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California Efficiency + Demand Management Council Comments on California Energy Commission Load Shift Goal Questions

1. **Are there any policy barriers in California impacting the full utilization of customer resources for load flexibility?**

- **Unrealized third-party potential:** The regulatory environment for DERs favors IOU programs over third-party programs. For example, IOU DR programs are subject to less rigorous testing requirements than third-party programs, IOU DR programs are not included on LSE supply plans, and third-party customer ineligibility for technology incentives. For the State to reach its 7,000 MW Load Shift Goal (LSG), participation in both investor-owned utility (IOU) and third-party provider programs must be maximized.
- **Flawed Customer Data Access (CDA) framework:** CDA continues to be a major barrier to third-party DER providers enrolling customers and managing their participation in the CAISO market. The customer authorization process to share meter data with DER providers is unreliable to the point that a majority of customers fail to complete it.[1] Also, the quality and timeliness of these data are inadequate which creates a poor customer experience and inhibits the efforts of DER providers to improve performance.
- **Limited access to technology incentives (AutoDR and SGIP):** Customers participating in third-party DR programs are ineligible to receive technology incentives through the Automated Demand Response (AutoDR) program and the statewide Self-Generation Incentive Program (SGIP). This demotivates participation with DER providers and forgoes the opportunity of existing third-party customers to achieve greater and/or more reliable load curtailment during DR events.
- **No framework to recognize the capacity value of exports by BTM energy storage:** The absence of a framework for recognizing the Resource Adequacy (RA) capacity value of exporting behind-the-meter (BTM) energy storage has stranded hundreds of MW of valuable capacity.
- **A highly opaque and burdensome DR counting process:** The current process by which DER providers receive RA values for their portfolios discourages their participation in the RA market. This process is long and resource-intensive, and often results in substantial

[1] The Council submitted detailed comments on this issue in its January 31, 2024 comments on the CEC's January 17, 2024 workshop on Load Management Standards Implementation.

discounting of ex ante values, with no explanation given. This discourages new DER providers from entering the California market.

- **Regulatory and funding uncertainty:** There is a significant amount of budgetary and policy uncertainty among the DER community over the direction of CPUC and CEC jurisdictional DER programs and dynamic rates. This is largely due to defunding efforts in a misguided effort to improve rate affordability, and the perception that the CPUC favors dynamic rates over DER programs for delivering load flexibility in the future.
- **Fragmented program environment:** California has a large number of DER programs across IOUs, community choice aggregators, and the CEC, many of which change frequently. This is confusing for many customers and results in participation being distributed across too many programs.

2. **Do you recommend any successful market or regulatory models/approaches for utilizing load flexibility based on your experience outside California?**

- **ConnectedSolutions:** This program is offered in Massachusetts and New York to residential and non-residential customers. It provides a single umbrella brand across DER classes with end-to-end marketing from the IOU down to the DER provider, including simple in-app marketing and enrollment. Incentives are similarly simple and consistent. IOUs get the scale they need for a useful resource, DER providers have straightforward compensation, and customers have ease of participation and adequate incentives.
- **Denmark:** Citizens generally have a right to access their own energy consumption data, which is collected by energy companies and regulated by the Danish Energy Agency, allowing individuals to monitor and manage their electricity usage.
  Key points about energy data ownership in Denmark:
  - **Citizen-centric approach:** Denmark actively promotes citizen engagement in energy matters, often facilitating access to individual energy consumption data to encourage responsible energy use and participation in community energy projects.
  - **Data collection and regulation:** The Danish Energy Agency oversees energy data collection, ensuring that data is accurate and accessible to consumers while also protecting privacy concerns.
  - **Energy providers' role:** Energy companies must provide detailed consumption data to their customers through online platforms or other accessible methods.
  - **Potential for community initiatives:** With access to their energy data, Danish citizens can participate in initiatives like energy communities, where they can collectively monitor and optimize energy consumption within their neighborhoods.
  - **Smart meters:** Most Danish households are equipped with smart meters, enabling them to readily access their real-time energy consumption data through their electricity provider.
  - **Citizen ownership of energy production:** Denmark has a high level of citizen ownership in renewable energy sources like wind power, further emphasizing the public's connection to energy data.

- **Data privacy concerns:** While individuals can access their own energy consumption data, regulations exist regarding how it can be used or shared by third parties.

3. **Do you see any emerging trends in California's market and electricity consumers that may impact the state's load flexibility potential?**

- **Rate Affordability:** The State's focus on rate affordability risks reducing program budgets despite their proven record of improving rate affordability. If the Governor's Office directs the CPUC and CEC to cut program funding following Executive Order N-5-24, this could significantly reduce the capacity amount provided by load flexibility resources, resulting in reduced DR/DER program enrollments, third-party participation, etc.
- **Shift of Focus from DR to Dynamic Rates:** The CPUC's apparent intention to phase out existing DR and replace them with dynamic rates risks eliminating the few thousand MWs of DR if dynamic rates cannot be cost-effectively deployed at full scale. Key questions are: 1) can accurate dynamic rates can be designed that would incent the desired load shift across large numbers of customers, 2) will there be robust customer interest in participating in them, 3) what is the cost of IOU infrastructure to implement dynamic rates, and 4) what is the business case for third-party providers to enable customers automated devices is unclear?
- **Electrification of Transportation and Buildings:** Growing adoption of electric vehicles (EVs) and electrified buildings is increasing load demand, creating both challenges and opportunities for load management. This load growth provides new load-shifting potential that can be harnessed to contribute to the LSG.

4. **Do you have any other conceptual ideas or feedback for the state to consider?**

- **Device-level measurement:** Using performance measurement features that are integrated into enabling technologies can be used to directly measure a customer's performance in a DER program rather than utilizing the customer's meter data. This would eliminate the use of customer meter data and improve the accuracy of performance measurement.
- **Simultaneous participation in multiple DER programs:** The CPUC should allow customers with multiple smart technologies to participate in separate DER programs and with separate DER providers. Developing a framework for this would enable each participating customer's enabling technology to be used when it can deliver the most load flexibility.
- **AI Agents:** On January 3, 2025, Google introduced Mariner, an AI agent powered by Gemini 2.0, designed to navigate websites and perform tasks autonomously while keeping users in control. With advanced multimodal understanding and reasoning, Mariner can handle complex online interactions, like filling forms and managing online shopping, achieving high accuracy in tests.

Implications for the Future Energy Usage

Google's push into agent AI with Mariner and Gemini 2.0 underscores the shift toward creating AI tools that act not only act as assistants but also as independent problem-solvers. If successfully scaled, Mariner could reshape interactions across industries, from e-commerce to education. One can envision in the very near future the wide-spread use by customers of

advanced AI agents to carry out their instructions, order or directions (e.g., buy/sell transactions or load shift responses) automatically, based on customer defined preferences. The CEC needs to anticipate these changes as it considers the technology and platform choices that can deliver the highest value for energy consumers over the long run.