - 2022 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.3          | 11.3         | 11.9         | 12.1         | 16.3         | 16.5         | 17.6         | 14.4         | 10.3         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 31.5         | 35.6         | 64.9         | 126.0        | 142.0        | 145.5        | 74.3         | 27.2         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 14.0         | 17.9         | 23.3         | 43.0         | 46.6         | 46.0         | 29.7         | 18.5         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.9</b> | <b>645.0</b> | <b>637.4</b> | <b>689.0</b> | <b>751.6</b> | <b>788.4</b> | <b>793.6</b> | <b>686.8</b> | <b>643.0</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 8.1          | 8.1          | 8.1          | 8.8          | 9.0          | 8.7          | 8.6          | 8.7          | 8.7          | 9.3          | 8.3          | 8.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.2          | 0.3          | 0.3          | 0.6          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>8.1</b>   | <b>8.4</b>   | <b>9.1</b>   | <b>9.2</b>   | <b>9.3</b>   | <b>8.6</b>   | <b>8.6</b>   | <b>8.4</b>   | <b>9.5</b>   | <b>8.4</b>   | <b>8.1</b>   |
| Pilots                  | Residential TOU | 15.7         | 15.2         | 12.6         | 13.8         | 16.4         | 31.9         | 56.0         | 62.6         | 75.4         | 20.9         | 19.5         | 17.2         |
|                         | <b>Subtotal</b> | <b>15.7</b>  | <b>15.2</b>  | <b>12.6</b>  | <b>13.8</b>  | <b>16.4</b>  | <b>31.9</b>  | <b>56.0</b>  | <b>62.6</b>  | <b>75.4</b>  | <b>20.9</b>  | <b>19.5</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>573.2</b> | <b>608.2</b> | <b>574.9</b> | <b>667.9</b> | <b>663.0</b> | <b>730.2</b> | <b>816.3</b> | <b>859.6</b> | <b>877.4</b> | <b>717.2</b> | <b>670.9</b> | <b>564.0</b> |

Ex Ante Impacts - 2023 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.1          | 10.1         | 10.6         | 10.8         | 14.5         | 14.6         | 15.6         | 12.8         | 9.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 30.0         | 34.0         | 61.8         | 120.1        | 135.3        | 138.7        | 70.8         | 26.0         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 16.7         | 21.3         | 27.7         | 51.1         | 55.3         | 54.4         | 35.1         | 21.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.7</b> | <b>645.0</b> | <b>637.8</b> | <b>689.0</b> | <b>752.0</b> | <b>788.6</b> | <b>793.2</b> | <b>687.1</b> | <b>643.9</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 8.5          | 8.5          | 8.5          | 9.2          | 9.4          | 9.1          | 9.1          | 9.2          | 9.2          | 9.8          | 8.8          | 8.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.2          | 0.3          | 0.2          | 0.6          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.6</b>   | <b>8.5</b>   | <b>8.8</b>   | <b>9.5</b>   | <b>9.7</b>   | <b>9.7</b>   | <b>9.1</b>   | <b>9.0</b>   | <b>8.9</b>   | <b>10.0</b>  | <b>8.8</b>   | <b>8.5</b>   |
| Pilots                  | Residential TOU | 18.1         | 15.5         | 12.6         | 13.7         | 16.3         | 31.7         | 55.8         | 62.3         | 75.0         | 20.7         | 19.4         | 17.1         |
|                         | <b>Subtotal</b> | <b>18.1</b>  | <b>15.5</b>  | <b>12.6</b>  | <b>13.7</b>  | <b>16.3</b>  | <b>31.7</b>  | <b>55.8</b>  | <b>62.3</b>  | <b>75.0</b>  | <b>20.7</b>  | <b>19.4</b>  | <b>17.1</b>  |
| <b>Total</b>            |                 | <b>576.1</b> | <b>609.0</b> | <b>575.0</b> | <b>668.2</b> | <b>663.8</b> | <b>730.4</b> | <b>816.8</b> | <b>859.9</b> | <b>877.1</b> | <b>717.7</b> | <b>672.1</b> | <b>564.4</b> |

Ex Ante Impacts - 2024 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.9          | 8.9          | 9.4          | 9.6          | 12.9         | 13.0         | 13.9         | 11.4         | 8.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 28.6         | 32.4         | 59.0         | 114.6        | 129.2        | 132.4        | 67.6         | 24.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 19.4         | 24.7         | 32.0         | 59.0         | 63.7         | 62.5         | 40.2         | 24.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.4</b> | <b>645.2</b> | <b>638.5</b> | <b>689.4</b> | <b>752.8</b> | <b>789.2</b> | <b>793.2</b> | <b>687.5</b> | <b>644.8</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 8.9          | 8.9          | 9.0          | 9.7          | 9.9          | 9.6          | 9.5          | 9.7          | 9.6          | 10.2         | 9.2          | 8.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.0</b>   | <b>9.0</b>   | <b>9.2</b>   | <b>9.9</b>   | <b>10.1</b>  | <b>10.1</b>  | <b>9.5</b>   | <b>9.5</b>   | <b>9.4</b>   | <b>10.4</b>  | <b>9.2</b>   | <b>8.9</b>   |
| Pilots                  | Residential TOU | 18.0         | 15.5         | 12.5         | 13.6         | 16.2         | 31.6         | 55.6         | 62.0         | 74.7         | 20.6         | 19.3         | 17.1         |
|                         | <b>Subtotal</b> | <b>18.0</b>  | <b>15.5</b>  | <b>12.5</b>  | <b>13.6</b>  | <b>16.2</b>  | <b>31.6</b>  | <b>55.6</b>  | <b>62.0</b>  | <b>74.7</b>  | <b>20.6</b>  | <b>19.3</b>  | <b>17.1</b>  |
| <b>Total</b>            |                 | <b>576.4</b> | <b>609.4</b> | <b>575.1</b> | <b>668.8</b> | <b>664.8</b> | <b>731.1</b> | <b>818.0</b> | <b>860.7</b> | <b>877.3</b> | <b>718.6</b> | <b>673.3</b> | <b>564.8</b> |

Ex Ante Impacts - 2025 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.7          | 8.0          | 8.4          | 8.5          | 11.5         | 11.6         | 12.4         | 10.2         | 7.3          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 27.4         | 31.0         | 56.4         | 109.6        | 123.5        | 126.6        | 64.6         | 23.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 21.9         | 27.8         | 35.9         | 66.1         | 71.2         | 69.6         | 44.7         | 27.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.2</b> | <b>645.5</b> | <b>639.1</b> | <b>689.6</b> | <b>753.4</b> | <b>789.6</b> | <b>793.1</b> | <b>687.9</b> | <b>645.5</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 9.3          | 9.3          | 9.4          | 10.2         | 10.4         | 10.0         | 10.0         | 10.1         | 10.1         | 10.7         | 9.6          | 9.3          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.4</b>   | <b>9.4</b>   | <b>9.6</b>   | <b>10.4</b>  | <b>10.6</b>  | <b>10.5</b>  | <b>10.0</b>  | <b>10.0</b>  | <b>9.8</b>   | <b>10.9</b>  | <b>9.7</b>   | <b>9.3</b>   |
| Pilots                  | Residential TOU | 17.9         | 15.4         | 12.5         | 13.5         | 16.1         | 31.4         | 55.4         | 61.8         | 74.5         | 20.6         | 19.3         | 17.0         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.4</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>16.1</b>  | <b>31.4</b>  | <b>55.4</b>  | <b>61.8</b>  | <b>74.5</b>  | <b>20.6</b>  | <b>19.3</b>  | <b>17.0</b>  |
| <b>Total</b>            |                 | <b>576.7</b> | <b>609.7</b> | <b>575.3</b> | <b>669.4</b> | <b>665.8</b> | <b>731.6</b> | <b>818.8</b> | <b>861.3</b> | <b>877.4</b> | <b>719.4</b> | <b>674.5</b> | <b>565.1</b> |



Ex Ante Impacts - 2026 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.5          | 7.1          | 7.5          | 7.6          | 10.3         | 10.4         | 11.1         | 9.1          | 6.5          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 26.2         | 29.7         | 54.0         | 105.0        | 118.3        | 121.2        | 61.9         | 22.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 24.1         | 30.5         | 39.4         | 72.3         | 77.8         | 76.0         | 48.7         | 30.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>553.0</b> | <b>645.6</b> | <b>639.6</b> | <b>689.8</b> | <b>753.8</b> | <b>789.7</b> | <b>792.7</b> | <b>688.0</b> | <b>646.1</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 9.8          | 9.7          | 9.8          | 10.6         | 10.8         | 10.5         | 10.4         | 10.6         | 10.6         | 11.2         | 10.1         | 9.7          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.8</b>   | <b>9.8</b>   | <b>10.0</b>  | <b>10.8</b>  | <b>11.0</b>  | <b>11.0</b>  | <b>10.4</b>  | <b>10.4</b>  | <b>10.3</b>  | <b>11.4</b>  | <b>10.1</b>  | <b>9.8</b>   |
| Pilots                  | Residential TOU | 17.9         | 15.3         | 12.4         | 13.4         | 16.1         | 31.3         | 55.2         | 61.5         | 74.3         | 20.5         | 19.2         | 16.9         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.1</b>  | <b>31.3</b>  | <b>55.2</b>  | <b>61.5</b>  | <b>74.3</b>  | <b>20.5</b>  | <b>19.2</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>577.1</b> | <b>610.0</b> | <b>575.4</b> | <b>669.9</b> | <b>666.7</b> | <b>732.1</b> | <b>819.4</b> | <b>861.6</b> | <b>877.3</b> | <b>719.9</b> | <b>675.4</b> | <b>565.4</b> |

Ex Ante Impacts - 2027 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.3          | 6.4          | 6.7          | 6.8          | 9.2          | 9.3          | 9.9          | 8.1          | 5.8          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 25.1         | 28.5         | 51.8         | 100.7        | 113.4        | 116.2        | 59.3         | 21.8         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 26.0         | 32.9         | 42.4         | 77.8         | 83.6         | 81.6         | 52.2         | 32.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.9</b> | <b>645.7</b> | <b>640.0</b> | <b>689.8</b> | <b>753.9</b> | <b>789.5</b> | <b>792.1</b> | <b>688.0</b> | <b>646.6</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 10.2         | 10.2         | 10.2         | 11.1         | 11.3         | 10.9         | 10.9         | 11.0         | 11.0         | 11.7         | 10.5         | 10.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.3</b>  | <b>10.2</b>  | <b>10.4</b>  | <b>11.3</b>  | <b>11.5</b>  | <b>11.4</b>  | <b>10.9</b>  | <b>10.9</b>  | <b>10.7</b>  | <b>11.9</b>  | <b>10.5</b>  | <b>10.2</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.3         | 12.4         | 13.4         | 16.0         | 31.2         | 55.0         | 61.4         | 74.0         | 20.4         | 19.1         | 16.9         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.0</b>  | <b>31.2</b>  | <b>55.0</b>  | <b>61.4</b>  | <b>74.0</b>  | <b>20.4</b>  | <b>19.1</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>577.4</b> | <b>610.4</b> | <b>575.7</b> | <b>670.4</b> | <b>667.5</b> | <b>732.5</b> | <b>819.8</b> | <b>861.8</b> | <b>876.9</b> | <b>720.3</b> | <b>676.3</b> | <b>565.8</b> |

Ex Ante Impacts - 2028 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.2          | 5.7          | 6.0          | 6.1          | 8.2          | 8.3          | 8.8          | 7.2          | 5.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 24.1         | 27.3         | 49.7         | 96.7         | 108.9        | 111.6        | 57.0         | 20.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 27.8         | 35.0         | 45.1         | 82.7         | 88.7         | 86.5         | 55.4         | 34.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.7</b> | <b>645.8</b> | <b>640.3</b> | <b>689.7</b> | <b>753.8</b> | <b>789.2</b> | <b>791.4</b> | <b>687.9</b> | <b>647.1</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 10.6         | 10.6         | 10.7         | 11.5         | 11.8         | 11.4         | 11.3         | 11.5         | 11.5         | 12.2         | 10.9         | 10.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.7</b>  | <b>10.6</b>  | <b>10.8</b>  | <b>11.8</b>  | <b>12.0</b>  | <b>11.9</b>  | <b>11.3</b>  | <b>11.3</b>  | <b>11.2</b>  | <b>12.4</b>  | <b>11.0</b>  | <b>10.6</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.2         | 12.3         | 13.3         | 16.0         | 31.1         | 54.9         | 61.2         | 73.9         | 20.3         | 19.1         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>16.0</b>  | <b>31.1</b>  | <b>54.9</b>  | <b>61.2</b>  | <b>73.9</b>  | <b>20.3</b>  | <b>19.1</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>577.8</b> | <b>610.8</b> | <b>575.9</b> | <b>670.8</b> | <b>668.3</b> | <b>732.7</b> | <b>820.0</b> | <b>861.7</b> | <b>876.5</b> | <b>720.6</b> | <b>677.1</b> | <b>566.2</b> |

Ex Ante Impacts - 2029 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.1          | 5.1          | 5.4          | 5.4          | 7.3          | 7.4          | 7.9          | 6.5          | 4.6          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 23.2         | 26.3         | 47.8         | 93.0         | 104.7        | 107.3        | 54.8         | 20.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 29.3         | 36.9         | 47.5         | 87.0         | 93.2         | 90.8         | 58.1         | 35.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.6</b> | <b>645.8</b> | <b>640.5</b> | <b>689.6</b> | <b>753.5</b> | <b>788.6</b> | <b>790.5</b> | <b>687.7</b> | <b>647.4</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 11.0         | 11.0         | 11.1         | 12.0         | 12.2         | 11.8         | 11.8         | 11.9         | 11.9         | 12.7         | 11.4         | 11.0         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.1</b>  | <b>11.1</b>  | <b>11.3</b>  | <b>12.2</b>  | <b>12.4</b>  | <b>12.4</b>  | <b>11.8</b>  | <b>11.8</b>  | <b>11.7</b>  | <b>12.9</b>  | <b>11.4</b>  | <b>11.0</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.2         | 12.3         | 13.3         | 15.9         | 31.1         | 54.8         | 61.0         | 73.7         | 20.3         | 19.0         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.1</b>  | <b>54.8</b>  | <b>61.0</b>  | <b>73.7</b>  | <b>20.3</b>  | <b>19.0</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>578.2</b> | <b>611.2</b> | <b>576.2</b> | <b>671.3</b> | <b>668.8</b> | <b>733.0</b> | <b>820.1</b> | <b>861.4</b> | <b>875.9</b> | <b>720.9</b> | <b>677.8</b> | <b>566.6</b> |

Ex Ante Impacts - 2030 Portfolio SCE 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 10.2         | 14.3         | 22.9         | 25.7         | 31.9         | 32.1         | 32.4         | 30.7         | 25.0         | 16.5         | 11.0         |
|                         | BIP-15          | 144.6        | 156.5        | 144.7        | 156.7        | 164.8        | 167.1        | 166.7        | 168.1        | 167.9        | 167.1        | 173.2        | 153.0        |
|                         | BIP-30          | 373.6        | 397.7        | 372.0        | 388.0        | 373.9        | 382.2        | 359.9        | 375.1        | 378.3        | 368.7        | 376.6        | 354.2        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 0.9          | 4.6          | 4.8          | 4.9          | 6.6          | 6.6          | 7.1          | 5.8          | 4.2          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 22.3         | 25.3         | 46.0         | 89.5         | 100.8        | 103.3        | 52.7         | 19.3         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 30.6         | 38.5         | 49.6         | 90.7         | 97.2         | 94.7         | 60.6         | 37.2         | 0.0          |
|                         | <b>Subtotal</b> | <b>549.4</b> | <b>584.9</b> | <b>552.5</b> | <b>645.7</b> | <b>640.6</b> | <b>689.3</b> | <b>753.0</b> | <b>788.0</b> | <b>789.6</b> | <b>687.5</b> | <b>647.6</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 11.4         | 11.4         | 11.5         | 12.4         | 12.7         | 12.3         | 12.2         | 12.4         | 12.4         | 13.1         | 11.8         | 11.4         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.5</b>  | <b>11.5</b>  | <b>11.7</b>  | <b>12.7</b>  | <b>12.9</b>  | <b>12.8</b>  | <b>12.2</b>  | <b>12.2</b>  | <b>12.1</b>  | <b>13.3</b>  | <b>11.8</b>  | <b>11.4</b>  |
| Pilots                  | Residential TOU | 17.6         | 15.1         | 12.3         | 13.3         | 15.9         | 31.0         | 54.7         | 60.9         | 73.6         | 20.2         | 19.0         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>15.1</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.0</b>  | <b>54.7</b>  | <b>60.9</b>  | <b>73.6</b>  | <b>20.2</b>  | <b>19.0</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>578.5</b> | <b>611.5</b> | <b>576.5</b> | <b>671.7</b> | <b>669.4</b> | <b>733.1</b> | <b>820.0</b> | <b>861.1</b> | <b>875.3</b> | <b>721.0</b> | <b>678.5</b> | <b>567.0</b> |

Ex Ante Impacts - 2020 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 9.4          | 8.7          | 19.5         | 23.6         | 26.8         | 28.6         | 28.5         | 28.8         | 28.6         | 25.9         | 17.2         | 11.2         |
|                         | BIP-15          | 154.8        | 168.1        | 155.3        | 167.9        | 179.7        | 181.6        | 180.6        | 182.0        | 182.2        | 179.3        | 186.0        | 163.8        |
|                         | BIP-30          | 381.3        | 404.2        | 385.2        | 400.0        | 389.1        | 398.2        | 368.0        | 383.3        | 388.9        | 377.1        | 387.6        | 361.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 15.3         | 17.8         | 22.0         | 24.9         | 22.1         | 23.7         | 24.2         | 19.0         | 16.9         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 43.1         | 82.6         | 138.2        | 198.9        | 175.8        | 185.3        | 198.8        | 120.0        | 79.0         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 11.0         | 12.8         | 19.9         | 28.5         | 30.9         | 33.0         | 33.9         | 21.3         | 17.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>566.1</b> | <b>601.6</b> | <b>650.1</b> | <b>725.4</b> | <b>783.2</b> | <b>868.3</b> | <b>813.5</b> | <b>843.7</b> | <b>864.1</b> | <b>750.2</b> | <b>724.9</b> | <b>557.0</b> |
| Load Modifying Programs | CPP Large       | 7.2          | 7.2          | 8.0          | 8.2          | 7.9          | 7.5          | 7.6          | 7.6          | 7.7          | 7.9          | 7.8          | 7.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.4          | 0.4          | 0.4          | 0.1          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.3</b>   | <b>8.4</b>   | <b>8.7</b>   | <b>8.3</b>   | <b>7.6</b>   | <b>7.6</b>   | <b>7.4</b>   | <b>7.3</b>   | <b>8.2</b>   | <b>7.9</b>   | <b>7.2</b>   |
| Pilots                  | Residential TOU | 2.2          | 1.9          | 1.7          | 1.9          | 2.0          | 7.1          | 6.2          | 7.6          | 8.5          | 4.4          | 4.0          | 3.8          |
|                         | <b>Subtotal</b> | <b>2.2</b>   | <b>1.9</b>   | <b>1.7</b>   | <b>1.9</b>   | <b>2.0</b>   | <b>7.1</b>   | <b>6.2</b>   | <b>7.6</b>   | <b>8.5</b>   | <b>4.4</b>   | <b>4.0</b>   | <b>3.8</b>   |
| <b>Total</b>            |                 | <b>575.7</b> | <b>610.8</b> | <b>660.2</b> | <b>736.0</b> | <b>793.5</b> | <b>883.0</b> | <b>827.3</b> | <b>858.7</b> | <b>879.9</b> | <b>762.8</b> | <b>736.8</b> | <b>568.0</b> |

Ex Ante Impacts - 2021 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.6         | 9.8          | 21.9         | 26.4         | 29.8         | 31.7         | 31.5         | 31.7         | 31.5         | 28.6         | 19.1         | 12.4         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 13.6         | 15.8         | 19.5         | 22.1         | 19.6         | 21.0         | 21.4         | 16.8         | 15.0         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 39.1         | 75.0         | 125.5        | 180.5        | 159.6        | 168.2        | 180.4        | 108.9        | 71.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 13.5         | 16.0         | 25.0         | 36.3         | 39.6         | 42.7         | 43.5         | 27.1         | 22.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.2</b> | <b>582.1</b> | <b>630.0</b> | <b>701.2</b> | <b>755.0</b> | <b>836.5</b> | <b>785.7</b> | <b>815.3</b> | <b>834.3</b> | <b>724.7</b> | <b>700.7</b> | <b>538.8</b> |
| Load Modifying Programs | CPP Large       | 7.6          | 7.6          | 8.5          | 8.7          | 8.3          | 7.9          | 8.1          | 8.0          | 8.1          | 8.4          | 8.2          | 7.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.4          | 0.3          | 0.1          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.8</b>   | <b>7.7</b>   | <b>8.8</b>   | <b>9.1</b>   | <b>8.7</b>   | <b>8.0</b>   | <b>8.0</b>   | <b>7.8</b>   | <b>7.8</b>   | <b>8.7</b>   | <b>8.3</b>   | <b>7.7</b>   |
| Pilots                  | Residential TOU | 3.9          | 3.6          | 3.1          | 3.3          | 3.4          | 13.9         | 11.4         | 14.6         | 20.7         | 7.2          | 10.8         | 11.9         |
|                         | <b>Subtotal</b> | <b>3.9</b>   | <b>3.6</b>   | <b>3.1</b>   | <b>3.3</b>   | <b>3.4</b>   | <b>13.9</b>  | <b>11.4</b>  | <b>14.6</b>  | <b>20.7</b>  | <b>7.2</b>   | <b>10.8</b>  | <b>11.9</b>  |
| <b>Total</b>            |                 | <b>559.9</b> | <b>593.5</b> | <b>641.9</b> | <b>713.6</b> | <b>767.1</b> | <b>858.4</b> | <b>805.1</b> | <b>837.8</b> | <b>862.8</b> | <b>740.5</b> | <b>719.8</b> | <b>558.4</b> |

