

Stakeholder Comments Template

Submitted by	Company	Date Submitted
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Please use this template to provide written comments on the Clean Energy and Pollution Reduction Act Senate Bill 350 (SB350) Study initiative posted on April 25, 2016.

Please submit comments to regionalintegration@caiso.com by close of business
May 13, 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 workshop.

1. Are any of the study results presented at the stakeholder workshop unclear, or in need of additional explanation in the study's final report?

Comment:

Overlapping Sensitivities

Regarding the various sensitivities that were run alongside the base cases in the Production Cost Simulations, Greenlining/APEN recommend that the final report be explicit about what these sensitivities do and do not show. Specifically, each was run in isolation from the others, so they do not, on their own, address or forecast what could happen if multiple sensitivities occur at the same time. For example, it is entirely possible that California could find itself approaching 2030 with high levels of rooftop PV adoption, high levels of energy efficiency, and moderately flexible loads, all at the same time. It is unclear from the individual sensitivities what kind of production costs or resource portfolios might result from this interaction.

If multiple sensitivities cannot be run and analyzed at the same time, Greenlining/APEN recommend that the final study report be explicit about what these sensitivities do and do not show, and about what might happen if multiple sensitivities overlap. Stakeholders and decision-makers must be fully aware not only of what this data shows, but what this data does not show.

"Normal" Weather and Hydro Conditions

Slide 92 from the May 24th presentation notes that the production cost model simulated only "normal" weather, hydro, and load conditions, but it is not clear what "normal" means. Specifically, climate change experts predict significant changes between now and 2030 in what we have, until now, considered to be "normal" weather and hydro conditions. It is unclear whether these predictions are factored into the production cost simulations and, if they are, what predictions the model used. The report's multiple audiences need to know with greater clarity how much the model takes into account the predicted effects of climate change on weather (which will impact load) and hydro conditions between now and 2030.

Similarly, if the simulation did not take these predicted changes into account, the final report must be explicit in stating that the weather and hydro assumptions were based on historical data and not on forecasts of what "normal" is expected to look like in the next 10-15 years. It should also explain generally how the results might change if a new, forward looking "normal" is assumed – one in which weather is hotter, which will increase air conditioning load, and one that sees more droughts that will impact hydro generation.

2. Please organize comments on the study on the following topic areas:
 - a. The 50% renewable portfolios in 2030
 - b. The assumed regional market footprint in 2020 and 2030
 - c. The electricity system (production simulation) modeling
 - d. The reliability benefits and integration of renewable energy resources
 - e. The economic analysis
 - f. The environmental and environmental justice analysis

Comment:

C. Production Simulation Modeling

Throughout the post-SB 350 discussion of what regionalization might look like, and what effects it might have, environmental justice communities have been assured that regionalization would not increase use of California's existing natural gas plants, because renewable power has no fuel cost and will out-bid natural gas generation in a market context. **However, the Production Cost sensitivity that models the impact of a \$15/tonne carbon price across rest of WECC results in more natural gas generation in California than either the Regional 2 or Regional 3 base cases** (see slide 157 from the May 24th presentation). In fact, adding this CPP compliance proxy seems to result in natural gas generation almost equal to Scenario 1a – **essentially negating the asserted benefits of regionalization on natural gas generation in California.**

This creates the uncomfortable potential of pitting critical environmental goals against one another. The combination of a WECC-wide carbon price plus regionalization under either Regional 2 or Regional 3 would reduce carbon emissions across the west. However, it would also result in increased natural gas plant usage in California, which in turn increases NO_x, SO₂, and PM_{2.5} emissions in California communities. These pollutants cause significant health impacts for individuals and families that live near power plants, including increased rates of asthma, cancer, and heart disease. **This is an unacceptable trade-off that must be avoided at all costs.** California must ensure that joining a regional ISO does not increase local air pollution burdens as a result of increased natural gas generation, even in the event that the CPP is implemented and a carbon price is imposed across the rest of the WECC.

E. Economic Analysis

Study examines the wrong job impacts

The job impacts analysis conducted by BEAR seems to examine the difference between a California without SB 350 and a California with SB 350 - including the 50% RPS and efforts to double energy efficiency (see Slide 9 from the May 25th presentation, which states "Job estimates measure changes in the aggregate California labor force in Full-Time Equivalent (FTE) employees relative to a non-SB350 (33% RPS) scenario."). Greenlining/APEN respectfully assert that *this is not the correct question to be asking.*

SB 350 ordered a study of the potential impacts of a regional market on ratepayers, jobs and the California economy, the environment, disadvantaged communities, emissions of GHGs and other air pollutants, reliability and renewable integration (see Pub. Util. Code § 359.5(e)(1)). It does not order a study of the effects of increasing the RPS from 33% to 50%, which can happen independent of regionalization. As such, this study does not answer the fundamental question it was commissioned to answer. The study should instead look at the job impacts of regionalization as compared to the job impacts of continuing our current market practice, assuming a reasonable assortment of compliance scenarios with the other portions of SB 350.

As currently written, it is not clear whether the job impacts discussed in the study would be caused by regionalization alone, or by the combination of reaching a 50% RPS and regionalization. As such, it is not clear what the difference in job impacts would be if we chose to reach 50% RPS without regionalization, as compared to the impacts of reaching 50% with regionalization. Additionally, it's not clear as presented whether the job impacts include the effect of doubling energy efficiency during the same timeframe, which was also included in SB 350.

At a bare minimum, the explanation of these results in the final report must be explicitly clear not only in what the study models, but also what it does not model (i.e. the independent effects of regionalization, assuming compliance with the other portions of SB 350). Greenlining/APEN submit that further study should be conducted so that policymakers and stakeholders fully understand the job impacts that might result from all of the modeled scenarios.

3. Other

Comment: