Bay Area Municipal Transmission Group Comments on CPUC Concept Paper on Transmission Financing and Ownership

I. Introduction

The Bay Area Municipal Transmission Group (BAMx)[1] appreciates the opportunity to submit comments on the California Public Utilities Commission's (CPUC) Concept Paper on transmission financing and ownership issued pursuant to Assembly Bill 3264, dated March 11, 2026. BAMx represents publicly owned electric utilities in the Bay Area that are transmission customers within the CAISO balancing authority area.

California faces unprecedented transmission investment needs. The Commission and the California Independent System Operator ("CAISO") have already implemented multiple processes aimed at containing transmission costs, including the Integrated Resource Planning process, CAISO's annual Transmission Planning Process, busbar mapping, and enhanced transparency around project timelines and cost escalation. Publicly available research shows that ownership structure, financing model, tax treatment, and development risk materially affect total costs borne by ratepayers.

II. Response to Concept Paper Questions

A. Transmission Ownership Structures

1. Are there publicly available studies that provide insights on overall cost savings attributable to different ownership or financing models?

Yes. Multiple publicly available studies conclude that public or public-sponsored ownership models reduce ratepayer costs relative to traditional investor-owned utility ("IOU") ownership, primarily through lower cost of capital and elimination of shareholder return requirements. As representatives of publicly owned utilities and transmission customers, BAMx's primary interest is ensuring that any financing or ownership reforms translate into durable reductions in costs borne by ratepayers.

The California Public Advocates Office has estimated that substituting public financing for IOU financing can reduce lifecycle transmission costs by roughly **25 percent**, with savings driven mainly by elimination of return on equity ("ROE") and lower debt costs.[2] Similarly, the Center for Law, Energy & the Environment ("CLEE") concludes that public financing and public-private partnership ("PPP") models—especially lease-type PPPs—can reduce the transmission revenue requirement by **tens of billions of dollars** over the life of

[1] BAMx consists of City of Palo Alto Utilities and City of Santa Clara, Silicon Valley Power.
[2] CPUC Public Advocates Office, Public Investment in Infrastructure Is a Promising Option to Support California's Energy Transition and Reduce Ratepayer Costs (May 16, 2023).

California's projected transmission build-out.[3] CLEE's analysis shows that IOU-financed transmission can cost more than twice as much as comparable public or hybrid alternatives over a 40-year horizon, largely due to ROE and tax components embedded in IOU cost-of-service regulation.[4]

Also, as noted in the Concept Paper, there is an emerging opportunity for new transmission providers to develop lines primarily funded by "subscribers." The Subscriber Participating Transmission Owner ("SPTO") model, initiated by CAISO, recovers costs of development via the contracts with generators that subscribe to the line. SPTO can play a major role in containing the ever-growing CAISO-side Transmission Access Charges ("TAC"). BAMx's past analysis indicates that if all the transmission projects needed to access out-of-state wind envisioned in the CAISO 20-year outlook elected the subscriber model, nearly $9.95 billion of transmission costs would not be recovered through the Regional TAC. As a result, the projected Regional TAC 15-20 years from now would reduce by as much as $7/MWh.[5] BAMx stated the transmission costs needed to deliver the power from the out-of-state or offshore wind transmission lines would instead be recovered from the parties electing to procure the output of those projects, thus enabling them to consider the full costs of those projects in comparison to others that don't require as much transmission investment. These findings are directly relevant to BAMx members as transmission customers, because financing-driven cost differences flow through to TAC borne by ratepayers.

2. Is there evidence that competitively procured transmission projects yield savings relative to incumbent IOU development?

Yes. Both California experience and national studies demonstrate that competitive procurement of transmission projects can significantly reduce capital costs. Public sources provide evidence that competition can reduce transmission costs under certain conditions, though outcomes depend on enforceable cost controls and realistic project scopes.[6]

Analyses of projects developed pursuant to FERC Order No. 1000 show that competitively procured transmission projects have frequently been bid at costs substantially below incumbent utility estimates, while non-competitive projects have experienced greater cost escalation.[7] Studies by the Brattle Group further demonstrate that competitive outcomes

