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Deliver rapid greenhouse gas reductions at scale, starting in California.

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September 21, 2021

The Honorable Gavin Newsom
Governor, State of California
State Capitol
Sacramento, CA 95814

Re: Suggested COP26 California Climate Policy Announcements

Dear Governor Newsom:

The existential threat posed by climate change is well-known and is rapidly accelerating its pace. It's "**nothing less than a code red for humanity**" said the UN Secretary General, referencing the recent Sixth Assessment Report from the United Nations' Intergovernmental Panel on Climate Change (IPCC).¹ Extreme events witnessed over the past several months are literally off the charts and some are not included in climate models that guide government decision making.² Over 220 medical journals from across the globe declared early this month that "**no temperature rise is safe**" and **our rapidly warming climate poses the greatest single threat to public health**.³ And in an additional dismaying milestone, the National Oceanic and Atmospheric Administration officially declared that July 2021 was the hottest month on record globally.⁴

Nowhere is the climate crisis more evident than in California, where we have been subject to wildfires, heat waves, and threatened electricity outages for months on end. With the state in the early stage of a multi-decadal drought made severe by climate change, it has never been clearer that the time for accelerated climate action is now. As the 26th UN Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP26) approaches, we urge you to meet the moment and inspire the international community with a truly ambitious climate agenda commensurate with the rapidly deteriorating climate reality.

As the governor of the fifth largest economy in the world, you have the opportunity to propose and institute statewide policies that will achieve climate prosperity, health, and safety for *all* the state's residents, while also providing a roadmap that jurisdictions across the world can follow.

To achieve this outcome, California must set forth an even more ambitious plan, putting the state on an Apollo moonshot-scale footing to meaningfully address climate change, while ensuring dramatically increased and equitable investments in our people, technology, and environment. This must include

¹ <https://news.un.org/en/story/2021/08/1097362>

² <https://www.theguardian.com/environment/2021/jul/02/canadian-inferno-northern-heat-exceeds-worst-case-climate-models>

³ <https://www.npr.org/2021/09/07/1034670549/climate-change-is-the-greatest-threat-to-public-health-top-medical-journals-warn>

⁴ <https://www.noaa.gov/news/its-official-july-2021-was-earths-hottest-month-on-record>

prioritizing the most vulnerable communities that are bearing the brunt of the climate crisis.

The following policies, which have the potential to create hundreds of thousands of new jobs⁵, develop new industries, improve the health and well-being of our communities and ecosystems, and demonstrate California's renewed global climate leadership, will be essential to securing a climate-safe future for all Californians:

1. **Build a 21st century electricity grid that is clean, distributed, safe, reliable, equitable, and resilient, prioritizing frontline communities, to achieve a 100% carbon-free electricity by 2030.**
2. **Secure a zero-emission transportation future, catalyzing the state's homegrown zero-emission vehicle industry and improving health across the state.**
3. **Accelerate the transition of California's new and existing buildings to smart, clean, and all-electric technologies.**
4. **Protect and enhance California's vital agricultural industry by rapidly implementing climate-friendly strategies at scale to cut emissions and dramatically increase natural carbon removal with its many co-benefits for water, biodiversity, and food security, while increasing protection and climate-smart restoration of natural ecosystems.**
5. **Lock in a healthy, clean energy future by halting permitting of all new oil and gas infrastructure and investing at scale in an equitable transition to a clean energy economy.**

1. **Build a 21st century electricity grid that is clean, distributed, safe, reliable, equitable, resilient, prioritizing frontline communities, to achieve 100% carbon-free electricity by 2030.**

California has historically led the way in clean energy policy, especially through the establishment of the Renewable Portfolio Standard and successor legislation, including the most recent update, SB 100 (De Leon, 2017). That bill's goal of a completely carbon free electric grid by 2045, however, is now outdated, especially considering the Biden Administration's stated goal of decarbonizing the entire country's electric sector by 2035⁶. With California's grid under constant threat from climate-related disasters, ranging from heat domes and severe drought to wildfires and toxic smoke storms, it is well-past time to clean up and modernize California's grid for climate stability, public health, and public safety. As part of this effort, the state must adopt the policies and make the investments needed to ensure that the transition to clean energy is affordable to low-income ratepayers.

As a first step, **the state must immediately commit to achieving 100% carbon-free electricity generation by 2030. To complement this effort, the state must also immediately adopt policies, backed by significant investments, which will allow for the deployment of clean microgrids in all low-income and fire-vulnerable communities, building upon and expanding existing state and local efforts.**⁷ Funding from the program should prioritize projects located in low-income communities. This will serve to increase our communities' resilience against planned and unplanned climate-driven power outages and extreme heat events. In doing so, California will not only slash its carbon emissions and

⁵ <https://www.californiaclimatejobsplan.com/about-dr-pollin>

⁶ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>

⁷ The CEC's Advanced Energy Communities program has been supporting development of community microgrids, see <https://theclimatecenter.org/wp-content/uploads/2021/03/Climate-Center-Webinar-Community-Resilience.pptx.pdf>. Los Angeles County is proposing to create a new regional microgrid planning agency, see <https://microgridknowledge.com/regional-microgrid-agency-los-angeles/>

reduce the risk of power line-ignited wildfires, but it will also save money⁸ and demonstrate that the future of energy resilience is clean, decentralized, and community-based, driven by decisions made at the local level.

