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**CA Efficiency + Demand Management Council Response to NOR for
Comments on the Draft Scoping Order for the 2023 IEPR_3172023**

Additional submitted attachment is included below.

March 17, 2023

California Energy Commission
Docket No. 23-IEPR-01

Delivered via email

Re: Response to Notice of Request for Comments on the Draft Scoping Order for the 2023 Integrated Energy Policy Report

The California Efficiency + Demand Management Council (“Council”) appreciates the opportunity to respond to the California Energy Commission’s (“Energy Commission”) request for comments on its Draft Scoping Order for the 2023 Integrated Energy Policy Report (“Draft IEPR Scope”). The Council finds the Energy Commission’s Integrated Energy Policy Report to be a valuable resource in analyzing current and assessing future clean energy policy efforts.

The Council is a statewide trade association of non-utility businesses that provide energy efficiency (“EE”), demand response (“DR”), and data analytics services and products in California. Our member companies include EE, DR, and distributed energy resources (“DER”) service providers, implementation and evaluation experts, energy service companies, engineering and architecture firms, contractors, financing experts, workforce training entities, and EE product manufacturers.

The Council supports the Energy Commission’s incorporation of demand side resources and their role in advancing the timely deployment and integration of clean energy technologies with the electric grid. The Energy Commission’s inclusion of distributed energy resources, such as vehicle-grid integration, as well as decarbonized buildings are vital to lower energy bills, cleaner energy, reliable power, and equitable access to clean energy technologies - all of which are critical to achieving California’s ambitious energy and climate goals.

The Energy Commission’s attention to demand side resources in its Draft IEPR Scope is particularly noteworthy following the submission of its Clean Energy Reliability Investment Plan (“CERIP”). The Energy Commission’s proposed funding focus in the CERIP across years 2024-2025 and 2025-2026 emphasizes allocating “significant funds... to initiatives that scale the deployment of both demand-side and supply-side solutions, with a greater focus on demand-side resources.” The Council continues to applaud efforts to advance demand side resource opportunities and benefits across clean energy and climate policy considerations.

The Council urges the Energy Commission incorporate the following recommendations into its final Integrated Energy Policy Report (“IEPR”) Scope:

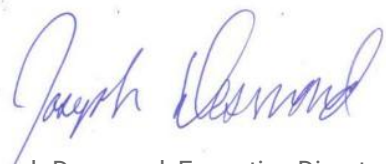
- Coordinate with the California Public Utilities Commission on ongoing rulemakings including, but are not limited to:
 - R.21-06-017¹ (Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future)

¹ https://apps.cpuc.ca.gov/apex/f?p=401:56::::RP.57.RIR:P5_PROCEEDING_SELECT:R2106017

- R.22-07-005² (Rulemaking to Advance Demand Flexibility Through Electric Rates)
- R.22-11-013³ (Rulemaking to Consider Distributed Energy Resource Program Cost-Effectiveness Issues, Data Access and Use, and Equipment Performance Standards)
- Incorporate the resources provided in Appendix A: Annotated Listing of References, attached to this letter and provided with the Council's December 1, 2022 Response to Energy Commission's Request for Information regarding Clean Energy Resources for Reliability; 21-ESR-01⁴, into consideration while establishing the IEPR Scope and drafting IEPR process.
- Include in the IEPR process how the Energy Commission intends to incorporate biennial updates to the yet-to-be established load flexibility targets as required by SB 846 (Dodd, 2022). In particular, the Council urges the Energy Commission discuss:
 - The necessary resources to adequately measure and update the load flexibility targets; and
 - The benefits meter data provide towards load flexibility (and establishing/updating load flexibility targets), such as:
 - Understanding and improving performance,
 - Verifying contract performance,
 - Evaluating cost-effectiveness,
 - Supporting electricity system planning,
 - Validating demand flexibility value, and
 - Support energy policies and programs.

Again, the Council appreciates the opportunity to submit comments on the Energy Commission's Notice of Request for Comments on the Draft Scoping Order for the 2023 Integrated Energy Policy Report.

