



February 2, 2024

Susan Lessard, Chair
Board of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: Proposed Rule, 06-096 C.M.R. Chapter 127-A Advanced Clean Cars II Program

Dear Chair Lessard,

Thank you for the opportunity to submit comments regarding the substantive change made in order to bring the Advanced Clean Cars II rulemaking into 2024. ReVision Energy appreciates the Board of Environmental Protection's engagement and attention to the decarbonization of our state's transportation sector.

We previously submitted comments in the August 17, 2023 rulemaking, which we ask are considered yet again, and additionally, we seek to add the following [op-ed published on February 1, 2024](#) in the Portland Press Herald, titled "We can help the grid handle more EVs on our roads," into the record as additional comments. This piece was authored by Barry Woods, ReVision Energy's Senior Director of e-Mobility, who leads our company's work in the development and implementation of electric vehicle (EV) charging infrastructure. Additionally, Woods serves as the President of the board of Plug In America, the nation's first non-profit dedicated to promoting public adoption of electric vehicles. Given there has been considerable conversation regarding the grid's capabilities with an increased penetration of EVs, Woods wished to dispel the myth that our grid cannot handle such an integration and point to historical examples of adaptation as well as critical data and forecasting from ISO New England.

Should you or any board members have any questions or seek more information regarding grid readiness from a developer actively installing EV charging infrastructure here in Maine, please do not hesitate to reach out. Thank you for your consideration, and again, we ask the Board to join in our mission—to build a just and equitable electric future—and advance the Advanced Clean Cars II Program here in Maine. We believe it was incredibly unfortunate that a climate-related event has resulted in a delay in consideration, but also substantively impacts the rule by pushing back the model year of adoption to 2028. If anything, we should be acting faster to address the considerable threat of climate damage to our state. We thank the Board in advance for its consideration of our perspective.

Opinion

Opinion: We can help the grid handle more EVs on our roads

As our state's decision makers grapple with the Advanced Clean Cars II standards, they must dispel the myth that the grid can't handle them.

Posted
Yesterday at 4:00 AM

Updated
at
8:00 AM

Barry Woods
Special to the Press Herald



In Maine, transportation is the largest contributor to emissions. It's responsible for 49% of our annual greenhouse gas emissions, with 59% coming from passenger cars and trucks. Electrification of the transportation sector, then, is a critical solution in the transition away from polluting fossil fuels: electric vehicles will help unlock our clean energy future.

EVs bring a trifecta of benefits—emissions mitigation, cost reduction, and energy independence. EVs cost less to operate and maintain and are on average more affordable when comparing the average cost of gas to that of electric charging. Even more, increased EV adoption would make the United States more energy independent from the volatile global oil market.

The electric vehicle market is rapidly transforming. Billions in funding have become available for electric vehicles and affiliated charging infrastructure from federal funding and manufacturers themselves, [who have announced \\$210 billion of investments](#) in the electric vehicle industry, up from just over \$50 billion in 2021. These investments will further drive sales rates, which are rapidly changing. The US [recently surpassed selling three million EVs](#), but while it took ten years to sell the first million, it took only two to sell the second, and just about a year to sell the third.

As our state's decision makers grapple with electrifying our transportation system and the adoption of the Advanced Clean Cars II standards, they must dispel the myth that the grid can't handle it. As someone working on the electrification of our transportation sector every day, I believe we can make this transition.

We've adapted the grid before. Over time, the grid has evolved to accommodate more products, such as air conditioners. In 1989, this resulted in [New England's peak energy usage shifting](#) from winter to summer given a simultaneous decline in electric heating. This example is not unlike what's before us today—the addition of EV load will be happening alongside reductions in other types of energy usage, such as through energy efficient technologies like LED lighting or the use of heat pumps.

Last year, [ISO New England released its 2023 forecast](#) predicting that the electrification of transportation in the region over the next ten years will only increase energy needs by approximately 9.5%. When we break that down by year, that means we only need to increase our regional energy supply by less than 1% a year. ISO New England's forecast then, anticipates we can generate the power we need to electrify Maine's vehicles.

