RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES **DATE: MAY 13, 2024**

SUBJECT: **CALIFORNIA ENERGY COMMISSION'S DEMAND SIDE GRID SUPPORT PROGRAM PARTICIPATION DURING EXTREME EVENTS WHEN ENERGY EMERGENCY ALERTS OCCUR**

ISSUE:

Consider approving and authorizing participation in the California Energy Commission's Demand Side Grid Support Program during extreme events when energy emergency alerts are issued.

RECOMMENDATIONS:

That the Board of Public Utilities recommends that the City Council:

1. Approve participation in the California Energy Commission's Demand Side Grid Support Program; and

2. Authorize the City Manager, or designee, to execute all documents and instruments necessary to participate and take all necessary actions required or advisable to implement, administer and carry out the City of Riverside's responsibilities under the program, including but not limited to a Data Sharing Agreement, as applicable, and Customer Acknowledgement and Authorization Letters, and including the ability to make minor and non-substantive changes, as well as to execute future extensions and amendments under substantially similar terms and conditions.

LEGISLATIVE HISTORY:

On August 25, 2009, the City Council adopted an Ordinance of the City of Riverside, California, amending Title 14 (Public Utilities) of the Riverside Municipal Code (RMC) by adding Chapter 14.32 entitled "Provisions with Respect to the Aggregation of Demand Response on behalf of Retail Customers" in the City of Riverside. RMC Chapter 14.32 provides that Riverside Public Utilities (RPU) or its authorized designee is the sole entity approved by the City Council permitted to bid demand response on behalf of retail customers served by RPU into any Federal Energy Regulatory Commission approved independent system operator, such as the California Independent System Operator (CAISO), or regional transmission organization's organized electric markets. Any retail customer wishing to bid their demand response into these markets are only allowed to do so by program(s) established by RPU or its authorized designee. If a retail customer seeks to participate in a non-utility demand response program, then they must receive prior authorization from RPU.

On June 30, 2022, Assembly Bill (AB) 205 was signed into law requiring the California Energy Commission (CEC) to create, implement and administer the Demand Side Grid Support (DSGS) Program to incentivize dispatchable customer load reduction and backup generation operation as on-call emergency supply and load reduction for the state's electrical grid during extreme events. As part of ensuring statewide electrical grid reliability AB 205 also established funding for this program through June 30, 2027.

On September 6, 2022, AB 209 was signed into law clarifying that all energy customers in the state are eligible to participate in the DSGS Program, except that customers already enrolled in demand response or emergency load reduction programs offered by entities under the jurisdiction of the California Public Utilities Commission (CPUC) would be ineligible for the program. Authorization was given to the CEC, in consultation with the CPUC, to adopt additional participation requirements or limitations that would be reflected in the guidelines.

BACKGROUND:

WHAT IS DEMAND RESPONSE?

Demand Response (DR) programs offered through utilities and grid operators are intended to provide grid supportive services during emergency events to maintain the stability of the grid and ensure safety. As the name implies, the goal of these programs is to reduce demand (the amount of electricity needed by customers) during the time of these emergencies. A statewide example of a demand response program is the voluntary Flex Alert program that has been utilized by the CAISO the last several years during extreme heat waves and in wildfire events that are impacting statewide transmission.

Extreme events may be more than heat waves. An extreme event is defined in California Code, Public Resources Code, Section 25790.5(b) to mean either of the following:

1. An event occurring at a time and place in which weather, climate, or environmental conditions, including temperature, precipitation, drought, fire, or flooding, present a level of risk that would constitute or exceed a one-in-ten event, as referred to by the North American Electric Reliability Corporation, including when forecast in advance by a load-serving entity or local publicly owned utility.

2. An event where emergency measures are taken by a California balancing authority, including when forecast in advance by the California balancing authority.

RPU POWER PARTNERS DEMAND RESPONSE PROGRAM

RPU has an existing voluntary unpaid demand reduction program known as the Power Partners Program that is utilized to promote energy conservation to reduce electricity usage during peak demand times when called upon during these critical events. Power Partners launched in 2009 in response to requirements being placed on investor-owned utilities. Participation in the program is limited to RPU's large general and commercial energy customers that have an average monthly electrical demand of at least 150 kilowatts (kW). The customer must be on a time-of-use rate and is encouraged to participate through a planned power reduction agreement. This voluntary call for assistance only occurs during peak demand times from July through September and has only been utilized in recent years.