Ex Ante Impacts - 2022 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 12.1         | 14.0         | 17.3         | 19.6         | 17.4         | 18.7         | 19.0         | 15.0         | 13.3         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 36.9         | 70.9         | 118.5        | 170.5        | 150.7        | 158.9        | 170.4        | 102.9        | 67.7         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 16.7         | 19.6         | 30.5         | 44.1         | 48.0         | 51.4         | 52.3         | 32.6         | 26.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.3</b> | <b>699.9</b> | <b>752.6</b> | <b>833.1</b> | <b>784.4</b> | <b>813.8</b> | <b>832.2</b> | <b>723.5</b> | <b>700.4</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 8.1          | 8.1          | 9.0          | 9.2          | 8.8          | 8.4          | 8.5          | 8.5          | 8.6          | 8.9          | 8.7          | 8.1          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.1          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>8.1</b>   | <b>9.2</b>   | <b>9.5</b>   | <b>9.1</b>   | <b>8.5</b>   | <b>8.5</b>   | <b>8.3</b>   | <b>8.3</b>   | <b>9.1</b>   | <b>8.7</b>   | <b>8.1</b>   |
| Pilots                  | Residential TOU | 15.5         | 15.2         | 13.8         | 14.6         | 17.0         | 65.0         | 57.1         | 68.1         | 79.7         | 20.8         | 19.8         | 16.9         |
|                         | <b>Subtotal</b> | <b>15.5</b>  | <b>15.2</b>  | <b>13.8</b>  | <b>14.6</b>  | <b>17.0</b>  | <b>65.0</b>  | <b>57.1</b>  | <b>68.1</b>  | <b>79.7</b>  | <b>20.8</b>  | <b>19.8</b>  | <b>16.9</b>  |
| <b>Total</b>            |                 | <b>572.2</b> | <b>605.8</b> | <b>653.3</b> | <b>724.0</b> | <b>778.7</b> | <b>906.6</b> | <b>849.9</b> | <b>890.2</b> | <b>920.1</b> | <b>753.4</b> | <b>729.0</b> | <b>564.4</b> |



Ex Ante Impacts - 2023 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 10.7         | 12.5         | 15.4         | 17.4         | 15.5         | 16.6         | 16.9         | 13.3         | 11.8         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 35.2         | 67.5         | 112.9        | 162.5        | 143.6        | 151.4        | 162.4        | 98.0         | 64.5         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 19.9         | 23.4         | 36.4         | 52.4         | 57.0         | 60.9         | 61.9         | 38.4         | 31.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.4</b> | <b>698.8</b> | <b>750.9</b> | <b>831.3</b> | <b>784.3</b> | <b>813.9</b> | <b>831.6</b> | <b>722.9</b> | <b>700.5</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 8.5          | 8.5          | 9.4          | 9.7          | 9.3          | 8.8          | 8.9          | 8.9          | 9.0          | 9.3          | 9.1          | 8.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.1          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.6</b>   | <b>8.5</b>   | <b>9.7</b>   | <b>10.0</b>  | <b>9.5</b>   | <b>8.9</b>   | <b>8.9</b>   | <b>8.7</b>   | <b>8.7</b>   | <b>9.5</b>   | <b>9.2</b>   | <b>8.5</b>   |
| Pilots                  | Residential TOU | 17.8         | 15.6         | 13.7         | 14.5         | 16.9         | 64.7         | 56.9         | 67.8         | 79.4         | 20.7         | 19.7         | 16.8         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.6</b>  | <b>13.7</b>  | <b>14.5</b>  | <b>16.9</b>  | <b>64.7</b>  | <b>56.9</b>  | <b>67.8</b>  | <b>79.4</b>  | <b>20.7</b>  | <b>19.7</b>  | <b>16.8</b>  |
| <b>Total</b>            |                 | <b>574.9</b> | <b>606.6</b> | <b>653.8</b> | <b>723.2</b> | <b>777.3</b> | <b>904.8</b> | <b>850.2</b> | <b>890.4</b> | <b>919.7</b> | <b>753.1</b> | <b>729.4</b> | <b>564.7</b> |

### Ex Ante Impacts - 2024 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 9.6          | 11.1         | 13.7         | 15.5         | 13.8         | 14.8         | 15.1         | 11.8         | 10.5         | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 33.6         | 64.4         | 107.8        | 155.1        | 137.1        | 144.5        | 155.0        | 93.6         | 61.6         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 23.2         | 27.2         | 42.2         | 60.7         | 65.8         | 70.2         | 71.1         | 44.0         | 36.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>630.9</b> | <b>698.1</b> | <b>749.9</b> | <b>830.2</b> | <b>784.9</b> | <b>814.4</b> | <b>831.6</b> | <b>722.5</b> | <b>700.8</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 8.9          | 8.9          | 9.9          | 10.2         | 9.7          | 9.2          | 9.4          | 9.3          | 9.5          | 9.8          | 9.6          | 8.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.0</b>   | <b>9.0</b>   | <b>10.1</b>  | <b>10.4</b>  | <b>10.0</b>  | <b>9.3</b>   | <b>9.4</b>   | <b>9.2</b>   | <b>9.2</b>   | <b>10.0</b>  | <b>9.6</b>   | <b>8.9</b>   |
| Pilots                  | Residential TOU | 17.7         | 15.5         | 13.6         | 14.4         | 16.8         | 64.4         | 56.6         | 67.5         | 79.1         | 20.6         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.5</b>  | <b>13.6</b>  | <b>14.4</b>  | <b>16.8</b>  | <b>64.4</b>  | <b>56.6</b>  | <b>67.5</b>  | <b>79.1</b>  | <b>20.6</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>575.2</b> | <b>606.9</b> | <b>654.6</b> | <b>722.9</b> | <b>776.6</b> | <b>903.9</b> | <b>850.9</b> | <b>891.1</b> | <b>919.9</b> | <b>753.1</b> | <b>730.0</b> | <b>565.0</b> |

Ex Ante Impacts - 2025 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 8.5          | 9.9          | 12.2         | 13.8         | 12.3         | 13.2         | 13.4         | 10.5         | 9.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 32.1         | 61.6         | 103.1        | 148.3        | 131.1        | 138.2        | 148.2        | 89.5         | 58.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 26.2         | 30.6         | 47.4         | 68.1         | 73.6         | 78.4         | 79.2         | 49.0         | 40.1         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>631.4</b> | <b>697.5</b> | <b>748.9</b> | <b>829.1</b> | <b>785.2</b> | <b>814.7</b> | <b>831.3</b> | <b>722.1</b> | <b>700.9</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 9.3          | 9.3          | 10.4         | 10.6         | 10.2         | 9.7          | 9.8          | 9.8          | 9.9          | 10.2         | 10.1         | 9.3          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.4</b>   | <b>9.4</b>   | <b>10.6</b>  | <b>10.9</b>  | <b>10.4</b>  | <b>9.8</b>   | <b>9.8</b>   | <b>9.6</b>   | <b>9.7</b>   | <b>10.4</b>  | <b>10.1</b>  | <b>9.3</b>   |
| Pilots                  | Residential TOU | 17.7         | 15.4         | 13.6         | 14.3         | 16.8         | 64.2         | 56.4         | 67.3         | 78.8         | 20.5         | 19.6         | 16.7         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.4</b>  | <b>13.6</b>  | <b>14.3</b>  | <b>16.8</b>  | <b>64.2</b>  | <b>56.4</b>  | <b>67.3</b>  | <b>78.8</b>  | <b>20.5</b>  | <b>19.6</b>  | <b>16.7</b>  |
| <b>Total</b>            |                 | <b>575.7</b> | <b>607.2</b> | <b>655.6</b> | <b>722.7</b> | <b>776.1</b> | <b>903.1</b> | <b>851.5</b> | <b>891.6</b> | <b>919.7</b> | <b>753.0</b> | <b>730.6</b> | <b>565.4</b> |

Ex Ante Impacts - 2026 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 7.6          | 8.8          | 10.9         | 12.3         | 11.0         | 11.7         | 12.0         | 9.4          | 8.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 30.8         | 59.0         | 98.7         | 142.0        | 125.5        | 132.3        | 141.9        | 85.7         | 56.4         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 28.9         | 33.7         | 52.1         | 74.6         | 80.6         | 85.7         | 86.4         | 53.3         | 43.6         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>631.8</b> | <b>696.9</b> | <b>747.9</b> | <b>827.9</b> | <b>785.3</b> | <b>814.6</b> | <b>830.7</b> | <b>721.5</b> | <b>700.9</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 9.8          | 9.7          | 10.8         | 11.1         | 10.6         | 10.1         | 10.3         | 10.2         | 10.4         | 10.7         | 10.5         | 9.8          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.8</b>   | <b>9.8</b>   | <b>11.0</b>  | <b>11.4</b>  | <b>10.9</b>  | <b>10.2</b>  | <b>10.3</b>  | <b>10.1</b>  | <b>10.1</b>  | <b>10.9</b>  | <b>10.6</b>  | <b>9.8</b>   |
| Pilots                  | Residential TOU | 17.6         | 15.4         | 13.5         | 14.3         | 16.7         | 64.0         | 56.3         | 67.0         | 78.6         | 20.4         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.6</b>  | <b>15.4</b>  | <b>13.5</b>  | <b>14.3</b>  | <b>16.7</b>  | <b>64.0</b>  | <b>56.3</b>  | <b>67.0</b>  | <b>78.6</b>  | <b>20.4</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>576.0</b> | <b>607.7</b> | <b>656.4</b> | <b>722.6</b> | <b>775.4</b> | <b>902.1</b> | <b>851.9</b> | <b>891.7</b> | <b>919.4</b> | <b>752.8</b> | <b>730.9</b> | <b>565.8</b> |

Ex Ante Impacts - 2027 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 6.8          | 7.9          | 9.7          | 11.0         | 9.8          | 10.5         | 10.7         | 8.4          | 7.5          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 29.5         | 56.6         | 94.6         | 136.2        | 120.4        | 126.9        | 136.1        | 82.2         | 54.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 31.3         | 36.4         | 56.2         | 80.4         | 86.7         | 92.1         | 92.8         | 57.2         | 46.7         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.1</b> | <b>696.3</b> | <b>746.8</b> | <b>826.5</b> | <b>785.1</b> | <b>814.4</b> | <b>830.0</b> | <b>720.9</b> | <b>700.8</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 10.2         | 10.2         | 11.3         | 11.6         | 11.1         | 10.6         | 10.7         | 10.7         | 10.8         | 11.2         | 11.0         | 10.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.3</b>  | <b>10.2</b>  | <b>11.5</b>  | <b>11.9</b>  | <b>11.3</b>  | <b>10.6</b>  | <b>10.7</b>  | <b>10.5</b>  | <b>10.6</b>  | <b>11.4</b>  | <b>11.0</b>  | <b>10.2</b>  |
| Pilots                  | Residential TOU | 17.5         | 15.3         | 13.4         | 14.2         | 16.6         | 63.8         | 56.1         | 66.8         | 78.4         | 20.4         | 19.5         | 16.6         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>15.3</b>  | <b>13.4</b>  | <b>14.2</b>  | <b>16.6</b>  | <b>63.8</b>  | <b>56.1</b>  | <b>66.8</b>  | <b>78.4</b>  | <b>20.4</b>  | <b>19.5</b>  | <b>16.6</b>  |
| <b>Total</b>            |                 | <b>576.3</b> | <b>608.0</b> | <b>657.0</b> | <b>722.3</b> | <b>774.7</b> | <b>900.9</b> | <b>851.9</b> | <b>891.7</b> | <b>919.0</b> | <b>752.6</b> | <b>731.3</b> | <b>566.2</b> |