When it comes to distribution, we must ensure that our grid can accommodate peak demand as ISO New England predicts that our region will see a ["1.1% average annual increase in summer peaks... through 2032,"](#) due to electrification of transportation. Fortunately, EV charging is perhaps the most flexible electric load—we can charge cars whenever it makes the most sense to— which smooths demand. And, if we need upgrades in our existing transmission and distribution system, our utilities are structured in which they are inherently motivated to build infrastructure.

Even more, Maine is already moving toward bettering grid management. The legislature recently passed [a bill](#) requiring the Maine Public Utilities Commission (PUC) to consider time of use rates to incentivize consumers to use electricity at non-peak times (such as charging your EV in the middle of the night). Additionally, the PUC has open dockets on grid modernization and planning to determine the best mechanisms for building our grid to accommodate these anticipated changes. These policy and regulatory moves are setting us up for success.



This year, Maine has the opportunity to accelerate this vision. We ask the Board of Environmental Protection to join us, and advance the Advanced Clean Cars II Program in our state. We can do this.

Respectfully submitted to the record on February 2, 2024.

/s/ Lindsay Bourgoine

Lindsay L. Bourgoine
Director, Policy & Government Affairs
ReVision Energy

Please note on the following pages we have included our August 17, 2023 comments regarding the Advanced Clean Cars II Rulemaking, which were submitted to the Board of Environmental Protection. We stand by these comments and ask for them to be considered in this year's rulemaking as well. Thank you.



August 17, 2023

Susan Lessard, Chair
Board of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Re: Proposed Rule, 06-096 C.M.R. Chapter 127-A Advanced Clean Cars II Program

Dear Chair Lessard,

Thank you for the opportunity to submit comments regarding the proposed routine technical rulemaking in response to the citizens' petition to adopt the Advanced Clean Cars II Program. ReVision Energy appreciates the Board of Environmental Protection's engagement and attention to the decarbonization of our state's transportation sector.

ReVision Energy submits these comments as an employee owned, certified B Corporation clean energy construction company with over 400 employees across our five branches in New England, with 225 staff in Maine at our Montville and South Portland locations. In 2022 alone, we installed 10,000 kilowatts of residential solar and nearly 24 megawatts of commercial solar across the region as well as hundreds of electric vehicle charging projects. Our work includes site evaluation, design, engineering, installation, commissioning, service, and maintenance of charging infrastructure. We have learned invaluable lessons over the past ten years in effective deployment of residential and commercial such infrastructure across multiple jurisdictions, and we are participating in this proposed rulemaking to share our perspective to inform future regulatory framework. As a member of Maine's growing clean energy industry, we strongly support the adoption of the Advanced Clean Cars II Program.

I. ReVision Energy's Perspective on Decarbonization of the Transportation Sector

As a Maine-founded and headquartered business operating in the clean energy space, we believe the linkage between energy and transportation is a fundamental element of our electrification transition. Historically, storage capacity has served as a limiting factor in electrification and vehicle energy storage capabilities unlock the future transition to a clean grid. Electrification of the transportation sector is a critical key in the abandonment of fossil fuels and the costly, polluting energy they produce.

We believe that rapid proliferation of electric vehicles integrates ReVision's technology portfolio, serving as a critical link in the chain of creating microgrid capabilities for consumers and providing advanced resiliency in the face of climate catastrophes moving forward. Electric vehicles bring new consumer benefits that our vehicles of the past lack—they are wholly new assets that encompass both financial and grid benefits. Essentially, they are batteries with four wheels—and we strongly support the state of Maine adopting regulations that allow for such opportunistic visualization of transportation.

II. The Critical Importance of Advanced Clean Cars II in Addressing Climate Change

ReVision Energy has long been an advocate for the rapid transition to a clean energy economy to avoid the most catastrophic impacts of a warming planet, and thus we have long been advocates of the proliferation of electric vehicles (EVs) given the trifecta of benefits they



provide: emissions mitigation, cost reduction, and energy independence.¹ Transportation is the single largest contributor of greenhouse gas emissions in the United States, and the electrification of this sector can immediately lessen dependency on polluting, costly, imported fossil fuels. In comparison to internal combustion engines (ICEs), EVs cost less to operate and maintain, and are on average more affordable when comparing the average cost of gas to that of electric charging. Even more, the displacement of ICEs because of increased EV adoption would make the United States more energy independent from the volatile global oil market.

