

Testimony Submitted by The Office of the Governor, Department of Energy & Environmental Protection, Department of Consumer Protection, Department of Administrative Services, Public Utilities Regulatory Authority, Department of Transportation, Department of Public Health and Office of Policy and Management.

Raised Bill No. [HB 5485](#) – An Act Concerning Transportation Infrastructure for Electric Vehicles

The transportation sector is Connecticut’s largest source of emissions, contributing 38% of the state’s total greenhouse gas emissions. Reducing emissions from cars and trucks by increasing the number of low and zero emission vehicles is essential to the state’s efforts to improve public health and to combat climate change.

Connecticut is out of compliance with EPA’s national air quality standards for ozone-forming pollution. The transportation sector is responsible for 66% of nitrogen oxides, a key component of ozone. Ozone is a harmful air pollutant that can make it hard to breathe for anyone when in high amounts and is especially harmful to at-risk populations—including people with asthma, children, the elderly. Low-income residents, particularly those along heavily utilized transportation corridors, bear the brunt of the negative health impacts caused by these emissions. Increasing the share of low and zero emission vehicles on the roads will reduce these impacts and improve public health—in fact, reducing emissions by deploying more low emissions from medium and heavy-duty trucks will save Connecticut \$270 million in health care costs by 2040, and as much as \$500 million to \$1.4 billion by 2050.

Reducing vehicle emissions is also critical to Connecticut’s efforts to combat climate change. Connecticut is not on track to meet its statutorily required Greenhouse Gas (GHG) emissions targets, and the transportation sector is the largest source of GHG emissions in our state at 37%. Increasing the share of low- and zero-emission vehicles will remove significant amounts of carbon emissions from our air, and by 2050, will be responsible for removing hundreds of thousands of tons of carbon from the air we breathe on an annual basis. Connecticut is already dealing with climate-related impacts: flooding, extreme heat, bad air quality, drought, impacts on forests, invasive species- and resulting costs associated with these impacts.

Low-emission vehicle adoption is also better for Connecticut consumers. Hybrid and electric vehicle owners can expect total cost of ownership to be lower than gas powered cars. Fuel and maintenance cost less for these vehicles than for gas-powered cars—over 10 years, an EV costs roughly \$4,500 less on maintenance and \$3,000-\$5,000 less on fuel than for a gas car. And the upfront cost of purchasing hybrid and electric vehicles is coming down. These savings are very likely to increase as manufacturers continue to produce more low-emission vehicles. Recent studies indicate that the cost of a midsize EV will be equal to or less than an internal combustion engine vehicle in the US by 2026. In addition to these market forces, state and federal

government programs are helping to lower vehicle costs for consumers through incentives, tax credits, and other financial supports for low to middle income residents.

Collectively, the Lamont Administration has worked to advance efforts to deploy zero-emission vehicles (ZEV) to achieve the necessary reductions in emissions to advance compliance with federal clean air standards, achieve the state's greenhouse gas emission reduction goals, and to protect public health. At the close of 2023, Connecticut's share of ZEV sales was above 11%. This progress is critical to addressing Connecticut's air quality, climate change and public health challenges by addressing emissions from the transportation sector.

We are concerned that the proposed legislation does not establish clear targets for the adoption of low-emission vehicles. The transition to clean vehicles will be driven by technological innovation, smart planning by government agencies, and private sector investment. State targets encourage private sector development in charging infrastructure, provide guidance to our utilities on the timeline for investment in the grid, and sends a signal to manufacturers for vehicle production schedules. These targets must be both flexible and realistic, and based on what works for Connecticut. While these state targets would not be legally binding, they would provide much needed structure for this work.

With targets in place, the Council's responsibility would serve both to coordinate among various stakeholders and track progress. The Council should pay particular attention to ensure that no communities are left behind as we transition to this clean vehicle future. State agencies, working with the private sector, would be responsible for developing and executing plans. If we are not meeting benchmarks, we would reevaluate both our plans and our targets. If not every community has the same access to charging infrastructure or can afford low-emission vehicles, the state can step in.