Sincerely



Joseph Desmond; Executive Director



Clark McIsaac; Director, Policy & Strategy

California Efficiency + Demand Management Council

² https://apps.cpuc.ca.gov/apex/f?p=401:56:::RP.57.RIR:P5_PROCEEDING_SELECT:R2207005

³ https://apps.cpuc.ca.gov/apex/f?p=401:56:::RP.57.RIR:P5_PROCEEDING_SELECT:R2211013

⁴

https://cedmc.org/wp-content/uploads/2022/12/CA-Efficiency-Demand-Management-Council-Response-to-CEC-RFI-re-CERIP-DEB-A_21.ESR_01_11.30.2022.pdf

APPENDIX A: Annotated Listing of References

Various Resources

Auto-Demand Response in New Construction

<http://www.lincusenergy.com/wp-content/uploads/2017/09/Auto-Demand-Response-in-New-Construction.pdf>

Department of Energy (DOE) Hydropower Vision

<https://www.energy.gov/sites/default/files/2018/02/f49/Hydropower-Vision-021518.pdf>

CA Public Utilities Commission (“PUC”) Load Shift Working Group Final Report - January 2019

https://gridworks.org/wp-content/uploads/2019/02/LoadShiftWorkingGroup_report.pdf

Lawrence Berkeley National Laboratory Load Shift Potential Study Phase 3 Report - July 2020

<https://emp.lbl.gov/publications/california-demand-response-potential>

DOE Loan Programs Office (LPO) Real Money for Virtual Power Plants_Nemtzow - May 2020

https://drive.google.com/file/d/1BdCr3HuroKNnK-i_zMfLUJWib2DNfbLU/view

DOE LPO Building a Bridge to Bankability - June 2022

http://www.energy.gov/sites/default/files/2022-06/DOE-LPO22-PPTv02_LPO-Overview_June2022.pdf

DOE VPPieces #1: Bite-Sized Blogs About Virtual Power Plants_Jigar Shah

<https://www.energy.gov/lpo/articles/introducing-vppieces-bite-sized-blogs-about-virtual-power-plants>

DOE VPPieces #2: Benefits to Affordability_Jigar Shah

<https://www.energy.gov/lpo/articles/vppiece-2-benefits-affordability>

DOE VPPieces #3: The Role of Photovoltaics and Li-ion Battery Storage

<https://www.energy.gov/lpo/articles/vppiece-3-role-photovoltaics-and-li-ion-battery-storage>

Rocky Mountain Institute - The Economics of Demand Flexibility Full Report

<https://rmi.org/insight/the-economics-of-demand-flexibility-how-flexiwatts-create-quantifiable-value-for-customers-and-the-grid/>

Oak Ridge National Laboratory - Development and Implications of a Predictive Cost

Methodology for Modular Pumped Storage Hydropower (m-PSH) Projects in the United States - September 2016

<https://info.ornl.gov/sites/publications/files/Pub70650.pdf>

Recent Energy Commission Reports

CEC-500-2022-005 Investigating Flexible Generation Capabilities at the Geysers
<https://www.energy.ca.gov/sites/default/files/2022-09/CEC-500-2022-005.pdf>

CEC-500-2021-060 Transactive Incentive Signals to Manage Energy Consumption
<https://www.energy.ca.gov/sites/default/files/2021-12/CEC-500-2021-060.pdf>

CEC-500-2021-058 Energy Efficient HVAC Packages for Existing Residential Buildings
<https://www.energy.ca.gov/sites/default/files/2021-12/CEC-500-2021-058.pdf>

CEC-500-2021-044 Technologies and Strategies for Agricultural Load Mgt to Meet
Decarbonization Goals
<https://www.energy.ca.gov/sites/default/files/2021-10/CEC-500-2021-044.pdf>

CEC-500-2021-020 Low-Cost Thermal Energy Storage for Dispatchable Concentrated Solar
Power
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2021-020.pdf>

CEC-500-2021-011 EE and Water Savings in Agriculture by Innovative Plant-Aware Irrigation
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2021-011.pdf>

CEC-500-2021-010 Distributed Energy Resources Integration Research Roadmap
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2021-010.pdf>

CEC-500-2020-038 Complete and Low-Cost Retail Automated Transactive Energy System
(RATES)
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-038.pdf>

CEC-500-2020-030 In-Conduit Hydropower Implementation Guidebook
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-030.pdf>

CEC-500-2020-003 Water Sector Energy Efficiency through an Integrated Energy Management
System
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-003.pdf>

CEC-500-2020-002 Wexus Energy and Water Mgt. Mobile Software for Agricultural Industry
<https://www.energy.ca.gov/sites/default/files/2021-05/CEC-500-2020-002.pdf>

CEC-500-2019-063 Constructing a Microgrid for a Wastewater Treatment Facility
<https://www.energy.ca.gov/sites/default/files/2021-04/CEC-500-2019-063.pdf>

US Department of Energy (DOE)

