I. INTRODUCTION

The California Community Choice Association (CalCCA) appreciates the opportunity to submit these informal comments on the Track 3B.2 workshops on structural elements and resource counting. The workshop process has been informative thus far, providing additional understanding and definition around the slice-of-day concept. Additional details are required, however, for CalCCA and other parties to narrow in on a superior approach for implementing slice-of-day. A proposal for RA structural reform should meet the following principles to ensure the approach ultimately endorsed by the working group will result in a reliable, durable, and cost-effective Resource Adequacy (RA) program:

- Adapts to current and future peak and net-peak needs;
- Maintains a capacity-based approach while also accounting for energy needs;
- Recognizes the full value of renewable resources;
- Prevents “leaning”;
- Does not require abrogation or unwinding of existing resource contracts; and,
- Can be combined with an energy market power mitigation mechanism.

In these comments, CalCCA identifies key questions that still need be considered when evaluating how proposals meet these principles.

II. DISCUSSION

Pacific Gas and Electric Company (PG&E) has provided an overview of slice-of-day’s key elements and presented its proposals for resource counting rules. Modifications to current counting rules would include an exceedance methodology for wind and solar and accounting for ambient derates on dispatchable resources. To date, PG&E has not proposed a specific number and duration of slices but this aspect of PG&E’s slice-of-day proposal will be a critical element,
considering variable resources’ capability can change significantly over multiple hours or multiple months. Additionally, changes in load shape over time may necessitate modifications to slices over time, raising questions about how often slice duration will need to be reevaluated. Until these details are developed, it is unclear if PG&E’s slice-of-day framework will result in a durable solution that accurately accounts for resources’ contribution to reliability.

Southern California Edison (SCE) introduced a variation of the slice-of-day concept in which LSEs would need to demonstrate enough capacity to satisfy their load profiles plus a planning reserve margin (PRM) in all 24 hours on the “worst day” of the month. Elements of SCE’s concept include 24 hourly slices, hourly renewable profiles based on each load serving entity’s (LSE’s) renewable portfolio, an energy storage charging requirement, and bundled RA products. This proposal is an interesting variation of PG&E’s slice-of-day framework that should be considered and developed further in the working group process. CalCCA is particularly interested in how the proposal could be enhanced to allow LSEs to shape their showings more closely to their obligations, given SCE’s concept does not allow the unbundling of the RA products. This modification would go a long way in making the 24-hour slice concept workable by mitigating over- or under-procurement by LSEs.

In order to assess how proposals meet the principles outlined above, CalCCA intends to evaluate all proposals against a set of questions developed by CalCCA and the Independent Energy Producers Association (IEPA) circulated to the service list in advance of the resource counting workshops and included in Appendix A of these comments. These questions address integral elements of any slice-of-day framework including resource counting and slice definition, ensuring energy sufficiency, and transactability. It will be beneficial for parties with proposals to answer these questions when discussing their proposals in future workshops. These questions
still require significant thought and discussion to weigh the merits of all proposals discussed thus far.

In addition to the questions raised in Appendix A, as workshop participants begin to narrow down proposals, the working group should consider how each proposal will incorporated into the California Independent System Operator (CAISO) RA showings and backstop procurement processes. In the October 6, 2021 workshop on structural elements, the CAISO presented on the limitations of its Customer Interface for Resource Adequacy (CIRA) system, including its inability to validate multiple forecasts or reserve margins and its inability to modify compliance deadlines from the T-30 deadline for seasonal showings. As the working group begins to narrow its focus a particular framework or smaller subset of frameworks, it would be beneficial for the CAISO to opine again on how the proposed framework can fit into its processes, including both the RA compliance showings and validations process and the backstop procurement process. Additionally, the CAISO should explain how the CIRA system could be enhanced to accommodate the new framework. Given the workshops are considering critical structural changes to the RA program, system changes are likely warranted to the extent necessary. If the result of a proposed framework is two separate sets of RA compliance obligations, CalCCA is concerned it will create additional complexity for LSEs who would need to procure to meet two separate sets of RA obligations and the inability for CAISO to identifying the source of any RA showing deficiencies.

III. CONCLUSION

CalCCA looks forward to continuing to collaborate with parties on these complex issues to develop an implementable proposal that supports the reliability, durability, and cost-effectiveness of the RA program.
APPENDIX A

10/20/21 AND 11/03/21 RA TRACK 3B.2 WORKSHOPS
RESOURCE COUNTING QUESTIONS
In order to assess the various proposals to implement a slice of day approach, CalCCA and IEPA have developed the following questions that presenters should address within their proposal/presentation. Not all questions may be applicable to a specific presentation, but these questions can serve as a starting point for evaluating options.

**Resource counting and slice definition**

1. Resource capability for resources like wind, solar, and hydro can vary considerably at different times of day and from the beginning to end of a season. How does the proposal account for this?

2. How often will slices be re-defined? Will resource counting updates follow the same timeline? How granular will the calculations be (i.e., different exceedances for each slice)?

3. How would a resource count if slice duration does not align with resource duration? For example, a four-hour minimum duration requirement and four-hour slices align. If the slices are shorter or longer than four-hours, how is the resource counted?

4. If a net load approach is used, how will wind and solar resource contributions be deducted from an LSE’s gross load? Will this be top down based on LSEs getting a share of aggregate wind/solar profiles or bottoms up based on an LSE’s specific resources under contract? Who will review and validate the contributions under each approach?

5. How will LSEs get credit for the slices procured through the local purchases made by the CPE? How would CPE crediting to LSEs work under a net load approach when the CPE is procuring RA from wind or solar?

6. Will each resource be assigned an NQC for each slice?

**Energy Sufficiency**

1. How does the proposal ensure energy sufficiency in all hours (beyond the peak or net-peak hour of a slice)?

2. How does the proposal address use-limited resources that have limitations (i.e., daily, monthly, annual use limits) that impact the energy they can provide?

3. How does the proposal treat storage, including:
a. How does the proposal account for the need to charge storage?

b. Can storage resources count in consecutive buckets given the need to recharge after they have been dispatched?

c. How will the charging hours account for battery inefficiency?

d. How does the proposal apply to storage with different durations (i.e., 4-hour storage and storage with longer durations)?

Transactability

1. Are slices (or slice obligations) bundled or can a resource sell to multiple LSEs for different slices?

2. If unbundled, how would RA showings be validated to account for resources selling the same capacity to different LSEs in different slices?

3. If bundled, how does the proposal prevent over-procurement where individual LSEs are long for certain slices because they cannot closely tailor their portfolios’ generation profiles to their loads and are unable to sell the excess capacity other LSEs?

4. If SCE’s hourly approach were adopted, would LSEs be able to sell hourly blocks of RA in hours in which they are long to other LSEs?