Ex Ante Impacts - 2028 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 6.1          | 7.0          | 8.7          | 9.8          | 8.8          | 9.4          | 9.6          | 7.5          | 6.7          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 28.3         | 54.3         | 90.9         | 130.8        | 115.6        | 121.9        | 130.7        | 78.9         | 51.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 33.3         | 38.8         | 59.8         | 85.5         | 92.1         | 97.7         | 98.4         | 60.6         | 49.4         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.3</b> | <b>695.6</b> | <b>745.6</b> | <b>825.0</b> | <b>784.7</b> | <b>813.9</b> | <b>829.1</b> | <b>720.1</b> | <b>700.6</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 10.6         | 10.6         | 11.8         | 12.1         | 11.6         | 11.0         | 11.2         | 11.1         | 11.3         | 11.6         | 11.4         | 10.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.7</b>  | <b>10.6</b>  | <b>12.0</b>  | <b>12.3</b>  | <b>11.8</b>  | <b>11.1</b>  | <b>11.2</b>  | <b>11.0</b>  | <b>11.0</b>  | <b>11.8</b>  | <b>11.5</b>  | <b>10.6</b>  |
| Pilots                  | Residential TOU | 17.5         | 15.2         | 13.4         | 14.1         | 16.6         | 63.6         | 56.0         | 66.6         | 78.2         | 20.3         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.5</b>  | <b>15.2</b>  | <b>13.4</b>  | <b>14.1</b>  | <b>16.6</b>  | <b>63.6</b>  | <b>56.0</b>  | <b>66.6</b>  | <b>78.2</b>  | <b>20.3</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>576.7</b> | <b>608.3</b> | <b>657.7</b> | <b>722.0</b> | <b>774.0</b> | <b>899.7</b> | <b>851.8</b> | <b>891.4</b> | <b>918.3</b> | <b>752.2</b> | <b>731.4</b> | <b>566.5</b> |

Ex Ante Impacts - 2029 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 5.4          | 6.3          | 7.8          | 8.8          | 7.8          | 8.4          | 8.6          | 6.7          | 6.0          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 27.2         | 52.2         | 87.4         | 125.7        | 111.1        | 117.2        | 125.7        | 75.9         | 49.9         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 35.2         | 40.9         | 63.0         | 90.0         | 96.9         | 102.7        | 103.3        | 63.6         | 51.8         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.4</b> | <b>694.8</b> | <b>744.4</b> | <b>823.5</b> | <b>784.1</b> | <b>813.2</b> | <b>828.0</b> | <b>719.3</b> | <b>700.3</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 11.0         | 11.0         | 12.2         | 12.6         | 12.0         | 11.4         | 11.6         | 11.6         | 11.7         | 12.1         | 11.9         | 11.0         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.1</b>  | <b>11.1</b>  | <b>12.4</b>  | <b>12.8</b>  | <b>12.3</b>  | <b>11.5</b>  | <b>11.6</b>  | <b>11.4</b>  | <b>11.5</b>  | <b>12.3</b>  | <b>11.9</b>  | <b>11.0</b>  |
| Pilots                  | Residential TOU | 17.4         | 15.2         | 13.4         | 14.1         | 16.5         | 63.5         | 55.8         | 66.5         | 78.0         | 20.2         | 19.4         | 16.5         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>15.2</b>  | <b>13.4</b>  | <b>14.1</b>  | <b>16.5</b>  | <b>63.5</b>  | <b>55.8</b>  | <b>66.5</b>  | <b>78.0</b>  | <b>20.2</b>  | <b>19.4</b>  | <b>16.5</b>  |
| <b>Total</b>            |                 | <b>577.0</b> | <b>608.7</b> | <b>658.3</b> | <b>721.8</b> | <b>773.1</b> | <b>898.5</b> | <b>851.5</b> | <b>891.1</b> | <b>917.4</b> | <b>751.8</b> | <b>731.6</b> | <b>566.9</b> |

Ex Ante Impacts - 2030 Portfolio CAISO 1-in-10

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 11.0         | 10.1         | 22.6         | 27.4         | 31.0         | 33.0         | 32.9         | 33.2         | 33.0         | 30.0         | 19.9         | 13.0         |
|                         | BIP-15          | 143.1        | 155.4        | 143.6        | 155.2        | 166.1        | 167.9        | 167.0        | 168.3        | 168.5        | 165.8        | 171.9        | 151.5        |
|                         | BIP-30          | 373.9        | 396.3        | 377.7        | 392.2        | 381.5        | 390.4        | 360.8        | 375.9        | 381.4        | 369.8        | 380.1        | 354.4        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 4.9          | 5.6          | 7.0          | 7.9          | 7.0          | 7.5          | 7.7          | 6.0          | 5.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 26.2         | 50.3         | 84.1         | 121.0        | 107.0        | 112.8        | 121.0        | 73.0         | 48.1         | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 36.8         | 42.7         | 65.8         | 94.0         | 101.1        | 107.1        | 107.7        | 66.3         | 54.0         | 0.0          |
|                         | <b>Subtotal</b> | <b>548.5</b> | <b>582.5</b> | <b>632.5</b> | <b>694.1</b> | <b>743.1</b> | <b>821.8</b> | <b>783.4</b> | <b>812.3</b> | <b>826.8</b> | <b>718.5</b> | <b>700.0</b> | <b>539.4</b> |
| Load Modifying Programs | CPP Large       | 11.4         | 11.4         | 12.7         | 13.0         | 12.5         | 11.9         | 12.0         | 12.0         | 12.2         | 12.6         | 12.3         | 11.4         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.3          | 0.2          | 0.1          | -0.0         | -0.1         | -0.3         | 0.2          | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.5</b>  | <b>11.5</b>  | <b>12.9</b>  | <b>13.3</b>  | <b>12.7</b>  | <b>11.9</b>  | <b>12.0</b>  | <b>11.9</b>  | <b>11.9</b>  | <b>12.8</b>  | <b>12.4</b>  | <b>11.4</b>  |
| Pilots                  | Residential TOU | 17.4         | 15.2         | 13.3         | 14.0         | 16.5         | 63.3         | 55.7         | 66.3         | 77.8         | 20.2         | 19.3         | 16.4         |
|                         | <b>Subtotal</b> | <b>17.4</b>  | <b>15.2</b>  | <b>13.3</b>  | <b>14.0</b>  | <b>16.5</b>  | <b>63.3</b>  | <b>55.7</b>  | <b>66.3</b>  | <b>77.8</b>  | <b>20.2</b>  | <b>19.3</b>  | <b>16.4</b>  |
| <b>Total</b>            |                 | <b>577.5</b> | <b>609.1</b> | <b>658.7</b> | <b>721.4</b> | <b>772.3</b> | <b>897.1</b> | <b>851.1</b> | <b>890.5</b> | <b>916.5</b> | <b>751.4</b> | <b>731.7</b> | <b>567.2</b> |



Ex Ante Impacts - 2020 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 8.8          | 8.8          | 12.2         | 21.3         | 24.8         | 28.3         | 27.5         | 28.1         | 26.1         | 23.6         | 11.1         | 8.6          |
|                         | BIP-15          | 156.5        | 169.3        | 156.5        | 169.6        | 178.2        | 180.8        | 180.4        | 182.0        | 182.2        | 180.7        | 187.3        | 165.7        |
|                         | BIP-30          | 381.1        | 404.6        | 379.4        | 394.1        | 379.9        | 389.3        | 367.3        | 382.7        | 387.5        | 374.5        | 380.8        | 361.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 3.0          | 12.9         | 14.8         | 16.2         | 20.4         | 20.8         | 22.3         | 16.3         | 7.5          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 18.5         | 47.6         | 75.3         | 144.8        | 164.7        | 176.6        | 75.6         | 2.9          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 11.2         | 15.3         | 27.5         | 29.6         | 30.3         | 17.5         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>567.0</b> | <b>603.3</b> | <b>571.6</b> | <b>637.0</b> | <b>664.1</b> | <b>712.7</b> | <b>775.4</b> | <b>815.5</b> | <b>832.6</b> | <b>695.8</b> | <b>610.1</b> | <b>556.6</b> |
| Load Modifying Programs | CPP Large       | 7.2          | 7.2          | 7.3          | 8.0          | 8.0          | 7.7          | 7.8          | 7.9          | 8.0          | 8.2          | 7.1          | 7.2          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.4          | 0.3          | 0.8          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.3</b>   | <b>7.6</b>   | <b>8.4</b>   | <b>8.3</b>   | <b>8.5</b>   | <b>7.8</b>   | <b>7.7</b>   | <b>7.6</b>   | <b>8.5</b>   | <b>7.2</b>   | <b>7.2</b>   |
| Pilots                  | Residential TOU | 2.3          | 1.9          | 1.5          | 1.8          | 1.9          | 3.6          | 5.9          | 6.9          | 8.1          | 4.3          | 3.9          | 3.9          |
|                         | <b>Subtotal</b> | <b>2.3</b>   | <b>1.9</b>   | <b>1.5</b>   | <b>1.8</b>   | <b>1.9</b>   | <b>3.6</b>   | <b>5.9</b>   | <b>6.9</b>   | <b>8.1</b>   | <b>4.3</b>   | <b>3.9</b>   | <b>3.9</b>   |
| <b>Total</b>            |                 | <b>576.7</b> | <b>612.5</b> | <b>580.7</b> | <b>647.2</b> | <b>674.3</b> | <b>724.8</b> | <b>789.1</b> | <b>830.1</b> | <b>848.3</b> | <b>708.6</b> | <b>621.1</b> | <b>567.7</b> |

Ex Ante Impacts - 2021 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.0         | 9.9          | 13.6         | 23.8         | 27.6         | 31.4         | 30.3         | 30.9         | 28.8         | 26.1         | 12.2         | 9.6          |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.7          | 11.5         | 13.1         | 14.3         | 18.1         | 18.4         | 19.8         | 14.5         | 6.6          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 16.8         | 43.2         | 68.3         | 131.4        | 149.5        | 160.3        | 68.6         | 2.6          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 14.1         | 19.4         | 35.2         | 38.3         | 38.9         | 22.3         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>548.9</b> | <b>583.8</b> | <b>553.6</b> | <b>615.9</b> | <b>642.9</b> | <b>689.9</b> | <b>749.6</b> | <b>788.3</b> | <b>803.8</b> | <b>673.4</b> | <b>588.6</b> | <b>538.0</b> |
| Load Modifying Programs | CPP Large       | 7.7          | 7.6          | 7.7          | 8.5          | 8.4          | 8.1          | 8.3          | 8.3          | 8.5          | 8.7          | 7.5          | 7.6          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.3          | 0.3          | 0.3          | 0.7          | -0.0         | -0.2         | -0.4         | 0.3          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>7.8</b>   | <b>7.7</b>   | <b>7.9</b>   | <b>8.8</b>   | <b>8.7</b>   | <b>8.9</b>   | <b>8.2</b>   | <b>8.1</b>   | <b>8.1</b>   | <b>8.9</b>   | <b>7.6</b>   | <b>7.6</b>   |
| Pilots                  | Residential TOU | 4.0          | 3.6          | 2.8          | 3.1          | 3.2          | 6.3          | 11.0         | 13.0         | 19.7         | 7.1          | 10.4         | 12.5         |
|                         | <b>Subtotal</b> | <b>4.0</b>   | <b>3.6</b>   | <b>2.8</b>   | <b>3.1</b>   | <b>3.2</b>   | <b>6.3</b>   | <b>11.0</b>  | <b>13.0</b>  | <b>19.7</b>  | <b>7.1</b>   | <b>10.4</b>  | <b>12.5</b>  |
| <b>Total</b>            |                 | <b>560.7</b> | <b>595.1</b> | <b>564.3</b> | <b>627.7</b> | <b>654.8</b> | <b>705.1</b> | <b>768.8</b> | <b>809.5</b> | <b>831.6</b> | <b>689.4</b> | <b>606.6</b> | <b>558.1</b> |