Given our company's mission to build a just and equitable electric future, we strongly urge the Board of Environmental Protection to codify the Advanced Clean Cars II Program and set Maine on a path to transitioning to a zero-emission transportation sector. The Advanced Clean Cars II Program (the Program) requires automakers to sell a proportion of zero-emission electric vehicles into the Maine market (ZEV Program), reduces emissions from new light- and medium-duty vehicles beyond the 2025 model year (LEV Standard), and seeks to increase access to ZEVs for priority communities. This will provide Mainers across the state access to the many models of clean vehicles currently available. We believe this is not an onerous requirement on automakers given the policy builds upon the Advanced Clean Cars I Program and the investments they have made within the electrification arena. The Program will ultimately better the environment for all Mainers regardless of their individual vehicle purchasing decisions.

ReVision Energy has worked with more than 5,000 Mainers who have made the very real choice to financially invest in clean energy. We install solar on their homes and via ownership-model community solar to enable their very real desire to seek energy independence, mitigate their own impact, and do their part to ensure the planet is a thriving home for their children and their grandchildren. Given their values, these customers represent a population equally interested in purchasing an electric vehicle, however, to make this choice, Mainers need continued and growing access to the market. Put simply, individual choice requires systemic policy change to enable consumers to make purchasing decisions that align with their values. By enacting the Program, you have the opportunity to enable thousands of Mainers to purchase a clean vehicle, while knowing that each individual purchase will lead to a cleaner environment for all of Maine's citizens.

The initial Advanced Clean Car standards adopted by 18 states nationwide have showcased their effectiveness in reducing climate pollution and advancing the electrification of our transportation sector. The successful implementation of this policy is precisely why we are here today—to advance Maine's transportation sector by adopting an updated set of standards that can further advance decarbonization.

We understand there are differing opinions regarding timelines for implementation of the Advanced Clean Car II standards. Our perspective is that it remains critical to adopt a rule right now, and to not allow deadlines to serve as a friction point. The electric vehicle market is rapidly transforming. Billions in funding has become available for electric vehicles and affiliated charging infrastructure—from the Inflation Reduction Act to the Bipartisan Infrastructure Act to investments from manufacturers of charging infrastructure and vehicles. According to an independent report commissioned by the Natural Resources Defense Council in January, manufacturers have announced \$210 billion of investments in the electric vehicle industry, up from just over \$50 billion in 2021.² Yes—that's billion with a b. This indicates that we have only

¹ <https://www.revisionenergy.com/solar-products/home/electric-vehicle-charging>

² https://www.atlasevhub.com/data_story/210-billion-of-announced-investments-in-electric-vehicle-manufacturing-headed-for-the-us/

seen the very beginning of a market rapidly transforming. We cannot imagine what it may look like in nine or twelve years, but our perspective is to center the reality of past industries with rapid innovation and deployment to market and not allow such deadlines to serve as a friction point. For example, the first mass market EV to be built was the Nissan Leaf, launched in 2010 when the International Energy Agency reported 3,800 EVs were sold in US. Today, that number is approaching one million, with more than 40 battery-electric vehicle models available, and nearly three million EVs on US roads. All this to say, in the next decade, we believe the Advanced Clean Car II standards will be wholly feasible and deployable.

III. Programmatic Considerations Regarding Equity and Economic Justice

Advocates have rightly raised the question of equity and economic justice in our state's transition off fossil-based energy. Fortunately, the proposed rule thoughtfully addresses these issues, while ultimately serving as solution to reducing the disproportionate climate damage to marginalized communities.

