BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements.	Rulemaking 16-02-007 (Filed February 11, 2016)

COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON RULING OF ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE REQUESTING COMMENTS ON DISADVANTAGED COMMUNITIES AND OTHER ASPECTS OF SENATE BILL 350, AND MODIFYING PROCEEDING SCHEDULE

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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA")[1] hereby submits these comments on the *Ruling of Assigned Commissioner and Administrative Law Judge Requesting Comments on Disadvantaged Communities and Other Aspects of Senate Bill 350, and Modifying Proceeding Schedules,* issued by Assigned Commissioner Liane Randolph and Administrative Law Judge Julie A. Fitch on December 21, 2016 ("Ruling").

[1] 8minutenergy Renewables, Advanced Microgrid Solutions, AES Energy Storage, AltaGas Services, Amber Kinetics, Bright Energy Storage Technologies, Brookfield, Consolidated Edison Development, Inc., Customized Energy Solutions, Demand Energy, Doosan GridTech, Eagle Crest Energy Company, East Penn Manufacturing Company, Ecoult, Electric Motor Werks, Inc., ElectrIQ Power, ELSYS Inc., Energy Storage Systems Inc., Enphase Energy, GE Energy Storage, Geli, Green Charge Networks, Greensmith Energy, Gridscape Solutions, Gridtential Energy, Inc., Hitachi Chemical Co., IE Softworks, Innovation Core SEI, Inc. (A Sumitomo Electric Company), Johnson Controls, LG Chem Power, Inc., Lockheed Martin Advanced Energy Storage LLC, LS Power Development, LLC, Magnum CAES, Mercedes-Benz Research & Development North America, National Grid, NICE America Research, NEC Energy Solutions, Inc., NextEra Energy Resources, NEXTracker, NGK Insulators, Ltd., NRG Energy, Inc., OutBack Power Technologies, Parker Hannifin Corporation, Powertree Services Inc., Qnovo, Recurrent Energy, RES Americas Inc., Sharp Electronics Corporation, SolarCity, Southwest Generation, Sovereign Energy, Stem, Sunrun, Swell Energy, Wellhead Electric, and Younicos. 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 is a strong proponent of incorporating Senate Bill ("SB") 350 requirements related to disadvantaged communities and demand-side management in the Integrated Resource Planning ("IRP") process. Thus far, the work in this proceeding has been focused on the technical details of incorporating renewables targets and greenhouse gas ("GHG") emission reduction targets into a long-term planning and modeling process that has traditionally focused on electric grid reliability. The disadvantaged communities and demand-side management topics in the Ruling have yet to be thoroughly discussed by stakeholders in this proceeding, so CESA therefore appreciates the study commissioned by the California Energy Commission ("CEC") on the barriers and opportunities for renewables, zero-emission vehicles, and energy efficiency in low-income and disadvantaged communities ("DACs"), and supports the Commission's efforts to comply with Public Utilities Code Section 399.13(a)(7). In these comments, CESA responds to only certain of the specific questions posed in the Ruling.

II. THE DEFINITION OF DISADVANTAGED COMMUNITIES SHOULD INCLUDE LOW-INCOME COMMUNITIES.

CESA responds to certain questions posed in the Ruling related to disadvantaged communities in the IRP as follows:

Question 1: Should the Commission expand the definition of "disadvantaged communities" to include underserved communities who do not currently qualify under Section 39711 of the Health and Safety Code as specified in SB 350? If so, what metrics should be used to identify these communities?

CESA's Response:

The CalEnviroScreen definition is appropriate as it combines pollution burdens, socioeconomic factors, and other population characteristics of different communities. However, perhaps due to the weighting of these various factors, the CalEnviroScreen definition of DACs

does not always coincide with communities that have low household incomes. For example, the CalEnviroScreen may overlook certain rural communities. According to one analysis, only about 20% of the affordable multi-family properties in California as defined by Section 2852 eligibility requirements are located in DACs identified by the CalEnviroScreen.[2] While there is a strong correlation between communities with low income and with being located in these disproportionately environmentally affected areas,[3] it is important to have low-income communities explicitly covered in this definition of DACs. CESA therefore recommends that the definition of "disadvantaged communities" include low-income communities. Similarly, and to avoid unintended outcomes, the Commission needs to be sure IRP implementation does not result in communities which are not "low-income" being included simply because they are a subpart of a broader area identified by the CalEnviroScreen as a DAC.

Depending on the context, CESA believes that there may be variations of the definition as well. For example, certain programs or procurements that substantially benefit DACs indirectly may warrant being counted toward these SB 350 requirements. A solar-plus-storage deployment at a local school that serves a DAC or low-income community may improve the socioeconomic advancement of the community by generating savings that can be re-directed toward educational resources, and/or by providing shelter during natural disasters that cause grid outages. These other factors, depending on the context, may be appropriate to append to the DAC definition.