STATEWIDE DEMAND-SIDE GRID SUPPORT PROGRAM

The CEC's statewide DSGS program is entering its third year of the five-year period allowed under the current legislation (AB 205 and AB 209). There is also the potential for the program to be extended in the future if it is successful and enough funds can be budgeted by the state. The urgency for the implementation of this program was due to the years prior to 2022 during which the state experienced extreme heat waves primarily in the summer season causing potential blackouts, rolling outages, and sudden power outages as different parts of the state did not have enough capacity to generate or import the needed energy to serve the surge in load. The critical point of this incident occurred from August 14-19, 2020, as areas across the western United States including the states of California, Oregon, Washington, Idaho, Nevada and Arizona as well as portions of Canada experienced an extreme heat storm where temperatures were 10-20 degrees above normal. This extreme event in combination with the accumulation of drought and increased occurrences of wildfires contributed to the ongoing potential impact of power outages and interruptions from the loss of energy available that could be generated, imported, and distributed to serve load.

Due to the continuing pattern of extreme events in the following year, legislation was quickly implemented and passed via AB 205 that directed the state to provide paid incentives for customer participation in a statewide non-utility sponsored demand response program to reduce load during extreme emergency conditions. AB 205 directed the CEC to immediately begin creating guidelines and have the program up and running within one to two months of the bill's passage. The rapid implementation led to questions and concerns regarding authorizations and approvals needed by utilities to properly protect customer data and types of authority needed to approve participation in the CEC DSGS Program. The intent of the state program is to offer a way to incentivize maximizing demand reduction to help maintain grid reliability.

Under AB 205 and AB 209, the CEC is tasked with adopting guidelines on when to implement the DSGS Program, including which resources are dispatched first to minimize local pollution and emissions of greenhouse gases. The dispatch order of resources in the program will follow a loading order that prioritizes, to the maximum extent feasible to ensure electricity reliability, cost-effective demand response and efficiency resources; then feasible, cost-effective renewable and zero-emission resources; and then feasible, cost-effective conventional resources. The guidelines consider the anticipated useful life of the resources in relation to the state's climate and air quality requirements. The statewide program provides incentives to reduce customer net load during extreme events with upfront capacity commitments and per-unit reductions in net load.

As noted, the CEC'S DSGS Program began in 2022. Each year, the CEC updates the program's guidelines based on lessons learned from the prior year's program activities and feedback received from the CEC workshops. In 2022, the first edition of the guidelines was adopted and the program ran from August 1 – October 31, 2022. In 2023, the guidelines were updated and adopted on July 26, 2023, to be effective immediately through October 31, 2023. The CEC is currently undergoing finalization of the third edition of the guidelines and pending adoption in May 2024. It is expected the program will run from May 1 – October 31, 2024, but due to the timing of the expected CEC adoption date the effective date may be delayed as occurred in prior years.

The local publicly owned utilities participating in the CEC's DSGS program at this time include Burbank Water and Power, Sacramento Municipal Utility District, and Silicon Valley Power. Each has restrictions on the types of customers and who can enroll within their respective service territories in addition to the CEC's DSGS Program guidelines. Some utilities, such as the Los Angeles Department of Water and Power already have a pre-existing incentive driven DR program. Whereas other entities and interested customers in other service territories that wish to participate in the CEC's DSGS Program do so in collaboration with private entities that have established agreements with a utility service provider on behalf of their customers. Most utilities are still in the research stage contemplating participation including evaluating the feasibility of the program within their service territory or they must wait until the CEC DSGS guidelines are fully adopted each year before approval can be received by their local governing boards to participate.

DISCUSSION:

In the RMC, the City Council determined that it would be harmful to have any entity other than RPU itself enact a DR program. RPU, as a load serving entity, is obligated to serve its retail customers. To permit any entity other than RPU or its authorized designee to aggregate demand response on behalf of its retail customers to bid into the electric market would present a harm to RPU's overall obligation to serve and support customers effectively. Therefore, RPU currently handles all demand response programs and DR requests of customers as needed. Although, the RMC does provide a provision for retail customers to participate in a non-utility demand response program only if prior authorization is given by RPU.