A National Roadmap for Grid-Interactive Efficient Buildings May 2021

<https://www.energy.gov/eere/articles/does-national-roadmap-grid-interactive-efficient-buildings>

Grid-Interactive Efficient Buildings (GEBs) Technical Reports (Collection)

<https://www.energy.gov/eere/buildings/geb-technical-reports>

Overview of Research Challenges and Gaps GEB Technical Report

<https://www1.eere.energy.gov/buildings/pdfs/75470.pdf>

Heating, Ventilation, and Air Conditioning (HVAC); Water Heating; Appliances; and Refrigeration
GEB Technical Report

<https://www1.eere.energy.gov/buildings/pdfs/75473.pdf>

Whole-Building Controls, Sensors, Modeling, and Analytics GEB Technical Report

<https://www1.eere.energy.gov/buildings/pdfs/75478.pdf>

Windows and Opaque Envelope GEB Technical Report

<https://www1.eere.energy.gov/buildings/pdfs/75387.pdf>

Lighting and Electronics GEB Technical Report

<https://www1.eere.energy.gov/buildings/pdfs/75475.pdf>

DOE Technical Report Webinar Series

GEB Webinar Series: Integration – Building Equipment – June 23, 2020

<https://www.energy.gov/sites/default/files/2020/06/f76/bto-geb-integration-062320.pdf>

GEB Webinar Series: Integration – Distributed Energy Resources – June 30, 2020

<https://www.energy.gov/sites/default/files/2020/07/f76/bto-geb-webinar-der-integration-070120.pdf>

GEB Webinar Series: Whole-Building Control, Sensing, Modeling & Analytics - May 19, 2020

<https://www.energy.gov/sites/default/files/2020/05/f74/bto-geb-webinar-CSMA-051920.pdf>

GEB Webinar Series: Windows and Opaque Envelope – June 16, 2020

<https://www.energy.gov/sites/default/files/2020/06/f76/bto-geb-webinar-061620.pdf>

GEB Webinar Series: Heating, Ventilation, and Air Conditioning – June 2, 2020

<https://www.energy.gov/sites/default/files/2020/06/f75/bto-geb-hvac-webinar-060220-2.pdf>

GEB Webinar Series: Water Heating, Appliances and Refrigeration – June 9, 2020

<https://www.energy.gov/sites/default/files/2020/06/f75/bto-geb-waterheating-appl-refrig-webinar-061020.pdf>

GEB Webinar Series: Lighting and Electronics – May 26, 2020

<https://www.energy.gov/sites/default/files/2020/05/f75/bto-geb-lighting-webinar-052620.pdf>

DOE Reports: Closed-Loop Pumped Storage Hydropower

A Comparison of the Environmental Effects of Open-Loop and Closed-Loop Pumped Storage Hydropower

– April, 2020

<https://www.energy.gov/sites/prod/files/2020/04/f73/comparison-of-environmental-effects-op-en-loop-closed-loop-psh-1.pdf>

Closed-Loop Pumped Storage Hydropower Resource Assessment for the United States – May 2022

<https://www.nrel.gov/docs/fy22osti/81277.pdf>

Pumped Storage Hydropower FAST Commissioning Technical Analysis – July 2020

<https://info.ornl.gov/sites/publications/Files/Pub131479.pdf>

Modular Pumped Storage Hydropower Feasibility and Economic Analysis – February 2017

<https://www.energy.gov/sites/prod/files/2017/04/f34/modular-pumped-storage-hydropower-feasibility.pdf>

U.S. Hydropower Market Report Update – October 2022

https://hydrosourc.ornl.gov/sites/default/files/2022-10/US_Hydropower_Market_Report_2022_0.pdf

DOE Hydropower Supply Chain Fact Sheet Feb 2022

www.energy.gov/sites/default/files/2022-02/Hydropower%20Supply%20Chain%20Fact%20Sheet.pdf

DOE Hydropower Supply Chain Report incl. PSH - Final Feb 2022

www.energy.gov/sites/default/files/2022-02/Hydropower%20Supply%20Chain%20Report%20-%20Final.pdf

National Association of State Energy Officials (NASEO)

NAESO: Demand Flexibility & Grid-interactive Efficient Buildings 101 - Sept 2022

https://www.naseo.org/Data/Sites/1/documents/tk-news/naseo-df-geb-101-9-sept-2022_finalb.pdf

NASEO: State and Local Building Policies for Energy Efficiency and Demand Flexibility - Feb 2021

<https://www.naseo.org/data/sites/1/documents/publications/NASEO%20BldgPolicies%20EE%20and%20DF%20Feb%202021.pdf>