We believe that working together we can identify a "Connecticut compromise" to continue the progress our state is already making towards embracing a low-emission vehicle future.

HB 5485 Incentive Provisions

The Administration appreciates the changes made to the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program. While this program has always had a focus on low income and environmental justice communities, lifting the effective cap on the CHEAPR Plus incentive will further increase access to electric vehicles.

The Administration also appreciates the proposed updates how CHEAPR's vouchers for electric and hybrid vehicles and ebikes are distributed and the increased marketing requirements for these programs. These updates will only help to strengthen participation by applicants who most need this additional support.

Section 3(b) identifies DEEP as the lead agency to provide grants specifically to municipal electric utilities for the installation of electric vehicle charging infrastructure located in Environmental Justice (EJ) communities as defined in section 22a-20a. The application of this

requirement seems unintentionally narrow since the state only has seven municipal electric utilities. See Town of Wallingford and Connecticut Municipal Electric Energy Cooperative (cmeeec.org). We welcome the opportunity to work with the Committee and other stakeholders to address this and other technical concerns.

HB 5485 Electric Vehicle Infrastructure Coordinating Council Provisions

Effective and inclusive planning processes are critical to ensure a smooth, affordable, and seamless transition for the state and our residents. The Administration shares the goal of the Electric Vehicle Infrastructure Coordinating Council, to ensure the affordable, equitable, accessible and reliable integration of battery electric vehicles, fuel cell electric vehicles, plug-in hybrid electric vehicles and range-extended battery electric vehicles into the state's transportation network, and the commitment to ensure broad public and stakeholder awareness and input into the ongoing planning efforts that are underway.

In that vein, the Administration appreciates the inclusion of the CT Department of Energy and Environmental Protection Commissioner as a co-chair of the Electric Vehicle Infrastructure Coordinating Council, which will enable the Department to work collaboratively with the other co-chairs, state agencies and other Council members to administer and support an effective process.

The Administration would also like to take this opportunity to share what agencies are already doing to incorporate clean vehicles across the state. The state of Connecticut has been readying for this electric future for many years. We hope that the work of the Council will build on that progress to support broader consumer adoption of clean vehicle technologies going forward.

Across the executive branch, we are hard at work preparing for the transition to electric vehicles and accompanying infrastructure. Below are brief summaries of each agency's past and ongoing work in this space.

DEEP:

- **2020 DEEP Released the EV Roadmap** DEEP developed an [EV Roadmap](#) to prepare electric distribution companies, municipalities, public and private merchants and electrical contractors for the presence and operation of electric, zero-emission and fuel cell vehicles in the state. This roadmap has been guiding state actions since its release.
- **EV Charging Infrastructure:**
 - DEEP [awarded \\$6 million in funding](#) to expand public access to charging stations in 39 Connecticut municipalities, including New Britain, Norwalk, Stamford, Torrington, Avon, Beacon Falls, Bloomfield, Columbia, Enfield, Litchfield, Pomfret, Union, Watertown, and Windsor Locks.
 - DEEP was recently awarded \$14.6 million in federal funds to expand EV charging in seven communities in CT, including Barkhamsted, Bridgeport, East Hartford, Groton, Hartford, New Haven, and Stamford.

