BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Pursuant to Enhance the Role of Demand Response in Meeting the State's Resource Planning Needs and Operational Requirements.	R.13-09-011 (Filed September 19, 2013)

COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE JOINT ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE'S RULING ALLOWING PARTIES TO COMMENT ON PROPOSED GUIDANCE FOR UTILITIES' PROPOSALS FOR 2017 DEMAND RESPONSE PROGRAMS AND ACTIVITIES

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The California Energy Storage Alliance ("CESA")[1] hereby submits these comments pursuant to the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") in response to *the Joint Assigned Commissioner and Administrative Law Judge's Ruling Allowing Parties To Comment On Proposed Guidance For Utilities' Proposals For 2017 Demand Response Programs And Activities*, issued on August 6, 2015 ("Ruling").

[1] 1 Energy Systems Inc., Abengoa, Advanced Microgrid Solutions, AES Energy Storage, Aquion Energy, ARES North America, Brookfield, Chargepoint, Clean Energy Systems, CODA Energy, Consolidated Edison Development, Inc., Cumulus Energy Storage, Customized Energy Solutions, Demand Energy, Duke Energy, Dynapower Company, LLC, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, ELSYS Inc., Energy Storage Systems, Inc., Enersys, EnerVault Corporation, Enphase ENERGY, EV Grid, Flextronics, GE Energy Storage, Green Charge Networks, Greensmith Energy, Gridtential Energy, Inc., Hitachi Chemical Co., Ice Energy, IMERGY Power Systems, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Invenergy LLC, K&L Gates, LG Chem Power, Inc., LightSail Energy, Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Manatt, Phelps & Phillips, LLP, Mitsubishi Corporation (Americas), Mobile Solar, NEC Energy Solutions, Inc., NextEra Energy Resources, NRG Solar LLC, OutBack Power Technologies, Panasonic, Parker Hannifin Corporation, Powertree Services Inc., Primus Power Corporation, Princeton Power Systems, Recurrent Energy, Renewable Energy Systems Americas Inc., Rosendin Electric, S&C Electric Company, Saft America Inc., Sharp Electronics Corporation, Skylar Capital Management, SolarCity, Sony Corporation of America, Sovereign Energy, STEM, SunEdison, SunPower, Toshiba International Corporation, Trimark Associates, Inc., Tri-Technic, Wellhead Electric. The views expressed in these Comments are those of CESA, and do not necessarily reflect the views of all of the individual CESA member companies. (http://storagealliance.org).

I. INTRODUCTION

CESA applauds the significant amount of work done by the Commission's staff to advance Demand Response ("DR") in California and make this resource category an integral part of planning and operating the grid. CESA has categorized its comments in the order of the questions listed in the Ruling.

II. 3A. ENABLING MARKET INTEGRATION

1. The feasibility of CAISO market integration for each individual demand response program: For those programs deemed feasible to be integrated into the CAISO market, include a detailed description of the steps required to integrate the program. For those programs deemed not feasible to be integrated, provide an explanation of the barriers.

CESA's Response: The integration of DR in the California Independent System Operator's ("CAISOS) markets should be a major focus of parties in this proceeding. While CESA applauds the CAISO's efforts and open-mindedness to explore new metering and telemetry options, as well as creating new baseline methodologies, CESA notes an absence of engagement on central issues that will affect the value and the successful integration of these resources. CESA thus urges the Commission, and stakeholders in this proceeding to address these fundamental issues:

- Supply resources such as Proxy Demand Response ("PDR") should be eligible for capacity payments when full CAISO market integration is achieved. Mechanisms to implement this eligibility and counting are needed. They should also be eligible for flexible capacity and local capacity payments under comparable standards
- DR resources should be eligible for frequency regulation in the CAISO's markets, as they are currently in other organized markets.

- The Commission should detail a plan to mitigate the effects of the regulatory deadlock following FERC Order 745

Generally, the above issues create barriers to the full integration of DR into the CAISO's markets. These barriers come in the form of regulatory structures that restrict access to revenue streams and create uncertainty regarding the long-term feasibility of DR products. Collectively, these barriers discourage DR deployments and the in-state industry, and reduce the societal benefits from having these resources compete in California's electricity marketplace.

2. Recommendations for program tariff and contract changes to enable market integration: One example of this type of change may be shifting the Notice Window for the Demand Bidding Program to earlier in the day to allow for day-ahead integration.

CESA's Response: Tariffs that encourage customer sited energy storage to participate in DR markets are already implemented in certain utility service territories and broader adoption should be encouraged by the Commission. For example, SDG&E's Critical Peak Pricing ("CPP") program – Special Condition 15 "Non-Coincident Demand Charge Waiver" eliminates charges for any peak that occurs outside of CPP event hours. As a result, energy storage systems can enter a CPP event with full capacity available for DR, since the requirements for regular peak shaving operations are waived.

