

**Our mission**

To inspire, align, and mobilize action in response to the climate crisis. We work with business, government, youth and the broader community to advance practical, science-based solutions for significant greenhouse gas emission reductions.

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Date: February 5, 2018  
To: Assemblymember Phil Ting  
CC: Andrew White, Legislative Director  
From: Ann Hancock, Executive Director

**Subject: Support for AB1745, The Clean Cars 2040 Act**

I write to convey the Center for Climate Protection's support for AB1745, the Clean Cars 2040 Act. We commend your vision and leadership for introducing this legislation. AB1745 would leverage market forces to significantly reduce greenhouse gas (GHG) emissions, which meets two of our criteria for policies we support.

Allowing only new Zero Emissions Vehicles (ZEVs) to register in California is an essential step towards averting the worst impacts of climate change. Transportation is the largest source of statewide GHG emissions, producing 39% of the total – more than the next two economic sectors combined.<sup>1</sup> Transportation therefore represents the largest opportunity for improvement and a target area for smart climate policy.

Air pollution is another grave concern in our car-friendly state. California has significantly higher rates of asthma diagnosis than the rest of America – as of 2010, 13.1% of adults and 12.5% of children in California have received an asthma diagnosis, compared to 8.4% of the general US population.<sup>2</sup> Particulate matter emitted by diesel- and gas-powered vehicles increases cancer risk and causes 1,400 cardiopulmonary deaths a year.<sup>3</sup> California can and must do better. The Clean Cars 2040 Act moves us closer to improving air quality and human health in the state.

In addition to its environmental and public health benefits, the Clean Cars 2040 Act capitalizes on economic trends. Fifteen countries, representing a total population of 3.23 billion people, have made soft commitments to a ZEV-only future or established national ZEV targets and incentives. Cities including Paris, Quito, Athens, Cape Town, Auckland, Mexico City, Seattle, and Vancouver pledged to reach zero emissions in designated areas by 2030. Delhi deregisters diesel cars older than ten years. And major automakers across the globe including Ford, GM, Volvo, BMW, Toyota, Nissan, Renault, the PSA group, Aston Martin, Jaguar, and Land Rover are dramatically increasing or committing exclusively to ZEV production in the near future. California would capitalize on mounting global momentum and assert its national leadership by joining the ranks of these forward-thinking governments and businesses.

<sup>1</sup> <https://www.arb.ca.gov/cc/inventory/data/data.htm>

<sup>2</sup> <https://www.arb.ca.gov/research/asthma/asthma.htm>

<sup>3</sup> <https://www.arb.ca.gov/research/diesel/diesel-health.htm>

For these reasons, the Center for Climate Protection strongly supports the Clean Cars 2040 Act, an environmental, health, and economic necessity.

Our support comes with a caveat. We believe that 2040 is too distant in the future and too weak a signal to realize the potential climate, health, and economic benefits offered by new-ZEV-only legislation. We appreciate that you are open to considering a deadline nearer in time if evidence warrants it.

Of the fifteen countries with soft commitments to a ZEV-only future, ten have announced dates by which they will phase out gas-powered cars. They range from as early as 2020 (Austria) to as late as 2040 (China, Britain, France). The average year is 2030 – so 2040 appears to be behind the curve.

Economically, electric vehicles with lithium-ion batteries are cost-competitive with conventional cars when the price of a complete battery pack drops below \$250 per kilowatt hour (kWh), according to McKinsey and Company.<sup>4</sup> A second report by McKinsey showed that the price of lithium-ion batteries dropped almost 80% between 2010 and 2016, from ~\$1000/kWh to \$227/kWh.<sup>5</sup> Research by Bloomberg New Energy Finance projects a price of \$74/kWh by 2030.<sup>6</sup> Indeed, some analysts even argue that conventional cars will be obsolete by 2030.<sup>7</sup> Given the strong likelihood of ZEV market domination by 2030 due to market forces alone, 2040 may be too distant to be meaningful.

And finally, for climate reasons, a quicker adoption of ZEVs is critical. A recent *Science* article states that to stay on track with the Paris Climate Agreement, we must halve anthropogenic CO<sub>2</sub> emissions each decade until total decarbonization by 2050. By 2040, “oil will be about to exit the global energy mix” and “internal combustion engines... will have become rare worldwide.”<sup>8</sup> But requiring only newly registered cars to be ZEVs in 2040 and beyond implies that a significant portion of the vehicle fleet will still run on gas and diesel. A 2040 deadline is too late to meet California’s own climate goals.

If instead California set a target of 2030, we would send a firm signal to the automotive industry, remain on track to meet Paris Agreement targets and preserve climatic stability, and initiate urgent action on adverse health impacts caused by air pollution.

We are eager to support you in passing AB 1745, especially if amended to take effect in 2030.

Sincerely,



Ann Hancock

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<sup>4</sup> <https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/battery-technology-charges-ahead>

<sup>5</sup> <https://electrek.co/2017/01/30/electric-vehicle-battery-cost-dropped-80-6-years-227kwh-tesla-190kwh/>

<sup>6</sup> <https://data.bloomberglp.com/bnef/sites/14/2017/07/BNEF-Lithium-ion-battery-costs-and-market.pdf>

<sup>7</sup> <https://tonyseba.com/portfolio-item/clean-disruption-of-energy-transportation/>

<sup>8</sup> <http://science.sciencemag.org/content/355/6331/1269>