- DEEP, DOT and DMV launched the EValuateCT dashboard; over the last year there was a 19% increase in passenger EV registrations and 30% increase in charging ports.
- **The Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR) program**
 - CHEAPR offers incentives of up to \$9,500 for Connecticut residents who buy or lease electric or hybrid vehicles. CHEAPR consists of three incentives, the CHEAPR Standard Rebate, CHEAPR Rebate+ New and CHEAPR Rebate+ Used. All Connecticut residents are eligible for the CHEAPR Standard Rebate. Connecticut residents who live in EJ communities, who participate in certain income qualified programs, or who meet certain income requirements are eligible for the higher value CHEAPR Rebate+ New. In 2022, the CHEAPR board created the CHEAPR Rebate+ Used program. This program will provide rebates for used vehicles (\$3,000 for EVs) to increase affordability and help retain EV stock in CT. There are also several federal tax incentives for electric vehicles as well as federal incentives and tax credits for installing EV charging infrastructure.
 - CHEAPR also provides vouchers to assist individuals interested in purchasing electric bicycles. In 2023, the first year of the program, over 400 Connecticut residents redeemed these vouchers. E-bikes are a beneficial alternative to cars for many people in CT and play an important role in decarbonizing transportation.
- **Electric School Buses**
 - The Connecticut Electric Bus Initiative is a partnership between CTDOT, DEEP, and bus transit providers that showcases Connecticut’s commitment to providing a reliable, safe, sustainable, and clean energy transportation system. Incorporating electric transit buses into a bus fleet transitions bus operations away from fossil fuels, reduces air pollution caused by diesel combustion and creates a brighter tomorrow for all of Connecticut’s residents.
- **EJ-related initiatives**
 - The proposed updates in HB 5485 to DEEP’s incentives programs for electric and hybrid cars and e-bikes also complement the agency’s ongoing efforts to connect more effectively and expansively with Connecticut’s EJ communities. These initiatives range from (1) significantly expanding its Office of Equity and Environmental Justice and (2) releasing new [EJ webpages](#) that highlight resources such as DEEP’s [EJ newsletter](#) and EJ mapping tools and guides for participating in the agency’s public processes to (3) increasing the agency’s limited English proficiency offerings and (4) soliciting the ongoing advice of the Connecticut Equity and Environmental Justice Council (CEEJAC) across DEEP’s program areas, including its initiatives to clean up the state’s air and reduce transportation emissions.
- **Grid preparedness**
 - DEEP is pursuing additional investments in transmission, offshore wind, and other zero carbon resources in coordination with MA, RI, and others, and will continue to coordinate with partner agencies to pursue the planning and

investments needed to ensure affordable, reliable, and clean electricity generation is available to support Connecticut's economy, including electric vehicle charging.

- **Air program**

- DEEP's [Bureau of Air Management](#) engages in an ongoing mix of programs relevant to this proposed bill, guided by both federal and state requirements. These areas include, air quality forecasts and monitoring, air quality planning, compliance assurance, compiling an inventory of air pollutant emissions, conducting outreach and education, permitting certain activities, and overseeing certain radiation-related activities.

DAS:

Public Act 22-25 requires that: (1) at least 50% of the cars and light-duty trucks in the state fleet be battery electric vehicles by January 1, 2026, (2) at least 75% of such cars and trucks be electric by January 1, 2028, and (3) that 100% of such vehicles be electric by January 1, 2030. The current state fleet consists of 3691 light-duty vehicles, of which 43 are electric vehicles (EV), 38 are hybrid, 760 are alternate fuel vehicles (E85), 3 are diesel, and the remaining 2847 run on unleaded fuel.

DAS has been working hard to establish a plan and take the steps required to meet the goals established in Public Act 22-25 regarding electrification of the state fleet. The first step in converting the state fleet to electric is ensuring that the state has sufficient charging infrastructure to power the new electric vehicles. DAS Fleet Operations and DAS Construction Services are currently in the planning and design phase of installing over 575 electric vehicle charging ports to meet this mandate.

Specifically, DAS is currently contracting with Urban Engineers (UE) to develop a road map for installation of EV chargers at state properties where leased fleet vehicles are regularly garaged. DAS and UE have conducted interviews with the various firms on our EV contract to understand the EV market, review the Electric Vehicle Supply Equipment (EVSE) hardware and software (Network) functionality, and discuss any supply chain issues and challenges that exist. DAS will review this information to provide a recommendation on specific equipment to use for installation.

In addition to the aforementioned work on the installation of charging stations, DAS Fleet and DAS Procurement are reevaluating the next iteration of the light-duty vehicle purchase contract to ensure flexibility and longevity. We are hopeful that as the state's efforts to install EV infrastructure come to fruition and the market matures, aggregate procurement opportunities will become feasible.

