

CPUC Staff Comments on the CAISO's "SB 350" Study Results Presentation

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Background:

Senate Bill 350 required the California ISO (CAISO) to conduct a study of the impacts of, including benefits to, Californians from an expanded, Regional system operator and to present these study results at a joint agency workshop with the CPUC, CEC and CARB. CAISO hired a team of consultants to produce a "benefits study" (hereinafter referred to as the CAISO's SB 350 Benefits study). CPUC Staff have been following the development of the CAISO's proposed study scope and assumptions, and have filed previous comments on the study design, scope, and assumptions.

To date, CAISO's team has completed their study, and presented results to stakeholders at a two-day meeting. The study results were released as a powerpoint deck. The CAISO plans on, but has not yet released in full, the data and models behind the studies, which SB 350 also requires them to do. Therefore, CPUC Staff comments on our understanding of the study results based on the presentation made at the public meeting, and asks for various points of clarification and explanation to be included in the final report CAISO will produce this summer.

CAISO's overall study aims to compare the "current practices" of a California-only energy market operation with a regional energy market operation. The scope of the "current practices," as modeled by the study include: the current system operating and market practices at the CAISO, those operating and market practices of other western balancing authorities (BAs), as well as the current transmission planning practices of each of the distinct western balancing authorities. The study also includes various "current practice" parameters regarding the ability of power to be imported (and exported) into the CAISO, and the ability of imported power to count as RPS generation, consistent with current law.

The study compares current practices to a) a 2020 grid with integration of PacifiCorp's BA and b) a 2030 WECC-wide ISO. CAISO's study assumes that a WECC-wide ISO would include all other BAs in the WECC, other than the Federal Power Marketing Agencies (e.g., BPA and WAPA). In other words, CAISO assumes that all other non-federally run, BAs in the Western U.S. join the CAISO in a single BA system that has centralized operations (commitment, dispatch, reserve sharing) and planning. The study also presumes that this would result (indirectly) in eliminating commercial "market friction" by eliminating impediments to inter-BA transactions. Within the 2030 scenario, CAISO created two sensitivities (cases "two" and

“three”) that have different renewable portfolios. Case three was intended to model a system wherein California changes the current RPS law to relax the limits on out-of-state resources that can count for the 50% RPS mandate. CAISO’s study then assumes significant operational and market changes will lead to reduced renewable infrastructure development in California, and increased infrastructure development in other areas of the WECC, that will be used by California to meet the 50% RPS.

CAISO’s study scenarios also offer a comparison between full market integration and enhanced bilateral coordination as a sensitivity (case 1B). In this sensitivity case, CAISO studied improved commercial/market efficiencies without a WECC-wide ISO, i.e., CAISO studied how California could potentially export more renewable generation to other BAs *without* WECC-wide commitment, dispatch and reserve sharing and without elimination of inter-BA wheeling charges.

CPUC Staff commends the consulting team on the completion of a very ambitious study plan in a short time frame, and we offer these comments on what information we think is critical to document in a final study report. We also think it is very important and recommend that the CAISO offer stakeholders the opportunity to comment on the final study report, because it has been challenging to fully grasp the study assumptions, methodology and results from a powerpoint presentation that is focused on the study results.

Suggestions for the final report’s explanation of the overall study design process, assumptions, and results

The report should clearly explain how the benefit values (in dollars) were calculated, and what an “annual” or “per year” benefit means. The report should also provide Californians with a sense of what the *ongoing* benefits of a Regional-ISO would be, and not just “one-time” benefits.

CPUC Staff found the consultants explanations of the calculation of the “per year” benefits in the presentation to be very confusing and are concerned that the public could misinterpret the results. At the public meeting, consultants verbally explained that the total benefit value for the 2020 and 2030 scenarios was a “per year” benefit for *those years* (2020 and 2030). This implies that these benefits could be a one-time benefit, only realized in the years 2020 and 2030. E3’s presentation implies that much of the benefits resulting from their study are from avoided capitol costs, thus suggesting that it is very important to explain how those capitol cost savings were attributed to the years 2020, 2030, and the years in-between. Were those savings amortized over a period of 10 years? Or were all of the savings assumed to occur in the actual calendar year 2030?

Brattle’s modeling implies that the market efficiency benefits of regionalization would occur every year, because their study focused most on operating a regional, integrated market under hypothetical scenarios, and comparing those to current practice.

It appears that the “annualization” of benefits differed between consultants and models. But CPUC staff and other stakeholders have had to surmise that the study results are not comparable. The CAISO should fully describe the method used to sum the “annual” benefits. Furthermore, it seems like the citizens of California would be most interested in the *average, ongoing, annual* benefits from operating a regional ISO, and it is not clear whether these values were produced by the CAISO’s study. If not, that implies a major analytical and informational gap.

The report should clearly distinguish between the benefits of the various scenarios for market design and geographic scope, and should help readers understand which benefits are linked to which study assumptions.

CPUC commends the study team on modifying the initial scenarios to study multiple sensitivities that represent various potential versions of the future, and of potential policy changes that California could implement as alternatives to a Regional, WECC-wide ISO. CPUC Staff thinks that it is critical that the report help stakeholders understand how the magnitude and type of potential benefits change under different scenarios. The public meeting indicated that there is a diversity of stakeholder opinion regarding which assumptions are reasonably likely to actually occur. For example, some stakeholders expressed that they think it is highly unlikely that a full WECC-wide grid integration would occur before 2030, and others were skeptical of whether California would likely relax its RPS “buckets” system to significantly shift to out of state renewable procurement. The latter is an assumption that relates to distinguishing “case 1A” from “case 1B.” (These cases that represent contrasting potential future California law and policy around the RPS “buckets”). Because stakeholders expressed differences of opinion regarding reasonable assumptions of future policies in California would be, *more fully* explaining and studying these cases and their consequences would help stakeholders understand and consider the comparable outcomes of these scenarios.

CPUC Staff understand that changes to commercial transactions and investments would likely arise as a secondary or indirect effect of operational and planning changes that result directly from the formation and operation of a WECC-wide ISO. We understand that ignoring such indirect benefits overlooks important consequences that may result from a WECC-wide ISO.

Some indirect effects include more diverse and extensive (experiencing less “friction” between BAs) energy market transactions, as well as different energy system investments (resources and transmission) than would otherwise occur. It is essential that the Report’s audience be able to identify and understand (1) what kinds of important *indirect* changes are assumed, (2) how the effects of these changes are being modeled, and (3) *which* of the overall benefits attributed to a WECC-wide ISO are driven by *which* direct and indirect changes.

The report should compare the experiences of other Regional grid mergers with potential Western grid integration

It would be very helpful if the final report discussed the experiences of other regions in the U.S. who expanded or formed a Regional ISO. The study team indicated in the public meeting that many of the assumptions about market efficiency come from the experiences of other regions, so the report should discuss which examples the team analyzed, and how those examples are similar or contrasting to a potential WECC-wide ISO. For instance, are there examples of other ISOs expanding where states' had very diverse energy procurement policies comparable to the contrast between California and Utah or Arizona?

Conclusion

In conclusion, CPUC Staff looks forward to reviewing a completed written report of the study results, with the details that we believe stakeholders would find helpful and illustrative. Thank you for the opportunity to review and comment on the study results powerpoint presentation.