

RE: Draft 20-Year Transmission Outlook

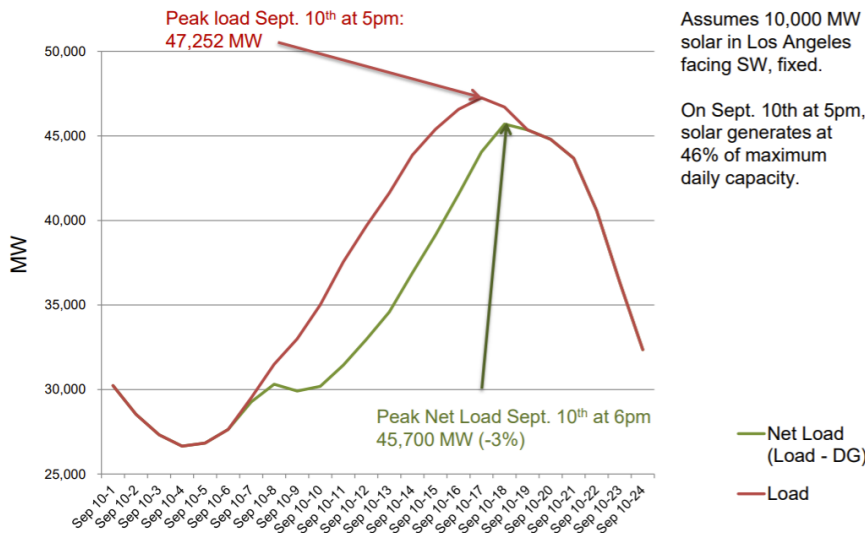
The Clean Coalition is pleased that a 20-year Transmission Outlook is being published for the first time in addition to the normal 10-year Transmission Planning Process (“TPP”) report. This draft represents another concrete step forward in planning for the infrastructure challenges that must be met to achieve the transition to clean energy. Given the long lifespan of transmission assets and the significant cost associated with each project, it is important that careful planning be done, in regard to both short-term and long-term energy needs. While this document is intended to be a conceptual scenario plan rather than an exact policy roadmap, it is important that the state does not just rely on the statistics in the SB 100 Report, but also considers how to implement balanced solutions that promote cost-effective growth. The grid is still in a transition period from a one-way grid with bulk generation and load centers to a two-way grid with dynamic loads and a significantly greater number of market participants. The state has not yet determined what the ideal mix of transmission and distribution investment should be, particularly when the prevailing methodology for resource portfolio modeling meets demand solely with utility scale projects. As the price of distributed energy resources (“DER”) and other non-wires alternatives (“NWAs”) continue to fall, local resources, which can provide capacity in addition to other grid services, should be a crucial avenue for investment.

DER are increasingly cost-effective because of value stacking multiple benefits, including the ability to avoid transmission infrastructure. There are four main drivers of policy expansion, peak load, reliability, economics, and policy, all of which can be avoided via distributed generation.

3c. DER reduces all 4 drivers of transmission investment—Peak Load



Example DG production during peak load conditions



As demonstrated by the slide above, an increased amount of distributed generation lowers the net load and reduces the amount of energy that needs to be imported from the transmission grid, thereby pushing the peak further into the evening. More importantly, because distribution-level resources can obviate large-scale fossil fuel generation, as California’s aging natural gas peaker plants come up for retirement, the distributed generation that replaces it will provide a systemwide benefit by means of reduced transmission congestion, making the delivery of remote energy more cost-effective. Reducing congestion and line losses also helps to reduce marginal costs. When combined with dispatchable storage, DER can provide reliability services traditionally offered by transmission-dependent resources (e.g., frequency and voltage stability services under real load conditions). Distributed generation helps to diversify the utility’s generation portfolio and counts for Local Capacity Requirements (“LCR”), especially if physically aggregated, or tied into a Community Microgrid or Virtual Power Plant. Achieving a clean energy future depends on cost-effective solutions, requiring targeted transmission investments, rather than a sweeping overhaul and buildout.

Vibrant Clean Energy recently 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. The results, which are analyzed in a Clean Coalition-sponsored webinar, explain that if

deployed strategically, local solar+storage could lead to reduced electrical rates from the years 2020-2050.¹ Compared with a utility-only solution, adding local solar+storage would save ratepayers \$120 billion in cumulative savings from 2018-2050. 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.²

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 opposite seems true. The 20-year outlook suggests the need for \$30 billion worth of projects over the next two decades, which seems like a small investment needed for 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 costs and utility Return On Equity 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. To justify the inevitable rate increases, policymakers must strive to, wherever possible, mitigate excessive spending and maximize the benefit to the ratepayers in California. As an example, many of the proposed SB 100 Workshop projects are either completely, or mostly, within another states' jurisdiction. Albeit there is a purpose to better interconnecting the Western United States, using California ratepayer funds to subsidize infrastructure in another state, particularly when the same funding could have sponsored a project in California should not be a priority. A final 20-year Transmission Outlook should include a greater focus on increasing the penetration of DER, rather than just using a placeholder number based on existing deployment trends. The Clean Coalition appreciates the opportunity to

¹ <https://clean-coalition.org/news/webinar-how-local-solar-and-storage-will-save-californians-billions-11-august-2021/>

² <https://www.utilitydive.com/news/efficiency-ders-saving-26b-in-avoided-transmission-costs-caiso-says/519935/>

comment and supports amendments to better include the value of DER in this 20-year planning scenario.

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