Ex Ante Impacts - 2022 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.4          | 10.2         | 11.7         | 12.7         | 16.1         | 16.4         | 17.6         | 12.9         | 5.9          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 15.9         | 40.8         | 64.5         | 124.1        | 141.2        | 151.4        | 64.8         | 2.5          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 17.2         | 23.6         | 42.6         | 46.1         | 46.7         | 26.7         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.7</b> | <b>614.5</b> | <b>643.2</b> | <b>690.0</b> | <b>749.0</b> | <b>787.2</b> | <b>801.9</b> | <b>673.6</b> | <b>588.3</b> | <b>538.5</b> |
| Load Modifying Programs | CPP Large       | 8.1          | 8.1          | 8.1          | 8.9          | 8.9          | 8.6          | 8.7          | 8.8          | 8.9          | 9.1          | 7.9          | 8.0          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.2          | 0.3          | 0.3          | 0.6          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>8.1</b>   | <b>8.3</b>   | <b>9.2</b>   | <b>9.1</b>   | <b>9.2</b>   | <b>8.7</b>   | <b>8.6</b>   | <b>8.6</b>   | <b>9.4</b>   | <b>8.0</b>   | <b>8.0</b>   |
| Pilots                  | Residential TOU | 15.8         | 15.2         | 12.6         | 13.7         | 16.2         | 31.9         | 54.9         | 60.9         | 75.9         | 20.7         | 19.0         | 17.6         |
|                         | <b>Subtotal</b> | <b>15.8</b>  | <b>15.2</b>  | <b>12.6</b>  | <b>13.7</b>  | <b>16.2</b>  | <b>31.9</b>  | <b>54.9</b>  | <b>60.9</b>  | <b>75.9</b>  | <b>20.7</b>  | <b>19.0</b>  | <b>17.6</b>  |
| <b>Total</b>            |                 | <b>573.2</b> | <b>607.4</b> | <b>574.7</b> | <b>637.5</b> | <b>668.6</b> | <b>731.2</b> | <b>812.6</b> | <b>856.7</b> | <b>886.4</b> | <b>703.7</b> | <b>615.3</b> | <b>564.1</b> |

Ex Ante Impacts - 2023 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 2.1          | 9.0          | 10.4         | 11.3         | 14.3         | 14.6         | 15.6         | 11.4         | 5.2          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 15.1         | 38.9         | 61.5         | 118.3        | 134.5        | 144.3        | 61.8         | 2.4          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 20.5         | 28.1         | 50.6         | 54.7         | 55.3         | 31.5         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.5</b> | <b>612.7</b> | <b>643.3</b> | <b>690.0</b> | <b>749.4</b> | <b>787.3</b> | <b>801.3</b> | <b>674.0</b> | <b>587.5</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 8.5          | 8.5          | 8.5          | 9.4          | 9.3          | 9.0          | 9.2          | 9.3          | 9.4          | 9.6          | 8.4          | 8.5          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.1          | 0.2          | 0.3          | 0.2          | 0.6          | -0.0         | -0.2         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>8.6</b>   | <b>8.5</b>   | <b>8.8</b>   | <b>9.6</b>   | <b>9.6</b>   | <b>9.6</b>   | <b>9.2</b>   | <b>9.1</b>   | <b>9.1</b>   | <b>9.8</b>   | <b>8.4</b>   | <b>8.5</b>   |
| Pilots                  | Residential TOU | 18.2         | 15.5         | 12.5         | 13.6         | 16.1         | 31.7         | 54.6         | 60.6         | 75.5         | 20.5         | 18.9         | 17.6         |
|                         | <b>Subtotal</b> | <b>18.2</b>  | <b>15.5</b>  | <b>12.5</b>  | <b>13.6</b>  | <b>16.1</b>  | <b>31.7</b>  | <b>54.6</b>  | <b>60.6</b>  | <b>75.5</b>  | <b>20.5</b>  | <b>18.9</b>  | <b>17.6</b>  |
| <b>Total</b>            |                 | <b>576.0</b> | <b>608.1</b> | <b>574.7</b> | <b>635.9</b> | <b>669.0</b> | <b>731.4</b> | <b>813.1</b> | <b>857.0</b> | <b>886.0</b> | <b>704.3</b> | <b>614.8</b> | <b>564.5</b> |

### Ex Ante Impacts - 2024 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.9          | 8.0          | 9.2          | 10.1         | 12.7         | 13.0         | 13.9         | 10.2         | 4.7          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 14.4         | 37.1         | 58.7         | 112.9        | 128.4        | 137.7        | 58.9         | 2.2          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 23.8         | 32.5         | 58.5         | 63.0         | 63.5         | 36.1         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.2</b> | <b>611.0</b> | <b>643.7</b> | <b>690.4</b> | <b>750.3</b> | <b>788.0</b> | <b>801.3</b> | <b>674.5</b> | <b>586.8</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 8.9          | 8.9          | 9.0          | 9.8          | 9.8          | 9.5          | 9.6          | 9.7          | 9.9          | 10.1         | 8.8          | 8.9          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.0</b>   | <b>9.0</b>   | <b>9.2</b>   | <b>10.1</b>  | <b>10.0</b>  | <b>10.0</b>  | <b>9.6</b>   | <b>9.6</b>   | <b>9.6</b>   | <b>10.3</b>  | <b>8.8</b>   | <b>8.9</b>   |
| Pilots                  | Residential TOU | 18.1         | 15.4         | 12.5         | 13.5         | 16.0         | 31.6         | 54.4         | 60.3         | 75.2         | 20.4         | 18.8         | 17.5         |
|                         | <b>Subtotal</b> | <b>18.1</b>  | <b>15.4</b>  | <b>12.5</b>  | <b>13.5</b>  | <b>16.0</b>  | <b>31.6</b>  | <b>54.4</b>  | <b>60.3</b>  | <b>75.2</b>  | <b>20.4</b>  | <b>18.8</b>  | <b>17.5</b>  |
| <b>Total</b>            |                 | <b>576.3</b> | <b>608.4</b> | <b>574.9</b> | <b>634.6</b> | <b>669.7</b> | <b>732.0</b> | <b>814.3</b> | <b>857.8</b> | <b>886.1</b> | <b>705.2</b> | <b>614.4</b> | <b>564.8</b> |

Ex Ante Impacts - 2025 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.7          | 7.2          | 8.2          | 9.0          | 11.3         | 11.5         | 12.4         | 9.1          | 4.2          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 13.8         | 35.5         | 56.1         | 108.0        | 122.8        | 131.7        | 56.4         | 2.1          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 26.8         | 36.5         | 65.5         | 70.4         | 70.8         | 40.2         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>553.0</b> | <b>609.5</b> | <b>644.0</b> | <b>690.7</b> | <b>750.9</b> | <b>788.3</b> | <b>801.0</b> | <b>674.9</b> | <b>586.2</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 9.3          | 9.3          | 9.4          | 10.3         | 10.3         | 9.9          | 10.1         | 10.2         | 10.3         | 10.6         | 9.2          | 9.3          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.4</b>   | <b>9.4</b>   | <b>9.6</b>   | <b>10.5</b>  | <b>10.5</b>  | <b>10.5</b>  | <b>10.1</b>  | <b>10.0</b>  | <b>10.1</b>  | <b>10.8</b>  | <b>9.2</b>   | <b>9.3</b>   |
| Pilots                  | Residential TOU | 18.0         | 15.4         | 12.4         | 13.4         | 16.0         | 31.4         | 54.2         | 60.1         | 75.0         | 20.3         | 18.8         | 17.4         |
|                         | <b>Subtotal</b> | <b>18.0</b>  | <b>15.4</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>16.0</b>  | <b>31.4</b>  | <b>54.2</b>  | <b>60.1</b>  | <b>75.0</b>  | <b>20.3</b>  | <b>18.8</b>  | <b>17.4</b>  |
| <b>Total</b>            |                 | <b>576.6</b> | <b>608.9</b> | <b>575.0</b> | <b>633.4</b> | <b>670.5</b> | <b>732.6</b> | <b>815.2</b> | <b>858.4</b> | <b>886.1</b> | <b>705.9</b> | <b>614.3</b> | <b>565.1</b> |

### Ex Ante Impacts - 2026 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.5          | 6.4          | 7.3          | 8.0          | 10.1         | 10.3         | 11.1         | 8.1          | 3.7          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 13.2         | 34.0         | 53.8         | 103.4        | 117.6        | 126.1        | 54.0         | 2.1          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 29.4         | 40.0         | 71.6         | 76.9         | 77.3         | 43.8         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.9</b> | <b>608.1</b> | <b>644.2</b> | <b>690.9</b> | <b>751.3</b> | <b>788.3</b> | <b>800.5</b> | <b>675.1</b> | <b>585.7</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 9.8          | 9.8          | 9.8          | 10.8         | 10.7         | 10.4         | 10.5         | 10.6         | 10.8         | 11.1         | 9.6          | 9.7          |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>9.8</b>   | <b>9.8</b>   | <b>10.0</b>  | <b>11.0</b>  | <b>10.9</b>  | <b>10.9</b>  | <b>10.5</b>  | <b>10.5</b>  | <b>10.5</b>  | <b>11.3</b>  | <b>9.7</b>   | <b>9.7</b>   |
| Pilots                  | Residential TOU | 17.9         | 15.3         | 12.4         | 13.4         | 15.9         | 31.3         | 54.1         | 59.9         | 74.7         | 20.3         | 18.7         | 17.3         |
|                         | <b>Subtotal</b> | <b>17.9</b>  | <b>15.3</b>  | <b>12.4</b>  | <b>13.4</b>  | <b>15.9</b>  | <b>31.3</b>  | <b>54.1</b>  | <b>59.9</b>  | <b>74.7</b>  | <b>20.3</b>  | <b>18.7</b>  | <b>17.3</b>  |
| <b>Total</b>            |                 | <b>576.9</b> | <b>609.2</b> | <b>575.3</b> | <b>632.5</b> | <b>671.1</b> | <b>733.1</b> | <b>815.9</b> | <b>858.7</b> | <b>885.8</b> | <b>706.6</b> | <b>614.0</b> | <b>565.4</b> |

Ex Ante Impacts - 2027 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.3          | 5.7          | 6.5          | 7.1          | 9.0          | 9.2          | 9.9          | 7.2          | 3.3          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 12.7         | 32.6         | 51.6         | 99.2         | 112.7        | 120.9        | 51.8         | 2.0          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 31.7         | 43.1         | 77.1         | 82.6         | 82.9         | 46.9         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.7</b> | <b>606.9</b> | <b>644.4</b> | <b>690.9</b> | <b>751.4</b> | <b>788.1</b> | <b>799.9</b> | <b>675.2</b> | <b>585.2</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 10.2         | 10.2         | 10.2         | 11.2         | 11.2         | 10.8         | 11.0         | 11.1         | 11.3         | 11.5         | 10.0         | 10.1         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.3</b>  | <b>10.2</b>  | <b>10.4</b>  | <b>11.5</b>  | <b>11.4</b>  | <b>11.3</b>  | <b>11.0</b>  | <b>10.9</b>  | <b>11.0</b>  | <b>11.7</b>  | <b>10.1</b>  | <b>10.1</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.2         | 12.3         | 13.3         | 15.9         | 31.2         | 53.9         | 59.7         | 74.5         | 20.2         | 18.6         | 17.3         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.9</b>  | <b>31.2</b>  | <b>53.9</b>  | <b>59.7</b>  | <b>74.5</b>  | <b>20.2</b>  | <b>18.6</b>  | <b>17.3</b>  |
| <b>Total</b>            |                 | <b>577.3</b> | <b>609.5</b> | <b>575.4</b> | <b>631.7</b> | <b>671.7</b> | <b>733.5</b> | <b>816.3</b> | <b>858.8</b> | <b>885.4</b> | <b>707.1</b> | <b>613.9</b> | <b>565.8</b> |



