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Expert Panel Input on Allocating CED Amongst CCAs

Additional submitted attachment is included below.

Comments of the Expert Panel[1] on the September 26, 2019 Workshop Concerning Emerging Trends for the California Energy Demand Forecast

Energy Commission Staff asked the Expert Panel for input on issues around how it should split its demand forecast among community choice aggregators (CCAs). The expert panel thinks that CCAs are an important issue that will grow in importance and deserve future attention in the IEPR process. Future collaboration with the CCAs can potentially improve the IEPR projections by offering a unique opportunity to gain real-time information on important current developments such as the penetration of rooftop solar and electric vehicles. At the same time, however, it is not clear how the commission should incorporate these perspectives about current markets into its structured IEPR process for long-term projections for the next ten years. To help this transition, we have four concrete recommendations based on the material presented at the workshop.

1. We recommend that the Energy Commission assign a staff person to monitor existing and emerging CCAs. It does not seem reasonable to expect the forecasting team within the Demand Analysis Office (DAO) to track CCA formation or what demand forecasts they may be submitting in the CPUC's Integrated Resource Plan or Resource Adequacy Proceedings. Given the large number of anticipated CCAs it is not possible for DAO to accurately monitor or model how energy efficiency and demand response or electrification programs CCAs are implemented and what their CCA specific impacts on forecasts will be. Someone at the Commission, however, should do this and keep DAO informed.

2. It is not clear to us, from the CCA Implementation Plans we scanned, if very many of the CCAs have demand forecasts that are comparable in quality and detail to the Energy Commission's. In fact, we doubt that this is the case, but we have no mechanism to assess the quality of these CCA specific forecasts. We think that the plans appear to be based more on number of meters by customer class. We also considered the forecasts embedded in the Integrated Resource Plans submitted to the CPUC, but cannot tell if those Plans relied on independent forecasts by each CCA or if they are linked to the Energy Commission's forecast. From what we can see, the CCAs appear to be very much focused on the short-term, i.e., getting launched successfully, achieving investment grade status, and California requirements for year-ahead resource adequacy. Developing modeling approaches akin to what DAO assesses in preparing the demand forecast do not appear to be foremost among CCA priorities. (Some CCAs do show evidence they are moving in this direction, however. East Bay Community Energy, for example, was recently recruiting for a Director of Analytics whose responsibilities would include developing its short- and long-term demand forecasts.) Short-term (e.g., one year) shares of electricity sales by CCAs may be available. Long-term (e.g., ten year) shares, while expected to grow, are subject to large uncertainty[2] and may be best characterized by scenarios or probabilistic methods. CEC may contemplate issuing guidance or standards as to how CCAs should construct long run forecasts.

3. It would seem logical to subdivide further, from the 20 forecast zones used in staff's current forecast, to separate utility load versus CCA load within each zone. In most cases, CCA's are denoted according to municipal jurisdiction, though there are examples of customer load within an entire county included

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[1] The Expert Panel advises the Demand Analysis Office from time to time on questions related to the energy demand forecast. The members include Hill Huntington (Stanford University), James McMahon (Better Climate), Alan Sanstad (LBNL), and Max Auffhammer (U.C. Berkeley). The Panel acts pursuant to Energy Commission Contract No. 800-16-033 with Aspen Environmental Group, which provides support to the Panel.

[2] NREL, 2019. https://www.nrel.gov/news/program/2019/report-sheds-light-on-community-choice-aggregation-in-the-united-states.html

within a CCA (Pioneer Community Energy serving all of Placer County is an example.) Delineating the forecast this way will be challenged by data availability. Participation rates range from 86-99%, averaging 94%[3], so in any jurisdiction there will still be some customers continuing to have service from an IOU. Other relevant questions include:

- When a customer changes from utility service to CCA service, do we have any idea if their loads change? To the extent that CCAs are more aggressive than IOUs in implementing load modifying programs, how will their load shapes differ from the IOU load shapes? Future research utilizing smart meter data may address these questions.
- Are there reasons to believe that CCA programs will be more successful or cost-effective[4] than similar load modifying programs launched by investor-owned utilities (IOUs)?
- CCAs offer a range of rate discounts relative to IOU rates; some target keeping rates 5% lower than the relevant IOUs, while others target 4% and still others 1.5%. Some may offer different rate structures as they try to achieve investment grade. What impact will this have on demand?

4. Given the emergence of a large number of CCAs and the possibility that CCAs may account for the majority of load in the long run, we suggest that CEC work on a set of guidelines regarding how and which data on customers and consumption CCAs collect, how data are utilized to inform short and long run forecasts and how energy efficiency and DSM programs are modeled to affect demand by customer class.

The Panel has more questions than answers at this point, which seems consistent with the status of CCAs and their rapid and on-going emergence as a feature in California. We do think it is reasonable to ask these questions now, and staff and the CCAs will need to develop a standardized way of estimating the results of the load-modifying programs CCAs say they plan to implement, as well as talk about sharing the data needed to support the Energy Commission's detailed energy demand forecast.

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[3] CalCCA 2019. https://cal-cca.org/cca-impact/

[4] UCLA Luskin Center for Energy Innovation 2019. https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/The_Growth_in_Community_Choice_Aggregation.pdf