

## Stakeholder Comments Template

Submitted by	Company	Date Submitted
David Dockham <a href="mailto:Dave.Dockham@ncpa.com">Dave.Dockham@ncpa.com</a> or Tony Zimmer <a href="mailto:Tony.Zimmer@ncpa.com">Tony.Zimmer@ncpa.com</a>	Northern California Power Agency	2/19/2016

Please use this template to provide written comments on the Clean Energy and Pollution Reduction Act Senate Bill 350 Study initiative posted on February 4, 2016.

Please submit comments to [regionalintegration@caiso.com](mailto:regionalintegration@caiso.com) by close of business  
 February 19, 2016

Materials related to this study are available on the ISO website at:  
<http://www.caiso.com/informed/Pages/RegionalEnergyMarket/BenefitsofaRegionalEnergyMarket.aspx>

Please use the following template to comment on the key topics addressed in the initiative proposal.

<b>1. Do you think the proposed study framework meets the intent of the studies required by SB350? If no, what additional study areas do you believe need to be included and why?</b>
Comment: No. The studies will address the current state and a possible future end state (WECC wide footprint), but fail to account for, and/or address any of the additional costs that are likely to materialize as a result of a phased approach to regionalization. Additionally, there are no plans to perform sensitivity analyses on the numerous modeling assumptions that must be made to perform these studies in order to assess the impact of a dramatic miscalculation under the original sets of assumptions

**2. Five separate 50% renewable portfolios are being proposed for 2030 as plausible scenarios for the purpose of assessing the potential benefits of a regional market. Are these portfolios reasonable for that purpose, and if no, why?**

Comment: No. Transmission projects proposed and approved through the various regional transmission planning processes (Columbia Grid, NTTG, West Connect) have been discounted or simply not considered in the RESOLVE model, and as a result, the benefits of identifying the least cost combination of resources and minimizing “over build” in all business as usual (BAU) cases are likely overstated. In addition, the portfolios being studied by E3 in this current process are vastly different than the portfolios studied by E3 and resulting as part of the “Big 5” study process preceding adoption of the 50% Renewable Portfolio Standard, so some explanation of the rationale for the differences, including differences in assumptions and outputs is needed.

**3. To develop the five renewable portfolios the RESOLVE model makes a number of assumptions resulting in a mix of renewable and integration resources for the scenario analysis (rooftop solar, storage, retirements, out of state resources etc.) Do you think the assumptions associated with developing the renewable portfolios are plausible? If no, why not?**

Comment: No. See response to Q2. Additionally, a key finding of the current study assumes large benefits of Wyoming wind being imported into California. The models that are being utilized for the SB350 studies do not model the voltage requirements/reliability impacts that will occur as OTC units are shut down and incremental resources (conventional or renewable) are met by out of state resources transmitted over very long distances.

**4. The renewable portfolio analysis assumes certain costs and locations for the various renewable technologies. Do you think the assumptions are reasonable? If no, why not?**

Comment: Yes and No. The locations assumed for various technologies seem reasonable. As discussed during the February 8<sup>th</sup> presentation, some of the cost estimates for the technology seem high, given recent proposals, particularly as regards utility scale solar.

**5. The renewable portfolio analysis makes assumptions about the availability and quantity of out-of-state renewable energy credits (“RECs”) to California. Do you think the assumptions are plausible? If no, why not?**

Comment: Not sure. The breadth of the modeling assumptions was not clear, even after the presentation on the 8<sup>th</sup>. The overall process would benefit from greater transparency and disclosure of all of the major and minor assumptions included in the modeling efforts. Separately, most of NCPA’s member utilities prefer to develop new projects within their service territories, and unlike the larger utilities in the state, do not plan to take advantage of out of state resources.

**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?**

Comment: Yes and No. The assessment of varying levels of import/export capability is a good start to assess sensitivities of assumptions, however, the failure to assess the impacts of transmission projects under the BAU cases (as described in Q2) above, will tend to discount the value of the sensitivity cases being assessed.

**7. Does Brattle’s approach for analysis of potential impact on California ratepayers omit any category of potential impact that should be included? If so, what else should be included?**

Comment: Yes. The methodology for allocating Transmission Access Charges across a broader regional footprint is not included and will have a significant impact on California ratepayers, particularly under CAISO’s initial “Transmission Access Charge Options” proposal. Additionally, the schedules for addressing TAC options and any subsequent revisions to the transmission planning process will sequentially follow the SB 350 cost benefit studies, precluding any assessment of potential cost shifting between regions or an assessment of the impacts on current transmission projects that have been approved through the sub regional planning processes. Both of these issues will affect the choice of portfolios described in Q2 and the overall cost benefit assessment. At a minimum, and in addition to modeling changes addressed in responses above, a qualitative assessment will be needed that addresses the potential impacts of incomplete understandings of the 1) TAC allocation process, 2) expanded regional transmission planning process, and 3) rate of incremental expansion of the regional footprint. Separately, a quantitative analysis will be needed to address the reliability impacts associated with the new portfolios (e.g. voltage, VAR, RMR, etc).

<p><b>8. Are the methodology and assumptions to estimate the potential impact on California ratepayers reasonable? If not, please explain.</b></p>
<p>Comment: No. See above responses, but generally, studies will need to account for additional sensitivity analyses that include both quantitative and qualitative assessments.</p>
<p><b>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.</b></p>
<p>Comment: Possibly. It is not clear how the studies will be modified based on comments submitted in response to the Feb 8<sup>th</sup> stakeholder meeting, and/or how the benefits and costs associated with an incremental expansion of the regional footprint will be valued between 2019 and 2030. Until these factors are addressed we would have to conclude the analysis is not reasonable.</p>
<p><b>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.</b></p>
<p>Comment: Unsure. Recent stay of CPP certainly impacts the assumptions. This is another example where sensitivity analyses surrounding key assumptions in the modeling are needed.</p>
<p><b>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?</b></p>
<p>Comment: Yes. See comments above.</p>

<p><b>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?</b></p>
<p>Comment: Yes, but. The economic assessments utilize the outputs of upstream studies (Framework, Portfolios and Ratepayer Impacts) as inputs. If the inputs to the economic study are flawed, the outputs from the economic study will also be flawed. Consistent with comments on improving the input studies above, enhancements to the upstream processes will be necessary in order to make the outputs from the economic models meaningful.</p>
<p><b>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?</b></p>
<p>Comment: Yes and No. See responses to Q12.</p>
<p><b>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?</b></p>
<p>Comment: Yes. See response to Q12.</p>
<p><b>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?</b></p>
<p>Comment: Yes. See response to Q12.</p>
<p><b>16. The environmental analysis presentation identified a number of potential indicators for the various impacts. Are the indicators sufficient? If no,</b></p>

<b>what additional indicators would you suggest?</b>
Comment: No. See response to Q7 and Q12.
<b>17. Other</b>
Comment: