
Committee Meeting

of

ASSEMBLY TRANSPORTATION AND INDEPENDENT AUTHORITIES COMMITTEE

ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

*“The Committees will meet jointly to receive testimony from invited guests
concerning electric vehicles”*

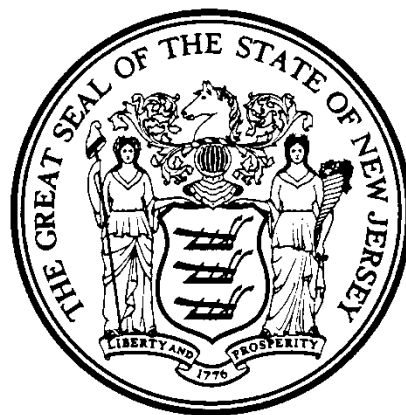
*“The Committees will also receive testimony from the public on Assembly Bill No. 4634, which would
establish goals, initiatives, and programs to encourage and support the use of plug-in electric vehicles”*

LOCATION: Committee Room 11
State House Annex
Trenton, New Jersey

DATE: December 10, 2018
9:30 a.m.

MEMBERS OF COMMITTEES PRESENT:

Assemblywoman Nancy J. Pinkin, Chair
Assemblywoman Yvonne Lopez, Vice Chair
Assemblyman Daniel R. Benson, Chair
Assemblywoman Patricia Egan Jones, Vice Chair
Assemblyman Roy Freiman
Assemblyman Thomas P. Giblin
Assemblyman Robert J. Karabinchak
Assemblyman James J. Kennedy
Assemblyman John F. McKeon
Assemblywoman Lisa Swain
Assemblyman Benjie E. Wimberly
Assemblyman Robert D. Clifton
Assemblywoman BettyLou DeCroce
Assemblyman Kevin J. Rooney
Assemblyman David W. Wolfe



ALSO PRESENT:

Carrie Anne Calvo-Hahn	Bianca Jerez	Thea M. Sheridan
Office of Legislative Services	Shannon Natale	Assembly Republican
Committee Aide	Assembly Majority	Committee Aide
	Committee Aides	

Meeting Recorded and Transcribed by
The Office of Legislative Services, Public Information Office,
Hearing Unit, State House Annex, PO 068, Trenton, New Jersey

DANIEL R. BENSON
Chair

PATRICIA EGAN JONES
Vice-Chair

NICHOLAS A. CHIARAVALLOTTI
ROY FREIDMAN
THOMAS P. GIBLIN
ROBERT J. KARABINCHAK
JAMES J. KENNEDY
YVONNE LOPEZ
BENJIE E. WIMBERLY
ANTHONY M. BUCCO
ROBERT D. CLIFTON
BETTYLOU DeCROCE
GREGORY P. MCGUCKIN



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New Jersey State Legislature
ASSEMBLY TRANSPORTATION
AND INDEPENDENT AUTHORITIES COMMITTEE
STATE HOUSE ANNEX
PO BOX 068
TRENTON NJ 08625-0068

COMMITTEE NOTICE

TO: MEMBERS OF THE ASSEMBLY TRANSPORTATION AND INDEPENDENT
AUTHORITIES COMMITTEE

FROM: ASSEMBLYMAN DANIEL R. BENSON, CHAIRMAN

SUBJECT: COMMITTEE MEETING - DECEMBER 10, 2018

The public may address comments and questions to Philip M. Mersinger, Committee Aide, or make bill status and scheduling inquiries to Melinda Chance, Secretary, at (609)847-3840, fax (609)292-0561, or e-mail: OLSAideATR@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

The Assembly Transportation and Independent Authorities Committee and the Assembly Environment and Solid Waste Committee will meet on Monday, December 10, 2018 at 9:30 AM in Committee Room 11, 4th Floor, State House Annex, Trenton, NJ.

The committees will meet jointly to receive testimony from invited guests concerning electric vehicles. The committees will also receive testimony from the public on Assembly Bill No. 4634, which would establish goals, initiatives, and programs to encourage and support the use of plug-in electric vehicles.

Issued 12/5/18

For reasonable accommodation of a disability call the telephone number or fax number above, or for persons with hearing loss dial 711 for NJ Relay. The provision of assistive listening devices requires 24 hours' notice. CART or sign language interpretation requires 5 days' notice.

For changes in schedule due to snow or other emergencies, see website <http://www.njleg.state.nj.us> or call 800-792-8630 (toll-free in NJ) or 609-847-3905.



NANCY J. PINKIN
Chair

VIVIANNE LOPEZ
Vice-Chair

JOHN F. McKEON
JISA SWAIN
KEVIN J. ROONEY
DAVID W. WOLFE

CARRIE ANNE CALVO-HAHN
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New Jersey State Legislature
ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE
STATE HOUSE ANNEX
PO BOX 068
TRENTON NJ 08625-0068

COMMITTEE NOTICE

TO: MEMBERS OF THE ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

FROM: ASSEMBLYWOMAN NANCY J. PINKIN, CHAIR

SUBJECT: COMMITTEE MEETING - DECEMBER 10, 2018

The public may address comments and questions to Carrie Anne Calvo-Hahn, Committee Aide, or make bill status and scheduling inquiries to Christine L. Hamilton, Secretary, at (609)847-3855, fax (609)292-0561, or e-mail: OLSAideAEN@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

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ASSEMBLY, No. 4634

STATE OF NEW JERSEY

218th LEGISLATURE

INTRODUCED OCTOBER 22, 2018

Sponsored by:

Assemblywoman NANCY J. PINKIN

District 18 (Middlesex)

Assemblyman JAMES J. KENNEDY

District 22 (Middlesex, Somerset and Union)

Co-Sponsored by:

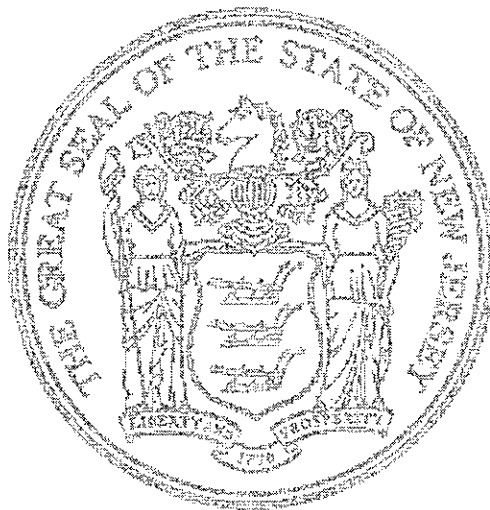
Assemblyman Karabinchak

SYNOPSIS

Establishes goals, initiatives, and programs to encourage and support use of plug-in electric vehicles.

CURRENT VERSION OF TEXT

As introduced.



(Sponsorship Updated As Of: 12/4/2018)

1 AN ACT concerning the use of electric vehicles, and amending and
2 supplementing various parts of the statutory law.

3
4 **BE IT ENACTED** by the Senate and General Assembly of the State
5 of New Jersey:

6
7 1. (New section) The Legislature finds and declares that plug-
8 in electric vehicle technology has improved significantly, for light
9 duty vehicles in particular; that plug-in electric vehicles with longer
10 ranges are now widely available at a lower cost and present a viable
11 alternative to vehicles fueled by fossil fuels; that more plug-in
12 electric vehicle makes and models will be introduced in the State
13 motor vehicle market over the next several years; that vehicle
14 electrification offers a wide range of benefits, such as improved air
15 quality, reduced greenhouse gas emissions, and savings in motor
16 vehicle operating costs for vehicle owners; that increased use of
17 plug-in electric vehicles can contribute significantly to the
18 attainment of existing State air pollution and energy goals,
19 including the objectives of the "Global Warming Response Act,"
20 P.L.2007, c.112 (C.26:2C-37 et seq.) and the State's Energy Master
21 Plan; and that New Jersey is already committed to implementing the
22 California Low Emission Vehicle Program pursuant to P.L.2003,
23 c.266 (C.26:2C-8.15 et al.), and part of this program is a
24 commitment to increasing the use of low emission vehicles and zero
25 emission vehicles, including plug-in electric vehicles.

26 The Legislature further finds and declares that the State has not
27 established goals for the use of plug-in electric vehicles or programs
28 to encourage the use of these vehicles; that an important part of
29 increasing the use of plug-in electric vehicles is the development of
30 a Statewide plug-in electric vehicle charging infrastructure that
31 supports the use of plug-in electric vehicles, as well as policies,
32 regulations, and programs to support that development; that State
33 agencies require clear direction to create and implement the
34 necessary policies, regulations, programs, initiatives, and
35 incentives; that the two major market barriers that limit the
36 purchase of light duty plug-in electric vehicles by consumers are
37 price and range anxiety, which is a concern on the part of the public
38 that plug-in electric vehicles cannot be reliably operated over long
39 distances because of a lack of convenient, publicly accessible
40 charging infrastructure.

41 The Legislature therefore determines that it is in the public
42 interest to establish goals for the increased use of plug-in electric
43 vehicles, pursue attainment of those goals through the development
44 of a Statewide plug-in electric vehicle charging infrastructure, and
45 develop this infrastructure by establishing a Statewide electric

EXPLANATION – Matter enclosed in bold-faced brackets [thus] in the above bill is
not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

1 vehicle charging infrastructure plan; that this plan shall be
2 incorporated into the State Energy Master Plan and any subsequent
3 updates to the State Energy Master Plan; that the State shall include
4 State agencies, market stakeholders, and other subject matter
5 experts in the development and establishment of the plan; and that
6 the State shall further bolster the increased use of plug-in electric
7 vehicles by providing rebates for the purchase of these vehicles, and
8 maximize consumer awareness of the availability of rebates and
9 public plug-in electric vehicle charging infrastructure through
10 Statewide public education programs.

11
12 2. (New section) As used in sections 1 through 7 of
13 P.L. , c. (C.) (pending before the Legislature as this bill):

14 “Advanced mobility solution” means an alternative method for
15 providing mobility to an entire community, through novel business
16 models that change vehicle ownership and use, including, but not
17 limited to, ride hailing services, car sharing services, fractional
18 ownership and vehicle subscription services, autonomous vehicles,
19 and transportation network companies.

20 “Board” means the Board of Public Utilities.

21 “Charger ready” means the pre-wiring of electrical infrastructure
22 at a parking space, or set of parking spaces, to facilitate easy and
23 cost-efficient future installation of electric vehicle service
24 equipment, including, but not limited to, Level Two EVSE and DC
25 Fast Charger, and a clearly defined process by which prospective
26 users of vehicle chargers may request and benefit from installation
27 of an appropriate EVSE at the pre-wired parking space;

28 “Charging location” means a publicly accessible parking space
29 or set of parking spaces, with visible signage designating that the
30 parking space or spaces are available for use by the public for
31 charging plug-in electric vehicles.

32 “Community location” means a charging location that is not a
33 corridor location, and that is established in a town center,
34 commercial area, retail center, or other site, or near concentrations
35 of multi-family dwellings, to provide vehicle charging services to
36 local plug-in electric vehicle drivers near where they live or work.

37 “Corridor location” means a charging location located along a
38 travel corridor roadway, or within two miles of that roadway, which
39 is intended to provide access to vehicle charging services for long
40 distance drivers and en-route vehicle charging services for local
41 drivers.

