

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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CPUC Staff appreciate the opportunity to offer these comments on the CAISO’s SB 350 meeting held on Feb. 8th and corresponding presentations and studies. This proposed regionalization would produce many sweeping changes in the planning and implementation of energy policies in California and across the West. To that end, we offer the following comments intended to highlight how the CAISO should best utilize their resources to produce the most relevant and realistic results in transparent fashion.

1. CPUC Staff recommends a modified study framework and additional study areas
<p>CPUC Staff recommend that all current policy mandates, including assumptions in SB 350 and the 2016 Long-Term Procurement Plan, should be included in the study framework. These include, but are not limited to, assumptions about the increase in electric vehicles and associated load, increase in the energy-efficiency of existing buildings, and the implementation of time of use rates. In addition, demand assumptions should be based on the most recent Integrated Energy Policy Report (i.e. the 2015 IEPR).</p> <p>Staff recommend that the scope of the study should include a range of alternatives to WECC-wide regionalization, such as: PacifiCorp only integration, PacifiCorp integration vs. expanded regional EIM (inclusion of additional BAAs), and expanded procurement without regionalization.</p> <p>Staff recommend that all costs to ratepayers be evaluated: both one-time transitional costs and on-going operational costs.</p>

2. CPUC Staff recommendation regarding renewable portfolios

CPUC Staff recommend that at least two of these portfolios should be consistent with those generated by the RPS Calculator to facilitate comparison of results.

In addition, a scenario that examines out of state procurement alone without regionalization should be performed to isolate those benefits from the larger benefits of regionalization.

3. Reasonableness of assumptions associated with developing the renewable portfolios

The RESOLVE tool is new to many CA stakeholders. The renewable portfolios resulting from this model should be benchmarked against RPS calculator portfolios produced with similar input assumptions, and differences should be explained. To maximize transparency, the CAISO should document model input data and any relevant analysis tools such as the development of load shapes and renewable shapes from underlying data. This would allow stakeholders to replicate the analysis independently and validate the results. For example, how are the different operational scenarios modeled in RESOLVE versus in the Power System Optimizer, and with what – if any – differences?

Staff also note that the model uses 500 MW of geothermal capacity and 500 MW of pumped storage capacity, neither of which are consistent with default assumptions in the 2016 LTPP.

Finally, we note that it is unclear whether high quality Wyoming and New Mexico wind is available only in operational scenario 3 (as indicated on slide 8) or whether it is available in operational scenarios 2 and 3 (as indicated on slide 21).

4. Comments on Cost and Location of renewable technologies.

We have no additional comment on the reasonableness of the assumptions, other than those outlined above, but encourage the CAISO to utilize costs and locations from the RPS Calculator.

5. Consider modified scope to study alternative RPS rules, such as removing the difference between “bucket 1 vs. 2”

Staff recommend that the analysis should also evaluate how out-of-state QFs seeking to participate in the market would be affected by regionalization.

6. The renewable portfolio analysis makes assumptions about the ability to export surplus generation out of California (i.e., net-export assumptions). Do you think these assumptions are reasonable? If no, why not?

To maximize comparability with studies in the Long-Term Procurement Plan, net-export assumptions should match those which are developed in the 2016 Assumptions & Scenarios. As those assumptions are currently being vetted by stakeholders, we propose an interim approach: CAISO should model Scenario 1a) and Scenario 1c) if they are unable to model all three versions of the BAU scenario. 1a) has the 2000 MW CAISO Simultaneous Export Limit while 1c) and Scenarios 2) and 3) all have this value as 8000 MW.

7. Additional Categories of potential impacts

First, CPUC Staff recommend that the total ratepayer costs for integration should be incorporated as a major element of the study. This would provide a context for the benefits. These costs should include, but are not limited to: start-up costs to design and implement a new market, costs of transmission, and on-going costs of operations including running a regional market and staffing a regional organization.