DAS received \$35 million in the FY24-25 biennial budget to support the purchase of EVs, and planning, programming, and hiring of the contractor to develop our roadmap. DAS has been in communications with DEEP for additional funding through the Volkswagen settlement fund they manage under a Memorandum of Agreement, and with the utility companies for any potential rebates and incentives from installing EV chargers. DAS is collaborating with DOT on similar efforts to share ideas and challenges that have come up and developing solutions to move forward towards implementation.

DPH:

Air pollution can be a substantial trigger for people living with asthma, particularly in urban areas. Exposure to air pollution early in life is linked to the development of asthma during childhood and adolescence. Traffic-related air pollution is associated with the development of asthma in children and can increase the chance of developing asthma in adults.

CT DPH Asthma Program Activities include:

1. Provision of Asthma Education includes:
 - Information on traffic-related air pollution, ozone, nitrogen oxides and particulate matter and impact on respiratory health
 - Use of Air Quality Index (AQI) [Airnow.gov](https://airnow.gov) for daily forecast of ozone and particle pollution levels. Values of Index correspond to levels of concern for respiratory health.
 - [AQI provides guidance](#) for those at greatest risk of harm from breathing air pollutants in planning outdoor activities and exercise.
 - Implementation of strategies to reduce exposure to indoor and outdoor environmental asthma triggers.
2. Monitoring of healthcare utilization due to asthma (ED visits and hospitalization)
 - Mapping of CT Towns with highest asthma Emergency Department Visits and Hospitalizations rates overlaid with exposure levels to [Nitrogen Oxide](#), Particulate Matter [2.5](#) and [10](#) microns.
3. Tracking of Asthma Syndromic Data during exposure to wildfire smoke:
 - Daily cases of asthma emergency department and urgent care during June 4th-12th, 2023.

The Office of Climate and Health has an air quality monitoring grant that was awarded last year by the EPA (\$500k/3yrs). DPH has four subcontractors – the University of Connecticut, Yale School of Public Health, Naugatuck Valley Health Center (NVHD), and the Yale Griffin Prevention Research center. DEEP is closely involved as technical support for air quality sensor deployment. The grant aims to measure air quality in Ansonia and Derby, which will be published in real-time online. NVHD will be engaging the community and schools in air quality education and will plan and host events for Earth Day and National Asthma Awareness Day.

PURA:

In 2019, PURA issued its framework for an **Equitable Modern Grid (EMG)**, where it outlined four overarching objectives to:

- advance the ongoing energy affordability dialogue in the State, particularly in underserved communities;
- enable a cost-effective, economy-wide transition to a decarbonized future;
- support (or remove barriers to) the growth of Connecticut's green economy; and
- enhance customer access to a more resilient, reliable, and secure commodity.

From the outset, PURA recognized that all four objectives are inextricably connected and, thus, no one objective can be accomplished without the others if an Equitable Modern Grid is to be achieved. As part of the Equitable Modern Grid Initiative, PURA successfully launched several programs to tackle the multifaceted approach needed to prepare the grid for our clean energy future. More information on the EMG Framework and the resulting programs, processes, and frameworks can be found on PURA’s dedicated [website](#).

A key feature of each of PURA’s programs launched under the EMG Framework includes an annual program review, through which results from the previous year are reviewed. The extensive reporting and robust analysis are used to assess any recommended program modifications, which are vetted through the annual PURA proceeding with an extensive suite of stakeholders, including the electric distribution companies, state agencies, and industry participants.

Light-Duty Electric Vehicle Charging Program

One notable program launched under the EMG initiative is the Light-Duty Vehicle Charging Program. Initiated in July 2021 and set to run until 2030, this program [established a statewide EV charging program](#) to deploy 550 DC Fast Chargers, and more than 60,000 Level 2 chargers. Managed by Eversource and United Illuminating, the program includes incentives for installing EV charging stations covering five distinct market segments: single-family residential housing, multi-unit dwellings (MUDs), public Level 2 charging, public direct current fast charging, and workplace charging. In alignment with this initiative, PURA has embraced Justice40 Deployment targets for each grid modernization program. This means that 40 percent of deployment efforts are specifically directed towards underserved communities. Table 1 depicts the deployment goals for each program area, while Table 2 outlines the incentive structure for each program area.