42 “DC Fast Charger” means electric vehicle service equipment that
43 provides at least 50 kilowatts of direct current electrical power for
44 charging a plug-in electric vehicle through a standardized
45 connector, and which is approved for installation for that purpose
46 under the National Electric Code through Underwriters Laboratories
47 Certification or an equivalent certifying organization.

1 “Department” means the Department of Environmental
2 Protection.

3 “Electric vehicle service equipment” or “EVSE” means the
4 equipment, including the cables, cords, conductors, connectors,
5 couplers, enclosures, attachment plugs, power outlets, switches and
6 controls, network interfaces, and point of sale equipment and
7 associated apparatus designed and used for the purpose of
8 transferring energy from the electric supply system to a plug-in
9 electric vehicle. “EVSE” may deliver either alternating current or
10 direct current electricity as determined by industry equipment
11 standards.

12 “Essential public charging network” or “network” means the
13 public charging infrastructure installed pursuant to section 10 of
14 P.L. , c. (C.) (pending before the Legislature as this bill), as part
15 of the Statewide initiative to encourage the plug-in electric vehicle
16 market in the State, and which provides a basic level of Statewide
17 public charging infrastructure sufficient to minimize range anxiety
18 and meet other public charging needs.

19 “Industry equipment standards” means the electric vehicle
20 charging equipment industry standards, including the CHAdeMO
21 standard and the Society of Automotive Engineers Combined
22 Charging Standard (CCS).

23 “Level One EVSE” means a supply of single phase 120 Vac
24 electricity, presented as either a standard wall plug into which the
25 charging cord provided with a plug-in electric vehicle can be
26 connected, or an EVSE with a standard vehicle plug connector that
27 complies with SAE J1772, or an equivalent standard for 120 Vac
28 charging as may be adopted in the future and accepted by the board,
29 and which is approved for installation for this purpose under the
30 National Electric Code through Underwriters Laboratories
31 Certification or an equivalent certifying organization.

32 “Level Two EVSE” means EVSE that provides a plug-in electric
33 vehicle with single phase alternating current electrical power at
34 208-240 Vac, through a standardized plug connector that complies
35 with SAE J1772 standards, or an equivalent wireless power transfer
36 interface, or equivalent standards for 208-240 Vac charging as may
37 be adopted in the future and accepted by the board, and which is
38 approved for installation for this purpose under the National
39 Electric Code through Underwriters Laboratories Certification or an
40 equivalent certifying organization.

41 “Light duty vehicle” means any two-axle, four-wheel vehicle,
42 designed primarily for passenger travel or light duty commercial
43 use, and approved for travel on public roads. “Light duty vehicle”
44 includes, but is not limited to, any vehicle commonly referred to as
45 a car, minivan, sport utility vehicle, cross-over, or pick-up truck.

46 “Local government unit” means a county, municipality, or any
47 board, commission, committee, authority or agency thereof that is
48 subject to the provisions of the “Local Public Contracts Law,”

1 P.L.1971, c.198 (C.40A:11-1 et seq.), including a housing authority
2 or redevelopment agency created or continued under the "Local
3 Redevelopment and Housing Law," P.L.1992, c.79 (C.40A:12A-1 et
4 seq.).

5 "Low-income, urban, or environmental justice community"
6 means a community where at least half of the households have a
7 household income that does not exceed 2.50 times the official
8 federal poverty level based on family size, established and adjusted
9 under the federal "Community Services Block Grant Act," 42
10 U.S.C. s.9902(2); is urban, as determined by the Department of
11 Community Affairs, due to the population and development density
12 in the community; or has been burdened with environmental justice
13 issues, as determined by the Department of Environmental
14 Protection, including, but not limited to, exposure to high levels of
15 air pollution, close proximity to major industrial facilities or
16 hazardous waste sites, or other environmental hazards.

17 "Owner or operator" means an entity that owns or operates
18 EVSE locations or equipment for use by plug-in electric vehicle
19 drivers, including an electric public utility, a site host, or a third-
20 party provider.

21 "Plug-in electric vehicle" means a vehicle that has a battery or
22 equivalent energy storage device that can be charged from an
23 electricity supply external to the vehicle with an electric plug.
24 "Plug-in electric vehicle" includes a plug-in hybrid vehicle. A plug-
25 in electric vehicle may be a light duty, medium duty, or heavy duty
26 vehicle.

27 "Plug-in hybrid vehicle" means a vehicle that can be charged
28 from a source of electricity external to the vehicle through an
29 electric plug, but is not exclusively powered by electricity.

30 "Range anxiety" means consumer concerns that public electric
31 charging infrastructure may not be widely available, resulting in
32 fewer electric vehicle purchases due to a perceived risk that a plug-
33 in electric vehicle driver may be stranded with a fully discharged
34 battery while on the road with no recharging source.

35 "Routine charging" means vehicle charging that takes place
36 where a vehicle is parked for a long period of time, such as at the
37 owner's residence overnight, a hotel, or a workplace during work
38 hours, and which provides the primary and most common form of
39 vehicle charging.

40 "Site host" means the entity with authority to host EVSE and
41 network services at a given location in the State, proposing to serve
42 as a charging location for use by the public or other authorized
43 users.

44 "Third-party provider" means a non-utility entity that owns or
45 provides EVSE or related equipment, or provides related services
46 for the development, financing, design, installation, and operation
47 of charging locations and the associated EVSE.

1 “Travel corridor” means the subset of heavily used public roads
2 designated by the Electric Vehicle Working Group pursuant to
3 section 4 of P.L. , c. (C.) (pending before the Legislature
4 as this bill) for inclusion in the essential public charging network
5 established pursuant to section 10 of P.L. , c. (C.) (pending
6 before the Legislature as this bill), including the Garden State
7 Parkway, the New Jersey Turnpike, the Atlantic City Expressway,
8 federal interstate highways, and the subset of federal or State roads
9 which collectively support the majority of long distance travel
10 through and within the State as well as the majority of daily travel
11 by local drivers.

12
13 3. a. There are established the following State goals for the use
14 of plug-in electric vehicles and the development of plug-in electric
15 vehicle charging infrastructure in the State to support that use:

16 (1) at least 330,000 of the registered light duty vehicles in the
17 State shall be plug-in electric vehicles by December 31, 2025;

18 (2) at least 2,000,000 of the registered light duty vehicles in the
19 State shall be plug-in electric vehicles by December 31, 2035;

20 (3) at least 90 percent of all new light duty vehicles sold in the
21 State shall be plug-in electric vehicles by December 31, 2040;

22 (4) (a) By December 31, 2021, at least 600 DC Fast Chargers
23 shall be available for public use at no less than 300 charging
24 locations in the State, in addition to any charging locations or EVSE
25 already in place as of January 1, 2019; and (b) at least 100 of the
26 300 or more charging locations shall be at travel corridor locations,
27 equipped with at least two DC Fast Chargers per location, each
28 capable of providing at least 150 kilowatts of charging power, and
29 no more than 25 miles between the charging locations; and (c) at
30 least 200 of the 300 or more charging locations shall be community
31 locations, equipped with at least two DC Fast Chargers per location,
32 each capable of providing at least 50 kilowatts of charging power or
33 more, and 150 kilowatts or more where feasible; and

34 (5) By December 31, 2021, at least 1000 Level Two chargers
35 shall be available for public use across the State, and after initial
36 installation, those EVSE may be upgraded to higher power or DC
37 Fast Chargers as appropriate by the owner or operator; and

38 (6) (a) By December 31, 2025, 25 percent of all multi-family
39 residential properties in the State shall be equipped with electric
40 vehicle charging equipment for the routine charging of electric
41 vehicles by residents through a combination of Level One EVSE,
42 Level Two EVSE, or charger ready parking spaces, which
43 collectively shall serve a percentage of resident parking spaces
44 equal to the percentage of light duty vehicles registered in the State
45 that are plug-in electric vehicles at the end of the preceding
46 calendar year, or the percentage of vehicles owned by residents that
47 are plug-in electric vehicles, whichever is higher, and (b) by
48 December 31, 2030, 50 percent of all multi-family properties shall

1 be equipped for electric vehicle charging as described in
2 subparagraph (a) of this paragraph;

3 (7) (a) By December 31, 2025, 25 percent of all overnight
4 lodging establishments shall be equipped with electric vehicle
5 charging equipment for routine electric vehicle charging by guests
6 of the establishment by providing Level Two EVSE, which
7 collectively shall serve a percentage of the guest parking spaces
8 equal to the percentage of light duty vehicles registered in the State
9 that are plug-in electric vehicles at the end of the preceding
10 calendar year, and (b) by December 31, 2030, 50 percent of all
11 overnight lodging establishments shall be equipped for electric
12 vehicle charging as described in subparagraph (a) of this paragraph;

13 (8) (a) By December 31, 2025, 25 percent of all places of
14 employment in the State shall provide at least two dedicated
15 parking spaces and two charging plugs for either Level One or
16 Level Two EVSE to their employees for routine electric vehicle
17 charging on or near the property, and (b) by December 31, 2030, 50
18 percent of all places of employment in the State shall provide
19 parking spaces and electric vehicle charging equipment as described
20 in subparagraph (a) of this paragraph;

21 (9) (a) By December 31, 2025, at least 40 percent of State-
22 owned non-emergency light duty vehicles shall be plug-in electric
23 vehicles, and (b) by December 31, 2035 and thereafter, 100 percent
24 of State-owned non-emergency light duty vehicles shall be plug-in
25 electric vehicles; and

26 (10) (a) By the end of calendar year 2019, at least 5 percent of
27 the new bus purchases made by the New Jersey Transit Corporation
28 shall be plug-in electric vehicles, and (b) the percentage of plug-in
29 electric vehicle purchases shall increase to 10 percent in 2020, 20
30 percent in 2021, 40 percent in 2022, 60 percent in 2023, 80 percent
31 in 2024, and 100 percent in 2025 and thereafter, with vehicle
32 electrification prioritized for low-income, urban, or environmental
33 justice communities; and

34 (11) By December 31, 2020, other benchmarks shall be
35 established for vehicle electrification and infrastructure
36 development that address medium-duty and heavy-duty on-road
37 diesel vehicles and associated charging infrastructure, similar to the
38 State goals for light duty vehicles and consistent with the
39 technology and electric vehicle markets for those vehicle types.

40 b. No later than January 1, 2020, and every five years
41 thereafter, until December 31, 2040, the Department of
42 Environmental Protection shall prepare and submit to the Governor
43 and, pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), to the
44 Legislature, a report that:

45 (1) assesses the current state of the plug-in electric vehicle
46 market in New Jersey;

47 (2) measures the State's progress towards the goals established
48 in subsection a. of this section;

1 (3) identifies barriers to the achievement of the goals; and
2 (4) makes recommendations for legislative or regulatory action
3 to address the barriers.
4

5 4. (New section) a. There is established in the Department of
6 Environmental Protection the Electric Vehicle Working Group. The
7 working group shall develop a Statewide Vehicle Charging
8 Infrastructure Plan for the long-term development and installation
9 of plug-in electric vehicle charging infrastructure of all types across
10 the State, and monitor its implementation and its effectiveness in
11 advancing the State goals for electric vehicle use established
12 pursuant to section 3 of P.L. , c. (C.) (pending before the
13 Legislature as this bill).