Second, CPUC Staff recommend that the potential GHG costs - in the form of increased emissions associated with the California grid associated with regionalization - should be a major focus of the study as well. The potential for the GHG footprint of the California grid to include greater imports from BAAs with much higher GHG/kWh than California is a major concern and the Aspen presentation did not provide enough detail to ascertain whether this is an intention of the study, and how such an analysis will be conducted.

8. Methodology and assumptions to estimate the potential impact on California ratepayers

Staff recommends that, in addition to our comments in questions #7 above, the study should clarify which benefits accrue specifically to California versus other states. Certain parts of the analysis are WECC-wide and therefore quantify benefits across WECC which does not aid in California's understanding of the potential benefits vs. costs to our ratepayers.

9. The regional market benefits will be assessed based assuming a regional market footprint comprised of the U.S. portion of the Western Interconnection. Do you believe this is a reasonable assumption for the purpose of this study? If not, please explain.

Full WECC wide regional integration of 38 balancing authorities in the study time frame is a challenging modeling assumption (because of its plausibility) and this modeling assumption may cloud the usefulness of the study results. It could be modeled as a “book end” but it does not represent a likely outcome in the next 5 or 10 years. Instead, modeling should focus on the proposed PacifiCorp integration and, or, a more realistic scenario which includes several additional BAAs but not the entire west.

10. For the purpose of the production cost simulations, Brattle proposes to use CEC carbon price forecasts for California and TEPPC policy cases to reflect carbon policy implementation in rest of WECC. Is this a reasonable approach? If not, please explain.

To the extent Brattle seeks comment on an appropriate data source to use when modeling CA carbon prices, it is appropriate to use the CEC’s 2015 IEPR Carbon Price Projections. It is unclear to CPUC Staff what assumptions Brattle is making regarding the climate change policies and actions of neighboring states. Whether or not additional western states adopt GHG limitations on their electric grids would be a key input into many aspects of the study.

The Power System Optimizer is new to many CA stakeholders. To maximize transparency, the CAISO should document model input data and any relevant analysis tools such as the development of load shapes, renewable shapes, and calculation of required operating and flexibility reserves from underlying data. This would allow stakeholders to replicate the analysis independently and validate the results. To the extent this study can be aligned with the TEPPC Common Case for 2026, it should.

11. BEAR will be using existing economic data, and generation and transmission data from E3, the CAISO, and Brattle. These data are currently being developed. Are there specific topics that you want to be sure to be addressed regarding these data?

Comment:
n/a

<p>12. The economic analysis will focus on the electricity, transportation, and technology sectors to develop the economic estimates of employment, gross state product, personal income, enterprise income, and state tax revenue. These results will be further disaggregated by sector, occupation, and household income decile. Do you think these sectors are the appropriate ones on which to focus the job and economic impact analysis? If no, why?</p>
<p>Comment: n/a</p>
<p>13. Under the proposed study framework, both economic and environmental impacts of disadvantaged communities will be studied. Based on the study overview do you think this satisfies the requirements of SB350?</p>
<p>Comment: n/a</p>
<p>14. The BEAR model will evaluate direct, indirect, and induced impacts to income and jobs, including those in disadvantaged communities. Do you think additional economic analysis is required? If yes, what additional analysis is needed and why?</p>
<p>Comment: n/a</p>
<p>15. The environmental analysis will evaluate impacts to California and the west in five areas – air quality, GHG, land, biological, and water supply. Do you think additional environmental analysis is required? If yes, what additional analysis is needed and why?</p>
<p>The explanation given regarding the GHG analysis does not explain the methodology for studying the potential GHG impacts (positive or negative) from a regional energy market. A regional market has the potential for CA to import GHG intensive power from other states in greater quantities than we do today which has unclear implications for the State's existing cap and trade regulations.</p> <p>Evaluating how a cap and trade program would impact GHGs across the larger region as well as how it would be administered would be useful. In addition, evaluating changes to load resulting from growth of electric vehicles and reducing solar curtailment would be useful.</p>

16. The environmental analysis presentation identified a number of potential indicators for the various impacts. Are the indicators sufficient? If no, what additional indicators would you suggest?

Comment:
n/a

17. Other

Comment:
n/a