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**Vote Solar Comments - Accelerating California's Clean Energy Goals**

*Additional submitted attachment is included below.*



## VOTE SOLAR COMMENTS ON THE DRAFT SB 100 REPORT

The passage of SB 100 in 2018 was a call to action heard around the country. Its enactment into law accelerated a movement among communities, legislators and utilities across the West to speed up the decarbonization of the electricity industry which will then enable the cost effective elimination of carbon from the rest of the economy. Just two years after the bill became law, clean energy goals have been adopted by states and utilities that impact 85% of the electricity sold in the Western United States.<sup>1</sup>

Investors have taken note and are quickly responding to these policy directives. According to Bloomberg NEF there are over 8.9 GW of solar-plus-storage projects in the development pipeline in the US and another 69 GW of hybrid resources in interconnection queues ready to be financed. Most of these resources could be online within three years as utilities and regulators recognize their value as low-cost sources of dispatchable clean energy.<sup>2</sup>

In fact, the market is outpacing the aspirations of energy policymakers, which creates an opportunity for the adoption of more ambitious and realistic targets for the decarbonization of the electric sector than was envisioned in SB 100. A June 2020 report (“The 2035 Report”)<sup>3</sup> from the Goldman School of Public Policy at the University of California, Berkeley found that plummeting costs for wind and solar energy and battery energy storage create the opportunity to achieve 90% carbon-free electricity in the United States by 2035, while lowering the cost of electricity.<sup>4</sup>

Moreover, the rapid elimination of the use of fossil fuels in the electricity sector will reduce exposure to health-harming fine particulates (PM<sub>2.5</sub>) by reducing emissions of nitrogen oxide (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) by 96% and 99%,

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<sup>1</sup> States and utilities with Clean Energy goals (% of West-wide electricity sales) – California (35%); Washington (12%); Arizona (11%); Colorado (8%); Nevada (5%); other Western States (15%).

<sup>2</sup> <https://www.energy-storage.news/news/bloombergnef-solar-plus-storage-is-a-zero-emissions-threat-to-gas-burning-p>

<sup>3</sup> <https://www.2035report.com>

<sup>4</sup> The 2035 Report (page 4) estimates that wholesale power costs plus incremental transmission investments will result in costs that are 10% lower than they are today.

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respectively.<sup>5</sup> Avoiding spewing these pollutants in the atmosphere will prevent 85,000 premature deaths and save \$1.2 trillion in health and environmental costs by 2050.

The 2035 Report estimates that achieving 90% clean energy by 2035 will support 29 million job-years of employment from 2020 to 2035. Employment from expanding renewable energy and battery storage will more than replace lost employment in the fossil fuel sector by approximately 8.5 million job-years on a net basis.<sup>6</sup>

As bold as the UC Berkeley 2035 Report is, it is very likely that it underestimates the potential for even more rapid decarbonization of the electric sector. The 2035 Report relied on forecasts of renewable energy and battery cost reductions from the 2019 National Renewable Energy Laboratory (NREL) Annual Technology Baseline (ATB) projections. NREL has since released its 2020 cost projections<sup>7</sup> which show continued reductions in future cost estimates for renewable energy and batteries. Significant reductions in renewable energy and battery costs have occurred every year since 2015.

Fortunately, several public power agencies in California are working to get ahead of the studies and forecasts and begin capturing the benefits of the cost reductions in the robust market for renewables and batteries. In July the Sacramento Municipal Utility District committed to delivering carbon-neutral electricity by 2030.<sup>8</sup> A specific action plan for achieving this goal will be released next March.

With the adoption of the first SB 100 Report the Newsom Administration has the opportunity to commit itself to more ambitious interim targets on the pathway to a carbon-free future. Vote Solar recommends that the SB 100 Report set the goal of achieving 90% clean energy for California by 2030. The catastrophic climate

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<sup>5</sup> The 2035 Report (page 5)

<sup>6</sup> The 2035 Report (Page 7)

<sup>7</sup> <https://atb.nrel.gov/electricity/2020/changes.php>

<sup>8</sup> <https://www.utilitydive.com/news/smud-aims-for-carbon-neutrality-by-2030-in-new-climate-emergency-declaratio/581883/>



crisis we are facing deserves nothing less. Scientists have warned that we must cut global greenhouse gas emissions in half by 2030 to limit warming to 1.5°C and avoid catastrophic impacts.<sup>9</sup>

The risk of over-procuring clean energy resources over the next ten years is non-existent. On the other hand, more delay will leave an unlivable planet for future generations. Now is the time for bold action.

Respectfully submitted,

Ed Smeloff  
Senior Director  
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December 4, 2020

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<sup>9</sup> In model pathways with no or limited overshoot of 1.5 C, global net anthropogenic CO<sub>2</sub> emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050 (2045–2055 interquartile range). <https://www.ipcc.ch/sr15/chapter/spm/>

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