14 b. The working group shall consist of 19 members as follows:

15 (1) the Commissioner of Environmental Protection, the
16 President of the Board of Public Utilities, the Commissioner of
17 Transportation, the Executive Director of the New Jersey Transit
18 Corporation, the Executive Director of the New Jersey Turnpike
19 Authority, the Executive Director of the South Jersey
20 Transportation Authority, the Commissioner of Community Affairs,
21 the Executive Director of the Port Authority of New York and New
22 Jersey, the Chief Executive Officer of the New Jersey Economic
23 Development Authority, and the Director of the Division of Rate
24 Counsel in, but not of, the Department of the Treasury, who shall
25 serve ex officio, or their respective designees; and

26 (2) the following public members, appointed by the Governor:

27 (a) one representative of a stakeholder group representing the
28 interests of the plug-in electric vehicle market in New Jersey;

29 (b) three representatives each representing a different electric
30 public utility in the State;

31 (c) one representative of a potential site host for electric vehicle
32 charging equipment;

33 (d) one representative of a third-party provider of electric
34 vehicle charging locations or charging equipment;

35 (e) two representatives with appropriate expertise in plug-in
36 electric vehicles, charging infrastructure, or transportation
37 corridors, one of whom shall be recommended to the Governor by
38 the Commissioner of Environmental Protection and one of whom
39 shall be recommended to the Governor by the President of the
40 Board of Public Utilities; and

41 (f) one representative of local governments in the State.

42 c. All appointments to the working group shall be made no
43 later than 90 days after the effective date of P.L. , c. (C.)
44 (pending before the Legislature as this bill). The term of office of
45 each public member shall be five years. Each public member shall
46 serve until a successor has been appointed and qualified, and
47 vacancies shall be filled in the same manner as the original
48 appointments for the remainder of the unexpired term. A public

1 member is eligible for reappointment to the working group. The
2 members of the working group shall serve without compensation,
3 but shall be eligible for necessary and reasonable expenses incurred
4 in the performance of their official duties within the limits of funds
5 appropriated or otherwise made available for the working group's
6 purposes.

7 d. The working group shall organize as soon as practicable
8 following the appointment of its members and shall select a
9 chairperson and a vice-chairperson from among its members, as
10 well as a secretary who need not be a member of the working group.
11 A majority of the membership of the working group shall constitute
12 a quorum for the transaction of working group business. The
13 working group may meet and hold hearings at the place or places
14 the working group designates.

15 The working group shall be entitled to call to its assistance and
16 avail itself of the services of the employees of any State, county, or
17 municipal department, board, bureau, commission, or agency as the
18 working group may require and as may be available to the working
19 group for its purposes.

20 e. Within 90 days after organization, the working group shall
21 develop a public education program to be implemented by the
22 Department of Environmental Protection to educate consumers
23 about the availability and benefits of plug-in electric vehicles in
24 New Jersey, public vehicle charging infrastructure, programs or
25 policies that provide incentives for the use of plug-in electric
26 vehicles, and the State goals set forth in section 3 of
27 P.L. , c. (C.) (pending before the Legislature as this bill).

28 f. (1) Within 180 days after organization, the working group,
29 in consultation with the Department of Transportation, the New
30 Jersey Transit Corporation, the New Jersey Turnpike Authority, the
31 South Jersey Transportation Authority, and the Port Authority of
32 New York and New Jersey, shall designate the travel corridors to be
33 integrated into, and serviced by, the essential public charging
34 network, established pursuant to section 10 of P.L. , c. (C.)
35 (pending before the Legislature as this bill). Upon designation of
36 the travel corridors, the working group shall notify the necessary
37 entities for implementation of the essential public charging network
38 and compliance with the requirements of section 10 of
39 P.L. , c. (C.) (pending before the Legislature as this bill).

40 (2) The working group may from time to time include additional
41 public roads in the essential public charging network as necessary
42 to achieve the density of public charging locations sufficient to
43 reduce range anxiety and provide efficient and effective access to
44 public electric vehicle servicing equipment.

45 g. No later than one year after its first organizational meeting,
46 the working group shall publish the Statewide Vehicle Charging
47 Infrastructure Plan. The working group shall annually update the
48 plan in accordance with the information provided by the

1 Department of Environmental Protection in the reports and plug-in
2 electric vehicle market updates issued pursuant to subsection b. of
3 section 3 of P.L. , c. (C.) (pending before the Legislature
4 as this bill).

5 h. The working group shall incorporate into the Statewide
6 Vehicle Charging Infrastructure Plan:

7 (1) Estimates of the quantity and types of electric vehicle
8 charging equipment and infrastructure required to be installed
9 through calendar year 2035 to achieve the plug-in electric vehicle
10 goals established in section 3 of P.L. , c. (C.) (pending
11 before the Legislature as this bill), and a schedule for installation of
12 that charging equipment and infrastructure, including but not
13 limited to, public DC fast chargers, Level Two EVSE, workplace
14 charging facilities, overnight charging facilities at overnight
15 lodging establishments, fleet charging infrastructure of various
16 types, residential charging for single family homes, and residential
17 charging for multi-family homes;

18 (2) Strategies for creating general market conditions necessary
19 for long-term development of public electric vehicle charging
20 infrastructure that fully address range anxiety, meet routine
21 charging needs, ensure attainment of the goals established in
22 P.L. , c. (C.) (pending before the Legislature as this bill),
23 and establish minimum standards for equitable, reliable, and
24 convenient access to highly visible electric vehicle charging
25 infrastructure of all types;

26 (3) Methods for monitoring and compiling data on Statewide
27 plug-in electric vehicle purchases, EVSE use, the percentage of
28 Statewide electric vehicle miles traveled, utility distribution system
29 impacts, and other statistics for assessing plug-in electric vehicle
30 adoption and developing and maintaining effective charging
31 infrastructure;

32 (4) Guidelines to ensure that infrastructure is being made
33 available across all socioeconomic and geographic segments of the
34 State, and programs that support the vehicle electrification needs for
35 low-income, urban, or environmental justice communities,
36 including electrified public transportation and innovative electrified
37 advanced mobility solutions;

38 (5) Recommended policies, regulations, programs, and other
39 initiatives that ensure responsible integration of plug-in electric
40 vehicle charging infrastructure with the electric grid, and which
41 maximize the beneficial impact of that infrastructure and vehicle
42 charging for the plug-in electric vehicle market and utility
43 ratepayers;

44 (6) Recommended policies, regulations, programs, or other
45 initiatives that may be taken by State agencies, the public electric
46 utilities, and other organizations or market participants to achieve
47 the long-term success of the goals established in
48 P.L. , c. (C.) (pending before the Legislature as this bill);

1 (7) Statewide consumer awareness campaigns that highlight the
2 availability of electric vehicle charging infrastructure in the State,
3 with a specific focus on addressing consumer concerns about range
4 anxiety and the availability of public charging infrastructure, to be
5 implemented by the government entities represented in the working
6 group; and

7 (8) Updates on the implementation of the essential public
8 charging network pursuant to sections 10 through 14 of
9 P.L. , c. (C.) (pending before the Legislature as this bill)
10 and the Light Duty Plug-in Vehicle Rebate Program pursuant to
11 sections 15 through 20 of P.L. , c. (C.) (pending before the
12 Legislature as this bill).

13 i. The working group shall coordinate the development and
14 publication of the Statewide Vehicle Charging Infrastructure Plan
15 with development and revision of the State Energy Master Plan,
16 incorporating relevant provisions to ensure that implementation of
17 the plans are consistent.

18 j. (1) The working group shall also study, develop, and
19 identify needs, opportunities, and strategies for expanding
20 electrification of vehicles beyond private ownership of light duty
21 plug-in electric vehicles, and to provide funding and programs to:

22 (a) ensure equitable participation in vehicle electrification
23 benefits and programs by low-income, urban, or environmental
24 justice communities and other communities that suffer from
25 deficient mobility options and disproportionate negative
26 environmental impacts;

27 (b) ensure the development of electric advanced mobility
28 solutions and other transportation alternatives that serve those
29 communities; and

30 (c) expand the electrification of the wide range of heavy duty
31 and medium duty vehicles typically powered by diesel fuel, that
32 may also benefit from electrification, including, but not limited to,
33 public buses, medium and heavy duty trucks, drayage equipment,
34 and other off-road transportation, with particular focus on the use of
35 these vehicles and equipment at and around New Jersey ports.

36 (2) The working group may develop any other programs to
37 further the use of electric vehicles in the State and shall incorporate
38 its findings and recommendations into its annual reports.

39 k. The working group shall issue a final report on the Statewide
40 Vehicle Charging Infrastructure Plan during the calendar year 2035
41 and shall dissolve 30 days after the final report is issued.

42 l. After dissolution of the working group, the Department of
43 Environmental Protection shall update and implement the Statewide
44 Vehicle Charging Infrastructure Plan.

45

46 5. (New section) The Department of Environmental Protection
47 shall adopt, pursuant to the "Administrative Procedure Act,"
48 P.L.1968, c.410 (C.52:14B-1 et seq.), rules and regulations as may

1 be necessary for the development and installation of plug-in electric
2 vehicle charging infrastructure to achieve the goals set forth in
3 section 3 of P.L. , c. (C.) (pending before the Legislature
4 as this bill) and for implementation of any initiatives and programs
5 established pursuant to P.L. , c. (C.) (pending before the
6 Legislature as this bill).

7
8 6. (New section) The Department of Community Affairs shall
9 adopt, pursuant to the "Administrative Procedure Act," P.L.1968,
10 c.410 (C.52:14B-1 et seq.), rules and regulations as may be
11 necessary to achieve the goals set forth in section 3 of
12 P.L. , c. (C.) (pending before the Legislature as this bill)
13 and to implement the programs established pursuant to
14 P.L. , c. (C.) (pending before the Legislature as this bill),
15 including:

16 (1) new policies, guidelines, and regulations affecting
17 municipalities, revision of building codes, standards, permitting,
18 and other processes or procedures related to electric vehicle
19 charging infrastructure of all types, in all impacted building types
20 that would facilitate development of routine charging infrastructure
21 in a variety of settings; and

22 (2) new programs, procedures, rules and regulations, and
23 guidelines that would facilitate development of vehicle charging
24 infrastructure of all types by local government units in the State,
25 including issuance of formal guidance that would allow local
26 government units to utilize the competitive contracting provisions
27 of the "Local Public Contracts Law," P.L.1971, c.198 (C.40A:11-1
28 et seq.), in order to partner with private parties for the design,
29 permitting, financing, installation, operation, and management of all
30 EVSE installations; and

31 (3) any new programs, procedures, rules and regulations, and
32 guidelines that would increase the use of plug-in electric vehicles
33 and expand the number of EVSE installations available for the
34 public use.

35
36 7. (New section) The Department of Transportation, in
37 consultation with the New Jersey Transit Corporation, the New
38 Jersey Turnpike Authority, the South Jersey Transportation
39 Authority, and the New Jersey Economic Development Authority,
40 shall adopt, pursuant to the "Administrative Procedure Act,"
41 P.L.1968, c.410 (C.52:14B-1 et seq.), rules and regulations as may
42 be necessary for the development and installation of infrastructure
43 to achieve the goals set forth in section 3 of P.L. , c. (C.)
44 (pending before the Legislature as this bill) and for implementation
45 of programs established pursuant to P.L. , c. (C.) (pending
46 before the Legislature as this bill).

1 8. (New section) As used in sections 8 through 20 of
2 P.L. , c. (C.) (pending before the Legislature as this bill):

3 “Board” means the Board of Public Utilities.

4 “Charger ready” means the pre-wiring of electrical infrastructure
5 at a parking space, or set of parking spaces, to facilitate easy and
6 cost-efficient future installation of electric vehicle service
7 equipment, including, but not limited to, Level Two EVSE, and a
8 clearly defined process by which prospective users of vehicle
9 chargers may request and benefit from installation of an appropriate
10 EVSE at the pre-wired parking space;

11 “Charging location” means a publicly accessible parking space
12 or set of parking spaces, with visible signage designating that the
13 parking space or spaces are available for use by the public for
14 charging plug-in electric vehicles.

15 “Community location” means a charging location that is not a
16 corridor location, and that is established in a town center,
17 commercial area, retail center, or other site, or near concentrations
18 of multi-family dwellings, to provide vehicle charging services to
19 local plug-in electric vehicle drivers near where they live or work.

20 “Corridor location” means a charging location located along a
21 travel corridor roadway, or within two miles of that roadway, which
22 is intended to provide access to vehicle charging services for long
23 distance drivers and en-route vehicle charging services for local
24 drivers.

25 “DC Fast Charger” means electric vehicle service equipment that
26 provides at least 50 kilowatts of direct current electrical power for
27 charging a plug-in electric vehicle through a standardized
28 connector, and which is approved for installation for that purpose
29 under the National Electric Code through Underwriters Laboratories
30 Certification or an equivalent certifying organization.

31 “Department” means the Department of Environmental
32 Protection.

33 “Electric vehicle service equipment” or “EVSE” means the
34 equipment, including the cables, cords, conductors, connectors,
35 couplers, enclosures, attachment plugs, power outlets, switches and
36 controls, network interfaces, and point of sale equipment and
37 associated apparatus designed and used for the purpose of
38 transferring energy from the electric supply system to a plug-in
39 electric vehicle. “EVSE” may deliver either alternating current or
40 direct current electricity as determined by industry standards.

41 “Eligible recipient” means any purchaser of an eligible vehicle
42 who did not receive the applicable electric vehicle rebate at the time
43 of purchase as part of a reduction of the eligible vehicle’s purchase
44 price, or any seller of an eligible vehicle who has disbursed the
45 electric vehicle rebate pursuant to P.L. , c. (C.) (pending
46 before the Legislature as this bill) to a purchaser at the time of sale
47 through a pass-through reduction in the sale price.

1 "Eligible vehicle" means a new light duty plug-in electric
2 vehicle, with an MSRP of \$55,000 or less, purchased after the
3 effective date of P.L. , c. (C.) (pending before the
4 Legislature as this bill).

5 "Essential public charging network" or "network" means the
6 public charging infrastructure installed pursuant to section 9 of
7 P.L. , c. (C.) (pending before the Legislature as this bill), as part
8 of the Statewide initiative to encourage the plug-in electric vehicle
9 market in the State, and which provides a basic level of Statewide
10 public charging infrastructure sufficient to minimize range anxiety
11 and meet other public charging needs.

12 "Industry equipment standards" means the electric vehicle
13 charging equipment industry standards, including the CHAdeMO
14 standard and the Society of Automotive Engineers Combined
15 Charging Standard (CCS).

16 "Level Two EVSE" means EVSE that provides a plug-in electric
17 vehicle with single phase alternating current electrical power at
18 208-240 Vac, through a standardized plug connector that complies
19 with SAE J1772 standards, or an equivalent wireless power transfer
20 interface, or equivalent standards for 208-240 Vac charging as may
21 be adopted in the future and accepted by the board, and which is
22 approved for installation for this purpose under the National
23 Electric Code through Underwriters Laboratories Certification or an
24 equivalent certifying organization.

25 "Light duty vehicle" means any two-axle, four-wheel vehicle,
26 designed primarily for passenger travel or light duty commercial
27 use, and approved for travel on public roads. "Light duty vehicle"
28 includes, but is not limited to, any vehicle commonly referred to as
29 a car, minivan, sport utility vehicle, cross-over, or pick-up truck.

30 "Light Duty Plug-in Electric Vehicle Rebate Program" or "rebate
31 program" means the program established pursuant to section 14 of
32 P.L. , c. (C.) (pending before the Legislature as this bill) to
33 encourage the purchase of light duty plug-in electric vehicles.

34 "Local government unit" means a county, municipality, or any
35 board, commission, committee, authority or agency thereof that is
36 subject to the provisions of the "Local Public Contracts Law,"
37 P.L.1971, c.198 (C.40A:11-1 et seq.), including a housing authority
38 or redevelopment agency created or continued under the "Local
39 Redevelopment and Housing Law," P.L.1992, c.79 (C.40A:12A-1 et
40 seq.).

41 "Managed charging" means policies, programs, regulations,
42 technologies, specially designed rates or tariffs, or other methods
43 that influence or control when or how vehicle charging takes place
44 in order to minimize harmful impacts to the electric distribution
45 system or the electric transmission system while maximizing
46 electric vehicle charging benefits.

47 "MSRP" means the published manufacturer's suggested retail
48 price, as set by a vehicle's manufacturer, at the time of sale.

1 "Owner or operator" means an entity that owns or operates
2 EVSE locations or equipment for use by plug-in electric vehicle
3 drivers, including an electric public utility, a site host, or a third-
4 party provider.

5 "Plug-in electric vehicle" means a vehicle that has a battery or
6 equivalent energy storage device that can be charged from an
7 electricity supply external to the vehicle with an electric plug.
8 "Plug-in electric vehicle" includes a plug-in hybrid vehicle. A plug-
9 in electric vehicle may be a light duty, medium duty, or heavy duty
10 vehicle.

11 "Plug-in Electric Vehicle Rebate Fund" or "fund" means a non-
12 lapsing account established to fund rebate disbursements under the
13 Light Duty Plug-in Electric Vehicle Rebate Program, established
14 pursuant to section 16 of P.L. , c. (C.) (pending before the
15 Legislature as this bill).

16 "Plug-in hybrid vehicle" means a vehicle that can be charged
17 from a source of electricity external to the vehicle through an
18 electric plug, but is not exclusively powered by electricity.

19 "Range anxiety" means consumer concerns that public electric
20 charging infrastructure may not be widely available, resulting in
21 fewer electric vehicle purchases due to a perceived risk that a plug-
22 in electric vehicle driver may be stranded with a fully discharged
23 battery while on the road with no recharging source.

24 "Rebate disbursement" means the payment of an electric vehicle
25 rebate, established by the Board of Public Utilities pursuant to
26 section 14 of P.L. , c. (C.) (pending before the Legislature
27 as this bill), to an eligible recipient.

28 "Seller of an eligible vehicle" means an entity that sells an
29 eligible vehicle to a consumer or fleet owner in the State, and may
30 include an automobile dealership, third-party financing entity,
31 manufacturer selling directly to the public, or any other entity
32 selling motor vehicles to consumers in the State.

33 "Site host" means the entity with authority to host EVSE and
34 network services at a given location in the State, proposing to serve
35 as a charging location for use by the public or other authorized
36 users.

37 "Third-party provider" means a non-utility entity that owns or
38 provides EVSE or related equipment, or provides related services
39 for the development, financing, design, installation, and operation
40 of charging locations and the associated EVSE.

41 "Travel corridor" means the subset of heavily used public roads
42 designated by the Electric Vehicle Working Group pursuant to
43 section 4 of P.L. , c. (C.) (pending before the Legislature
44 as this bill) for inclusion in the essential public charging network
45 established pursuant to section 9 of P.L. , c. (C.) (pending
46 before the Legislature as this bill), including the Garden State
47 Parkway, the New Jersey Turnpike, the Atlantic City Expressway,
48 federal interstate highways, and the subset of federal or State roads

1 which collectively support the majority of long distance travel
2 through and within the State as well as the majority of daily travel
3 by local drivers.

4
5 9. (New section) a. Within 90 days after the designation of
6 travel corridors by the Electric Vehicle Working Group pursuant to
7 paragraph (1) of subsection f. of section 4 of P.L. , c. (C.)
8 (pending before the Legislature as this bill), the Board of Public
9 Utilities, in cooperation with the electric public utilities in the State,
10 the Department of Transportation, the New Jersey Turnpike
11 Authority, and the South Jersey Transportation Authority, shall
12 develop the essential public charging network, to be implemented
13 by the electric public utilities pursuant to subsection b. of this
14 section and section 10 of P.L. , c. (C.) (pending before the
15 Legislature as this bill). The essential public charging network
16 shall:

17 (1) provide sufficient public charging infrastructure to support a
18 significant expansion in the use of plug-in electric vehicles in the
19 State and consumer confidence in using these vehicles;

20 (2) integrate with the electric distribution system and the
21 electric transmission system; and

22 (3) provide a level of public charging infrastructure sufficient to
23 minimize consumer range anxiety.

24 b. By December 31, 2021 or as soon thereafter as practicable,
25 the board shall require electric public utilities, through contracts
26 with third-party providers and site hosts in their respective service
27 territories, to implement the charging network Statewide,
28 collectively providing, at a minimum, and in addition to any electric
29 vehicle service equipment in place on or before January 1, 2018:

30 (1) 100 DC Fast Charger locations at corridor locations
31 equipped with at least two DC Fast Chargers per location, each
32 capable of providing at least 150 kilowatts of power, with no more
33 than 25 miles between locations wherever feasible;

34 (2) 200 DC Fast Charger locations at community locations
35 equipped with at least two DC Fast Chargers per location, each
36 capable of providing at least 50 kilowatts of power and up to at
37 least 150 kilowatts wherever feasible; and

38 (3) 1000 publicly accessible Level Two EVSE, which after the
39 initial installation may be upgraded to DC Fast Chargers or higher
40 power levels as deemed appropriate by the owner or operator of the
41 EVSE at the network location.

42 The provisions of this subsection shall not preclude the
43 installation of additional EVSE at any network location, or a Level
44 Two EVSE or DC Fast Charger of 50 KW or above, as considered
45 appropriate by the owner or operator the EVSE at the network
46 location.

47 c. (1) All network DC Fast Chargers shall provide at least two
48 plug types, compliant with the industry equipment standards as

1 defined at the time of installation, and other additional standards as
2 may be introduced based on technology improvements or changes
3 in applicable technical standards and approved for inclusion by the
4 board.

5 (2) All network equipment and infrastructure shall be equally
6 accessible by all plug-in electric vehicles, and the operators thereof,
7 and shall be available for use by the public without unreasonable
8 commercial or technical restrictions.

9 (3) All network charging locations shall be highly visible along
10 public roadways, with standardized signage easily visible on
11 roadways, and the locations shall be posted on line in a manner that
12 makes them easy to identify and locate.

13 (4) All network infrastructure development plans shall make use
14 of design innovations, technologies, and other methods to:

15 (a) minimize harmful impact on the electric grid wherever
16 needed and the integration and operation costs; and

17 (b) maximize the beneficial impact vehicle charging and
18 charging infrastructure may have on the electric grid.