2. Secure a zero-emission transportation future, catalyzing the state's homegrown zero-emission vehicle industry and improving health across the state.

According to CARB, the transportation sector is the largest emitter of greenhouse gases, representing about 40% of the state's climate polluting emissions.⁹ New studies show that one in five deaths globally is attributable to fossil fuel air pollution¹⁰ and poor air quality increases vulnerability to respiratory diseases such as COVID-19.¹¹

Given the size of the transportation sector's emissions and the availability of zero-emission vehicles (ZEV) that can already address nearly every duty cycle imaginable, California can and must accelerate its zero-emission vehicle goals. **The state should move up the deadline for 100% zero-emission light and heavy-duty new vehicle sales to at least 2030. The state should also announce new, aggressive goals for phasing out used gas vehicles, and increase used ZEV sales through greater financial support for low-to-middle income households, as well as scaled up investments in clean mass transit, other forms of sustainable mobility, and affordable housing near transit centers.**

These commitments will send an unambiguous signal to the ZEV industry, which was cultivated and catalyzed in California, that the state will help drive demand for their products and related infrastructure, prompting even more investments in development and manufacturing. The rapid growth of ZEVs will also create a significant number of jobs related to the deployment of the infrastructure needed to power these vehicles.

The removal of heavily polluting diesel trucks and buses across the state will clear the air and improve public health, especially for those living in frontline communities located along freight corridors who are most negatively impacted by this pollution.

3. Accelerate the transition of California's new and existing buildings to smart, clean, and all-electric technologies.

Global warming emissions from residential and commercial buildings are significant and must be aggressively addressed. The first step in tackling this issue is to ensure that **all new buildings built in the state, both residential and commercial, are zero-emission by issuing permits only to projects that are fully electrified beginning in 2024.**

The state must also **make the long-term investments necessary to retrofit existing buildings by replacing gas-powered appliances with electric equivalents, including heat pumps and induction electric ranges.** Continued monetary incentives and new financial mechanisms, including on-bill financing, will be needed to facilitate this transition. These policies should be set with an eye toward

⁸ A report released in August 2021 indicates that enabling the continued growth of distributed energy resources (DERs), like rooftop and community solar and battery storage, would save California ratepayers \$120 billion over the next 30 years. See <https://www.localsolarforall.org/news/ca-solar-saves-120b>

⁹ https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf

¹⁰ <https://www.hsph.harvard.edu/c-change/news/fossil-fuel-air-pollution-responsible-for-1-in-5-deaths-worldwide/>

¹¹ <https://www.lung.org/blog/covid-19-mortality-and-air-pollution>

achieving a 70% reduction in emissions from the building sector by 2030 and must include financial support for lower income residents so they are not left behind.

Beyond the climate benefits, these policies will drive significant job creation, as the construction of electrified buildings and the deployment of many more electric appliances through retrofitting will create jobs in construction and installation, as well as in the upgrading and maintenance of the lines and wires needed to power the increased load.

4. Protect and enhance California’s vital agricultural industry by rapidly implementing climate-friendly strategies at scale to cut emissions and dramatically increase natural carbon removal with its many co-benefits for water, biodiversity, and food security, while increasing protection and climate-smart restoration of natural ecosystems.

California’s agricultural industry is among the largest suppliers of food and agriculture commodities in the world. It supplies over one third of the country’s vegetables and two-thirds of the country’s fruits and nuts.¹² The impacts of climate change are an imminent and grave threat to this vital industry.

Yet, we continue to underutilize one of our most effective resources to combat climate change: our natural and working lands. While we applaud the steps you have identified in Executive Order N-82-20 and the investments made in this year’s budget for natural and working lands, there is much more the state can do to leverage this approach for climate, economic, ecological, and human health benefits.

The state should establish a much more aggressive goal to sequester 100 MMT CO₂e by 2030 on the state’s natural and working lands along with determining the pathways and funding to get there while actively engaging outside practitioners, farmers, ranchers, scientists, and communities. Carbon loss can be reduced, and sequestration vastly increased, via scaled up compost application on agriculture lands, prescribed grazing, urban forestry, and other proven techniques of carbon farming.¹³

The state must also fund this effort at robust levels, including support for increased technical assistance to rapidly scale up and implement natural and working lands climate solutions. The return on investment will be significant, as improved agricultural and restoration practices will not only sequester carbon in our soils and natural environs but will also make our food and water supplies healthier and more drought resilient, improve their resistance to wildfire and floods, and help preserve agricultural productivity during this time of rapid climate change. Prioritizing natural and working lands climate strategies will provide multiple benefits, including benefits to underserved and disadvantaged communities.

