Competitive Solicitation in Transmission Line Development Lowers Ratepayer Costs and Decreases Delays

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Summary: The California Independent System Operator (CAISO), the state's electric grid operator, competitively solicits bids from private companies to develop and build large transmission lines. Current CAISO rules only require the largest transmission projects that exceed an arbitrary voltage threshold to be competitively solicited. The Public Advocates Office recommends that the CAISO eliminate the threshold to increase the number of competitively solicited projects and associated ratepayer benefits. Based on historical experience with competitive solicitations for large transmission lines, the Public Advocates Office anticipates this change would yield significant ratepayer benefits, including (1) lower project capital costs, (2) shorter development times, and (3) stronger alignment between utility and ratepayer interests.

Background

The California Independent System Operator has flexibility in determining which transmission projects are eligible for competitive solicitation.

Transmission providers, usually electric utilities, have historically had the right to construct and earn a return on all transmission projects in their service territories. Federal Energy Regulatory Commission (FERC) Order 1000, passed in 2014, ended this practice. It added more market competition to the process by allowing non-utility companies to bid on and construct select transmission projects in utility company service territories. As a result, CAISO now receives bids for eligible projects from developers, then selects the most qualified and cost-effective ones.

FERC allows for certain exemptions to the competitive solicitation rule, such as upgrades, replacements, or improvements to existing transmission facilities already owned by a utility.[1,2,3] Critically, utilities also maintain the exclusive right to construct "local" transmission, or facilities that are "located solely within a public utility transmission provider's retail distribution service territory or footprint that is not selected in the regional transmission plan for purposes of cost allocation."[4]

[1] Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order No. 1000, 136 FERC ¶ 61,051 (2011) at 102. Available at https://www.ferc.gov/electric-transmission/order-no-1000-transmission-planning-and-cost-allocation.
[2] Order 1000. Section 318.
[3] CAISO Tariff Section 24.5.1.
[4] Order 1000. Section 63.

Subsequently, CAISO further defined "local" facilities as those under a maximum voltage threshold, 200 kilovolts (kV), and precludes such projects from competitive solicitation.[5] Other U.S. grid operators interpret FERC Order 1000's parameters differently than the CAISO. For example, the Southwest Power Pool (SPP) and the New England ISO (ISO-NE) allow projects 100 kV and above to be eligible for competitive solicitation, and the New York ISO (NYISO) does not have a voltage threshold.[6]

Competitive solicitation can lower the capital cost of transmission projects.

Competitive solicitation led to an estimated 29% reduction in transmission project capital costs in the CAISO territory from 2013 to 2019, and 40% nationwide, according to a Brattle Group analysis.[7] Similarly, the California Public Utilities Commission identified qualitative benefits of increasing the number of projects eligible for competitive solicitation, including eliminating the incentive for transmission owners to prioritize local projects (which they earn a return on by default) over larger, potentially more efficient transmission projects.[8] Competitive solicitation also provides improved cost transparency in projects, which will be critical as California builds more transmission lines at scale.[9,10]

Increasing the number of competitively solicited projects could also help address the backlog of transmission projects at California's investor-owned utilities (IOUs).

According to the CAISO's Transmission Development Forum (TDF), well over 100 transmission projects are under development or construction across the three main investor-owned utilities (PG&E, SDG&E, and SoCal Edison). Most of these projects are below the 200 kV threshold. The TDF also indicates that the average difference between when a project is approved by the CAISO and the project has or is projected to even *begin* construction is over 7 years.[11] This situation is likely to worsen as the CAISO continues to approve more policy-driven transmission projects to access the resources needed to meet California's renewable energy goals.[12]

In addition to lowering costs through market competition, the Public Advocates Office expects that competitive solicitation will shorten transmission development timelines across the board. Currently,

[5] Section 24.4.10 of the CAISO Tariff. states that "A Participating Transmission Owner will have the responsibility to construct, own, finance and maintain any Local Transmission Facility." Appendix A of the CAISO Tariff defines local transmission projects as those that operate at a voltage below 200 kilovolts (kV) and are located entirely within the footprint of a Participating Transmission Owner's footprint or service territory. (See http://www.caiso.com/rules/Pages/Regulatory/Default.aspx.)