[3] Center for Law, Energy & the Environment (CLEE), Improving Transmission Financing in California: Alternative Models and Policy Strategies to Increase Affordability (Oct. 2024).
[4] *Id.* at Executive Summary.
[5] CAISO Subscriber Participating TO Model, Revised Draft Final Proposal, May 15, 2023. P.7, available at https://stakeholdercenter.caiso.com/InitiativeDocuments/Revised-Draft-Final-Proposal-Subscriber-Participating-Transmission-Owner-Model-May222023.pdf.
[6] See Clean Air Task Force, Wired for Savings: State Transmission Authorities (2025), located at https://cdn.catf.us/wp-content/uploads/2024/10/31145139/wired-for-savings.pdf
[7] Johannes Pfeifenberger et al. (The Brattle Group), Transmission Competition Under FERC Order No. 1000: What We Know About Cost Savings to Date (Discussion Paper) (Oct. 25, 2018), available at https://wiresgroup.com/wp-

depend on enforceable cost caps, realistic project scopes, and manageable siting risk.[8] BAMx emphasizes that competitive procurement and alternative financing approaches are complementary tools that, when combined, can reduce both the size of the transmission rate base and the cost of capital applied to that rate base.

B. Potential Options for Achieving Transmission Cost Savings

3. Are there publicly available case studies of a government entity financing and building electric infrastructure at lower cost compared to a private entity? Are there publicly available data about the scope of the project and its costs?

Yes. There are both California-specific and out-of-state examples demonstrating the feasibility and cost advantages of public or hybrid financing structures.

In California, the Citizens–Morongo transmission ownership model approved by the Federal Energy Regulatory Commission ("FERC") allowed a publicly affiliated entity to finance transmission using 100 percent debt, significantly lowering financing costs relative to IOU capital structures. FERC also approved fixed long-term rates, enabling access to low-cost debt while maintaining operational reliability.[9]

Outside California, state transmission authorities such as New Mexico's Renewable Energy Transmission Authority ("RETA") and Colorado's Electric Transmission Authority ("CETA") have supported transmission development using public or hybrid models that reduce borrowing costs, minimize tax exposure, and retain private-sector operational expertise.[10]

Public power entities in the United States have a long and well-documented record of financing transmission and other electric infrastructure at lower cost than IOUs.

The American Public Power Association documents that public power utilities typically face significantly lower annual revenue requirements for comparable transmission assets due to tax-exempt financing, lower equity ratios, and absence of income taxes.[11] Cal

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content/uploads/2020/06/2018-10-25-Brattle-Group-Discussion-Paper-Transmission-Competition-Under-Order-1000-What-we-Know-About-Costs-Savings-To-Date-.pdf

[8] Johannes P. Pfeifenberger et al. (The Brattle Group), Cost Savings Offered by Competition in Electric Transmission: Experience to Date and the Potential for Additional Customer Value (Apr. 2019), available at https://www.brattle.com/wp-content/uploads/2021/05/16726_cost_savings_offered_by_competition_in_electric_transmission.pdf

[9] Morongo Transmission LLC, 174 FERC ¶ 61,194 (2021).

[10] CLEE, Improving Transmission Financing in California, Appendix I.

[11] American Public Power Association, Municipal Bonds and Public Power located at https://www.publicpower.org/policy/municipal-bonds-and-public-power

Advocates' illustrative comparison of a $200 million transmission project found approximately $184 million in lifecycle savings under public financing.[12]

These examples demonstrate that public participation in transmission financing and ownership can reduce costs without compromising system performance.

4. **Are there publicly available case studies of a government entity financing an infrastructure project with the participation of private equity or other private sector financing, with public?**

Publicly financed transmission can materially reduce each of these components. Debt-heavy or fully debt-financed structures replace high-cost equity with lower-cost borrowing. Public ownership eliminates or substantially reduces federal and state income tax obligations. The resulting reduction in the revenue requirement flows directly through to lower TAC charges paid by load-serving entities and customers.[13]

Public-private partnership ("PPP or P3") models have been used in infrastructure sectors where public sponsorship reduces financing costs while private participation allocates construction or operational risk. While less common in transmission, the principle is well established: public participation lowers the overall cost of capital, even when private capital is involved. CLEE finds that P3 structures can lower overall financing costs when public entities retain ownership or provide credit support, while private partners assume construction or operational roles. The key cost savings arise not from private equity itself, but from the public sponsor's balance sheet, taxing authority, and risk profile, which reduce financing costs for the entire project. BAMx recognizes that financing reforms alone may not yield meaningful net benefits in all cases and are most effective when paired with disciplined project scoping, realistic schedules, and construction cost oversight.