It is critical to center the fact that our current transportation system operates on the burning of fossil fuels and has significantly contributed to climate change, resulting in major air pollution and thus public health issues. As a result, marginalized communities are disproportionately impacted. The implementation of policies to curb current damage from today's transportation sector can mitigate such negative impacts. Increasing accessibility to personal EVs ensures the benefits of clean cars can reach all Mainers—including low-income, rural, or communities of color. Even more, the Program was specifically designed to include equity considerations and components. Original equipment manufacturers can be awarded environmental justice compliance credits when they ensure all communities can benefit from the Program and/or by participating in community mobility programs.³

Additionally, our current system places the burden of volatile gas prices on drivers. A transition to clean cars can result in making the total cost of car ownership both lower and more predictable. While it is true that the upfront costs of some new ZEVs are higher than comparable gasoline powered cars, current federal and state tax incentives exist to lessen such costs, providing buyers with savings of up to \$7,500 for new vehicles and \$4,000 for used vehicles through 2032. Even more, Consumer Reports currently reports lifetime ownership savings of electric vehicles—which includes both fuel costs and maintenance—to be between \$6,000 and \$10,000, and such costs are expected to drop as EVs reach price parity by 2026.⁴

IV. Program Clarity & Feasibility

There has been much discussion of whether the Program is an immediate effective ban on gasoline cars, and to be extremely clear, it is not. Drivers can continue to purchase gas cars through the 2035 deadline and can drive gas cars from model year 2035 or prior in perpetuity. Adoption of this rule would result in changes to new, on-road car sales and would not impact used car sales or sales of off-road vehicles and/or equipment. Ultimately, the Program brings a critical supply of low-emission vehicles (ZEVs) into the market to provide consumers options and thoughtfully prepares for a decade-long phase out of new gasoline powered vehicles.

There has also been considerable attention on whether the Program is feasible. The initial program, Advanced Clean Cars I, requires 7-8% of total vehicle sales to be electric in model

³ <https://rmi.org/understanding-californias-advanced-clean-cars-ii-regulation/>

⁴ <https://www.nrdc.org/bio/kathy-harris/facts-about-advanced-clean-cars-standards>



year 2025, and in the first quarter of 2023, The Alliance for Automotive Innovation released their quarterly report showing nationally, EV sales account for 8.6%⁵ of market share for vehicle sales nationwide. That means we're on track—and on top of this, US automakers have announced billions in EV investments. The market is rapidly innovating away from ICEs, and Maine has the choice not to be left on the sidelines and ensure its citizens have consumer choice and the opportunity to reduce their individual impact.

Additionally, we wish to speak to a few of the arguments you may hear in opposition to enacting the Advanced Clean Cars standards:

- The grid has and will be able to adapt to beneficial electrification, including integration of EVs into the grid. The grid typically adds 12 GW of capacity each year, which equates to 6 million EVs. Over time, the grid has evolved to accommodate more products, for example the development of air conditioners in the 1970s. Even more, the role of off-peak charging lessens demand, and with the Maine Public Utilities Commission's open docket on grid modernization and planning, we feel confident that Maine's grid can be ready for the implementation of the Advanced Clean Cars II regulations.
- The charging landscape in Maine is rapidly changing and growing to adapt to current demand. Maine currently has 431 charging locations with 920 charging ports including Level 2 and Level 3 chargers.⁶ Most recently, this August, Efficiency Maine Trust announced \$6 million in additional funding from the Bipartisan Infrastructure Law for major sites between Bangor, Augusta, and US Route 1 between Freeport and Ellsworth, while separate funding from the Maine Jobs and Recovery Plan announced additional awards for infrastructure along the most traveled routes in northern Maine, including Medway, Houlton, Ashland, Danforth, and Machias, all with plans to have charging infrastructure in operation next year.⁷ In considering charging infrastructure, it is also important to center the fact that the average Maine commute is less than 25 minutes (50 minutes total per day), which can be fully powered via residential charging.⁸
- Maine's cold weather is real—however, there are different battery components that can be utilized to improve cold weather capacity. Even more, this issue can be solved by appropriately sizing the battery in anticipation of reduced capacity at different times of a year. Essentially, batteries can be sized to withstand any climate issues that Maine may encounter.
- Battery combustion and fire risk are often raised—and this can be addressed with the simple fact that EVs cause significantly fewer fires than gas cars. Let's remember the danger in the technology we're working to transition away from. Research from insurance agencies released in 2022 shows that gas vehicles have 1,530 fires per 100,000 sales, while EVs only have 25 fires per 100,000 vehicles sold.
- Repair needs are often raised, and it should be noted that Maine has a growing EV repair network, including a new EV Auto Tech course at Southern Maine Community College which launched last year. The course was launched in response to Maine's 90% increase in registrations from EV and hybrid vehicles between 2019 and 2021.
- Finally, a reminder that the rhetoric regarding 'Maine not being California' is misinformed. These standards have been adopted in states across the country including multiple right here in New England, including Vermont, Massachusetts, and Connecticut. Like Maine—Colorado, Maryland, New Jersey, North Carolina, and New Mexico are also in the process of considering adoption of Advanced Clean Cars II, and if passed, each