| Table 1. EVSE Program Development Targets (# of ports*) | | | | |
|---|-----------|-----------|-------------|--------|
| Program Area | 2022-2024 | 2025-2027 | 2028 – 2030 | Total |
| Residential Single-Family (Level 2) | 15,000 | 17,500 | 17,500 | 50,000 |
| Multi-Unit Dwellings (Level 2) | 2,426 | TBD | TBD | TBD |
| DCFC | 301 | 172 | 172 | 550 |
| Destination Charging (Level 2) | 1,578 | 1,654 | 1,654 | 4,868 |
| Workplace & Light-Duty Fleets (Level 2) | 2,314 | 2,521 | 2,521 | 7,356 |

*What an Electric Vehicle plugs in to charge

| Table 2. EV Charging Program EVSE and Make-Ready Incentives | | | | | |
|---|--|---|---------------------------------------|---|---|
| | Residential Single-Family (Level 2) | Multi-Unit Dwellings (Level 2) | Public Destination Charging (Level 2) | Workplace & Light-Duty Fleets (Level 2) | DCFC |
| Incentive Structure | | | | | |
| EVSE and Make-Ready Incentives | Up to \$500 EVSE rebate + a portion of necessary electrical upgrades | Up to 50% of EVSE cost + up to 100% make-ready installation (> = 4 ports) | | | Up to 50% of EVSE cost + Up to 100% make-ready installation (>=2 ports) |
| Maximum Incentive per Site (Including make-ready costs covered by the Program) | | | | | |
| Baseline | - | \$20,000 | | | \$150,000 |
| Underserved communities | - | \$40,000 | | | \$250,000 |

Increased Incentives for Underserved Communities & Landlords

As evidenced above, PURA established higher incentives for charging stations located in underserved communities, which are defined by the Connecticut General Statutes as an environmental justice community, a distressed municipality, or a public housing authority. For example, the incentive is \$40,000 (compared to \$20,000) for networked Level 2 chargers located in an underserved community, and \$250,000 (compared to \$150,000) for direct current fast chargers. Importantly, these incentives play a crucial role in offsetting the costs associated with both the chargers and the necessary "make-ready" infrastructure that utilities require to connect the charger to the grid.

Additionally, to further support installation of equipment at multi-unit dwellings, PURA included a directive for utilities to offer a charger leasing option to landlords, enabling landlords to install EV charging infrastructure without requiring upfront capital costs.

Commercial Deployment

The commercial EVSE deployment has seen robust uptake, with multiple commercial program areas reaching or nearly reaching their 2022-2024 port deployment goals only midway through the program cycle (i.e., as of July 31, 2023).

- Multi-Unit Dwellings (L2): 95% of goal
- Direct Current Fast Chargers (DCFCs): 100% of goal
- Destination (L2): 89% of goal
- Workplace & Light-Duty Fleets (L2): 55% of goal

As evidenced above, the program experienced substantial demand, particularly in the first 1.5 years. In response to this demand, PURA increased deployment targets for MUDs in a recent program decision. In addition, PURA approved modifications to the EDCs’ methodology for selecting DCFC applications based on a set of criteria, which includes prioritizing installations located in underserved communities. Moreover, the decision established a requirement that DCFC installations deployed on or after June 30, 2024, be performed by Electric Vehicle Infrastructure Training Program (EVITP)-certified electricians, consistent with the Connecticut Department of Transportation’s implementation of the formula grant funding received under the NEVI program.