5. **At what scale have certain financing solutions been used? What are the constraints, opportunities, risks, and/or tradeoffs of scaling up other kinds of financing?**

Public and hybrid transmission financing models have been deployed at multi-billion-dollar scale, including statewide and regional portfolios. Constraints are largely institutional rather than technical, including statutory authority, alignment with regional planning, and cost-recovery mechanisms.

6. **How does tax liability for government entities differ from that of investor-owned utilities?**

[12] CPUC Public Advocates Office, Public Investment in Infrastructure Is a Promising Option to Support California's Energy Transition and Reduce Ratepayer Costs (May 16, 2023), pp.3-4.
[13] CLEE, Improving Transmission Financing in California, Section 3.

Government entities generally do not pay property taxes or income taxes and can issue tax-exempt debt, which materially lowers their cost of capital compared to investor-owned utilities. IOUs must recover tax liabilities and shareholder returns through rates, increasing the transmission revenue requirement borne by customers.[14]

7. Are there publicly available examples of electric infrastructure project costs reduced because of any of: permitting exemptions or streamlining, meeting/beating timelines, or incentive/penalty structures for the project lead?

Yes. Publicly available evidence indicates that permitting streamlining, schedule certainty, and incentive or penalty mechanisms can reduce electric infrastructure project costs by lowering development risk, shortening construction timelines, and reducing financing and carrying costs. As the Commission has acknowledged, average transmission development timelines of seven to eight years—and longer when delays occur—compound financing and overhead costs, underscoring why permitting streamlining and schedule certainty can deliver savings comparable to financing reforms.[15] Department of Energy[16] and Brattle[17] analyses show that permitting delays and development risk materially increase transmission costs, primarily through financing carry costs and inflation exposure. Projects that utilize existing corridors or avoid complex siting processes experience lower total costs.

CLEE similarly concludes that reducing development timelines can yield cost savings comparable to financing reforms.[18]

8. How does exposure to liability and other risk affect public utilities' willingness to own transmission?

As CLEE notes, public entities prefer projects with predictable scope, permitting pathways, and cost recovery, rather than speculative greenfield developments.[19] Where risks are bounded and aligned with public benefit, public entities are willing and capable owners. Hybrid delivery structures, including lease-type PPPs, can allocate operational risk without sacrificing financing advantages. The risk allocation consideration for PPPs about potential wildfire risk and liability associated with transmission assets are valid. Potential mitigation

[14] American Public Power Association, Municipal Bonds and Public Power (Issue Brief), available at https://www.publicpower.org/policy/municipal-bonds-and-public-power.
[15] CPUC Concept Paper, p.6.
[16] Department of Energy, Transmission Impact Assessment Power Sector Infrastructure Deployment to Reduce Costs, Improve Reliability, and Lower Pollution, October 2024.
[17] Brattle Group, Competitive Transmission Planning Experience (2018). Brattle Group, Cost Savings Offered by Competition in Electric Transmission (2019).
[18] Center for Law, Energy & the Environment (CLEE), Improving Transmission Financing in California: Alternative Models and Policy Strategies to Increase Affordability (Oct. 2024).
[19] *Ibid*.

measures could include statewide risk pooling, similar to measures taken to protect investor-owned utilities.

9. Please comment on feasibility of either of these models for California. Please specify barriers and the structural elements that would have to exist for the model to develop transmission at lower costs.

The two alternative ownership models identified in the Concept Paper—PPP Build-Operate-Transfer ("PPP-BOT") and Lease-type PPP—are theoretically feasible in California, but neither is currently plug-and-play under existing statutory, regulatory, and CAISO market structures. Feasibility will depend less on theoretical cost advantages than on clear allocation of construction, operational, and liability risks; compatibility with CAISO's competitive solicitation framework; and the ability of public entities to deploy lower-cost financing without undermining competitive discipline.

Lease-type PPPs appear more readily implementable because they preserve public ownership and financing advantages while allowing private-sector participation in operations and maintenance. By contrast, PPP-BOT models present greater challenges under CAISO's competitive solicitation framework, which awards projects to developers rather than financing consortia.

III. Concluding Remarks

Ownership and financing structure materially affect transmission costs to California ratepayers. Public and hybrid models supported by lower-cost capital, favorable tax treatment, and reduced development risk offer a credible pathway to delivering needed transmission infrastructure at lower total cost. BAMx encourages the Commission to continue exploring these models in coordination with CAISO planning and procurement processes.