Ex Ante Impacts - 2028 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.2          | 5.1          | 5.9          | 6.4          | 8.1          | 8.2          | 8.8          | 6.5          | 3.0          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 12.2         | 31.3         | 49.5         | 95.2         | 108.3        | 116.1        | 49.7         | 1.9          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 33.8         | 45.8         | 81.9         | 87.7         | 87.9         | 49.7         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.6</b> | <b>605.8</b> | <b>644.4</b> | <b>690.8</b> | <b>751.3</b> | <b>787.8</b> | <b>799.0</b> | <b>675.1</b> | <b>584.8</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 10.6         | 10.6         | 10.6         | 11.7         | 11.7         | 11.3         | 11.4         | 11.6         | 11.7         | 12.0         | 10.4         | 10.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>10.7</b>  | <b>10.6</b>  | <b>10.8</b>  | <b>11.9</b>  | <b>11.9</b>  | <b>11.8</b>  | <b>11.4</b>  | <b>11.4</b>  | <b>11.5</b>  | <b>12.2</b>  | <b>10.5</b>  | <b>10.6</b>  |
| Pilots                  | Residential TOU | 17.8         | 15.2         | 12.3         | 13.3         | 15.8         | 31.1         | 53.8         | 59.6         | 74.4         | 20.1         | 18.6         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.8</b>  | <b>15.2</b>  | <b>12.3</b>  | <b>13.3</b>  | <b>15.8</b>  | <b>31.1</b>  | <b>53.8</b>  | <b>59.6</b>  | <b>74.4</b>  | <b>20.1</b>  | <b>18.6</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>577.7</b> | <b>609.9</b> | <b>575.7</b> | <b>631.0</b> | <b>672.1</b> | <b>733.7</b> | <b>816.6</b> | <b>858.8</b> | <b>884.9</b> | <b>707.5</b> | <b>613.9</b> | <b>566.1</b> |

Ex Ante Impacts - 2029 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.1          | 4.6          | 5.2          | 5.7          | 7.2          | 7.4          | 7.9          | 5.8          | 2.6          | 0.1          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 11.7         | 30.1         | 47.6         | 91.6         | 104.1        | 111.7        | 47.8         | 1.8          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 35.6         | 48.2         | 86.1         | 92.2         | 92.4         | 52.2         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.4</b> | <b>604.8</b> | <b>644.4</b> | <b>690.7</b> | <b>751.1</b> | <b>787.2</b> | <b>798.1</b> | <b>675.0</b> | <b>584.4</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 11.0         | 11.0         | 11.1         | 12.2         | 12.1         | 11.7         | 11.9         | 12.0         | 12.2         | 12.5         | 10.8         | 11.0         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.1</b>  | <b>11.1</b>  | <b>11.3</b>  | <b>12.4</b>  | <b>12.3</b>  | <b>12.2</b>  | <b>11.9</b>  | <b>11.9</b>  | <b>11.9</b>  | <b>12.7</b>  | <b>10.9</b>  | <b>11.0</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.1         | 12.3         | 13.2         | 15.8         | 31.1         | 53.7         | 59.4         | 74.2         | 20.1         | 18.6         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.1</b>  | <b>12.3</b>  | <b>13.2</b>  | <b>15.8</b>  | <b>31.1</b>  | <b>53.7</b>  | <b>59.4</b>  | <b>74.2</b>  | <b>20.1</b>  | <b>18.6</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>578.0</b> | <b>610.3</b> | <b>576.0</b> | <b>630.4</b> | <b>672.5</b> | <b>734.0</b> | <b>816.7</b> | <b>858.5</b> | <b>884.2</b> | <b>707.8</b> | <b>613.9</b> | <b>566.6</b> |

Ex Ante Impacts - 2030 Portfolio CAISO 1-in-2

| Type                    | Program         | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 10.3         | 10.3         | 14.1         | 24.7         | 28.7         | 32.7         | 31.7         | 32.4         | 30.1         | 27.3         | 12.8         | 10.0         |
|                         | BIP-15          | 144.7        | 156.6        | 144.7        | 156.8        | 164.7        | 167.1        | 166.7        | 168.3        | 168.4        | 167.1        | 173.1        | 153.2        |
|                         | BIP-30          | 373.7        | 396.7        | 372.0        | 386.4        | 372.5        | 381.7        | 360.2        | 375.3        | 380.0        | 367.2        | 373.4        | 354.6        |
|                         | CBP DA          | 19.9         | 19.9         | 19.9         | 19.9         | XX           | XX           | XX           | XX           | XX           | XX           | 19.9         | 19.9         |
|                         | CBP DO          | 0.7          | 0.7          | 0.7          | 0.7          | XX           | XX           | XX           | XX           | XX           | XX           | 0.7          | 0.7          |
|                         | SDP-C           | 0.0          | 0.0          | 1.0          | 4.1          | 4.7          | 5.1          | 6.5          | 6.6          | 7.1          | 5.2          | 2.4          | 0.0          |
|                         | SDP-R           | 0.0          | 0.0          | 0.0          | 11.3         | 29.0         | 45.8         | 88.1         | 100.2        | 107.5        | 46.0         | 1.8          | 0.0          |
|                         | SEP             | 0.0          | 0.0          | 0.0          | 0.0          | 37.2         | 50.4         | 89.9         | 96.1         | 96.3         | 54.4         | 0.0          | 0.0          |
|                         | <b>Subtotal</b> | <b>549.2</b> | <b>584.1</b> | <b>552.3</b> | <b>603.9</b> | <b>644.4</b> | <b>690.4</b> | <b>750.7</b> | <b>786.5</b> | <b>797.0</b> | <b>674.9</b> | <b>584.0</b> | <b>538.4</b> |
| Load Modifying Programs | CPP Large       | 11.4         | 11.4         | 11.5         | 12.6         | 12.6         | 12.2         | 12.3         | 12.5         | 12.7         | 13.0         | 11.3         | 11.4         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 0.1          | 0.0          | 0.2          | 0.2          | 0.2          | 0.5          | -0.0         | -0.1         | -0.3         | 0.2          | 0.1          | 0.0          |
|                         | <b>Subtotal</b> | <b>11.5</b>  | <b>11.5</b>  | <b>11.7</b>  | <b>12.9</b>  | <b>12.8</b>  | <b>12.7</b>  | <b>12.3</b>  | <b>12.3</b>  | <b>12.4</b>  | <b>13.2</b>  | <b>11.3</b>  | <b>11.4</b>  |
| Pilots                  | Residential TOU | 17.7         | 15.1         | 12.2         | 13.2         | 15.7         | 31.0         | 53.5         | 59.3         | 74.1         | 20.0         | 18.5         | 17.2         |
|                         | <b>Subtotal</b> | <b>17.7</b>  | <b>15.1</b>  | <b>12.2</b>  | <b>13.2</b>  | <b>15.7</b>  | <b>31.0</b>  | <b>53.5</b>  | <b>59.3</b>  | <b>74.1</b>  | <b>20.0</b>  | <b>18.5</b>  | <b>17.2</b>  |
| <b>Total</b>            |                 | <b>578.4</b> | <b>610.7</b> | <b>576.2</b> | <b>629.9</b> | <b>672.8</b> | <b>734.1</b> | <b>816.5</b> | <b>858.1</b> | <b>883.5</b> | <b>708.0</b> | <b>613.9</b> | <b>567.0</b> |

## 9 APPENDIX: AUGUST EX ANTE IMPACTS BY YEAR

### August Ex Ante Impacts - Program SCE 1-in-10

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 27.7         | 30.5         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         |
|                         | BIP-15          | 182.1        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        |
|                         | BIP-30          | 385.1        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 23.9         | 21.2         | 18.8         | 16.7         | 14.9         | 13.3         | 11.8         | 10.6         | 9.4          | 8.5          | 7.6          |
|                         | SDP-R           | 197.3        | 179.1        | 169.2        | 161.2        | 153.9        | 147.1        | 140.9        | 135.1        | 129.7        | 124.7        | 120.1        |
|                         | SEP             | 35.3         | 45.7         | 55.0         | 65.2         | 75.2         | 84.0         | 91.7         | 98.6         | 104.6        | 110.0        | 114.7        |
|                         | <b>Subtotal</b> | <b>859.1</b> | <b>830.1</b> | <b>828.5</b> | <b>828.7</b> | <b>829.5</b> | <b>829.9</b> | <b>830.0</b> | <b>829.8</b> | <b>829.4</b> | <b>828.8</b> | <b>827.9</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 8.2          | 8.7          | 9.1          | 9.6          | 10.0         | 10.5         | 10.9         | 11.4         | 11.8         | 12.3         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 21.9         | 20.1         | 18.4         | 16.7         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         |
|                         | <b>Subtotal</b> | <b>29.7</b>  | <b>28.4</b>  | <b>27.1</b>  | <b>25.9</b>  | <b>24.6</b>  | <b>25.0</b>  | <b>25.5</b>  | <b>25.9</b>  | <b>26.4</b>  | <b>26.8</b>  | <b>27.3</b>  |
| Pilots                  | Residential TOU | 8.2          | 15.9         | 73.9         | 73.6         | 73.2         | 73.0         | 72.7         | 72.5         | 72.3         | 72.1         | 72.0         |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>15.9</b>  | <b>73.9</b>  | <b>73.6</b>  | <b>73.2</b>  | <b>73.0</b>  | <b>72.7</b>  | <b>72.5</b>  | <b>72.3</b>  | <b>72.1</b>  | <b>72.0</b>  |
| <b>Total</b>            |                 | <b>897.0</b> | <b>874.4</b> | <b>929.6</b> | <b>928.2</b> | <b>927.3</b> | <b>928.0</b> | <b>928.2</b> | <b>928.3</b> | <b>928.1</b> | <b>927.7</b> | <b>927.2</b> |

August Ex Ante Impacts - Program SCE 1-in-2

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.1         | 31.0         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         |
|                         | BIP-15          | 181.9        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        |
|                         | BIP-30          | 382.6        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 20.9         | 18.6         | 16.5         | 14.6         | 13.0         | 11.6         | 10.4         | 9.3          | 8.3          | 7.4          | 6.6          |
|                         | SDP-R           | 165.7        | 150.4        | 142.0        | 135.3        | 129.2        | 123.5        | 118.3        | 113.4        | 108.9        | 104.7        | 100.8        |
|                         | SEP             | 29.9         | 38.7         | 46.6         | 55.3         | 63.7         | 71.2         | 77.8         | 83.6         | 88.7         | 93.2         | 97.2         |
|                         | <b>Subtotal</b> | <b>816.7</b> | <b>789.5</b> | <b>788.4</b> | <b>788.6</b> | <b>789.2</b> | <b>789.6</b> | <b>789.7</b> | <b>789.5</b> | <b>789.2</b> | <b>788.6</b> | <b>788.0</b> |
| Load Modifying Programs | CPP Large       | 8.0          | 8.5          | 8.9          | 9.4          | 9.8          | 10.3         | 10.8         | 11.2         | 11.7         | 12.1         | 12.6         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 21.9         | 20.1         | 18.4         | 16.7         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         |
|                         | <b>Subtotal</b> | <b>29.9</b>  | <b>28.6</b>  | <b>27.4</b>  | <b>26.1</b>  | <b>24.8</b>  | <b>25.3</b>  | <b>25.8</b>  | <b>26.2</b>  | <b>26.7</b>  | <b>27.1</b>  | <b>27.6</b>  |
| Pilots                  | Residential TOU | 7.0          | 13.4         | 62.6         | 62.3         | 62.0         | 61.8         | 61.5         | 61.4         | 61.2         | 61.0         | 60.9         |
|                         | <b>Subtotal</b> | <b>7.0</b>   | <b>13.4</b>  | <b>62.6</b>  | <b>62.3</b>  | <b>62.0</b>  | <b>61.8</b>  | <b>61.5</b>  | <b>61.4</b>  | <b>61.2</b>  | <b>61.0</b>  | <b>60.9</b>  |
| <b>Total</b>            |                 | <b>853.5</b> | <b>831.5</b> | <b>878.3</b> | <b>877.0</b> | <b>876.1</b> | <b>876.7</b> | <b>876.9</b> | <b>877.1</b> | <b>877.1</b> | <b>876.8</b> | <b>876.5</b> |