[6] Figure 7. Cost Savings Offered by Competition in Electric Transmission. The Brattle Group. April 2019. Available at https://www.brattle.com/wp-content/uploads/2021/05/16726_cost_savings_offered_by_competition_in_electric_transmission.pdf.

[7] Cost Savings Offered by Competition in Electric Transmission. The Brattle Group. April 2019. Available at https://www.brattle.com/wp-content/uploads/2021/05/16726_cost_savings_offered_by_competition_in_electric_transmission.pdf.

[8] Initial Comments of the California Public Utilities Commission in FERC RM21-17-000. October 12, 2021. Available at https://elibrary.ferc.gov/eLibrary/docinfo?accession_number=20211012-5697.

[9] Joskow, Paul. Competition for Electric Transmission Projects in the U.S.: FERC Order 1000. March 2019. Available at https://ceepr.mit.edu/wp-content/uploads/2021/09/2019-004.pdf. P. 49.

[10] In this initiative, the CAISO should also consider actions taken by the Southwest Power Pool to provide oversight over transmission costs. More information is available at https://www.spp.org/documents/15479/cost%20estimation.ppt.

[11] These figures – which are limited to projects within the service area of the three IOUs – are drawn from the Transmission Development Forum update in January 2023. More information is available at http://www.caiso.com/Documents/CAISOPresentation-TransmissionDevelopmentForum-Jan25-2023.pdf.

[12] The CAISO dramatically increased the number and scale of policy-driven transmission projects it approves, going from zero policy-driven projects between 2014 and 2021, to 6 projects at $1.5 billion in 2022, to a proposed 22 projects at $7.5 billion in 2023. (The CAISO's annual transmission plans are available at http://www.caiso.com/planning/Pages/TransmissionPlanning/Default.aspx.)

California's three largest investor-owned utilities have a backlog of transmission projects in their development queue. Inviting more developers and a broader workforce would allow more work to occur simultaneously, thereby reducing development times on the entire portfolio.

Recommendations

The CAISO should remove voltage thresholds and increase the number of projects eligible for competitive solicitation.

In April 2023, the Public Advocates Office recommended that the CAISO launch an initiative that would expand the number of projects eligible for competitive solicitation.[13] In these comments, the Public Advocates Office concurred with the CPUC that the 200 kV voltage threshold is arbitrary and has unnecessarily harmed ratepayers.[14] The Public Advocates Office requests that the CAISO start an initiative to remove the voltage threshold barriers to competitive solicitation in transmission. The initiative should also consider allowing certain upgrades or improvements to be competitively solicited, provided that a third-party developer could work seamlessly would the transmission owner to complete the project.

Based on the most recent CAISO transmission planning documents, making the change could result in both substantial medium and long-term cost savings. In the 2022-23 CAISO Transmission Plan, which identifies 10-year transmission needs, only 3 of 45 approved transmission projects were deemed eligible for competitive solicitation. The remaining 42 ineligible projects total roughly $4.2 billion in capital costs.[15] If realized cost savings are on the same order of estimated savings in the Brattle Group study, ratepayer savings would be in the hundreds of millions of dollars for this single transmission plan. The potential long-term ratepayer savings are even greater, as the CAISO's 20-year Transmission Outlook projects over $30 billion worth of transmission will be needed to accomplish California's climate goals.[16]

The Public Advocates Office represents utility customer interests before the California Public Utilities Commission and in other forums. We develop recommendations that advance the state's climate goals in the most affordable ways for ratepayers.

For additional questions, visit our website at www.publicadvocates.cpuc.ca.gov or email publicadvocatesoffice@cpuc.ca.gov

[13] Public Advocates Office comments are available at https://stakeholdercenter.caiso.com/Comments/AllComments/bcd87223-1d5f-4818-8973-95aa1bef8ac7#org-ce471ca2-5621-4275-8f19-d1d19f20deed.
[14] See the Energy Division's Initial Comments in the Federal Energy Regulation Commissions Advanced Notice of Proposed Rulemaking (ANOPR) RM21-17, October 2021. P. 25. Available at https://elibrary.ferc.gov/eLibrary/docinfo?accession_number=20211012-5697.
[15] See Table ES-1 and ES-2 of the CAISO's 2022-23 Transmission Plan, available at http://www.caiso.com/Documents/ISO-Board-Approved-2022-2023-Transmission-Plan.pdf.
[16] Ibid.