

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 Study initiative posted on February 4, 2016.

Please submit comments to 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.

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?
<p>Comment:</p> <p>The proposed study framework omits aspects of the intent in SB 350, and presents the narrowest possible study. SB 350 refers to “western states” and anticipates an expanded ISO serving consumers outside of California. The proposed study should estimate costs and benefits to consumers of electrical energy in all the western states as a result of the ISO expanding beyond its 2016 footprint.</p> <p>The study should include a governance model that is fair to all potential market participants and users of the bulk electrical system (BES). A properly functioning</p>

market is a neutral place where buyers and sellers conduct business fairly. The study should consider a neutral governance model and the resultant costs and benefits across all the western states. California interests will likely be equally or better served by such a model.

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:

A western ISO will require reconciling the sometimes different and occasionally competing public policies. Studying one 50% RPS target is good work. Consideration should also go to state that have chosen lower RPS targets and those that have none at all.

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:

The load forecast is an important input, and one that changes every year. The consultants should model how well the portfolios and scenarios respond under high and low load growth scenarios.

SB 350 also increases the energy efficiency savings target compared to previous law and thus 2013 IEPR assumptions the studies use for energy efficiency are moot. The consultants should use the most recent IEPR including high energy efficiency savings. The Northwest Power and Conservation Council's 7th Regional Power Plan estimates that energy efficiency savings will be greater than load growth resulting in declining retail sales in the Pacific Northwest. Brattle should model this scenario explicitly to estimate the resultant costs and risk to consumers.

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:

The PV solar costs are too high especially in the future. Prices have been declining faster than previous studies, including previous Black and Veatch studies, have forecast. Please consider a “low solar PV cost” case for each scenario.

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:

Some wind projects in the Pacific Northwest are eligible for California’s RPS yet output is not sold into California. Output from some projects was sold into California for short periods of time. Consider a case where output from all eligible projects are sold into California.

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:

The export assumptions, especially as described in the October 2015 PacifiCorp Benefit Study, is a partial equilibrium analysis, which results in overstating the price for exports. The study does not incorporate the effect on market prices of the additional quantity supplied to the market by the RPS-driven additions. A full equilibrium analysis is necessary to reasonably estimate exports and prices.

Seattle requests specific modeling of the effects on prices at major trading points WECC-wide of the export of surplus generation from California. The study should consider the economic feasibility and consequences of export as well as the physical availability of transmission capacity.

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:

California's RPS and other policies are trying to reduce greenhouse gas emissions, yet this is not signaled in electric utility rate design. Some efforts to revise net meter and rate design policies in California could result in customers with behind-the-meter solar paying larger electricity bills even as they use less electricity and produce fewer GHG emissions.

Brattle's study should consider how the use of a price signal to reduce emissions could affect the total cost of the effort.

8. Are the methodology and assumptions to estimate the potential impact on California ratepayers reasonable? If not, please explain.

Comment:

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.

Comment:

The study documents do not provide enough information about why the authors chose the footprint and what assumptions they make about being in the expanded footprint to properly answer the question.

Why are the Rocky Mountain Reserve Sharing areas excluded?

Does the inclusion of the Northwest Power Pool mean that all loads, generators, and transmission assets in that footprint are treated as if the CAISO is the market, balancing area authority, and reliability coordinator?

Regional interties have limitations that do not exist within California. Does the market benefit study incorporate these limitations? In order for the study to be realistic it should model all known limitations on BES operations.

CAISO's transmission access charge is much higher than similar transmission fees in the rest of the WECC. How is the additional payment for using the same transmission estimated and shown as a cost to parties?

Seattle City Light is reluctant to join a multi-state organization that places the best interest of one state above others. Other potential participants outside California may also be reluctant to join an organization that does not foresee its fiduciary duty as the best interest of all participants in all states on a fair and equitable basis. The result may be fewer entities join the expanded market than assumed.

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.

Comment:

Carbon pricing, implicit or explicit, is much more complex than the Brattle study approach. The implied price of carbon for the RPS is much higher than CARB’s allowance prices or CEC’s forecast.

Brattle should study at least 3 additional cases. One is a social cost of carbon applied to all sources regardless of regulatory means or lack thereof to apply the cost. A second case is to force carbon reductions down according to California’s commitment to the “Under 2 MOU” signed in 2015, and estimate resultant total and marginal cost of reducing GHG emissions. The third case is where California utilities would pay PacifiCorp to run gas plants instead of coal plants and count the resultant GHG reductions. The Benefit study assumes Pac would run its gas plants less in response to California exports, which has the perverse effect of increasing GHG emissions. These studies will allow policy makers to see if they are achieving the lowest cost compliance method.

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:

Solar PV prices have been falling faster than E3 and many other forecasters assumed. Transmission charges are increasing faster than CAISO assumes. BEAR should critically evaluate all assumptions before incorporating them into any model.

BEAR should evaluate how the ISO’s actual costs and benefits have compared with forecasts. In 2008, the U.S. Government Accountability Office found a lack of consensus about whether RTOs, and their study included CAISO, have provided benefits to customers. GAO recommended that FERC provide additional steps to

ensure performance and benefits. As of 2008, FERC had not provided any empirical analysis of market performance. In 2011, FERC published some performance metrics, but has not imposed performance requirements on the organized markets. BEAR should study how the use of performance metrics may improve market performance and ensure benefits to consumers.

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?

Comment:

The study does not consider differential effects on women, minorities, or children. These populations are important.

The studies do not consider the cumulative effects of these policies in conjunction with other state and federal policies, demographics, and/or economic trends. Brattle should perform a cumulative effects analysis.

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?

Comment:

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?

Comment:

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?

Comment:

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:

17. Other

Comment:

While not explicitly a subject of SB350 mandated study, the interplay between the potential benefits to be derived by customers within the state of California and the changes to CAISO governance that would not only permit the creation of “ISO-West” but would incent entities outside the state of California to participate in ISO-West’s expansion to participate (and therefore deliver the within-California benefits being studied) is critical. The metamorphosis of the CAISO to ISO-West will require significant, and sometimes painful changes to the CAISO’s current operations and culture. In order to be successful as a future ISO-West, the CAISO will need to establish a Board of Directors that is independent, diverse, representative of regional interests and views, and have a strong engagement process for both the ISO-West membership as well as the states it may operate within, via their respective Public Utility Commissions. Equally critical to establishing independence in fact, is being perceived as neutral and independent by entities that may consider whether to participate in one or more market segments or grid operations provided by ISO-West. Seattle believes the organizational change required to establish a “regional mindset” in a transformed ISO-West organizational culture, that to date has only had to focus on the interests of one state, is going to be significant.