19

20 10. (New section) a. No later than one year after the effective
21 date of P.L. , c. (C.) (pending before the Legislature as this
22 bill), each electric public utility in the State shall submit to the
23 board a proposed plan for the construction and long-term operation
24 of the essential public charging network within its service territory.
25 The proposed charging network plan shall:

26 (1) establish a process and timeframe for identifying site hosts,
27 third-party providers, and potential locations for the DC Fast
28 Chargers at corridor locations and community locations, and for the
29 publicly accessible Level Two EVSE required to be installed
30 pursuant to paragraph (2) of subsection b. of section 9 of
31 P.L. , c. (C.) (pending before the Legislature as this bill);

32 (2) outline the terms of the agreements and contracts to be
33 entered into by the electric public utility and each of the site hosts
34 and third-party providers in order to install the components of the
35 network required pursuant to subsection b. of section 9 of
36 P.L. , c. (C.) (pending before the Legislature as this bill) by
37 December 31, 2021, which may include, pending board approval, a
38 variety of approaches for owning and operating the network,
39 including (a) site host owned and operated EVSE, (b) third party
40 provider or electric public utility owned and operated EVSE, or (c)
41 mixed arrangements whereby multiple entities are involved in
42 owning and operating the locations and EVSE;

43 (3) provide cost estimates for the installation and operation of
44 the required network components;

45 (4) provide methods for the development, installation, and
46 operation of the network locations, EVSE, and electrical
47 infrastructure and for financing its installation and operation,
48 including, but not necessarily limited to (a) financing plans,

1 financial incentives, new rate designs, tariffs, and how the costs of
2 any programs offered in the proposal shall be recovered fully and in
3 a timely fashion through a separate utility rate clause as approved
4 by the board, (b) partnership programs with local government units
5 or other parties, managed charging or demand response programs,
6 streamlined processes and programs to facilitate interconnection, (c)
7 marketing and other programs to build consumer awareness, and (d)
8 technology trials or other programs that support the goals of
9 P.L. , c. (C.) (pending before the Legislature as this bill).

10 b. The board may determine any electric public utility proposed
11 charging network plan submitted within 18 months prior to the
12 effective date of P.L. , c. (C.) (pending before the
13 Legislature as this bill) fulfills the requirements of subsection a. of
14 this section if the board determines the proposed charging network
15 plan is consistent with the goals and requirements of
16 P.L. , c. (C.) (pending before the Legislature as this bill).
17 The board shall make the determination no later than 90 days after
18 the effective date of P.L. , c. (C.) (pending before the
19 Legislature as this bill) and shall notify the electric public utility
20 immediately:

21 (1) if the proposed charging network plan is determined to be
22 inconsistent with the goals and requirements of
23 P.L. , c. (C.) (pending before the Legislature as this bill);
24 and

25 (2) the date by which the electric public utility shall be required
26 to submit a new proposed charging network plan in compliance
27 with this section.

28 c. No later than 180 days after receipt of a proposed charging
29 network plan pursuant to subsection a. or b. of this section, the
30 board shall review and issue a determination approving, rejecting,
31 or approving with modifications the proposed charging network
32 plan. The board shall apply the following criteria for this review
33 and determination:

34 (1) The proposed charging network plan is consistent with, and
35 supports attaining the goals of P.L. , c. (C.) (pending
36 before the Legislature as this bill);

37 (2) The expenditures estimated and set forth in the proposed
38 charging network plan are reasonable for attaining the goals of
39 P.L. , c. (C.) (pending before the Legislature as this bill);
40 and

41 (3) The proposed charging network plan is likely to accomplish
42 the installation of the required elements of the network in a timely
43 manner.

44 d. The board order approving, or approving with modifications,
45 an electric public utility's proposed charging network plan shall
46 provide for and approve full and timely recovery through a separate
47 utility rate clause covering all reasonable costs, which may be
48 included in the electric public utility's rate base as either a capital

1 or regulatory asset. The electric public utility shall implement its
2 charging network plan by using funding sources other than
3 recovering electric public utility expenditures through customer
4 rates whenever feasible.

5 e. (1) Upon approval of a charging network plan pursuant to
6 this section, the electric public utility shall implement the charging
7 network plan, and may enter into any necessary agreements or
8 contracts with site hosts or third-party providers.

9 (2) An electric public utility charging network plan that
10 provides for network locations developed by site hosts or third-
11 party providers shall;

12 (a) use a competitive process, wherever feasible, to engage site
13 hosts or third-party providers, as applicable, in (a) developing
14 projects, (b) providing EVSE and services, and (c) owning and
15 operating the locations and EVSE for public use;

16 (b) leverage private investment wherever possible;

17 (c) provide customer choice in equipment;

18 (d) optimize net benefit for ratepayers;

19 (e) avoid unfair limits on the involvement of non-utility market
20 participants;

21 (f) maximize public benefit by (i) ensuring universal access, (ii)
22 encouraging the use of open standards, (iii) promoting
23 interoperability and network roaming, (iv) providing a consistent
24 consumer experience, and (v) provide for appropriate consideration
25 of future infrastructure needs; and

26 (g) promote development of a competitive market for continued
27 growth in public charging infrastructure beyond the network.

28 f. An electric public utility charging network plan that
29 provides for utility ownership and operation of locations or EVSE
30 as part of the network, as approved by the board, shall:

31 (1) use a competitive process to engage site hosts or third-party
32 providers for EVSE and services, as applicable;

33 (2) provide customer choice in equipment;

34 (3) optimize net benefit for ratepayers;

35 (4) avoid unfair limits on the involvement of non-utility market
36 participants; and

37 (5) maximize public benefit by (a) ensuring universal access, (b)
38 encouraging the use of open standards, (c) promoting
39 interoperability and network roaming, and providing a consistent
40 consumer experience, (d) providing for appropriate consideration of
41 future infrastructure needs, and (e) promoting development of a
42 competitive market for continued growth in public charging
43 infrastructure beyond the network.

44 g. The electric public utilities shall propose tariffs, incentive
45 programs, or other methods that ensure electricity costs for public
46 charging facilities are not restrictive during early market conditions
47 when utilization is low, as determined by the board, including
48 consideration of demand charge impacts, and the costs of such

1 tariffs, programs, or methods shall be recovered fully and in a
2 timely fashion through a separate utility rate clause as approved by
3 the board. The tariffs, programs, or other methods may be approved
4 for EVSE that are part of the network, or for any other EVSE that is
5 available for public use and which meets any additional
6 requirements deemed necessary by the board.

7 h. Electric public utilities may propose other programs,
8 incentives, tariffs, or initiatives to support the development of
9 vehicle charging infrastructure of all types, consistent with the
10 goals of P.L. , c. (C.) (pending before the Legislature as
11 this bill), including but not limited to:

- 12 (1) workplace EVSE programs for use by employees;
- 13 (2) EVSE programs for lodging establishments for use by
14 overnight guests;
- 15 (3) EVSE programs for residential use in multi-family and
16 single-family housing;
- 17 (4) EVSE for fleet operators;
- 18 (5) EVSE for NJ Transit Corporation;
- 19 (6) marketing and consumer awareness campaigns;
- 20 (7) innovative market or technology trials;
- 21 (8) solutions addressing demand charge implications on
22 electricity costs;
- 23 (9) programs that facilitate renewable energy and electricity
24 storage integration;
- 25 (10) programs that encourage vehicle charging at optimal times
26 of day; and
- 27 (11) programs or technology that enable interactive use of plug-
28 in electric vehicles as distributed energy resources that support and
29 enhance operation of the public grid through two-way exchanges of
30 electricity.

31 i. Unless otherwise specifically provided pursuant to Title 48
32 of the Revised Statutes or any other federal or State law, an entity
33 owning, controlling, operating, or managing an electric vehicle
34 charging station shall not be deemed an electric public utility solely
35 because of that ownership, control, operation, or management. The
36 charging of an electric vehicle shall be deemed a service and not a
37 sale of electricity by an electric power supplier or basic generation
38 service provider pursuant to P.L.1999, c.23 (C.48:3-49 et al.).

39
40 11. (New section) a. The New Jersey Turnpike Authority shall,
41 consistent with a charging network plan approved by the board
42 pursuant to section 9 of P.L. , c. (C.) (pending before the
43 Legislature as this bill):

- 44 (1) By December 31, 2021, or as soon thereafter as practicable,
45 establish publicly accessible EVSE parking spaces for the exclusive
46 use by plug-in electric vehicles at each of the service areas along
47 the New Jersey Turnpike and the Garden State Parkway;

1 (2) Provide at least two parking spaces for network DC Fast
2 Chargers with supporting EVSE at each location by December 31,
3 2021, and at least eight spaces for DC Fast Chargers at each
4 location that are charger ready with the electrical infrastructure
5 required to support future DC Fast Charger installations. The
6 allocation of these spaces shall not preclude the installation of
7 EVSE in addition to those required for the network, as the New
8 Jersey Turnpike Authority determines to be beneficial to the
9 increased use of electric vehicles in the State;

10 (3) Monitor usage of all EVSE at all of the New Jersey Turnpike
11 and Garden State Parkway service areas, and expand the EVSE
12 equipment and number of spaces served by EVSE as needed to
13 ensure reliable and convenient use by the public;

14 (4) Pursue public-private partnerships for the purpose of
15 facilitating the development, funding, and operation of the public
16 electric vehicle charging infrastructure required pursuant to P.L. ,
17 c. (C.) (pending before the Legislature as this bill); and

18 (5) Charge electric vehicle drivers using the EVSE a reasonable
19 amount to recover costs associated with installation and operation
20 of EVSE for public use, either directly, or through third parties that
21 have been contracted to provide vehicle charging services at each
22 service area.

23 b. For EVSE located on State-owned properties, or on
24 properties owned or controlled by local government units, and
25 which are owned or operated by a third party, charges for service
26 may include a fee that is transferable to the State agency or local
27 government unit as a concession pursuant to a written agreement
28 between the owner or operator and the State agency or local
29 government unit.

30
31 12. a. The South Jersey Transportation Authority shall,
32 consistent with a charging network plan approved by the board
33 pursuant to section 9 of P.L. , c. (C.) (pending before the
34 Legislature as this bill):

35 (1) By December 31, 2021, or as soon thereafter as practicable,
36 establish publicly accessible EVSE parking spaces for the exclusive
37 use by plug-in electric vehicles at each of the service areas along
38 the Atlantic City Expressway;

39 (2) Provide at least two parking spaces for network DC Fast
40 Chargers with supporting EVSE at each location by December 31,
41 2021, and at least eight spaces for DC Fast Chargers at each
42 location that are charger ready with the electrical infrastructure
43 required to support future DC Fast Charger installations. The
44 allocation of these spaces shall not preclude the installation of
45 EVSE in addition to those required for the network, as the South
46 Jersey Transportation Authority determines to be beneficial to the
47 increased use of electric vehicles in the State;

1 (3) Monitor usage of all EVSE at all of the Atlantic City
2 Expressway service areas, and expand the EVSE equipment and
3 number of spaces served by EVSE as needed to ensure reliable and
4 convenient use by the public;

5 (4) Pursue public-private partnerships for the purpose of
6 facilitating the development, funding, and operation of the public
7 electric vehicle charging infrastructure required pursuant to P.L. ,
8 c. (C.) (pending before the Legislature as this bill); and

9 (5) Charge electric vehicle drivers using the EVSE a reasonable
10 amount to recover costs associated with installation and operation
11 of EVSE for public use, either directly, or through third parties that
12 have been contracted to provide vehicle charging services at each
13 service area.