5. Lock in a healthy, clean energy future by immediately ending all new permits for fracking and other oil and gas drilling and infrastructure, while making major investments in an equitable transition for oil and gas workers, their families, and their communities.

The recent escalation of severe climate impacts makes it clear that we must keep fossil fuels in the ground as soon as possible. As the UN climate scientists warned in 2018, every bit of warming matters.¹⁴

¹² <https://www.cdfa.ca.gov/Statistics/>

¹³ <https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/air/quality/?cid=stelprdb1044982>, <https://www.carboncycle.org/carbon-farming/>, and <https://www.greenamerica.org/food-climate/what-carbon-farming>

¹⁴ <https://www.croakey.org/every-bit-of-warming-matters-heightened-warning-on-climate-change-from-ipcc/>

The direction you provided to the Department of Conservation's Geologic Energy Management (CalGEM) in April 2021 initiating the regulatory processes needed to end issuing new fracking permits by January 2024 was a major step in the right direction. However, the rapidly deteriorating climate reality has made it clear that we cannot afford to continue allowing any more fossil fuel production without deadly and long-term consequences. **The state must immediately stop issuing fracking permits as well as halting permits for any new oil and gas infrastructure. Additionally, CARB should be required to evaluate pathways for a complete phase out of fossil fuel production and refinement in the state by at least 2035 rather than 2045. Given that two-thirds of the oil refined in California is imported, the pathway should include a methodical decrease in imports beginning at the earliest possible date.**

The rapid wind down of fossil fuel extraction in the state means that we will need safety nets to secure the earning potential and benefits for workers in the oil and gas industry, so that increased inequity is not a byproduct of the clean energy revolution. As such, **we urge you to propose allocating at least \$2 billion of new funding for a High Road Fund in your next budget.** This fund will assist workers, particularly in the fossil fuel and related industries who lose their jobs because of state policy or market-driven decisions made by the private sector. In contrast to the community economic resilience dollars adopted in this year's budget, which largely focused on planning, the High Road Fund will support early retirement, pension and benefit guarantees, and wage differential payments for impacted workers. To ensure program longevity, we strongly recommend the state adopt policies requiring oil and gas companies operating in California to make significant contributions to this fund on an annual basis.

Combined, these efforts will result in California removing more climate pollution than it emits by 2030 while providing multiple economic, social, ecological, and health benefits.

The IPCC Sixth Assessment Report has made clear that the climate crisis is upon us now and that it will get worse without ambitious and immediate changes. Given the current state of the crisis, there is a narrow window in which we can act to limit further damage. The science¹⁵ is clear that these life-threatening changes are being driven by human-caused warming emissions.

While the policies recommended above are extremely ambitious, the scientific community has made it clear that **such visionary, equitable action is not only immediately necessary, but it is also achievable with currently available technology and know-how.** In a recently released paper,¹⁶ which underlie the policy recommendations above, Professor Dan Kammen, the Chair of UC Berkeley's Energy and Resources Group, and other distinguished scientists and climate experts reinforce the need to take bold action. They outline pathways that can be taken to achieve the ambitious but necessary goal of net negative emissions by 2030.

Governor Newsom, the world is looking to us and to you to lead on climate even more boldly.

With COP26 coming in just a few weeks, **it is critical that the policies you and your team announce on the international stage be visionary, equitable, science-based, ambitious, and replicable by other jurisdictions.** This builds on California's accomplishments with policies such as the Renewable Portfolio Standard or your recent executive orders on ZEV sales and nature-based solutions. The recommendations for California laid out in this letter will catalyze other states and nations to tackle the climate crisis before it is too late.

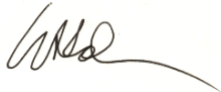
¹⁵ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter_02.pdf

¹⁶ <https://arxiv.org/abs/2103.07801>

California can and must continue its visionary global climate leadership. We have the know-how and technology to solve this—the greatest challenge to life as we know it on our planet. We can demonstrate that making these investments will lead to a new zero carbon, prosperous and equitable economy. **As goes California, goes the world. This is your time to do even more—to make your mark on history—by helping to secure a vibrant, healthy, equitable future for all.**

Thank you for your consideration. If you have any questions or wish to discuss these ideas in further detail, please do not hesitate to reach out.

With gratitude always for your science-based leadership,

A handwritten signature in black ink, appearing to read 'EMC', with a long, sweeping underline that extends to the right.

Ellie M. Cohen
Chief Executive Officer
The Climate Center