3. Recommendations regarding program baselines: Address the interaction of program-specific baselines with the CAISO's baselines for Proxy Demand Response (PDR) settlement, pursuant to the recommendations of the Supply Resource Demand Response Integration Working Group Report. Provide an evaluation of each of the following:

    a. The implications of different baselines between Utility programs and CAISO's Type 1 (i.e., 10-in-10 baseline) and Type 2 (i.e., statistical sampling) baselines, which are currently in the CAISO tariff; and

CESA's Response: No comment at this time.

b. Recommendations for changes to Utility demand response program baselines, including whether the Commission should reconsider the per-customer baseline calculation requirement.

CESA's Response: CESA supports the Commission's direction to address the interaction between program-specific baselines and the CAISO's baselines for Proxy Demand Response ("PDR") in the Proposals for 2017 DR program improvements. On-going developments and thought by the DR Supply Integration Working Group ("SIWG") have identified important alternative baselines for PDR methodology to the CAISO. Specifically, a SIWG sub-group that includes numerous parties to this proceeding is working to develop specific PDR baseline alternatives that are already under consideration in the CAISO's Energy Storage and Distributed Energy Resources ("ESDER") Initiative's Phase I.

The SIWG has identified key areas of overlap between the CAISO's PDR baselines and program-specific baselines overseen by the Commission, and it will be important for this proceeding to address these overlaps as they relate to program-specific baselines and continued efforts for DR resource integration into the CAISO's markets. These areas of overlap include:

- The impact of baseline requirements for technologies, such as customer-sited energy storage, that allow for participation in both retail and supply-side DR programs
- The effect of these alternative PDR baseline requirements on the quality of the settlement data that is being provided to the utilities

CESA looks forward to seeing these issues identified in the Proposals, and addressed in this proceeding. CESA also supports continued coordination between the Commission and the CAISO to work toward addressing the impacts of these developments on DR program resources and integration with the CAISO's markets.

4. Recommendations for addressing over generation from renewables: In 2014, the Utilities funded a study investigating the relationship between renewables and over generation. The study depicted a future of overgeneration as more renewables are integrated into the grid. In D.14-05-025, the Commission authorized PG&E to perform an Excess Supply pilot, which also looks at the relationship between renewables and over generation. We anticipate this to be a growing problem in the future. Should PG&E continue this pilot? Should SDG&E and SCE expand upon this work and identify how load modifying and supply side demand response programs can absorb excess power during periods of over generation to support renewables integration and grid operations and avoid curtailment of renewable generation?

CESA's Response: CESA believes further work is needed on how DR can support grid balancing and help resolve overgeneration episodes. CESA therefore recommends that the Commission, at the minimum, authorize the following pilot projects:

1. Test energy storage market participation for highly dispatchable DR resources in the following CAISO markets: day ahead energy, real time energy, spin / non-spin reserve, regulation up/regulation down.

2. Test market participation with charge and discharge capable energy storage systems, capable of absorbing "excess supply" in different scenarios, and explore how commercial and industrial loads paired with energy storage can mitigate overgeneration.

3. Test electric vehicle ("EV") participation in DR, both demand side as well as supply side programs.

4. Test cost-effective ways of incorporating new metering configurations that are compatible with wholesale market participation and study how net energy metering ("NEM") eligible resources paired with energy storage can be integrated in load modifying and supply DR programs.

5. Understand how multiple non-homogenous resources can be incorporated in DR markets and aggregated, including through direct meter generator output.

6. Test aggregation of various types of resources across multiple Sub-Location Aggregation Points ("Sub-LAPs").

III. 3B. OVERALL PROGRAM IMPROVEMENTS

1. Use of Back-Up Generation: The Commission recently approved Resolution E-4728, which adopted Advice Letters from the Utilities regarding the Demand Response Auction Mechanism (DRAM) pilot. In that Resolution, the Commission determined that Back-Up Generation should be prohibited for use in the DRAM pilot. Should the Commission adopt this policy for the overall demand response program beginning with the 2017 program year?

CESA's Response: Yes. CESA supports program designs and policies that align with the loading order, greenhouse gas emissions reductions goals, and with general efforts to operate the grid and fund projects that general lead to lower overall emissions and cleaner grid operations. The Commission should potential sub-categorization of "Back-Up Generation." That term may include diesel generators, but it could also include grid-connected energy storage systems, which can provide DR services as well as backup generation when the grid is offline. Customer sited energy storage systems installed to provide DR services as well as back-up generation are likely to reduce the effective heat rate of the California electric grid.[2] In the case of diesel generators installed primarily for back-up generation, DR services are likely to actually increase that grid heat rate.

