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Comments from Center for Biological Diversity on SB 100 Implementation Planning

Please see the attached comment letter submitted on behalf of the Center for Biological Diversity.
Thank you,
Shaye Wolf

Additional submitted attachment is included below.

June 22, 2021

Via upload to https://efiling.energy.ca.gov/EComment/Ecomment.aspx?docketnumber=21-SIT-01

California Energy Commission
Docket Unit, MS-4
Docket No. 21-SIT-01
1516 Ninth Street
Sacramento, California 95814-5512

Re: Center for Biological Diversity Comments on 21-SIT-01, SB 100 Implementation Planning for SB 100 Resource Build

The Center for Biological Diversity (the Center) submits these comments concerning the SB 100 Implementation Planning for SB 100 Resource Build (21-SIT-01) workshop conducted by the California Energy Commission (CEC), California Public Utilities Commission (CPUC) and California Independent System Operator (CAISO).

The Center supports a rapid and just transition to 100% clean and renewable energy alongside energy storage, efficiency, and grid technologies. This must be paired with halting new fossil fuel leasing and a rapid phase-out of existing fossil fuel extraction in California which worsens the climate emergency and imperils our communities. We recommend the following measures as the agencies plan for a resource build-out to achieve the goals of SB 100.

I. Distributed Solar and Storage Needs More Affirmative Support From The State

Distributed energy resources, and more specifically distributed solar and storage, needs more affirmative support from the state to ensure needed transmission and infrastructure upgrades are targeted to existing communities and the built environment and to provide funding for equitable access to expand distributed solar and storage (including electric vehicles). Distributed renewable resources and storage provide not only direct energy services and a pathway for expanding electrification of transportation across the state but also provide critical resiliency and reliability at a lower cost (when large scale transmission costs are factored in) and with far less impacts to the environment than large remote solar and wind installations, gas peakers, and large scale pumped storage projects.[1] The state should step up efforts to support distributed solar and storage for single family homes, multi-family dwellings, and community facilities (including

[1] *See*, e.g. Vibrant Clean Energy, Why Local Solar For All Costs Less, Technical Report (December 1, 2020). https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_TR_Final.pdf

schools, medical facilities, and others) and associated parking lots as part of its efforts to meet the SB 100 goals equitably and with the fewest unintended consequences. Distributed resources are a critical component of the resources needed to attain the SB 100 goals and with support can provide far more to meeting those goals that the limited targets currently modeled by the state.

Microgrids provide even greater benefits to communities in terms of long-term sustainability, reliability and resiliency and are critically important in emergencies including during grid failures. The state should support efforts to increase the use of microgrids particularly in existing low wealth communities and communities of color.

II. The Climate Emergency Requires a 2030 Deadline for No-Combustion Energy

To limit warming to 1.5°C, global CO_2 emissions must be cut in half by 2030 and reach near zero by 2050,[2] with faster reductions needed in the U.S. A recent analysis found that, for the U.S. to do its fair share given historical emissions and capability, it should in effect reduce its CO_2 emissions by a total of 195 percent below 2005 levels by 2030, with at least 70 percent of those emissions reductions achieved within the U.S. by 2030 and the remainder through support to developing countries and their emissions reduction programs.[3] Because California represents the largest share of the U.S. economy, it too has an outsized responsibility to reduce its emissions, including a rapid decarbonization of its energy sector during this decade. A target compatible with limiting warming below 1.5°C is a just and equitable transition to 100% clean energy by 2030.