The CEC's DSGS Program is a non-utility demand response program and would supplement RPU's Power Partners Program. It addresses the same goals and needs in ensuring grid reliability and stability but adds the opportunity for RPU's customers to receive compensation for their efforts to reduce demand during these emergency events as long as they meet the State's program requirements as well as RPU's customer participation requirements. RPU carefully reviewed the different program participation options and incentive structures offered by the CEC DSGS Program and determined that allowing RPU's customers to directly enroll through the CEC for Incentive Option 1 aligns with the criteria for participation in RPU's Power Partners Program and would not adversely impact RPU. Customers interested in receiving the incentive payments from the CEC DSGS Program would be required to request authorization from RPU to participate by agreeing to the terms and conditions described in the Customer Acknowledgement and Authorization Letter (attached). Authorization of a customer's participation in the program is only for the customer and not for private company aggregators. It is the customer's responsibility to sign up for the program and provide their data to the CEC's contracted program administrator.

The participating customer will need to provide the same enrollment information they submit to the CEC as part of the verification and approval process to receive RPU's authorization letter to participate in the DSGS program. In addition, the customer is responsible for requesting and submitting the necessary supporting interval meter data to claim their incentives. RPU will only be required to provide such data directly to the CEC if called upon for audit and verification purposes. At that time, a Data Sharing Agreement will be created and agreed upon, if needed.

The CEC DSGS Program does not override RPU's Power Partners Program. The CEC's guidelines dictate that a customer cannot be dual enrolled in a corresponding utility demand response program if they are also receiving payments for the same type of load reduction. Since RPU's Power Partners Program is voluntary and unpaid, customers signing up for the CEC DSGS Program can also enroll in RPU's Power Partners Program; however, any load shedding as part of participation in a DSGS load shedding designated emergency alert will not count simultaneously for the Power Partners Program. Participants in the Power Partners Program can still be called upon for response during a City event or other event under the Power Partners Program but will not be called upon if they opt to participate in the DSGS event for the same event and time period. The shed load will not be double counted or counted under both programs.

Per the CEC's DSGS guidelines, for direct enrollment through the CEC, only non-residential customers are allowed for Incentive Option 1, as long as the customer has received written authorization from RPU. The CEC's Incentive Option 1 allows customers to decide whether their resources shall be dispatched or committed for standby to reduce electric load in response to Statewide Energy Emergency Alerts (EEAs) following the dispatch order based on what the customers have committed to during their initial enrollment into the program. The CEC DSGS program is expected to run from May 1 through October 31 each year (starting in 2024) annually through the end of the program period, seven days a week, with the expectation that EEAs will most likely be for the time periods from 4:00 pm to 9:00 pm.

The CEC may call upon participants in the below order of the EEA levels that are issued. EEAs are described and issued as follows depending on the type of emergency declared.

1. Energy Emergency Alert Watch (EEA Watch) – The CAISO analysis shows all available resources are committed or forecasted to be in use and energy deficiencies are expected. Market participants are encouraged to offer supplemental energy.
2. Energy Emergency Alert Level 1 (EEA 1) – The CAISO is experiencing conditions where all available generation resources are committed to meet firm load, firm transactions, and reserve commitments, and is concerned about sustaining its required contingency reserves.
3. Energy Emergency Alert Level 2 (EEA 2) – The CAISO is no longer able to provide its expected energy requirements and is energy deficient.
4. Energy Emergency Alert Level 3 (EEA 3) – The CAISO is unable to meet minimum contingency reserve requirements. Firm load interruptions may be initiated at this point.

In the CEC's guidelines, rules surrounding criteria for standby and dispatch are described and based on the type of EEA notice issued by the CAISO. Participants may dispatch non-combustion resources during an EEA level of EEA Watch or higher. Non-combustion resources are typically options for a customer to shift their load to another time of day or stop/pause electricity demand uses. Participants may dispatch combustion resources during an EEA level of EEA 2 or higher if authorized to dispatch by an executive order issued by the Governor, unless the executive order authorizes to dispatch at a lower EEA level. The only exception is for participants that will receive a controllable generation incentive (e.g., backup generators), then they may not dispatch at an EEA level lower than EEA 2 regardless of any executive order. When an EEA Watch or EEA 1 is issued, then participants with noncombustion resources are notified to dispatch during the described dispatch period above and other participants with combustion resources for a standby event are notified to be ready to potentially dispatch if a dispatch event is issued.