2. Cost-Effectiveness Protocols: A June 19, 2015 Ruling issued in this proceeding described several proposed changes to the demand response cost-effectiveness protocols. We anticipate a decision by the end of 2015 addressing this issue. Should the Utilities include revised cost-effectiveness analyses for each of the programs using the Protocols that are anticipated to be adopted in late 2015 and taking into account any proposed changes to the programs?

CESA's Response: No comment at this time.

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[2] *See, e.g., Comments of the California Energy Storage Alliance on Preliminary Scoping Memo*, filed May 4, 2015 in R.15-03-011, p. 4.

3. Automated Demand Response (AutoDR)/Technology Incentives/Technical Assistance Programs: These programs and technologies are key factors in advancing demand response. The Utilities recently conducted evaluations on these programs; the results indicated serious performance and management problems. Should the Utilities include recommendations for program changes focused on improving this set of programs?

CESA's Response: Yes. Utilities should include recommendations for improving AutoDR Programs. This should include recommendations for exploring advancing the adoption of AutoDR enabling technologies, such as customer-sited storage.

4. Permanent Load Shifting: Given the significant developments in the Commission's storage policies, should the Commission consider a change in the funding source of the Permanent Load Shifting program? Is it appropriate to require the Utilities to provide a qualitative analysis of whether the Permanent Load Shifting program should continue to be funded through the demand response program or if it is more appropriately funded through another source?

CESA's Response: No comment at this time.

5. Reliability Programs: PG&E was directed to complete its integration of reliability (emergency) programs through Reliability Demand Response Resource (RDRR) no later than January 1, 2017. PG&E shall identify any program changes that may be required in order to complete that directive in a timely manner.

CESA's Response: No comment at this time.

6. Aggregated Managed Portfolio (AMP) Program: In D.14-05-025, the Commission approved the continuation of funding in 2015-2016 for improvements to the AMP program previously approved in D.14-02-033 and directed SCE to cooperatively work with demand response aggregators toward the creation of contracts for the SCE territory. Should the Commission authorize funding for the continuation of these contracts in 2017? Should the Commission require new and improved Requests for Proposals for these programs?

CESA's Response: No comment at this time.

7. Overall Budget: Over the past several demand response budget cycles, the Commission has witnessed a consistent practice of underspending (or over budgeting). The Utilities should consider serious reductions in budgets to reflect corrections to this practice. As a first step, the Utilities should consider eliminating programs that suffer from low participation or produce well below the expected number of megawatts in demand response.

CESA's Response: The budgetary issues identified by the Commission are a true concern and should be addressed in this proceeding and in R.14-10-003[3]. In that proceeding Assigned Commissioner Florio proposes a framework to enable customer choice from an array of demand-side and distributed energy resources. CESA believes that taking the perspective of the utility customer and expanding the range of participation options is a critical step in creating DR programs that contribute to building a cleaner, more efficient, and reliable electric power system.[4] The underperformance of certain DR programs with marginal impacts on creating new flexible resources on the grid is a clear example of a system that needs reform and should further encourage the commission to achieve the goals set forth in this proceeding. Accordingly, ratepayer funding for these DR programs should immediately be shifted to DR programs with greater near term impact.

IV. 3C. CONTENTS OF THE DEMAND RESPONSE PORTFOLIO

1. A list identifying all programs and incentives provided through demand response but established external to the 2012-2014 demand response application proceeding (Application 11-03-001 et al.).

CESA's Response: No comment at this time.

2. A proposed schedule to consolidate all demand response programs and incentives into one demand response portfolio.

CESA's Response: No comment at this time.

[3] *Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning and Evaluation of Integrated Demand Side Resource Programs,* R.14-10-003, filed October 2, 2014.

[4] *See*, *Proposed Decision Adopting an Expanded Scope, A Definition, And A Goal For The Integration Of Demand Side Resources*, issued on August 13, 2015.

V. 3D. MISCELLANEOUS REQUIREMENTS

1. Customer Protection: Senate Bill 1414 (Ch.627, Statutes of 2014) requires that the Commission establish customer protection rules regarding program participation, cost of program participation, and ability to not enroll in the program.

CESA's Response: No comment at this time.

2. Demand Response Study Funding: In D.12-04-045, the Commission authorized $1M per fiscal year for the purpose of performing studies to advance the Commission's demand response goals. D.15-02-007 extended this funding to December 31, 2016. Should the Commission continue this funding during the 2017 bridge funding year?

CESA's Response: Yes.

VI. CONCLUSION

CESA thanks the Commission for the opportunity to provide these reply comments in response to the Ruling.

Respectfully submitted,

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