August Ex Ante Impacts - Program CAISO 1-in-10

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.8         | 31.7         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         |
|                         | BIP-15          | 182.0        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        |
|                         | BIP-30          | 383.3        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 23.7         | 21.0         | 18.7         | 16.6         | 14.8         | 13.2         | 11.7         | 10.5         | 9.4          | 8.4          | 7.5          |
|                         | SDP-R           | 185.3        | 168.2        | 158.9        | 151.4        | 144.5        | 138.2        | 132.3        | 126.9        | 121.9        | 117.2        | 112.8        |
|                         | SEP             | 33.0         | 42.7         | 51.4         | 60.9         | 70.2         | 78.4         | 85.7         | 92.1         | 97.7         | 102.7        | 107.1        |
|                         | <b>Subtotal</b> | <b>843.7</b> | <b>815.3</b> | <b>813.8</b> | <b>813.9</b> | <b>814.4</b> | <b>814.7</b> | <b>814.6</b> | <b>814.4</b> | <b>813.9</b> | <b>813.2</b> | <b>812.3</b> |
| Load Modifying Programs | CPP Large       | 7.7          | 8.2          | 8.6          | 9.1          | 9.5          | 10.0         | 10.4         | 10.9         | 11.3         | 11.7         | 12.2         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 21.9         | 20.1         | 18.4         | 16.7         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         |
|                         | <b>Subtotal</b> | <b>29.6</b>  | <b>28.3</b>  | <b>27.1</b>  | <b>25.8</b>  | <b>24.5</b>  | <b>25.0</b>  | <b>25.4</b>  | <b>25.9</b>  | <b>26.3</b>  | <b>26.7</b>  | <b>27.2</b>  |
| Pilots                  | Residential TOU | 7.6          | 14.6         | 68.1         | 67.8         | 67.5         | 67.3         | 67.0         | 66.8         | 66.6         | 66.5         | 66.3         |
|                         | <b>Subtotal</b> | <b>7.6</b>   | <b>14.6</b>  | <b>68.1</b>  | <b>67.8</b>  | <b>67.5</b>  | <b>67.3</b>  | <b>67.0</b>  | <b>66.8</b>  | <b>66.6</b>  | <b>66.5</b>  | <b>66.3</b>  |
| <b>Total</b>            |                 | <b>880.9</b> | <b>858.3</b> | <b>909.0</b> | <b>907.4</b> | <b>906.5</b> | <b>907.0</b> | <b>907.1</b> | <b>907.0</b> | <b>906.8</b> | <b>906.4</b> | <b>905.8</b> |

August Ex Ante Impacts - Program CAISO 1-in-2

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.1         | 30.9         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         |
|                         | BIP-15          | 182.0        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        |
|                         | BIP-30          | 382.7        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 20.8         | 18.4         | 16.4         | 14.6         | 13.0         | 11.5         | 10.3         | 9.2          | 8.2          | 7.4          | 6.6          |
|                         | SDP-R           | 164.7        | 149.5        | 141.2        | 134.5        | 128.4        | 122.8        | 117.6        | 112.7        | 108.3        | 104.1        | 100.2        |
|                         | SEP             | 29.6         | 38.3         | 46.1         | 54.7         | 63.0         | 70.4         | 76.9         | 82.6         | 87.7         | 92.2         | 96.1         |
|                         | <b>Subtotal</b> | <b>815.5</b> | <b>788.3</b> | <b>787.2</b> | <b>787.3</b> | <b>788.0</b> | <b>788.3</b> | <b>788.3</b> | <b>788.1</b> | <b>787.8</b> | <b>787.2</b> | <b>786.5</b> |
| Load Modifying Programs | CPP Large       | 8.1          | 8.5          | 9.0          | 9.4          | 9.9          | 10.4         | 10.8         | 11.3         | 11.8         | 12.2         | 12.7         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | 21.9         | 20.1         | 18.4         | 16.7         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         | 15.0         |
|                         | <b>Subtotal</b> | <b>29.9</b>  | <b>28.7</b>  | <b>27.4</b>  | <b>26.2</b>  | <b>24.9</b>  | <b>25.4</b>  | <b>25.8</b>  | <b>26.3</b>  | <b>26.8</b>  | <b>27.2</b>  | <b>27.7</b>  |
| Pilots                  | Residential TOU | 6.9          | 13.0         | 60.9         | 60.6         | 60.3         | 60.1         | 59.9         | 59.7         | 59.6         | 59.4         | 59.3         |
|                         | <b>Subtotal</b> | <b>6.9</b>   | <b>13.0</b>  | <b>60.9</b>  | <b>60.6</b>  | <b>60.3</b>  | <b>60.1</b>  | <b>59.9</b>  | <b>59.7</b>  | <b>59.6</b>  | <b>59.4</b>  | <b>59.3</b>  |
| <b>Total</b>            |                 | <b>852.3</b> | <b>830.0</b> | <b>875.5</b> | <b>874.1</b> | <b>873.2</b> | <b>873.7</b> | <b>874.1</b> | <b>874.1</b> | <b>874.1</b> | <b>873.8</b> | <b>873.5</b> |

August Ex Ante Impacts - Portfolio SCE 1-in-10

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 27.7         | 30.5         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         | 31.9         |
|                         | BIP-15          | 182.1        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        | 168.4        |
|                         | BIP-30          | 385.1        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        | 377.7        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 23.9         | 21.2         | 18.8         | 16.7         | 14.9         | 13.3         | 11.8         | 10.6         | 9.4          | 8.5          | 7.6          |
|                         | SDP-R           | 197.3        | 179.1        | 169.2        | 161.2        | 153.9        | 147.1        | 140.9        | 135.1        | 129.7        | 124.7        | 120.1        |
|                         | SEP             | 35.3         | 45.7         | 55.0         | 65.2         | 75.2         | 84.0         | 91.7         | 98.6         | 104.6        | 110.0        | 114.7        |
|                         | <b>Subtotal</b> | <b>859.1</b> | <b>830.1</b> | <b>828.5</b> | <b>828.7</b> | <b>829.5</b> | <b>829.9</b> | <b>830.0</b> | <b>829.8</b> | <b>829.4</b> | <b>828.8</b> | <b>827.9</b> |
| Load Modifying Programs | CPP Large       | 7.6          | 8.1          | 8.5          | 9.0          | 9.4          | 9.9          | 10.3         | 10.7         | 11.2         | 11.6         | 12.1         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | -0.2         | -0.2         | -0.2         | -0.2         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.9</b>   | <b>8.3</b>   | <b>8.8</b>   | <b>9.3</b>   | <b>9.7</b>   | <b>10.2</b>  | <b>10.6</b>  | <b>11.0</b>  | <b>11.5</b>  | <b>11.9</b>  |
| Pilots                  | Residential TOU | 8.2          | 15.9         | 73.9         | 73.6         | 73.2         | 73.0         | 72.7         | 72.5         | 72.3         | 72.1         | 72.0         |
|                         | <b>Subtotal</b> | <b>8.2</b>   | <b>15.9</b>  | <b>73.9</b>  | <b>73.6</b>  | <b>73.2</b>  | <b>73.0</b>  | <b>72.7</b>  | <b>72.5</b>  | <b>72.3</b>  | <b>72.1</b>  | <b>72.0</b>  |
| <b>Total</b>            |                 | <b>874.7</b> | <b>853.9</b> | <b>910.8</b> | <b>911.2</b> | <b>912.0</b> | <b>912.6</b> | <b>912.9</b> | <b>912.9</b> | <b>912.7</b> | <b>912.3</b> | <b>911.9</b> |



August Ex Ante Impacts - Portfolio SCE 1-in-2

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.1         | 31.0         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         |
|                         | BIP-15          | 181.9        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        | 168.1        |
|                         | BIP-30          | 382.6        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        | 375.1        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 20.9         | 18.6         | 16.5         | 14.6         | 13.0         | 11.6         | 10.4         | 9.3          | 8.3          | 7.4          | 6.6          |
|                         | SDP-R           | 165.7        | 150.4        | 142.0        | 135.3        | 129.2        | 123.5        | 118.3        | 113.4        | 108.9        | 104.7        | 100.8        |
|                         | SEP             | 29.9         | 38.7         | 46.6         | 55.3         | 63.7         | 71.2         | 77.8         | 83.6         | 88.7         | 93.2         | 97.2         |
|                         | <b>Subtotal</b> | <b>816.7</b> | <b>789.5</b> | <b>788.4</b> | <b>788.6</b> | <b>789.2</b> | <b>789.6</b> | <b>789.7</b> | <b>789.5</b> | <b>789.2</b> | <b>788.6</b> | <b>788.0</b> |
| Load Modifying Programs | CPP Large       | 7.8          | 8.3          | 8.7          | 9.2          | 9.7          | 10.1         | 10.6         | 11.0         | 11.5         | 11.9         | 12.4         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | -0.2         | -0.2         | -0.2         | -0.2         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         |
|                         | <b>Subtotal</b> | <b>7.6</b>   | <b>8.1</b>   | <b>8.6</b>   | <b>9.0</b>   | <b>9.5</b>   | <b>10.0</b>  | <b>10.4</b>  | <b>10.9</b>  | <b>11.3</b>  | <b>11.8</b>  | <b>12.2</b>  |
| Pilots                  | Residential TOU | 7.0          | 13.4         | 62.6         | 62.3         | 62.0         | 61.8         | 61.5         | 61.4         | 61.2         | 61.0         | 60.9         |
|                         | <b>Subtotal</b> | <b>7.0</b>   | <b>13.4</b>  | <b>62.6</b>  | <b>62.3</b>  | <b>62.0</b>  | <b>61.8</b>  | <b>61.5</b>  | <b>61.4</b>  | <b>61.2</b>  | <b>61.0</b>  | <b>60.9</b>  |
| <b>Total</b>            |                 | <b>831.3</b> | <b>811.0</b> | <b>859.6</b> | <b>859.9</b> | <b>860.7</b> | <b>861.3</b> | <b>861.6</b> | <b>861.8</b> | <b>861.7</b> | <b>861.4</b> | <b>861.1</b> |

