BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Oversee the Resource Adequacy Program, Consider Program Refinements, and Establish Forward Resource Adequacy Procurement Obligations.

Rulemaking 19-11-009 (Filed November 7, 2019)

COMMENTS OF THE CENTER FOR COMMUNITY ENERGY ON THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION DRAFT LOCAL CAPACITY TECHNICAL ANALYSIS FOR 2021

Jose Torre-Bueno Ph.D., Executive Director Center for Community Energy 249 South Highway 101, # 564 Solana Beach, CA 92075 Tel: (619) 977-0553 E-mail: jose.torrebueno@cc-energy.org

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Introduction

These reply comments are filed on April 17, 2020 in accordance with the ruling by Administrative Law Judge Chiv changing the schedule to file reply comments.

The Center for Community Energy (CCE) respectfully submits these comments in response to the CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION DRAFT LOCAL CAPACITY TECHNICAL ANALYSIS FOR 2021.

Meta Comments

Our main comment is actually a meta comment in that it addresses not the content of the document, which is excellent engineering work, but the underlying economic assumptions going into it which recent tragic events have drastically altered.

California Has Experienced a "Black Swan" Event

As it says in the report: "The inputs, assumptions and methodology were discussed and agreed to by stakeholders at the 2021 LCT Study Criteria, Methodology and Assumptions Stakeholder Meeting held on October 31, 2019". ¹ At that time no one could have anticipated the situation we now find ourselves in.

Because of the COVID-19 lockdown as of today, CAISO energy consumption is down almost 8% relative to a year ago.²



There is no reason to expect usage to bounce back quickly; in fact, there is a very real risk that the health and economic crisis will trigger a depression of several years' duration. The IMF is predicting the worst recession since 1930s.³

For this reason, the demand forecast used in the report the "mid baseline demand with low additional achievable energy efficiency and photo voltaic (AAEE-AAPV),"⁴ which was developed in 2019, should now be considered completely obsolete.

In particular, the CCE considerers the prediction in the demand forecast – that Peak Demand in the SDG&E TAC Area will grow by 38MW/year between 2021 and 2025 – to be no longer valid.

¹ CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION DRAFT LOCAL CAPACITY TECHNICAL ANALYSIS FOR 2021. Pg 8

² https://www.environmentaltrackingproject.org/p/blog-page.html

³ https://www.cnbc.com/2020/04/14/imf-global-economy-to-contract-by-3percent-due-to-coronavirus.html

⁴ CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION DRAFT LOCAL CAPACITY TECHNICAL ANALYSIS FOR 2021 Pg 1

The Feasibility of Predicting Future Demand is Permanently Impaired

Over and above the impact of the COVID-19 lockdown on the economy, a number of social and technological changes have emerged which can add variables of unknown magnitude to models attempting to predict future demand peaks.

- Even after the lockdown ends, companies and workers who have been forced to try telecommuting may decide some of the benefits of reduced commuting and office rental space savings are compelling enough that the number of *remote* workers may not return to the previous low numbers. This can be expected to change the pattern of daily load.
- The Public Safety Power Shutoff program has already led to a great increase in interest in behind the meter batteries. These can be expected to be used for load shifting as well as for emergency power. CCE suggests that the trauma of the COVID-19 crisis, which has led to hording of everything from toilet paper to ammunition, will in the long run also lead to a greater interest in behind the meter batteries as consumers become interested in "hording" electricity even if it does not make economic sense. This may be speculation, but speculation is all we have to go on at this point.
- California state policy has begun to encourage building electrification.⁵ Going forward, we can anticipate that smart building systems, especially those combined with batteries, will be much better at leveling their demand curve.
- New technologies, especially vehicle to grid energy transfer and advanced Demand Reduction systems, can be expected to much better match solar production to demand.⁶

All of the above factors make predicting the future demand for electricity more difficult. In particular, predicting the future peak demand multiple years into the future in the face of multiple rapid technological and social changes is going to become increasingly difficult.

New Facilities to Meet RA Requirements Can Be Brought Online More Quickly

While prediction is becoming more difficult, it is perhaps fortunate that the lead time to bring facilities to meet peak demand online is being reduced. In particular, it is clear that battery projects can be brought online much faster than conventional generating projects, and the rate at which they can be implemented is improving.

The Alamitos 100MW/400MWh project, which was contracted from AES in 2014, will finish in December 2020⁷. In contrast, Clean Power Alliance contracted for a new 100MW/400MWh

 $^{^{5}\} https://www.energy.ca.gov/news/2019-12/cec-approves-first-local-energy-efficiency-standards-go-beyond-2019-statewide$

⁶ Building a Healthier and More Robust Future: 2050 Low-Carbon Energy Scenarios for California March 2019 | CEC-500-2019-033 Pg. 33

⁷ https://www.greentechmedia.com/articles/read/fluence-kicks-off-with-dedicated-financing-massive-supply-contract#gs.6s8e6k

system from sPower (a subsidiary of AES) on April 10, 2020, and expects operation August 2021, only 16 months later. Negotiations for this system started only 6 months ago⁸ The first large scale battery system to be brought online quickly was, of course, the Hornsdale Power Reserve system in Australia, which was famously built in less than 100 days⁹

This means that LSE have a greater ability to rapidly adjust their Local RA (LRA) capacity than was true in the past.

Conclusion

The purpose of the multi-year requirement for LSEs to contract LRA is to provide market signals. The assumption is that the facilities that are needed to provide the LRA are inherently slow to build, so the LSEs need to place contracts now for LRA in the future so that the market signals will cause these facilities to come into being.

The CCE suggests that this assumption no longer holds and the need for long term future requirements for LRA should be re-examined. If facilities to meet LRA needs can be built quickly, but the ability to predict LRA multiple years into the future is weak, then requiring LSE to contract for LRA actually creates risk. Requiring LSEs to contract for LRA three years in the future will run the risk of burdening them and their ratepayers with significant excess capacity.

Further, at this moment most RA that can be procured is from fossil fuel plants that are not in keeping with the state's GHG reduction goals. Given that the cost of energy storage is decreasing rapidly, and that storage can be deployed more rapidly than other types of LRA, procuring future LRA from traditional generators at this time is not necessarily a good long-term strategy for LSEs.

There is a further consideration for CCAs. Unlike an IOU, a CCA is more like a municipally owned utility in that it is a creation of local government and arguably should have a greater autonomy to decide how much risk it chooses to accept relative to the cost of acquiring future LRA.

Respectfully Submitted <u>By: /s/ Jose Torre-Bueno</u> Jose Torre-Bueno Ph.D., Executive Director San Diego Energy District 249 South Highway 101, # 564 Solana Beach, CA 92075 Tel: (619) 977-0553 E-mail: jose.torrebueno@cc-energy.org

⁸ https://www.greentechmedia.com/articles/read/clean-power-alliance-contracts-for-100mw-battery-biggest-so-faramong-community-choice-aggregators

⁹ https://theurbandeveloper.com/articles/teslas-giant-battery-farm-ready-flick-switch