

November 21, 2019

Representative Kathy Castor
Chair, House Select Committee on the Climate Crisis
H2-359 Ford House Office Building
Washington, DC 20515

Representative Castor:

We are lawyers and policy researchers at the Center for Law, Energy & the Environment (CLEE), an energy and environmental law and policy research center based at UC Berkeley School of Law. As the leaders of CLEE's Climate Program, we channel the expertise of the Berkeley Law community into pragmatic, creative solutions to climate and energy challenges, with a particular focus on helping California achieve its nation-leading climate change goals. Our work involves developing and advancing policy solutions with stakeholders from federal and state agencies, local governments, industry, and environmental nonprofits, among others.

We submit this letter in response to your request for information regarding possible federal efforts to address climate change. These comments arise from our stakeholder-based work—and lessons learned—in California's climate fight, specifically in the key areas of:

- 1) Zero emission vehicles;
- 2) Energy storage;
- 3) Renewable energy facility planning; and
- 4) Low vehicle miles traveled land use.

For more than a decade, we have gleaned insight into the development of California's suite of climate policies. As you are likely aware, California stands first among the states in setting a greenhouse gas [emissions reduction target](#) of 40 percent below 1990 levels by 2030. To help achieve this goal, the state has instituted a series of rigorous but achievable mandates for the industries most responsible for greenhouse gas emissions. These include [zero-carbon energy requirements](#) of 60 percent by 2030 and 100 percent by 2045; a goal of [doubling building energy efficiency](#) by 2030; and a [zero-emission vehicle target](#) of five million by 2030. These mandates in turn support a [target of statewide carbon neutrality](#) by 2045.

This successful state-based framework could inform the suite of actions Congressional leaders take to set the United States on a path to nationwide decarbonization. Based on our experiences working with stakeholders throughout California's climate policy community, we highlight the following policies that the Committee could consider promoting at the federal level:

Expanding Zero-Emission Vehicle Incentives

California's zero-emission vehicle (ZEV) program has built the nation's leading market for low-emitting and electric vehicles, with California responsible for nearly half of all electric vehicle purchases nationwide. The state's [ZEV regulation](#) (also known as the ZEV mandate), which was adopted under our state's climate change laws and federal Clean Air Act waiver to regulate automobile emissions, requires

manufacturers selling in California to produce an increasing number of ZEVs and hybrid each year. The mandate has been particularly effective in jump-starting the U.S. market for these vehicles, with 10 other states adopting the standard (and federal gasoline vehicle [phase-out legislation](#) under debate), and has helped reduce both greenhouse gas and traditional pollutant emissions. In addition, California's [Clean Vehicle Rebate Program](#) offers financial incentives to buyers of low- and zero-emitting vehicles, with two program features that have been key to the state's success: the incentive is offered as a purchase rebate, rather than as a tax credit, so buyers do not have to wait until the next year's tax filing to receive it; and the incentive includes no manufacturer cap, so rebates remain available for the most popular models. While significant work remains to be done, we have learned through [multiple initiatives](#) involving policymakers, automakers, utilities, and advocates that California's ZEV mandate and incentive policies are essential to promoting EV technology deployment, which in turn will be necessary both to mitigate climate change and to maintain American manufacturing competitiveness. ***To promote EV adoption nationwide, the Committee could explore opportunities to create a nationwide zero-emission vehicle mandate, defend California's Clean Air Act waiver, and offer a federal EV purchase rebate or enhanced tax credit without manufacturer caps.***

Establishing Goals and Incentives for Energy Storage

In 2013, pursuant to a [legislative mandate](#), California adopted the nation's first [energy storage procurement target](#), requiring electrical utilities to install 1.3 gigawatts of storage resources by 2020. The state's [Self-Generation Incentive Program](#) further provides financial incentives for residential and large-scale storage. So far, California's electric utilities have [exceeded](#) their storage targets, and battery storage costs have [dropped precipitously](#) over the same period. As we found in an [initiative](#) that included energy regulators, grid experts, and storage industry leaders, these developments support the state's aggressive renewable energy ramp-up and community resilience, and the creation of mandates and incentives has been essential to the development of a robust and growing market. ***To promote integration of renewable energy and electrical grid reliability, the Committee should consider legislative and regulatory means to set nationwide energy storage targets and create a federal incentive program such as an investment tax credit.***

Planning Renewable Energy at the Landscape Level

While California has achieved significant success in replacing fossil fuel electricity generation with solar and wind, like most states, we face tension around the need to site utility-scale renewable sources in low-population, environmentally sensitive areas and transmit the bulk of the electricity to distant urban centers. As we found in an [initiative](#) with solar developers, energy regulators, local planners, and environmental advocates, the state will need to employ comprehensive landscape-level planning to ensure it reaches future renewable generation targets while protecting natural resources and respecting local communities' needs. Past efforts such as the federal-state [Desert Renewable Energy Conservation Plan](#) [have sought to develop comprehensive plans, but progress has been limited](#). As the state accelerates toward its 2030 goal of 60 percent renewable electricity, further engagement across levels of government and regulatory capacities—including increased funding and support for stakeholder consultation and mapping efforts to quantify and locate best-fit lands—will be necessary. The same will be true at the federal level if the rest of the nation is to catch up to California's renewable deployment. ***To promote federal renewable energy procurement, the Committee should fund cross-agency collaborations to identify top-priority generation and transmission sites and facilitate coordinated planning processes with state and local bodies.***

Promoting Density and Reducing Vehicle Miles Traveled

Reducing greenhouse gas emissions from transportation is the greatest challenge facing California and other jurisdictions seeking to fight climate change. While the state seeks to increase electric vehicle uptake and power those vehicles with low-carbon electricity, reducing vehicle miles traveled (VMT) will be essential as long as cars are powered even partly by fossil fuel energy. California has begun to address this challenge with legislation [linking](#) state transportation funds to local VMT-reducing plans and [reforming](#) environmental review to focus on VMT impacts. The legislature has also explored, but not yet enacted, [means](#) to increase urban density in transit areas in order to reduce the climate impacts of car travel. Our research has found that regional (and potentially cross-state) [frameworks](#) may be necessary to achieve VMT reduction goals, and that measures to promote infill development promise [gains](#) in both emission reduction and economic development. The rest of the nation will need similar tools if we are to shift our development and transportation planning in a more sustainable direction. ***To promote sustainable development, the Committee could consider measures to condition federal transportation funding for projects based on anticipated performance under VMT-and greenhouse gas-reducing metrics and to create new incentives to increase housing density and affordability in low-VMT areas.***

Our experience collaborating with California policy, industry, and advocacy leaders has indicated that California's state-level climate mandates, regulations, and incentives have been essential to the state's progress reducing greenhouse gas emissions. While California still faces significant challenges to achieve complete decarbonization, this comprehensive policy framework has facilitated market transformations that are boosting a low-carbon economy within the state. By adopting and expanding on the programs highlighted in this letter, Congress could help replicate this transformation nationwide. We hope the Committee will consider these policies and are available to answer any questions.

Sincerely,

/s/

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