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[2] *Joint Proposal by the California Housing Partnership, California Environmental Justice Alliance, Brightline Defense Project, Natural Resources Defense Council, and National Housing Law Project (Nonprofit Solar Stakeholders Coalition) on Implementation of Assembly Bill 693*, submitted on August 3, 2016 in R.14-07-002, pp. 18-19.

[3] Krieger, Elena M., Joan A. Casey, and Seth B.C. Shonkoff. *A framework for siting and dispatch of emerging energy resources to realize environmental and health benefits: Case study on peaker power plant displacement.* Energy Policy, May 27, 2016. http://www.sciencedirect.com/science/article/pii/S0301421516302798

III. DISADVANTAGED COMMUNITIES REQUIREMENTS SHOULD BE INCORPORATED IN INTEGRATED RESOURCE PLANNING THROUGH PROCUREMENT GUIDANCE AND REQUIREMENTS.

Question 2: How should the Commission coordinate the IRP and procurement-related requirements related to impacts on disadvantaged communities with the other statutory requirements in other energy resource areas?

CESA's Response:

The Commission should coordinate its requirements related to DACs with SB 350's requirements to achieve a 50% Renewable Portfolio Standard ("RPS"), doubling of energy efficiency savings, and advancement of transportation electrification. Even as many of these efforts are already underway, as evidenced by the requirement to site 10-20% of electric vehicle ("EV") charging stations in DACs in the Commission's approval of the IOUs' EV charging station applications,[4] or by the implementation of the AB 693 program that provides incentives to low-income households, these programs are "siloed" and not directly linked to the IRP's various resource-specific goals.[5]

CESA's recommendation for coordinating the two requirements would be to establish a "preferred location/customer" to procure or deploy renewables, energy efficiency, and EV charging stations in DACs. This would be the inverse of the "preferred resource" approach that the Commission has taken to ensuring that the Long-Term Planning Process ("LTPP") met identified grid reliability needs while advancing its RPS goals and adhering to the loading order established by the Commission. In a similar way, the "preferred location/customer" approach seeks to meet identified grid reliability needs by siting resources in DACs to the greatest degree

[4] For example, Southern California Edison Company's Charge Ready Program allows up to 10% of the qualified charging stations in disadvantaged communities, while PG&E's Charge Smart and Save Program aims to deploy up to 15-20% of qualified charging stations in disadvantaged communities.

[5] The IRP needs to clearly identify resources and services necessary to ensure electrical system reliability that will be maintained when policy requirements, legal obligations, and siloed programs are implemented.

possible first. The Commission has ensured this by establishing preferred resource procurement minimums, and a similar preferred location/customer minimum could be applied on the demand-side as well.

Question 3: How should disadvantaged communities be considered in the context of the IRP statutory requirements and process?

CESA's Response:

DACs can be considered in the IRP process either in the planning process or in procurement by the IOUs. Between the two, CESA believes it is more reasonable to consider DAC requirements in procurement practices and guidelines. Over the past several months in the Commission's informal stakeholder engagement, it has become apparent that the modeling work to optimize for resources that ensures electric grid reliability, maximizes renewables deployment, reduces GHG emissions, and minimizes procurement costs is already too complex and resource-intensive. The modeling effort appropriately focuses on those key metrics. Accounting for DACs as a constraint to the planning and modeling would add another layer of complexity, and would be difficult to quantify and incorporate.

CESA recommends that the Commission consider DAC requirements as part of the procurement practices and guidelines, which can more easily guide resource procurements and deployments in DACs and act as a screen for resource procurements and deployments. Once these DAC requirements are met in one cycle of the IRP, these resource procurements and deployments can be incorporated as exogenous variables in subsequent IRP cycles, thereby ensuring that they are incorporated in planning efforts as well.

Question 6: How should the Commission's jurisdictional utilities be required to consider impacts on disadvantaged communities during their procurement activities?

CESA's Response:

As highlighted in CESA's response to Question 1, above, the Commission's jurisdictional utilities should have a preference for deploying resources in DACs first and/or should meet a preferred location/customer procurement minimum. The utilities can each conduct their own assessments on where and with what resources to procure through their Preferred Load Serving Entity ("LSE") Plans, but their criteria and evaluation for considering environmental justice and low-income issues in their procurement decisions should be made transparent to the Commission and other interested parties.

IV. OTHER RESOURCE POLICIES AND PROGRAMS, SUCH AS ASSEMBLY BILL 2868, SHOULD BE LINKED TO THE INTEGRATED RESOURCE PLANNING, TO ENSURE ACCURATE MODELING AND INCREMENTAL RESOURCE PROCUREMENTS IN DISADVANTAGED COMMUNITIES.

