CEDC Comments on CAISO 2018-19 TPP Draft Report

2/28/19

CEDC appreciates the opportunity to comment on the CAISO February 4, 2019 Draft Transmission Plan.

We are pleased the CAISO reviewed and analyzed our economic study request for the California Transmission Project (CTP) and summarized the findings at pages 285-291 of the Draft Plan. We agree with the statement on page 291 the Draft Plan: "*The [CTP] project provides other benefits for which the ISO is valuing with conservative assumptions at this time, due to uncertainty regarding the future reliance on gas-fired generation for system and flexible needs*"

However, our independent analysis of the CTP project focusing solely on LCR benefits and reduced Path 26 congestion yielded a B/C ratio in excess of 1.0. We still believe that if the CAISO were given guidance from the CPUC on how to properly value LCR benefits in the LA Basin and with updated assumptions regarding the system benefits from relieving Path 26 congestion (reduced renewable curtailment and improved system dispatch) the CAISO would have also found the benefits to customers of our project significantly outweigh the costs.

The CAISO appears to have used an LCR valuation methodology which credits LCR reduction in the LA Basin of both $1.39/kw/mo. and $1.89/kw/mo. If the CAISO were to instead use LCR values which are an average of LA Basin LCR payments we have observed from public data, ($3.76/kw/mo.) the project benefits a 1000 MW HVDC connection to LA Basin alone could more than double the LA Basin LCR benefits for our project. **We ask the CAISO to clarify in its final report that if CAISO were to use LCR benefits based on current LCR payments the B/C ratio for our project would have improved significantly.**

We also observed the CAISO gave no LCR credit to our project for 1,000 MW of LCR relief provided by a HVDC connection to Big Creek/Ventura load pocket. We observe that this LCR area currently has 3511 MW of existing capacity and approximately 1733 MW is provided from gas-fired capacity. **We ask the CAISO clarify in its final report that if state decarbonization policies limit the availability of those gas fired power plants in the Big Creek/Ventura load pocket the LCR values for the second CTP 1,000 MW DC Cable could qualified for LCR credit.**

Regarding Path 26 congestion relief, we believe that the conservative assumptions the CAISO used reduced the potential benefits of our project. It appears the conservative export limits of 2,000 MW was binding and reduced the value of Path 26 South to North flows. The result was an under valuation of the avoided solar curtailment that our project offers.

Further, we understand the CAISO was compelled to use the CPUC preferred portfolio wherein the assumed operation of gas-fired generation in the default portfolio no longer complies with California state policy (60% RPS by 2030, 100% carbon free by 2045 and aggressive MMT targets). As pointed out by ISO on page 456 of its Draft 2018-2019 Transmission Plan, "all existing thermal generation resources, except the once through cooling (OTC) thermal generation plants, the Diablo Canyon nuclear plant and the plants for which mothball

or retirement plans have been announced, will stay on through 2030". As a result, by using the outdated Default Portfolio, ISO's economic assessments are not accurately quantifying the true production cost benefits of CTP. **We ask the CAISO mention specifically in the final report which summarizes the CPT economic analysis that the conservative export limit of 2,000 MW and the outdated assumptions regarding the gas fired generation fleet have caused a likely undervaluation of the benefits of our proposed project.**

Beyond LCR and Path 26 congestion relief benefits, there are significant additional benefits to California customers that our proposed project provides that the CAISO did not quantify.

First, the unique location of CTP proposed off shore transmission line offers California an option to interconnect and deliver up to 4,000 MW of economic off shore wind energy to diversify the pool of resources available to meeting California's ambitious decarbonization goals. As the draft report states at page 289: "*The ISO studied this proposal without the wind generation because that generation was not part of the renewable portfolio provided by the CPUC".* **We ask the CAISO amplify this statement in the final report and provide a clear signal to the CPUC that: (1) the CAISO has found benefit to the CTP without ascribing value to creating an offshore wind option and (2) The CAISO needs CPUC guidance on the value of creating an offshore wind option for California, so that this value can be taken into account when the CAISO evaluates the CPT in the next CAISO planning cycle.**

Second, the proposed interconnection of the CTP at the Diablo Canyon Power Plant (DCPP) Switchyard allows repurposing of certain facilities, that would otherwise need to be removed at customer expense as part of the DCPP decommissioning and restoration process. **We ask the CAISO reflect in its final report that if the CTP were able to reduce customer costs by reducing DCPP decommissioning costs, and if those costs could be quantified, they should be included in an economic evaluation of the CPT. The CAISO should ask the CPUC to help with the quantification of this benefit.**

Third, CEDC also noted the CAISO staff is recommending a significant upgrade at Gates, the Gates 500 kV Dynamic Voltage Support project. Our analysis shows that if our proposed interconnection at DCPP Switchyard proceeds it would displace the need for this estimated $210-$250 Million voltage control project. We fully recognize there is a timing issue. The CAISO need for this reliability project at Gates is 2024 and the proposed CTP would not be in place until 2026. However, if the upgrade at Gates were accomplished using modular, redeployable equipment, that equipment could be available to relocate on the system to meet voltage requirements elsewhere. This could result in significant net saving to CAISO Grid customers. **We ask the CAISO specify in Appendix I of the Transmission Plan that the preferred solution at Gates is modular redeployable equipment.**

Finally, the CAISO summary of the CTP economic analysis on pages 285-91 does not mention some of the unique benefits a modern HVDC transmission cable with voltage sourced converters can provide, especially to the grid in load pockets such as the LA Basin that have historically relied on gas fired generation as a critical component of reliable service to customers. Specifically, the CTP undersea HVDC cable connection at the switchyard of a retiring coastal power plant can provide ramping capability, voltage support, frequency support, short circuit duty, etc. Essentially a HVDC connection can match or exceed the local reliability support

benefits of local gas fired generation Mw for Mw. **We ask the CAISO mention in its final report that the HVDC CTP project can provide these unique local system support benefits.**

We urge the CAISO modify its final Transmission Planning report to reflect the requests that we have made in these comments. The result will be a more fulsome reporting of the potential benefits of the CTP project. In addition to providing a more complete picture of our project benefits, our proposed additions to the final report could significantly help facilitate the coordination between the CPUC and CAISO going forward so that each body is more able to make informed decisions now that are in the interest of California Customers.

Sincerely yours,

Marty Walicki
Founding Partner