Per the CEC's DSGS guidelines, when a dispatch event is called, then customers participating in the program shall dispatch load reduction resources in the following order:

1. Demand-response resources, including batteries
2. Renewable and zero-emission resources
3. Near zero-emission resources
4. Biomethane and natural gas resources
5. Conventional diesel and gas resources

Participants with backup generators will only be authorized under a state of emergency proclamation issued by the Governor.

Annually, the CEC reviews the guidelines based on feedback received and lessons learned to improve the program. Currently, the CEC is working on the 3rd edition of the CEC DSGS Program guidelines, which is expected to be approved at the May CEC Business Meeting with the guidelines to be effective in spring/summer 2024 and full implementation in summer 2024. Although, the CEC guidelines indicate the program will run from May 1 – October 31, it is expected that depending on when the guidelines are adopted by the CEC, the program period will be retroactive for the effective date to cover any extreme events that may have occurred between that time to ensure participants will be reimbursed. RPU has reviewed the draft 3rd edition of the guidelines and based on the historical trends of the prior updates finds no substantive changes that would impact RPU's request for authorization to allow customers to participate in the CEC DSGS Program upon receiving authorization from RPU.

In order to proceed with this process, Board and City Council approval is needed to authorize customer participation in a non-utility sponsored demand response program and to give authority for signing applicable agreements to participate. The CEC DSGS Program guidelines are expected to be updated on an annual basis with substantially similar terms and conditions and RPU will review the guidelines each year to ensure that the program does not change substantially. Substantial program changes would be taken to the Board and City Council for approval as needed. Customers are required to obtain an Authorization Letter from the City prior to enrolling in the CEC DSGS Program. Additionally, while most customers will provide data to the CEC program administrator themselves, it may become necessary for the City to share information, in which case a Data Sharing Agreement would be executed to ensure the privacy protection of the information.

STRATEGIC PLAN ALIGNMENT:

This item contributes to the following strategic priorities.

Strategic Priority 2 – Community Well-Being:

> **Goal 2.6:** Strengthen community preparedness for emergencies to ensure effective response and recovery.

Strategic Priority 4 – Environmental Stewardship:

> **Goal 4.1:** Rapidly decrease Riverside's carbon footprint by acting urgently to reach a zero-carbon electric grid with the goal of reaching 100% zero-carbon electricity production by 2040 while continuing to ensure safe, reliable and affordable energy for all residents.

The item aligns with each of the five Cross Cutting Threads as follows:

1. **Community Trust** – Obtaining approval and authorization from the Board of Public Utilities and the City Council ensures transparency and community trust by showing its compliance with the Riverside Municipal Code and providing opportunities to its customers to participate in a program supporting grid reliability and stability as well as protecting the customer's personally identifiable information by establishing applicable agreement(s) as part of participating in the program.

2. **Equity** – RPU is committed to ensuring that every member of the community that qualifies under the CEC DSGS Program has equal access to this opportunity.

3. **Fiscal Responsibility** – RPU is utilizing internal staff to reduce costs and ensure fiscal responsibility to assist customers in their requests to the utility for an authorization to participate in the CEC DSGS Program and to provide supporting interval meter data. RPU can be reimbursed for its costs associated with the CEC DSGS Program in accordance with its guidelines. Funds from the program are paid out directly from the state and not via the utility, which means no additional staff resources are needed to administer the funds.

4. **Innovation** – Staff is keeping up to date on the changing legislation and regulation guidelines of the CEC DSGS Program to ensure any substantive changes that impact the customers' participation in the program is addressed in a timely manner.

5. **Sustainability & Resiliency** – By authorizing Riverside ratepayers to participate in a non-utility sponsored statewide demand response program as a supplement to RPU's existing voluntary Power Partners Program provides for added grid reliability and resiliency during extreme emergency events.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

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Attachments:
1. Customer Acknowledgement and Authorization Letter
2. Presentation