14 b. For EVSE located on State agency-owned properties, or on
15 properties owned or controlled by local government units, and
16 which are owned or operated by a third party, charges for service
17 may include a fee that is transferable to the State agency or local
18 government unit as a concession pursuant to a written agreement
19 between the owner or operator and the State agency or local
20 government unit.

21

22 13. a. The Department of Transportation shall, consistent with a
23 charging network plan approved by the board pursuant to section 9
24 of P.L. , c. (C.) (pending before the Legislature as this
25 bill):

26 (1) By December 31, 2021, or as soon thereafter as practicable,
27 establish publicly accessible EVSE parking spaces at rest areas
28 along Interstate highways under its jurisdiction;

29 (2) In cooperation and consultation with the New Jersey
30 Turnpike Authority and the South Jersey Transportation Authority,
31 and other State and local authorities as required, shall establish
32 consistent and effective signage along the travel corridors and local
33 roadways in the State and at EVSE locations to inform the public of
34 EVSE locations, provide guidance for reaching the publicly
35 accessible charging locations, and indicate the type of EVSE
36 available at the location. The signage shall indicate the availability
37 of DC Fast Chargers wherever they are available;

38 (3) Coordinate with federal authorities to (a) ensure the use of
39 standardized signage indicating the availability of nearby EVSE
40 along federal interstate highways, similar to current signage in use
41 regarding fuel and other local amenities, and (b) negotiate any
42 necessary agreements or contracts to facilitate the installation of
43 EVSE at charging locations in the State along federal interstate
44 highways and the charging of electric vehicle drivers using the
45 EVSE a reasonable amount to recover New Jersey electric public
46 utility costs associated with installation and operation of EVSE for
47 public use, either directly, or through third parties that have been
48 contracted to provide vehicle charging services at each service area.

1 b. For EVSE located on State agency-owned properties, or on
2 properties owned or controlled by local government units, and
3 which are owned or operated by a third party, charges for service
4 may include a fee that is transferable to the State agency or local
5 government unit as a concession pursuant to a written agreement
6 between the owner or operator and the State agency or local
7 government unit.

8
9 14. (New section) a. No later than 90 days after the effective
10 date of P.L. , c. (C.) (pending before the Legislature as this
11 bill), the Board of Public Utilities, in cooperation with the State
12 Treasurer and the Department of Environmental Protection, shall
13 establish and implement a "Light Duty Plug-in Electric Vehicle
14 Rebate Program" for the purpose of encouraging the purchase of
15 light duty plug-in electric vehicles.

16 b. The board shall implement the rebate program until June
17 30th of the 10th year after the rebate program begins, or after
18 \$300,000,000 in rebate disbursements have been paid from the
19 fund, whichever occurs first.

20 c. (1) The board shall establish the electric vehicle rebate as a
21 one-time payment to the purchaser of a new light duty plug-in
22 electric vehicle in an amount set and calculated by the department
23 as equal to at least \$25 per mile of the eligible vehicle's electric
24 power range as certified by the United States Environmental
25 Protection Agency and determined by the Department of
26 Environmental Protection, up to a maximum of \$5,000 per eligible
27 vehicle.

28 (2) The board, in consultation with the department, shall
29 determine the electric vehicle rebate amount consistent with the
30 provisions of this section for all eligible vehicles available for sale
31 in the State and shall publish the schedule of rebate amounts for all
32 eligible vehicles quarterly.

33 (3) The board may adjust the rebate amount provided in
34 paragraph (1) of this subsection as necessary to achieve or sustain
35 the State's electric vehicle goals established pursuant to section 3 of
36 P.L. , c. (C.) (pending before the Legislature as this bill),
37 provided that electric vehicle rebate amounts shall not be not
38 changed more frequently than once per aggregate disbursement of
39 \$100,000,000 from the "Plug-in Electric Vehicle Rebate Fund,"
40 established pursuant to section 16 of P.L. , c. (C.) (pending
41 before the Legislature as this bill);

42 (4) The board may establish limits on the number of electric
43 vehicle rebates issued to a purchaser as necessary.

44 d. The board shall monitor the rebate disbursements, and shall
45 annually reassess the design and implementation of the rebate
46 program. Provided the board's action does not violate the
47 provisions of subsection c. of this section, the board may:

- 1 (1) revise the rebate program, any aspect of the rebates, or the
2 related implementation procedures or processes; and
- 3 (2) establish additional rebates consistent with the goals of
4 P.L. , c. (C.) (pending before the Legislature as this bill).
- 5 e. Notwithstanding any other provision of law to the contrary,
6 a light duty plug-in hybrid vehicle shall not qualify for a rebate
7 under the "Light Duty Plug-in Electric Vehicle Rebate Program"
8 after December 31, 2022. An eligible recipient seeking a rebate for
9 a light duty plug-in hybrid vehicle shall file an application for the
10 rebate pursuant to section 17 of P.L. , c. (C.) (pending
11 before the Legislature as this bill) on or before December 31, 2022.
- 12 f. The board, in cooperation and consultation with the Electric
13 Vehicle Working Group established pursuant to section 4 of P.L. ,
14 c. (C.) (pending before the Legislature as this bill), shall
15 develop and implement a Statewide public education program to
16 publicize the availability of the electric vehicle rebates pursuant to
17 the rebate program and shall coordinate with motor vehicle
18 dealerships, electric public utilities, plug-in electric vehicle
19 manufacturers doing business in the State, and other relevant
20 stakeholder organizations to ensure public awareness of the rebate
21 program.
- 22
- 23 15. (New section) a. The seller of an eligible vehicle shall offer
24 the electric vehicle rebate in conjunction with, and in addition to,
25 any other incentive offered by the seller of the eligible vehicle.
- 26 b. A vehicle dealership, at its discretion, may provide a
27 purchaser the option to have the amount of the electric vehicle
28 rebate deducted from the final negotiated and agreed upon sale
29 price of the eligible vehicle, in which case the full amount of the
30 electric vehicle rebate shall be passed through to the purchaser in
31 full and payment thereof shall be effective immediately at the time
32 of the final sale and transfer of the eligible vehicle to the purchaser.
- 33 c. If the vehicle dealership does not deduct the amount of the
34 electric vehicle rebate from the final negotiated and agreed upon
35 sale price of the eligible vehicle, or the purchaser does not receive
36 the electric vehicle rebate at the time of purchase, the purchaser
37 may apply directly to the State Treasurer, pursuant to section 17 of
38 P.L. , c. (C.) (pending before the Legislature as this bill),
39 to receive any applicable rebate. The vehicle dealership shall
40 provide to those purchasers at the time of the final sale and transfer
41 of the ownership of the eligible vehicle all the paperwork and
42 transaction-related documentation required by the State Treasurer
43 pursuant to section 17 of P.L. , c. (C.) (pending before the
44 Legislature as this bill) for the purchaser to apply for the electric
45 vehicle rebate.
- 46 d. The Board of Public Utilities shall provide a website,
47 accessible by the public, that provides up-to-date information about

1 rebate availability, and a mechanism for securing for a specified,
2 limited time rebate commitment for an eligible vehicle purchase.

3 e. The board shall require each seller of a new plug-in electric
4 vehicle to notify the board, upon the final sale and transfer of
5 vehicle to a purchaser, the following information regarding each
6 plug-in electric vehicle sold:

7 (1) the vehicle's make, model, and battery size; and

8 (2) the physical address of the location where the vehicle is
9 expected to typically reside overnight.

10 f. The board shall provide on a quarterly basis to any electric
11 public utility operating in the State the information required and
12 collected pursuant to subsection e. of this section in order to
13 facilitate the appropriate planning for, and reinforcement of,
14 electricity distribution and infrastructure affected by vehicle
15 charging requirements.

16

17 16. (New section) a. There is established in the Department of
18 the Treasury a special, nonlapsing fund to be known as the "Plug-in
19 Electric Vehicle Rebate Fund," also referred to as "the fund." The
20 fund shall be administered by the State Treasurer and shall be
21 credited with:

22 (1) moneys deposited by the Board of Public Utilities pursuant
23 to this subsection for the purposes of the fund;

24 (2) moneys as are appropriated by the Legislature; and

25 (3) any return on investment of moneys deposited in the fund.

26 The board may deposit into the fund moneys received from the
27 societal benefits charge established pursuant to section 11 of
28 P.L.1999, c.23 (C.48:3-60), moneys made available to the board
29 pursuant to the implementation of the Regional Greenhouse Gas
30 Initiative and P.L.2007, c.340 (C.26:2C-45 et seq.), and moneys
31 available from other funding sources as determined by the board.

32 b. Moneys in the fund may be used by the Department of the
33 Treasury solely for authorized rebate disbursements to eligible
34 recipients. The moneys in the fund shall not be used for any
35 administrative costs incurred by the Board of Public Utilities, the
36 Department of Environmental Protection, or the State Treasurer to
37 implement P.L. , c. (C.) (pending before the Legislature as
38 this bill).

39 c. Notwithstanding the provisions of the "Local Budget Law,"
40 N.J.S.40A:4-1 et seq., to the contrary, a county, municipality, or an
41 authority as that term is defined in section 3 of P.L.1983, c.313
42 (C.40A:5A-3) required to comply with the provisions of P.L.2005,
43 c.219 (C.26:2C-8.26 et al.) may anticipate in its annual budget, or
44 any amendments or supplements thereto, those sums to be
45 reimbursed from the fund for the purchase of new light duty plug-in
46 electric vehicles by the county, municipality, or authority. For the
47 purposes of subsection 1. of section 3 of P.L.1976, c.68 (C.40A:4-
48 45.3) and subsection g. of section 4 of P.L.1976, c.68 (C.40A:4-

1 45.4), any rebate provided pursuant to P.L. , c. (C.)
2 (pending before the Legislature as this bill) shall be considered an
3 amount to be received from State funds in disbursement for local
4 expenditures and therefore exempt from the limitation on local
5 budgets imposed pursuant to section 2 of P.L.1976, c.68 (C.40A:4-
6 45.2).

7
8 17. (New section) a. An eligible recipient shall file an
9 application for an electric vehicle rebate with the Department of the
10 Treasury on a form to be developed by the State Treasurer and the
11 board, and with any documentation required by the State Treasurer
12 pursuant to subsection b. of this section. Neither the State
13 Treasurer nor the board may charge an application fee.

14 b. Moneys in the fund shall be allocated and used to provide
15 rebate disbursements in the manner provided in this section and
16 section 16 of P.L. , c. (C.) (pending before the Legislature
17 as this bill). The State Treasurer, in consultation with the board and
18 the department, shall determine the applicability and the calculation
19 of an electric vehicle rebate in accordance with section 14 of
20 P.L. , c. (C.) (pending before the Legislature as this bill).
21 The State Treasurer may require an eligible recipient to submit any
22 documentation the State Treasurer determines necessary, including,
23 but not limited to, an invoice of sale indicating the applicable
24 purchase price, the amount of rebate provided to the purchaser of an
25 eligible vehicle, and the final cost of the vehicle after the rebate was
26 deducted.

27 c. Upon a determination that an application meets all
28 established criteria for a rebate disbursement from the fund, the
29 State Treasurer shall approve the application and award the
30 appropriate disbursement to the applicant. All rebate payments
31 shall be issued within 10 business days after the receipt of a
32 complete application and its approval.

33 d. The State Treasurer shall certify to the board every 30 days
34 the amount available in the fund for the next 30 days.