⁵ <https://www.autosinnovate.org/posts/papers-reports/Get%20Connected%20EV%20Quarterly%20Report%202023%20Q1.pdf>

⁶ https://afdc.energy.gov/fuels/electricity_locations.html#/analyze?fuel=ELEC®ion=US-ME&show_map=true

⁷ https://www.maine.gov/tools/whatsnew/index.php?topic=DOT_Press_Releases&id=11496493&v=article2015

⁸ <https://www.bankrate.com/insurance/car/commuting-facts-statistics/#average-commute-time-by-state>



jurisdiction will join the seven states who have already adopted final versions. Advanced Clean Cars I was adopted by 18 states, many with significant geographic and population differences from California, and the case is the same today. All this to say, while the policy was developed in California, many states have adopted it, including rural states. Even more, the proposal in front of the BEP today is to consider a tailored version of the regulations that's right for Maine.

V. ACC II as a Critical Strategy in Meeting Maine's Codified Climate Goals

In addition to our comments regarding the opportunity and feasibility of implementing such a Program, we feel this policy decision should be relatively simple given our state's codified climate and emissions reduction goals. The Maine Won't Wait climate action plan, which outlines the steps necessary to reach our targets, and the supplemental Clean Transportation Roadmap both clearly prioritize increasing access to zero-emission cars and trucks, noting such policy is necessary to hit the climate targets set by bipartisan majorities in the Legislature.

Maine Won't Wait notes that transportation is responsible for 54% of Maine's annual greenhouse gas emissions (updated to 49% in the 2022 progress report)—the largest contributor of emissions in our state, with 59% coming from light-duty passenger cars and trucks, which outlines the potential impact of such a Program. The plan then notes "the most significant reductions of greenhouse gas emissions in Maine's transportation sector will come through the long-term and large-scale electrification of our transportation systems."⁹ While there are certainly additional strategies outlined, it is clear electrification is the urgent priority.

Even more, Maine Won't Wait set a goal of getting 219,000 light-duty electric vehicles on Maine roads by 2030, and its 2022 progress report noted current adoption is at 8,294, up from 4,258 in 2022.¹⁰ Maine clearly has a long way to go: if electrification is the pathway to achieving our state's transportation sector decarbonization goals, we need systemic policy change to rapidly increase these numbers, and the adoption of Advanced Clean Cars II does just that.

Additionally, the state's climate plan mandated the development of a clean transportation plan to develop specific strategies to address decarbonization goals. Released in December 2021, the Maine Clean Transportation Roadmap again echoed the critical importance of adopting the policy before the Board, noting "the most important regulatory driver in the electrification of Maine's light-duty vehicles in the next two decades will be through Advanced Clean Cars II standards,"¹¹ and later listing adoption of the rule as the first policy priority (alongside the Advanced Clean Trucks regulation).

It is clear from our involvement and basic research that the decarbonization of our transportation sector to enable achievement of our state's climate targets relies on the implementation of the Program. For these reasons, and the fact that this is a thoughtful, viable policy implemented in jurisdictions across the nation, we ask the Board to join in our mission—to build a just and equitable electric future—and advance the Advanced Clean Cars II Program here in Maine. We thank the Board for the opportunity to offer these comments, and we—including our in-house e-mobility team—are available to answer any questions. We thank the Board in advance for its consideration of our perspective.

⁹ https://www.maine.gov/climateplan/sites/maine.gov.climateplan/files/inline-files/MWWW_Climate%20Plan%20Update%20December%202022_digital.pdf

¹⁰ https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_2YearProgressReport.pdf

¹¹ <https://legislature.maine.gov/doc/7904>