August Ex Ante Impacts - Portfolio CAISO 1-in-10

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.8         | 31.7         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         | 33.2         |
|                         | BIP-15          | 182.0        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        |
|                         | BIP-30          | 383.3        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        | 375.9        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 23.7         | 21.0         | 18.7         | 16.6         | 14.8         | 13.2         | 11.7         | 10.5         | 9.4          | 8.4          | 7.5          |
|                         | SDP-R           | 185.3        | 168.2        | 158.9        | 151.4        | 144.5        | 138.2        | 132.3        | 126.9        | 121.9        | 117.2        | 112.8        |
|                         | SEP             | 33.0         | 42.7         | 51.4         | 60.9         | 70.2         | 78.4         | 85.7         | 92.1         | 97.7         | 102.7        | 107.1        |
|                         | <b>Subtotal</b> | <b>843.7</b> | <b>815.3</b> | <b>813.8</b> | <b>813.9</b> | <b>814.4</b> | <b>814.7</b> | <b>814.6</b> | <b>814.4</b> | <b>813.9</b> | <b>813.2</b> | <b>812.3</b> |
| Load Modifying Programs | CPP Large       | 7.6          | 8.0          | 8.5          | 8.9          | 9.3          | 9.8          | 10.2         | 10.7         | 11.1         | 11.6         | 12.0         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | -0.2         | -0.2         | -0.2         | -0.2         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         |
|                         | <b>Subtotal</b> | <b>7.4</b>   | <b>7.8</b>   | <b>8.3</b>   | <b>8.7</b>   | <b>9.2</b>   | <b>9.6</b>   | <b>10.1</b>  | <b>10.5</b>  | <b>11.0</b>  | <b>11.4</b>  | <b>11.9</b>  |
| Pilots                  | Residential TOU | 7.6          | 14.6         | 68.1         | 67.8         | 67.5         | 67.3         | 67.0         | 66.8         | 66.6         | 66.5         | 66.3         |
|                         | <b>Subtotal</b> | <b>7.6</b>   | <b>14.6</b>  | <b>68.1</b>  | <b>67.8</b>  | <b>67.5</b>  | <b>67.3</b>  | <b>67.0</b>  | <b>66.8</b>  | <b>66.6</b>  | <b>66.5</b>  | <b>66.3</b>  |
| <b>Total</b>            |                 | <b>858.7</b> | <b>837.8</b> | <b>890.2</b> | <b>890.4</b> | <b>891.1</b> | <b>891.6</b> | <b>891.7</b> | <b>891.7</b> | <b>891.4</b> | <b>891.1</b> | <b>890.5</b> |

August Ex Ante Impacts - Portfolio CAISO 1-in-2

| Type                    | Program         | 2020         | 2021         | 2022         | 2023         | 2024         | 2025         | 2026         | 2027         | 2028         | 2029         | 2030         |
|-------------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Supply Side Programs    | AP-I            | 28.1         | 30.9         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         | 32.4         |
|                         | BIP-15          | 182.0        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        | 168.3        |
|                         | BIP-30          | 382.7        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        | 375.3        |
|                         | CBP DA          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | CBP DO          | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           | XX           |
|                         | SDP-C           | 20.8         | 18.4         | 16.4         | 14.6         | 13.0         | 11.5         | 10.3         | 9.2          | 8.2          | 7.4          | 6.6          |
|                         | SDP-R           | 164.7        | 149.5        | 141.2        | 134.5        | 128.4        | 122.8        | 117.6        | 112.7        | 108.3        | 104.1        | 100.2        |
|                         | SEP             | 29.6         | 38.3         | 46.1         | 54.7         | 63.0         | 70.4         | 76.9         | 82.6         | 87.7         | 92.2         | 96.1         |
|                         | <b>Subtotal</b> | <b>815.5</b> | <b>788.3</b> | <b>787.2</b> | <b>787.3</b> | <b>788.0</b> | <b>788.3</b> | <b>788.3</b> | <b>788.1</b> | <b>787.8</b> | <b>787.2</b> | <b>786.5</b> |
| Load Modifying Programs | CPP Large       | 7.9          | 8.3          | 8.8          | 9.3          | 9.7          | 10.2         | 10.6         | 11.1         | 11.6         | 12.0         | 12.5         |
|                         | CPP Medium      | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | CPP Small       | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          |
|                         | RTP             | -0.2         | -0.2         | -0.2         | -0.2         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         | -0.1         |
|                         | <b>Subtotal</b> | <b>7.7</b>   | <b>8.1</b>   | <b>8.6</b>   | <b>9.1</b>   | <b>9.6</b>   | <b>10.0</b>  | <b>10.5</b>  | <b>10.9</b>  | <b>11.4</b>  | <b>11.9</b>  | <b>12.3</b>  |
| Pilots                  | Residential TOU | 6.9          | 13.0         | 60.9         | 60.6         | 60.3         | 60.1         | 59.9         | 59.7         | 59.6         | 59.4         | 59.3         |
|                         | <b>Subtotal</b> | <b>6.9</b>   | <b>13.0</b>  | <b>60.9</b>  | <b>60.6</b>  | <b>60.3</b>  | <b>60.1</b>  | <b>59.9</b>  | <b>59.7</b>  | <b>59.6</b>  | <b>59.4</b>  | <b>59.3</b>  |
| <b>Total</b>            |                 | <b>830.1</b> | <b>809.5</b> | <b>856.7</b> | <b>857.0</b> | <b>857.8</b> | <b>858.4</b> | <b>858.7</b> | <b>858.8</b> | <b>858.8</b> | <b>858.5</b> | <b>858.1</b> |

## 10 APPENDIX: PROGRESS TOWARDS THE RELIABILITY CAP

CPUC Decision 10-06-034, adopted by the California investor-owned utilities and others, approved a settlement agreement to Rulemaking 07-01-041. The agreement addresses the integration of reliability-based DR resources into the wholesale market design. Under this agreement, customers enrolled in both a reliability-based DR resource program, BIP and AP-I, as well as another non-reliability-based DR program, are not considered as reliability-based load impacts. As a result, SCE's progress towards the cap on reliability-based DR load impacts is calculated by summing projected BIP and AP-I load impacts then removing projected load impacts from any dually-enrolled customers.

Below is a more detailed explanation of how SCE's progress towards the reliability-based DR cap is calculated. SCE's progress towards the cap is then calculated for years 2020 through 2030 in tables 11-1 through 11-11.

### 10.1 CALCULATING SCE'S RELIABILITY-BASED RESOURCES CAP

The annual limit is set as a percentage of the CAISO peak demand. Load impacts of reliability-based DR programs that are allowed to be claimed as part of the IOU's resource adequacy plans, according to the settlement, is 2% of CAISO's all-time peak demand. The all-time CAISO system peak demand has been 50,270MW since 2006, establishing a cap of 1,005MW. This 1,005MW cap was then split among all three California IOUs. SCE is allocated 65.57% of the cap, making its reliability cap 659MW.

The SCE reliability cap calculations are shown in Table 11-1 through 11-11 in lines 7 through 11. No change in the all-time CAISO peak was assumed, so the reliability cap will stay the same for years 2020 through 2030.

### 10.2 CALCULATING SCE'S PROGRESS TOWARDS THE CAP

CPUC D. 18-11-029 states that the reliability cap is to be calculated using the method described in CPUC D. 17-12-003. Any demand response auction mechanism (DRAM) RDRR is also to be counted towards the reliability cap. SCE does not have any DRAM RDRR, so there is no DRAM impact towards the reliability cap.

Progress towards the reliability cap is calculated below:

*Projected Load Impacts for Reliability Based DR Programs – Projected CPP Load Impacts for Dually-Enrolled Participants in BIP/AP-I and CPP*

#### 10.2.1 RELIABILITY PROGRAM LOAD IMPACTS

The majority of reliability program load impacts come from SCE's Base Interruptible Program and Agricultural Pumping Interruptible Program. Each year these programs are evaluated by a third party to provide updates to the load impacts these programs are projected to deliver in the next 11 years. Details on how these evaluations are developed can be found in this executive summary and in the evaluation reports for each program.

#### BIP

Lines 2 and 3 show the ex ante load impacts for BIP-15 and BIP-30 programs, years 2020 through 2030 assuming 1-in-2 weather conditions for SCE system peak days. Looking at August, BIP load impacts peak in August 2020, dip slightly in August 2021, and hold steady after through August 2030. In August 2020, BIP-15 impacts are

180MW and 2030 BIP-15 impacts are 167MW. In August 2020, BIP-30 impacts are 383MW and 2030 BIP-30 impacts are 375MW.

**AP-I**

Line 1 shows the ex ante load impacts for AP-I program, years 2020 through 2030 assuming 1-in-2 weather conditions for SCE system peak days. AP-I program impacts increase year over year until August 2022 when it reaches 30MW and holds steady until 2030. In August 2020, the AP-I program is projected to have a 26Mw impact.

**DRAM**

Line 4 shows the ex ante load impacts for DRAM. There are currently no DRAM-procured RDRR in SCE’s territory, so the impacts are zero and projected to be zero through 2030.

**10.2.2 CPP LOAD IMPACTS FOR DUALY-ENROLLED CUSTOMERS**

Line 5 shows the impacts for CPP customers dually enrolled in BIP or AP-I programs. Tables 11-1 through 11-11 show a [REDACTED] for CPP dually enrolled customers from 2020 through 2030.

**10.2.3 SCE’S PROGRESS TOWARDS RELIABILITY-BASED DR CAP**

Line 11 shows SCE’s reliability-based DR resource cap. Line 12 is SCE’s progress towards the cap and is calculated by taking line 6 minus line 11. [REDACTED]  
[REDACTED]

### 2020 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 9      | 9      | 12     | 19     | 21     | 26     | 26     | 26     | 25     | 21     | 14     | 9      |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 155    | 168    | 155    | 168    | 177    | 179    | 179    | 180    | 180    | 179    | 186    | 164    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 381    | 406    | 379    | 396    | 381    | 390    | 367    | 383    | 386    | 376    | 384    | 361    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = (800MW/(400MW + 800MW + 20MW))  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2021 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 10     | 10     | 13     | 21     | 23     | 29     | 28     | 29     | 27     | 23     | 16     | 10     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2022 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |



### 2023 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2024 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2025 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2026 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2027 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2028 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2029 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |

### 2030 SCE 1-in-2 Aggregate Portfolio Reliability Cap Calculations

|    | Description   | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    |
|----|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1  | AP-I Event Load Impacts Attributable to All Non-residential Customers Enrolled in AP-I  | 11     | 10     | 14     | 22     | 24     | 30     | 30     | 30     | 29     | 24     | 16     | 11     |
| 2  | BIP-15 Event Load Impacts Attributable to All Non-residential Customers Enrolled in BIP-15  | 143    | 155    | 143    | 155    | 163    | 166    | 165    | 167    | 166    | 166    | 172    | 151    |
| 3  | BIP-30 Event Load Impacts Attributable to all Non-residential Customers Enrolled in BIP-30  | 374    | 398    | 372    | 388    | 374    | 382    | 360    | 375    | 378    | 369    | 377    | 354    |
| 4  | Load Impacts (CPP) Attributable Only to Customers Dually-enrolled in BIP or AP-I (MW)   |        |        |        |        |        |        |        |        |        |        |        |        |
| 5  | Load Impacts Attributable to All Customers Enrolled in DRAM   | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| 6  | Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in BIP or AP-I (MW) = (1) + (2) + (3) + (5) - (4)                               |        |        |        |        |        |        |        |        |        |        |        |        |
| 7  | CAISO Control Area All-time Annual Coincident Peak Demand as of March 2019 (MW)   | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 | 50,270 |
| 8  | Cap on Total Ex Ante Load Impacts of All Reliability DR Programs of PG&E, SCE, and SDG&E Combined as Percentage of CAISO. Control Area all Time Annual Coincident Peak Demand       | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     | 2%     |
| 9  | Tolerance Band  | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |
| 10 | SCE Share of Cap on Reliability MW that Qualify for Resource Adequacy = $(800\text{MW}/(400\text{MW} + 800\text{MW} + 20\text{MW}))$  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  | 65.6%  |
| 11 | Cap on SCE BIP Load Impacts That Qualify for Resource Adequacy (MW) = (7) x (8) x (100% + (9)) x (10)   | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    | 659    |
| 12 | Amount by which Total Reliability Program Load Impacts MINUS Load Impacts Attributable to Customers Dually-enrolled in Other Demand Response Programs Exceeds Cap (MW) = (6) - (11) |        |        |        |        |        |        |        |        |        |        |        |        |