35
36 18. (New section) a. The State Treasurer shall adopt, in
37 consultation with the board and the department, pursuant to the
38 "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et
39 seq.), rules and regulations:

40 (1) establishing the filing requirements for a complete
41 application for a rebate disbursement from the fund; and

42 (2) prescribing the necessary documentation of the purchase of
43 an eligible vehicle, pass through to the consumer of the applicable
44 rebate, or any other documentation required by the State Treasurer,
45 board, or department for rebate disbursement.

46 b. When establishing requirements for an application for rebate
47 disbursement, the State Treasurer shall strive to minimize the

1 complexity of the application process and any costs to an applicant
2 for complying with application requirements.

3
4 19. (New section) a. The State Treasurer may deny an
5 application for rebate disbursement from the fund, and any rebate
6 disbursement from the fund may be recoverable by the State
7 Treasurer, upon a finding that:

8 (1) the applicant is not an eligible recipient;

9 (2) the applicant provided false information to obtain a rebate
10 disbursement, or withheld information on an application that would
11 render the applicant ineligible for the rebate disbursement; or

12 (3) the applicant provided false information or withheld
13 information that resulted in the applicant receiving a larger rebate
14 disbursement than the amount the applicant would otherwise be
15 eligible.

16 b. Nothing in this section shall be construed to require the State
17 Treasurer, board, department, or any other State agency to
18 undertake an investigation or make any findings concerning the
19 conduct described in subsection a. of this section.

20
21 20. (New section) The Board of Public Utilities shall adopt,
22 pursuant to the "Administrative Procedure Act," P.L.1968, c.410
23 (C.52:14B-1 et seq.), rules and regulations as may be necessary for
24 the development and installation of infrastructure to achieve the
25 goals set forth in section 3 of P.L. , c. (C.) (pending before
26 the Legislature as this bill) and for implementation of any initiatives
27 and programs established pursuant to P.L. , c. (C.)
28 (pending before the Legislature as this bill).

29
30 21. Section 2 of P.L.2003, c.266 (C.26:2C-8.16) is amended to
31 read as follows:

32 2. As used in [sections 1 through 7 of] P.L.2003, c.266
33 [(C.26:2C-8.15 et seq.)] (C.26:2C-8.15 et al.):

34 "Advanced technology partial zero emission vehicle" means a
35 vehicle certified as an advanced technology partial zero emission
36 vehicle pursuant to the California Air Resources Board vehicle
37 standards for the applicable model year [;] .

38 "California Low Emission Vehicle program" means the second
39 phase of the low emission vehicle program being implemented in
40 the State of California, pursuant to the provisions of the Federal
41 Clean Air Act and the California Code of Regulations [;] .

42 "Commissioner" means the Commissioner of Environmental
43 Protection [;] .

44 "Department" means the Department of Environmental
45 Protection [;] .

46 "Federal Clean Air Act" means the federal "Clean Air Act," 42
47 U.S.C. s.7401 et seq., and any subsequent amendments or
48 supplements to that act [;] .

1 ["Low Emission Vehicle Review Commission" means the
2 commission established by subsection a. of section 5 of P.L.2003,
3 c.266 (C.26:2C-8.19);]

4 "Partial zero emission vehicle" means a vehicle certified as a
5 partial zero emission vehicle pursuant to the California Air
6 Resources Board vehicle standards for the applicable model year
7 [;].

8 "State implementation plan" means the State implementation
9 plan for national ambient air quality standards adopted for New
10 Jersey pursuant to the federal Clean Air Act [;].

11 "Zero emission vehicle" means a vehicle certified as a zero
12 emission vehicle pursuant to the California Air Resources Board
13 zero emission vehicle standards for the applicable model year, but
14 shall not include an advanced technology partial zero emission
15 vehicle or a partial zero emission vehicle [; and].

16 "Zero emission vehicle requirement" means the percentage or
17 number of those vehicles certified as zero emission vehicles
18 pursuant to the California Air Resources Board vehicle standards
19 and required to be delivered by a manufacturer for sale or lease for
20 the applicable model year, and any additional percentages or
21 numbers of advanced technology partial zero emission vehicles or
22 partial zero emission vehicles that may be delivered by a
23 manufacturer for sale or lease to satisfy the zero emission vehicle
24 requirement established by the California Air Resources Board in
25 lieu of vehicles that meet the pure zero emission vehicle standard.
26 (cf: P.L.2003, c.266, s.2)

27

28 22. Section 3 of P.L.2003, c.266 (C.26:2C-8.17) is amended to
29 read as follows:

30 3. a. Notwithstanding any provision of a State implementation
31 plan submitted by the Department of Environmental Protection to
32 the United States Environmental Protection Agency pursuant to the
33 requirements of the federal "Clean Air Act Amendments of 1990,"
34 42 U.S.C. s.7403 et seq., to the contrary, the department shall
35 implement the California Low Emission Vehicle program and the
36 California zero emission vehicle requirements in the State
37 beginning on January 1, 2009 [, except as provided pursuant to
38 sections 6 and 7 of P.L.2003, c.266 (C.26:2C-8.20 and C.26:2C-
39 8.21)].

40 b. The Commissioner of Environmental Protection, within 30
41 days after a proposed major substantive change to the California
42 Low Emission Vehicle program or the California zero emission
43 vehicle requirements that, if adopted, would necessitate a
44 corresponding substantive change to the program in New Jersey
45 adopted pursuant to subsection a. of this section or rules and
46 regulations adopted pursuant thereto, shall provide written notice
47 and a summary of the proposed substantive change to the Senate

1 Environment and Energy Committee and the Assembly
2 Environment and Solid Waste Committee, or their successors as
3 designated respectively by the President of the Senate and the
4 Speaker of the General Assembly.

5 c. The commissioner shall adopt, pursuant to the
6 "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et
7 seq.), any rules and regulations necessary to implement the
8 California Low Emission Vehicle program and the California zero
9 emission vehicle requirements in the State beginning on January 1,
10 2009.

11 (cf: P.L.2003, c.266, s.3)

12

13 23. Section 4 of P.L.2003, c.266 (C.26:2C-8.18) is amended to
14 read as follows:

15 4. a. 【The】 Except as provided in subsection e. of this section,
16 the Commissioner of Environmental Protection shall establish a
17 zero emission vehicle credit bank to allow manufacturers to earn
18 and bank vehicle equivalent credits for any advanced technology
19 partial zero emission vehicle or partial zero emission vehicle
20 produced and delivered for sale or lease in the State 【on or after
21 January 1, 1999 and through December 31, 2008】.

22 (1) In establishing the credit bank required by this section, the
23 commissioner shall use the highest multiplier used by the California
24 Air Resources Board for determining the allowable vehicle
25 equivalent credits for each advanced technology partial zero
26 emission vehicle or partial zero emission vehicle delivered for sale
27 or lease in the State by a manufacturer on or after January 1, 1999
28 until the effective date of P.L.2003, c.266 (C.26:2C-8.15 et al.).

29 (2) Beginning on the effective date of P.L.2003,
30 c.266 (C.26:2C-8.15 et al.), the commissioner shall use the
31 multiplier used by the California Air Resources Board for the
32 applicable model year for each advanced technology partial zero
33 emission vehicle or partial zero emission vehicle delivered for sale
34 or lease in the State by a manufacturer on or after the effective date
35 of P.L.2003, c.266 (C.26:2C-8.15 et al.) 【and through December
36 31, 2008】.

37 b. (1) Within 180 days after the effective date of P.L.2003,
38 c.266 (C.26:2C-8.15 et al.), the commissioner shall publish a list in
39 the New Jersey Register of the make and model of those motor
40 vehicles that qualify as advanced technology partial zero emission
41 vehicles or partial zero emission vehicles for the 1999 through 2003
42 model years.

43 (2) Annually thereafter, the commissioner shall publish a list in
44 the New Jersey Register of the make and model of those motor
45 vehicles that qualify as advanced technology partial zero emission
46 vehicles or partial zero emission vehicles for that respective model
47 year.

1 (3) The commissioner may revise any list published pursuant to
2 this subsection as necessary to comply with the California Air
3 Resources Board vehicle standards for the applicable model year.

4 c. Notwithstanding the provisions of the "Administrative
5 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.) to the
6 contrary, the commissioner shall, immediately upon filing the
7 proper notice with the Office of Administrative Law, adopt such
8 temporary rules and regulations as necessary to establish a zero
9 emission vehicle credit bank pursuant to subsection a. of this
10 section. These rules and regulations may include, but need not be
11 limited to, the documentation to be submitted by a manufacturer to
12 determine eligibility and participation in the credit bank established
13 pursuant to subsection a. of this section, and fees for administrative
14 services provided to implement the zero emission vehicle credit
15 bank to be assessed to those manufacturers seeking to earn and bank
16 credits. The temporary rules and regulations shall be in effect for a
17 period not to exceed 270 days after the date of the filing, except that
18 in no case shall the temporary rules and regulations be in effect one
19 year after the effective date of P.L.2003, c.266 (C.26:2C-8.15 et
20 al.). The temporary rules and regulations shall thereafter be
21 amended, adopted or readopted by the commissioner as the
22 commissioner determines is necessary in accordance with the
23 requirements of the "Administrative Procedure Act."

24 d. [The provisions of this section shall expire upon the passage
25 of a concurrent resolution by the Legislature directing the
26 department to implement the National Low Emission Vehicle
27 program pursuant to subsection a. of section 6 of P.L.2003,
28 c.266 (C.26:2C-8.20).] (Deleted by amendment, P.L. _____,
29 c.) (pending before the Legislature as this bill)

30 e. The Commissioner of Environmental Protection shall
31 petition the California Air Resources Board and the Governor of the
32 State of California to revise the California rules and regulations
33 adopted to implement the California Low Emission Vehicle
34 program and the California zero emission vehicle requirements to
35 provide that the vehicles "sold or leased" in the State meet program
36 requirements rather than vehicles "produced and delivered for sale
37 or lease" in the State. Upon the revision by the California Air
38 Resources Board, any reference to vehicles produced and delivered
39 for sale or lease in the State pursuant to State laws, rules, or
40 regulations shall be construed to mean vehicles sold or leased in the
41 State until the appropriate revisions to State laws, rules, or
42 regulations may be enacted or adopted.