Question 8: How should the IRP process coordinate with ongoing proceedings that develop policies and programs that impact disadvantaged communities, such as energy efficiency, distributed generation, electric vehicles, research, etc.?

CESA's Response:

The IRP process should coordinate with ongoing policies and programs that impact disadvantaged communities, which can inform modeling efforts. For energy storage, CESA recommends that the Commission also consider how Assembly Bill ("AB") 2868 factors into planning and procurement in the IRP proceeding. AB 2868 requires that the IOUs file applications for programs and investments to accelerate widespread deployment of distributed energy storage systems, with priorities placed on deployments to public sector and low-income customers. Up to 500 MW of energy storage deployments are allowed across the three IOUs by

AB 2868. This is an important development that will provide economic and resiliency benefits to DACs. However, these programs and investments are likely to occur independent of the IRP process, perhaps in the Energy Storage Rulemaking (R.15-03-011) or as separate IOU Applications. The IRP process should create sustainable and responsive links to these other policies and programs to ensure that the modeling accurately reflects current requirements, programs, and policies, and to ensure that any new resource procurements or deployments are indeed incremental.

V. LOCATIONAL BENEFITS SHOULD BE CONSIDERED IN THE PROCUREMENT GUIDELINES AND EVALUATION CRITERIA FOR RESOURCES.

Question 3: How should the activities in the context of IRP in this proceeding be coordinated with ongoing work on: (a) integrated distributed energy resources (IDER) in rulemaking (R.14-10-003), and (b) the distribution resources planning rulemaking (R.14-08-013)?

CESA's Response:

There is significant work underway in R.14-08-013 and R.14-10-003, but neither of these proceedings currently address how to identify and quantify value to DACs. R.14-08-013 quantifies the locational benefits of siting distributed energy resources ("DERs") at various points on the distribution grid, but does not factor in locational benefits, for example, tied to minimizing localized air pollutants, while R.14-10-003 considers non-locational benefits to potential DERs. Until one or both of these proceedings moves toward quantifying the localized environmental and economic impacts to DACs, CESA recommends that high-level guidance from the Commission be provided in procurement authorizations for its jurisdictional utilities.

Outside of the context of DACs, the Commission should utilize the outputs of R.14-08-013 and R.14-10-003 to guide procurement of DERs to optimally locate them to meet system and local reliability needs and guide the evaluation of resources to be procured or deployed.

Incorporating these outputs at the planning stage would require too many constraints on the modeling and make it unnecessarily complex. Rather, these locational benefits should be factored into the procurement guidelines and evaluation criteria for resources, after the model has identified electric grid needs.

VI. THERE SHOULD BE FEEDBACK LOOPS BETWEEN RESOURCE-SPECIFIC PROCEEDINGS AND THE INTEGRATED RESOURCE PLANNING PROCEEDING.

Question 4: How should the requirements of Public Utilities Code Sections 454.52(a)(1)(F)and (G) relate to the Commission's ongoing work in the areas of energy efficiency, demand response, storage, distributed generation, and electric vehicles? Is there something additional that should be required in the context of SB 350's IRP requirements?

CESA's Response:

The ongoing resource-specific proceedings should be incorporated in the IRP as exogenous factors and should be updated accordingly as policies, requirements, and procurements change in those proceedings. In addition, CESA believes that there should be feedback loops between the IRP and other resource-specific proceedings. For example, in Track 2 of R.15-03-011, the Commission is considering a revision of the total MW procurement targets of energy storage systems. Considering this open policy issue in this proceeding, the IRP should also include a higher energy storage procurement target (*e.g.*, 5 GW, 20-30 GWh by 2030) as one of the candidate plans to help resolve some of these key policy questions. Depending on the results, it may inform the Commission on how electric grid needs change with different energy storage procurement levels, and may inform R.15-03-011 as well in guiding the types and durations of energy storage needed. The Commission should consider these key policy decisions from other proceedings as candidate plans in the IRP.

Question 5: Is there a distinction to be made between ongoing program-related efforts on "demand-side energy management" and the new SB 350 related requirements?

CESA's Response:

Yes, depending on the program, ongoing efforts for demand-side energy management can be differentiated from the new SB 350 related requirements. For example, R.15-03-011 and the Self-Generation Incentive Program ("SGIP") is focused on transforming the market for energy storage to make it a mainstream resource, whereas the IRP does not have that objective in mind. The same principles could apply, for example, to the EV charging station pilots being administered by the IOUs.

VII. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Ruling and looks forward to working closely with the Commission and other stakeholders to ensure that DACs are included in the IRP and other appropriate resource-specific proceedings.

Respectfully submitted,

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