



Stakeholder Comments

2018-2019 Special Study Draft Study Scope

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CESA appreciates the opportunity to comment on the two special studies that were included in the 2018-2019 Draft Transmission Study Plan.

Local Capacity Requirements (LCR) Potential Reduction Study

CESA supports the efforts of the California Independent System Operator (CAISO) to proactively and more comprehensively identify cases where conventional transmission and preferred resources could serve as economic local capacity alternatives to gas-fired generation in certain priority locations. This study effort will be important in better ensuring that the most cost-effective solutions are being selected to meet local capacity requirement (LCR) needs. For example, in the 2017-2018 Transmission Planning Process (TPP) study cycle, more cost-effective transmission solutions were identified in the South Bay-Moss Landing sub-area to mitigate most of the LCR need addressed by a certain gas-fired plant. CESA agrees that it is in the best interest of ratepayers to ensure that the state not overlook reasonable LCR solutions. CESA also believes that this study will inform resource deployment and retention where the benefits of energy storage solutions are increasingly considered. For these reasons, CESA supports the CAISO's economic study objective and the methodology.

CESA agrees with the CAISO's approach to prioritize specific local and sub-areas to examine, given the effort of modeling every local capacity area in a single cycle.¹ The CAISO proposes the following prioritization criteria:²

1. Local areas and sub-areas with announced retirements or units being mothballed that were not previously studied
2. Local resources located in disadvantaged communities
3. Local areas and sub-area that rely on resources that use natural gas and/or petroleum
4. Age of resources

CESA agrees with the above prioritization criteria but suggests that the specific criteria around #4 above be reduced from looking at resources over 40 years in age to resources over shorter time-frame. A study from SNL evaluated its database of fossil fuel plants to determine the weighted average age at retirement of various types of fossil fuel plants. Retirements of a portion of gas combustion turbine plants from 2000-2012 had a weighted average age at retirement of 12 to 32 years.³ Given the current economic environment of significant levels of zero-marginal-cost, renewable resources, CESA believes it is reasonable to consider a lower age threshold to identify priority local areas and sub-areas.

Additionally, CESA supports the CAISO's plans to develop load shapes to accommodate preferred resource characteristics.⁴ The development of these load shapes was especially helpful in the Oakland Clean Initiative, which should be again applied in this study.

However, CESA has four areas of improvement and clarification regarding this study. First, CESA requests greater clarity on how findings from this study translate into planning actions or procurements. If alternative resources are found to be more economically cost-effective to gas-fired generation in the prioritized local areas and sub-areas, what steps are taken to lead to procurement so that cost-optimal outcomes are achieved? While it is clearer for resources that have planned retirements (criterion #1 above), it is less clear what the implications of this study will be for prioritization criteria #2 and #3 above. CESA understands that the procurement for preferred generation or storage resources will need to occur through California Public Utilities Commission (CPUC) processes, but it is unclear what that pathway would be for existing gas

¹ *2018-2019 Transmission Planning Process Unified Planning Assumptions and Study Plan*, issued on March 30, 2018, p. 45.

² *Local Capacity Requirements Potential Reduction Study*, presented by Catalin Micsa at the April 18, 2018 stakeholder call, p. 10. <http://www.aiso.com/Documents/Presentation-LocalCapacityRequirementReductionStudy.pdf>

³ SNL Energy, <http://www.powermag.com/americas-aging-generation-fleet/>

⁴ *Local Capacity Requirements Potential Reduction Study*, presented by Catalin Micsa at the April 18, 2018 stakeholder call, p. 15. <http://www.aiso.com/Documents/Presentation-LocalCapacityRequirementReductionStudy.pdf>

resources that are still contracted (and do not have planned retirements) but are found to be not the most cost-effective LCR resource in this study. Further, the CAISO should clarify whether and how this study will inform the Integrated Resources Planning (IRP) modeling and procurement.

Second, CESA requests clarification on whether energy storage as transmission assets will be considered as part of the scope of this study. The CAISO recently launched the new Storage as Transmission Asset (SATA) Initiative to begin developing a framework that would identify opportunities for energy storage resources to serve as transmission assets while providing market-based services. Since the purview of this study also includes conventional transmission solutions, CESA believes that energy storage solutions may also serve as an alternative to conventional transmission solutions to address the LCR needs of the gas-fired generation plants being studied here. Relatedly, distribution-connected storage may be an optimal ‘transmission’ solution, yet the CAISO has indicated it is not yet prepared to consider distribution-connected storage. Any SATA scope should include distribution-connected resources, especially if such resources are categorized and operating as generation, rather than transmission.

Third, CESA recommends that the CAISO consider the potential for hybrid gas-storage resources to be considered among the alternatives for the gas-fired generation studied here. Rather than just studying a binary decision of gas-fired generation versus transmission and preferred resource alternatives to address LCR needs, the CAISO may wish to also explore how energy storage resources could be coupled with these gas-fired generation resources to generate production cost savings and ratepayer benefits due to the ability of the paired energy storage resource to reduce starts and run time, as well as generate higher market revenues by providing ancillary services such as spinning reserve. CESA notes the CAISO’s focus on gas-fired generation resources that provide “other system benefits”, which may be the exact type of resource that could be made more economic with an energy storage coupling. Studying hybrid gas-storage resources is also important given the prioritization criteria for disadvantaged communities. Through hybrid gas-storage resources, the reduced starts and run time will also create emissions savings.

Finally, CESA requests greater clarity on the types of preferred resources that will be considered as alternatives in this study. CESA believes it will be important to accurately model the current and forecasted costs of preferred resources, as well as to accurately reflect the operational parameters of preferred resources. For energy storage costs, CESA refers the CAISO to our informal comments on the 2019 IRP supply-side cost assumptions and data sources to inform how the CAISO can incorporate the costs of energy storage and hybrid storage resources.⁵

⁵ *Informal Comments of the California Energy Storage Alliance on the Draft Sources for 2019-2020 IRP Supply-Side Resources Document*, submitted on April 23, 2018, pp. 4-10.

CESA recommends the use of Lazard's *Levelized Cost of Storage 3.0* as the baseline for present-day and near-term energy storage costs, if publicly-available data sources must be used. One limitation of the Moorpark Sub-Area Local Capacity Alternative Study conducted by the CAISO in August 2017 was the use of dated energy storage cost assumptions. While competitive solicitations reveal the best data by reporting actual prices, CESA understands that such actual cost information may not be available to the CAISO and that the best-available public data sources must be used. Thus, CESA recommends the use of the Lazard study to leverage the most up-to-date and technically credible data that is also publicly available.

Increased Capabilities for Transfers of Low-Carbon Electricity with the Pacific Northwest Study

CESA has no comment at this time.

Conclusion

We appreciate CAISO's consideration of CESA's comments and look forward to ongoing participation in the TPP.