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Clean Coalition Comments on 2024 IEPR Scope

Additional submitted attachment is included below.

5 April 2024

California Energy
Commission
715 P Street, Sacramento,
CA 9581
Via Electronic Filing

CEC Docket 24-IEPR-01: Clean Coalition Comments on 2024 IEPR Scope

Dear Chair Hochschild, Vice Chair Gunda, California Energy Commission Commissioners, and Staff,

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources ("DER") — such as local renewables, demand response, and energy storage — and we establish market mechanisms that realize the full potential of integrating these solutions for optimized economic, environmental, and resilience benefits. The Clean Coalition also collaborates with utilities, municipalities, property owners, and other stakeholders to create near-term deployment opportunities that prove the unparalleled benefits of local renewables and other DER.

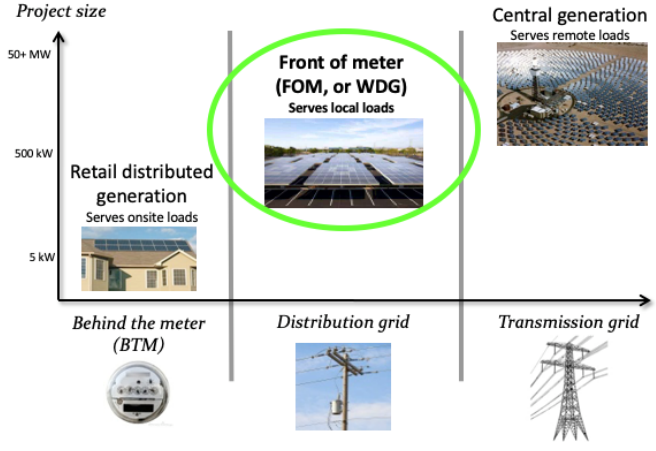
We appreciate the opportunity to comment on the scope of the 2024 IEPR. In the context of needing to install an additional 56 GW of capacity by 2035[1] and rooftop solar deployments dropping by 80% following recent decisions on Net Energy Metering (NEM)[2] by the California Public Utilities Commission (CPUC**) the Clean Coalition urges the Energy Commission to ask an overarching question for the focus of the IEPR—what policies are needed to get the state back on track?** With California not on track to meet 2030 climate targets[3] and the need to achieve and sustain historic resource deployment rates, identifying bottlenecks that are slowing the system is a laudable use of the Energy Commission's investigative resources. Doing so also fits in with the trend set in the 2023 IEPR, which focuses on interconnection. As part of the overarching question, the CEC should:

- Address the need to increase deployments of Community Scale renewables.
- Investigate ratepayer savings from transitioning to an electric portfolio made up of smartly siting DERs and utility scale resources, rather than exclusively relying on utility scale resources.
- Study the processes for applying for resource adequacy (RA) and consider potential reforms to the deliverability process.
- Consider the benefits of fixing the existing market distortion caused by the way historical transmission costs are assessed (creating a level playing field for all resources).

[1] https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M525/K164/525164249.PDF
[2] https://www.sfchronicle.com/climate/article/solar-panel-power-california-18644945.php
[3] https://thehill.com/policy/energy-environment/4534747-california-not-on-track-to-meet-2030-emissions-goals-report/#:~:text=%E2%80%9CIn%20fact%2C%20we%20may%20be,year%20to%20hit%20that%20target.%E2%80%9D

Address the need to increase deployments of Community Scale renewables

Traditionally, policy has focused on (wholesale) transmission-interconnected resources and more recently, on behind-the-meter (BTM) resources, leaving the market for FOM resources, also called wholesale distributed generation (WDG) resources, sorely underutilized.



For example, there are around 66,000 warehouse rooftops in California that provide perfect locations to deploy large solar arrays.[4] Likewise, every school, church, multi-unit housing facility, critical community facility, and government building presents an opportunity for a DER deployment where the developer does not need to go through the California Environmental Quality Act (CEQA) process. As explained by the Green Power Institute, "Community-scale renewables [or WDG] enjoy the cost advantages of much larger projects without much of the attendant environmental impacts or need for new transmission lines and associated costs. The community-scale market segment combines the benefits of the small-scale and utility-scale market segments."[5] Beyond swift deployments, DER are also increasingly cost-effective because of value stacking multiple benefits, including the ability to:

- Avoid expensive and inefficient transmission infrastructure.
- Defer the need for distribution upgrades, saving ratepayer millions of dollars per project.[6]
- Boost local economies through energy and non-energy benefits.
- Provide new power sources more quickly than central energy generation can.
- Enhance resilience and energy security.
- Boost energy independence and increase the process of decarbonization/electrification.
- Conserve the state's pristine natural lands.

[4] https://environmentamerica.org/center/resources/solar-on-warehouses/ https://finance.yahoo.com/news/solar-powered-warehouse-rooftops-could-160000790.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAFlsNLmH1PTRiQMLJ0WYkhcAklZAdhb2K9yQDmeMN-no1FyYnLmtLEZYfdlVQ2FbOihbm50j0gemB6DAIGVaDVHFOqp64i_0l7FECtWPTqkKQJQBXzxR20xpqnm3upZwWefBtuL0w2uTvhyG_QJOwV3Oi4vaEW2qZHumbo3rY5Uj

[5] Green Power Institute (2023), A MODERN CINDERELLA STORY: Assessing the state of California's community-scale renewable energy market, V1.6, at p. 3.

[6] CONFIDENTIAL DER PAYMENTS REPORT OF SCE (U 338-e), at p. A-1 – A-3. Two projects in SCE's service territory led to around $8 million in ratepayer savings.

Underscoring the resource potential of WDG in California and the history of how underutilized the market segment has been are critical steps forward needed to promote a well-designed tariff that can increase the pace of deployments. There are a number of other steps that can result in further deployments, starting with allowing oversizing. NEM limits the size of a deployment to the onsite load behind the meter served by the generation. However, commercial customers[7] often have the available roof space to triple or quadruple the size of the solar deployment. After Net Zero Energy, the NEM compensation rate is reduced to Net Surplus Compensation, far too little to justify a larger solar deployment, despite the value of the solar to the grid. There is perhaps a greater value to the grid from significantly oversizing paired storage, given the value of dispatchability.

The Energy Commission's new OIIP on Non-Energy Benefits and Social Costs is an important step toward finding the true value of community renewables. WDG deployed on built environments (e.g., rooftops, parking lots, and parking structures) preserves California's pristine lands, minimizes environmental impacts, and can be deployed efficiently due to avoiding the CEQA process. These resources help avoid the need for gas peaker plants,[8] improve local air quality, create local jobs,[9] and promote community-level resilience. In addition to compensation for non-energy benefits, ensuring that the economic value of WDG is fully recognized and compensated, including the full value of avoided transmission costs, locational benefits, and reliability is essential and can be achieved via the CPUC's Avoided Cost Calculator.

Smart Siting of DER

In 2023, Vibrant Clean Energy (VCE) released a study, entitled, "Role of Distributed Generation in Decarbonizing California by 2045," to model the ratepayer savings that can be realized through the deployment of an increased percentage of distributed energy resources throughout the state.[10] The results, which are analyzed in a Clean Coalition-sponsored webinar,[11] explain that if deployed strategically, local solar+storage could lead to reduced electrical rates from the years 2020-2050. **Compared with a utility-only solution, adding local solar+storage would save ratepayers $120 billion in cumulative savings from 2018-2050.** The potential for significant savings should merit the Energy Commission considering the viability of targeted deployments in locations where the greatest benefits from each deployment will be realized by the ratepayers and a resource portfolio that includes both DER and utility-scale resources.

While the study itself concludes that an eyebrow-raising amount of money can be saved through integrated DER and utility-scale resource planning, the precedent for such savings already exists. In 2018, the CAISO canceled a total of 18 transmission projects and changed 23 others due to energy efficiency and demand response programs, totaling $2.8 billion in ratepayer savings. The transition to renewable energy is urgent to combat the effects of climate change, but policymakers should, in the same conversation, consider what the actual implications of such a resource buildout will be on California rates over time. There needs to be a balance between decarbonization and affordability that is already being pushed. For the past 5 years, transmission has been the fastest growing component of electrical rates, and based on the conclusions drawn in this report, that does not seem to be slowing down. If anything, the

[7] https://clean-coalition.org/community-microgrids/direct-relief-case-study/
[8] https://clean-coalition.org/community-microgrid-alternatives-to-gas-peaker-plants/
[9] https://clean-coalition.org/community-microgrids/goleta-load-pocket/glp-economic-benefits/
[10] https://www.vibrantcleanenergy.com/wp-content/uploads/2021/07/VCE-CCSA_CA_Report.pdf
[11] https://clean-coalition.org/news/webinar-how-local-solar-and-storage-will-save-californians-billions-11-august-2021/