Tables 3-5 below provide a breakdown of EV charging station deployment from January 1, 2022, through June 30, 2023.

| Table 3. Deployment of Networked Level 2 EV Chargers at Multi-Unit Dwellings (January 2022 – June 2023) | | | | | | | | | | |
|--|------------|-------------|-------|---------------|----------|-------------|-------|---------------|-------------|---------------|
| | Eversource | | | | UI | | | | Total | |
| | Baseline | Underserved | Total | % Underserved | Baseline | Underserved | Total | % Underserved | Grand Total | % Underserved |
| Applications Approved | 143 | 508 | 651 | 78% | 31 | 45 | 76 | 59% | 727 | 76% |
| Sites Installed | 35 | 64 | 99 | 65% | 3 | 16 | 19 | 84% | 118 | 68% |
| Ports* Installed | 82 | 170 | 252 | 67% | 16 | 88 | 104 | 85% | 356 | 72% |

| Table 4. Deployment of Direct Current Fast Chargers (January 2022 – June 2023) | | | | | | | | | | |
|---|------------|-------------|-------|---------------|----------|-------------|-------|---------------|-------------|---------------|
| | Eversource | | | | UI | | | | Total | |
| | Baseline | Underserved | Total | % Underserved | Baseline | Underserved | Total | % Underserved | Grand Total | % Underserved |
| Applications Approved | 33 | 28 | 61 | 46% | 4 | 6 | 10 | 60% | 71 | 48% |
| Sites Installed | 4 | 7 | 11 | 64% | 3 | 1 | 4 | 25% | 15 | 53% |
| Ports Installed | 12 | 14 | 26 | 54% | 10 | 2 | 12 | 17% | 38 | 42% |

| Table 5. Deployment of Networked Level 2 EV Chargers at Public “Destination” Locations (Jan 2022 – June 2023) | | | | | | | | | | |
|--|------------|-------------|-------|---------------|----------|-------------|-------|---------------|-------------|---------------|
| | Eversource | | | | UI | | | | Total | |
| | Baseline | Underserved | Total | % Underserved | Baseline | Underserved | Total | % Underserved | Grand Total | % Underserved |
| Applications Approved | 210 | 135 | 345 | 39% | 20 | 17 | 37 | 46% | 382 | 40% |
| Sites Installed | 48 | 20 | 68 | 29% | 5 | 7 | 12 | 58% | 80 | 34% |
| Ports Installed | 125 | 70 | 195 | 36% | 10 | 32 | 42 | 76% | 237 | 43% |

Beyond Vehicle Ownership

PURA is keenly aware that car ownership or leasing is out of reach for many households with low- to moderate-income (LMI), and therefore ensuring LMI residents benefit from transportation electrification is not as simple as deploying high numbers of EV charging stations in underserved communities. A [feasibility study](#) conducted in 2021 explores electric transportation options such as microtransit (i.e., on demand shared rides in a given service area), carsharing, and micromobility (i.e., e-bikes and electric scooters). PURA continues to examine

other regulatory tools to support the benefits of transportation electrification reaching all residents in Connecticut, not just those who have the means to drive an EV.

DOT:

This initiative aligns with CTDOT's federally-funded National Electric Vehicle Infrastructure (NEVI) Program goals to build out the State's EV charging infrastructure. The first round of the NEVI RFP ends March 13th at 5pm. CTDOT is currently planning for the next fiscal year of NEVI funding, and this process would align with the development of the next Zero-Emission Vehicle Roadmap, as well as assist in addressing State-wide challenges to ensure the State's electric grid can accommodate these EV goals.

The EV Infrastructure Coordinating Council could aid in providing feedback from the general public, electric distribution companies and EJ communities. This collaborative effort could assist CTDOT in ensuring the State's transportation network is accessible, affordable, equitable, and reliable for all users.

Section 5 directs CTDOT to conduct a study on the expansion of rural mobility options. We support the intent of ensuring rural communities' transportation needs are met, however funding would be needed to conduct such a study.

DGP:

The Department of Consumer Protection is responsible for the registration of all public electric vehicle charging stations. Applicants are required to provide their business trade name, location, federal employer identification number, and contact information for the business and applicant, along with a \$50 fee per unit.

In closing, the Administration appreciates the opportunity to present this testimony. We look forward to working with the committee, legislative leadership, and other stakeholders to ensure the transition to a clean transportation sector is affordable, reliable, and predictable for Connecticut residents.