III. There is No Place for Gas in a Carbon-Free Future

The SB 100 modeling conducted by E3 allows for fossil gas capacity to be retained to meet "reliability needs." As with oil and coal, gas capacity must be phased out rapidly as part of a managed decline of fossil fuels and a clean energy future. All phases of the gas lifecycle pose threats to our climate, health, and safety. The 2015 gas leak disaster at the Aliso Canyon gas storage facility was the largest-known release of methane in U.S. history that undermined the state's emissions reduction goals and harmed public health. Methane—a super-pollutant 87 times more powerful than CO_2 at warming the climate over a 20 year period—leaks during all phases of oil and gas production. If the methane leakage rate is greater than 2.4 percent of the gas produced, then the climate damage from the methane leakage cancels out any climate benefit that gas achieves over coal at the smokestack. Therefore, depending on the overall leakage rate, fossil gas provides little or no climate benefit over coal: in fact, fossil gas may even be worse. It is clear that fossil gas has no role in securing a 100% clean energy future.

[2] Intergovernmental Panel on Climate Change, Global warming of 1.5°C at 12-14, Figure 2.6, https://www.ipcc.ch/sr15/ (2018).
[3] U.S. Climate Action Network, The U.S. Climate Fair Share (2020), https://usfairshare.org/

IV. There is No Place for Biomass Energy in a Carbon-Free Future

Biomass power plants are California's dirtiest electricity source—releasing more carbon at the smokestack than coal per unit of electricity produced.[4] Incinerating biomass for energy instantaneously releases stored carbon to the atmosphere, increasing greenhouse gas emissions and creating a "carbon debt." Numerous studies show that, even if forests cut for bioenergy are allowed to regrow, it can take several decades to more than a century, if ever, to capture the carbon that was released, and to discharge the "carbon debt." This is the case even where "waste" materials like timber residues and thinning debris are used for fuel.[5] Meanwhile, that carbon pollution worsens the climate crisis and contributes to the probability of passing climate tipping points, causing irreversible harms. Cutting trees for biomass energy also reduces the forest's ability to sequester and store carbon.[6] So biomass power is a double whammy for the climate: it emits more carbon at the smokestack and leaves less carbon stored in the forest.

Biomass power is also not needed for stabilizing the electrical grid. Biomass power currently supplies less than 3% of the state's total electric power. Instead, grid stabilization can be achieved with truly clean and renewable solar and wind power, paired with energy storage.[7]

In addition to producing large amounts of CO_2, biomass power plants emit toxic air pollutants, including particulate matter (PM), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO_2), lead, mercury, and other hazardous air pollutants that harm public health. Biomass emissions can exceed those of coal-fired power plants even after application of best available control technology. Many of California's biomass power plants are concentrated in vulnerable communities in the Central Valley already suffering from high pollution burdens. For example, the Rio Bravo biomass plant in Fresno is located less than a half-mile from the Malaga Elementary School and surrounding homes in a majority Latinx neighborhood with the state's highest pollution burden score.

In addition, biomass power is the most expensive of California's common electricity sources. In 2018, the levelized cost of biomass power averaged $166 per megawatt hour compared to $49 for solar and $57 for wind.[8] Biomass power should not be included in any scenarios for reaching 100 percent clean energy within any timeframe.

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[4] Center for Biological Diversity, Forest Bioenergy Briefing Book (March 2021), available at https://www.biologicaldiversity.org/campaigns/debunking_the_biomass_myth/pdfs/Forest-Bioenergy-Briefing-Book-March-2021.pdf

[5] Id.

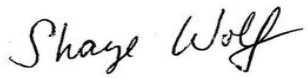
[6] Moomaw, William R. et al., Intact forests in the United States: proforestation mitigates climate change and serves the greatest good, Frontiers in Forests and Global Change (2019), https://www.frontiersin.org/articles/10.3389/ffgc.2019.00027/full

[7] *See,* e.g. Jacobson, Mark, Why investments in clean, renewable energy will avoid blackouts at a low cost (April 8, 2021), https://thehill.com/opinion/energy-environment/547068-why-investments-in-clean-renewable-energy-will-avoid-blackouts-at

[8] California Energy Commission, Staff Report, Estimated Cost of New Utility-Scale Generation in California: 2018 Update (May 2019), https://ww2.energy.ca.gov/2019publications/CEC-200-2019-005/CEC-200-2019-005.pdf

Thank you for your consideration of these comments.

Sincerely,



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