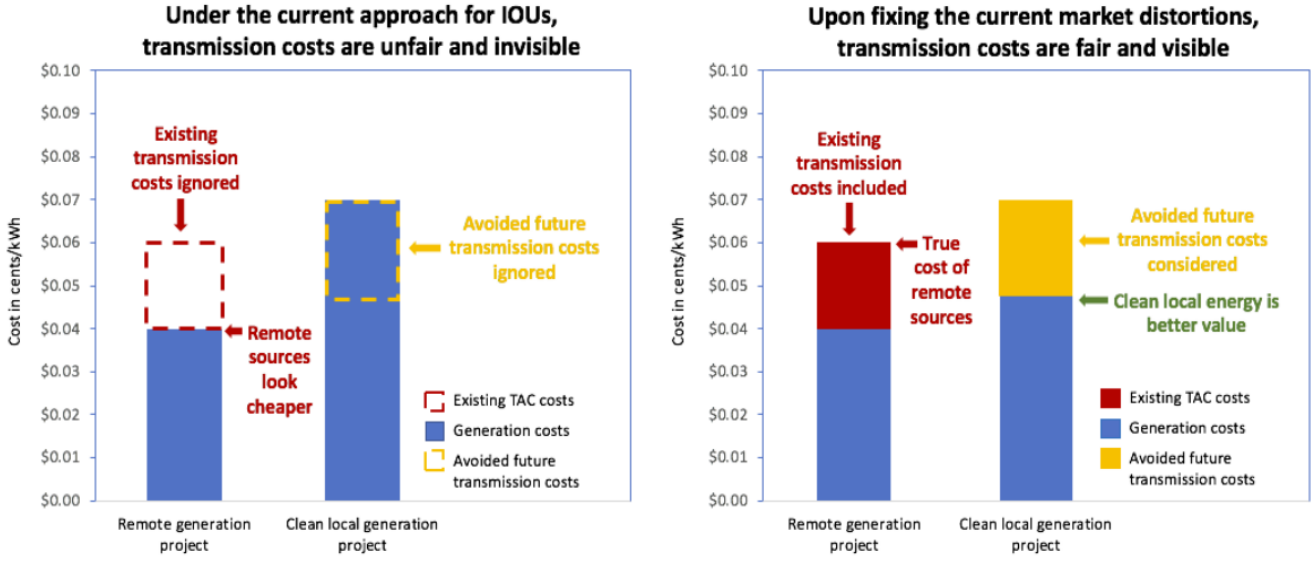
opposite seems true. The recent CAISO 20-year transmission outlook suggests the need for $30 billion worth of projects over the next two decades, which seems like a small investment to achieve a greater goal, until one considers that $30 billion is the starting point for the projects, rather than an upper ceiling. When factoring in the operations and maintenance (O&M) costs and utility return on equity (ROE) over the lifetime of the projects, each of which will span 40-50 years, the total cost to the ratepayers will end up being over $300 billion, about 10 times the initial price tag. Moreover, the $30 billion price tag is only for the high voltage transmission system and does not consider the utility's low voltage transmission grids. To justify the inevitable rate increases, policymakers must strive to, wherever possible, mitigate excessive spending and maximize the benefit to the ratepayers in California.

Study the processes for applying for resource adequacy (RA) and consider potential reforms to the deliverability process.

The process for being awarded deliverability takes a year or longer and requires an interconnection using the Wholesale Distribution Access Tariff (WDAT) or the California Independent System Operator (CAISO) tariff. The difference can be multiple years and hundreds of thousands of dollar as compared to a Rule 21 interconnection. This is particularly important given the unprecedentedly large cluster studies that the CAISO already has to handle, which continue to increase in size. It would be very helpful to have a more streamlined version of the process, especially for distribution level projects not expected to have a significant impact on the transmission grid (e.g., where back feeding is not likely or where a Fast Track interconnection application has been approved). In addition, the Energy Commission should contrast the CAISO process with the CEC's process for reducing the RA obligation for a load serving entity (LSE) via behind-the-meter (BTM) DER.

Consider the benefits of fixing the existing market distortion caused by the way historical transmission costs are assessed (creating a level playing field for all resources).

Transmission Access Charges (TAC) are charged by the IOUs to recover the cost of historical transmission infrastructure. Currently, TAC are assessed to ratepayers at the customer meter, meaning there is a charge for each kWh consumed. This creates a market distortion because all electrons are charged for use of the transmission system, regardless of whether the energy is exported by a NEM customer and used by another customer on the same distribution feeder or if it is energy that has traveled all the way across the state. The figure below shows why ignoring the cost of transmitting remote generation to end users makes the energy appear cheaper than DER (where the developer pays for any distribution upgrades). When TAC are properly assessed and metered, local generation will be as, if not more, cost-effective than remote generation.



Existing transmission costs, assessed as TAC and currently averaging 2¢/kWh, should be added to the cost of remote generation that requires use of the transmission grid to get energy from where it is generated to where it is used, which is almost always on the distribution grid where people live and work. Future transmission investments, currently averaging 2.5¢/kWh in the evenings, can be avoided via dispatchable local generation, and that value should reduce the evaluated cost of local generation. When correctly considering ratepayer impacts of transmission costs, dispatchable local generation provides an average of 4.5¢/kWh of better value to ratepayers than is currently assumed in the majority of instances.

The solution to the TAC market distortion is considering Transmission Energy Downflow (TED) — the way that energy flows down from the transmission system to the T-D system interface and then onto the distribution system. Thus, by properly assessing TAC at the transmission-distribution substation rather than at the customer meter — the true cost of bulk power projects will be revealed. In comparison, DER, which are clean and multi-functional resources, will provide much better value. This change is not a novel approach that is untried; the municipal utilities currently meter TAC at the T-D substation, demonstrating the viability.

We appreciate the way to comment and look forward to continuing the dialogue throughout the IEPR process.

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