43 (cf: P.L.2003, c.266, s.4)

44
45 24. Section 7 of P.L.2007, c.340 (C.26:2C-51) is amended to
46 read as follows:

47 7. a. The agencies administering programs established pursuant
48 to this section shall maximize coordination in the administration of

1 the programs to avoid overlap between the uses of the fund
2 prescribed in this section:

3 b. Moneys in the fund, after appropriation annually for
4 payment of administrative costs authorized pursuant to subsection c.
5 of this section, shall be annually appropriated and used for the
6 following purposes:

7 (1) Sixty percent shall be allocated to the New Jersey Economic
8 Development Authority to provide grants and other forms of
9 financial assistance to commercial, institutional, and industrial
10 entities to support end-use energy efficiency projects and new,
11 efficient electric generation facilities that are state of the art, as
12 determined by the department, including but not limited to energy
13 efficiency and renewable energy applications, to develop combined
14 heat and power production and other high efficiency electric
15 generation facilities, to stimulate or reward investment in the
16 development of innovative carbon emissions abatement
17 technologies with significant carbon emissions reduction or
18 avoidance potential, to develop qualified offshore wind projects
19 pursuant to section 3 of P.L.2010, c.57 (C.48:3-87.1), and to
20 provide financial assistance to manufacturers of equipment
21 associated with qualified offshore wind projects. The authority, in
22 consultation with the board and the department, shall determine:
23 (a) the appropriate level of grants or other forms of financial
24 assistance to be awarded to individual commercial, institutional,
25 and industrial sectors and to individual projects within each of these
26 sectors; (b) the evaluation criteria for selecting projects to be
27 awarded grants or other forms of financial assistance, which criteria
28 shall include the ability of the project to result in a measurable
29 reduction of the emission of greenhouse gases or a measurable
30 reduction in energy demand, provided, however, that neither the
31 development of a new combined heat and power production facility,
32 nor an increase in the electrical and thermal output of an existing
33 combined heat and power production facility, shall be subject to the
34 requirement to demonstrate such a measurable reduction; and (c)
35 the process by which grants or other forms of financial assistance
36 can be applied for and awarded including, if applicable, the
37 payment terms and conditions for authority investments in certain
38 projects with commercial viability;

39 (2) Twenty percent shall be allocated to the board to support
40 programs that are designed to reduce electricity demand or costs to
41 electricity customers in the low-income and moderate-income
42 residential sector with a focus on urban areas, including efforts to
43 address heat island effect and reduce impacts on ratepayers
44 attributable to the implementation of P.L.2007, c.340 (C.26:2C-45
45 et al.). For the purposes of this paragraph, the board, in
46 consultation with the authority and the department, shall determine
47 the types of programs to be supported and the mechanism by which

1 to quantify benefits to ensure that the supported programs result in a
2 measurable reduction in energy demand;

3 (3) Ten percent shall be allocated to the department to support
4 programs designed to promote local government efforts to plan,
5 develop and implement measures to reduce greenhouse gas
6 emissions, including but not limited to technical assistance to local
7 governments, and the awarding of grants and other forms of
8 assistance to local governments to conduct and implement energy
9 efficiency, renewable energy, and distributed energy programs and
10 land use planning where the grant or assistance results in a
11 measurable reduction of the emission of greenhouse gases or a
12 measurable reduction in energy demand. For the purpose of
13 conducting any program pursuant to this paragraph, the department,
14 in consultation with the authority and the board, shall determine:
15 (a) the appropriate level of grants or other forms of financial
16 assistance to be awarded to local governments; (b) the evaluation
17 criteria for selecting projects to be awarded grants or other forms of
18 financial assistance; (c) the process by which grants or other forms
19 of financial assistance can be applied for and awarded; and (d) a
20 mechanism by which to quantify benefits; and

21 (4) Ten percent shall be allocated to the department to support
22 programs that enhance the stewardship and restoration of the State's
23 forests and tidal marshes that provide important opportunities to
24 sequester or reduce greenhouse gases.

25 c. (1) The department may use up to four percent of the total
26 amount in the fund each year to pay for administrative costs
27 justifiable and approved in the annual budget process, incurred by
28 the department in administering the provisions of P.L.2007, c.340
29 (C.26:2C-45 et al.) and in administering programs to reduce the
30 emissions of greenhouse gases including any obligations that may
31 arise under subsection a. of section 11 of P.L.2007, c.340 (C.26:2C-
32 55).

33 (2) The board may use up to two percent of the total amount in
34 the fund each year to pay for administrative costs justifiable and
35 approved in the annual budget process, incurred by the board in
36 administering the provisions of P.L.2007, c.340 (C.26:2C-45 et al.)
37 and in administering programs to reduce the emissions of
38 greenhouse gases including any obligations that may arise under
39 subsection a. of section 11 of P.L.2007, c.340 (C.26:2C-55).

40 (3) The New Jersey Economic Development Authority may use
41 up to two percent of the total amount in the fund each year to pay
42 for administrative costs justifiable and approved in the annual
43 budget process, incurred by the authority in administering the
44 provisions of P.L.2007, c.340 (C.26:2C-45 et al.) and in
45 administering programs to reduce the emissions of greenhouse
46 gases.

1 d. The State Comptroller shall conduct or supervise
2 independent audit and fiscal oversight functions of the fund and its
3 uses.

4 e. Notwithstanding the provisions of this section to the
5 contrary, the first \$20,000,000 of funds received by the State each
6 year from participation in the Regional Greenhouse Gas Initiative
7 shall be deposited into the Plug-in Elective Vehicle Rebate Fund,
8 established pursuant to section 16 of P.L. , c. (C.) (pending
9 before the Legislature as this bill) for the provision of rebates by the
10 board pursuant to that act. Any remaining funds shall be
11 appropriated and used pursuant to subsections b. and c. of this
12 section.

13 (cf: P.L.2010, c.57, s.5)

14
15 25. Section 8 of P.L. L.2007, c.340 (C.26:2C-52) is amended to
16 read as follows:

17 8. a. Within one year after the date of enactment of P.L.2007,
18 c.340 (C.26:2C-45 et al.), the department, in consultation with the
19 New Jersey Economic Development Authority and the board, shall
20 adopt, in accordance with the "Administrative Procedure Act,"
21 P.L.1968, c.410 (C.52:14B-1 et seq.), guidelines and a priority
22 ranking system to be used to assist in annually allocating funds to
23 eligible projects or programs pursuant to subsection b. of section 7
24 of P.L.2007, c.340 (C.26:2C-51).

25 b. The guidelines and the priority ranking system developed
26 pursuant to this section for selecting projects or programs to be
27 awarded grants or other forms of financial assistance from the fund
28 shall include but need not be limited to an evaluation of each
29 eligible project or program as to its predicted ability to:

30 (1) result in a net reduction in greenhouse gas emissions in the
31 State or in greenhouse gas emissions from electricity produced out
32 of the State but consumed in the State or net sequestration of
33 carbon;

34 (2) result in significant reductions in greenhouse gases relative
35 to the cost of the project or program and the reduction of impacts on
36 ratepayers attributable to the implementation of P.L.2007, c.340
37 (C.26:2C-45 et al.), and the ability of the project or program to
38 significantly contribute to achievement of the State's 2020 limit and
39 2050 limit established pursuant to the "Global Warming Response
40 Act," P.L.2007, c.112 (C.26:2C-37 et al.), relative to the cost of the
41 project or program;

42 (3) reduce energy use;

43 (4) provide co-benefits to the State, including but not limited to
44 creating job opportunities, reducing other air pollutants, reducing
45 costs to electricity and natural gas consumers, improving local
46 electric system reliability, and contributing to regional initiatives to
47 reduce greenhouse gas emissions; and

1 (5) be directly responsive to the recommendations when
2 submitted by the department to the Legislature pursuant to section 6
3 of the "Global Warming Response Act," P.L.2007, c.112 (C.26:2C-
4 42).

5 c. Notwithstanding the provisions of subsections a. and b. of
6 this section to the contrary, the department shall give high priority
7 to grants for the electric vehicle rebate disbursements for the "Light
8 Duty Plug-in Electric Vehicle Rebate Program," established
9 pursuant to section 14 of P.L. , c. (C.) (pending before the
10 Legislature as this bill).
11 (cf: P.L.2007, c.340, s.8)
12

13 26. Section 12 of P.L.1999, c.23 (C.48:3-60) is amended to read
14 as follows:

15 12. a. Simultaneously with the starting date for the
16 implementation of retail choice as determined by the board pursuant
17 to subsection a. of section 5 of [this act] P.L.1999, c.23 (C.48:3-53
18 et seq.), the board shall permit each electric public utility and gas
19 public utility to recover some or all of the following costs through a
20 societal benefits charge that shall be collected as a non-bypassable
21 charge imposed on all electric public utility customers and gas
22 public utility customers, as appropriate:

23 (1) The costs for the social programs for which rate recovery
24 was approved by the board prior to April 30, 1997. For the purpose
25 of establishing initial unbundled rates pursuant to section 4 of [this
26 act] P.L.1999, c.23 (C.48:3-53 et seq.), the societal benefits charge
27 shall be set to recover the same level of social program costs as is
28 being collected in the bundled rates of the electric public utility on
29 the effective date of [this act] P.L.1999, c.23 (C.48:3-53 et seq.).
30 The board may subsequently order, pursuant to its rules and
31 regulations, an increase or decrease in the societal benefits charge
32 to reflect changes in the costs to the utility of administering existing
33 social programs. Nothing in [his act] P.L.1999, c.23 (C.48:3-53 et
34 seq.) shall be construed to abolish or change any social program
35 required by statute or board order or rule or regulation to be
36 provided by an electric public utility. Any such social program
37 shall continue to be provided by the utility until otherwise provided
38 by law, unless the board determines that it is no longer appropriate
39 for the electric public utility to provide the program, or the board
40 chooses to modify the program;

41 (2) Nuclear plant decommissioning costs;

42 (3) The costs of demand side management programs that were
43 approved by the board pursuant to its demand side management
44 regulations prior to April 30, 1997. For the purpose of establishing
45 initial unbundled rates pursuant to section 4 of [this act] P.L.1999,
46 c.23 (C.48:3-53 et seq.), the societal benefits charge shall be set to
47 recover the same level of demand side management program costs
48 as is being collected in the bundled rates of the electric public

1 utility on the effective date of 【this act】 P.L.1999, c.23 (C.48:3-53
2 et seq.). Within four months of the effective date of 【this act】
3 P.L.1999, c.23 (C.48:3-53 et seq.), and every four years thereafter,
4 the board shall initiate a proceeding and cause to be undertaken a
5 comprehensive resource analysis of energy programs, and within
6 eight months of initiating such proceeding and after notice,
7 provision of the opportunity for public comment, and public
8 hearing, the board, in consultation with the Department of
9 Environmental Protection, shall determine the appropriate level of
10 funding for energy efficiency and Class I renewable energy
11 programs that provide environmental benefits above and beyond
12 those provided by standard offer or similar programs in effect as of
13 the effective date of 【this act】 P.L.1999, c.23 (C.48:3-53 et seq.);
14 provided that the funding for such programs be no less than 50 【%】
15 percent of the total Statewide amount being collected in 【public】
16 electric and gas public utility rates for demand side management
17 programs on the effective date of 【this act】 P.L.1999, c.23 (C.48:3-
18 53 et seq.) for an initial period of four years from the issuance of
19 the first comprehensive resource analysis following the effective
20 date of 【this act】 P.L.1999, c.23 (C.48:3-53 et seq.), and provided
21 that 25 【%】 percent of this amount shall be used to provide funding
22 for Class I renewable energy projects in the State. In each of the
23 following fifth through eighth years, the Statewide funding for such
24 programs shall be no less than 50 percent of the total Statewide
25 amount being collected in 【public】 electric and gas public utility
26 rates for demand side management programs on the effective date
27 of 【this act】 P.L.1999, c.23 (C.48:3-53 et seq.), except that as
28 additional funds are made available as a result of the expiration of
29 past standard offer or similar commitments, the minimum amount
30 of funding for such programs shall increase by an additional
31 amount equal to 50 percent of the additional funds made available,
32 until the minimum amount of funding dedicated to such programs
33 reaches \$140,000,000 total. After the eighth year the board shall
34 make a determination as to the appropriate level of funding for
35 these programs. Such programs shall include a program to provide
36 financial incentives for the installation of Class I renewable energy
37 projects in the State, and the board, in consultation with the
38 Department of Environmental Protection, shall determine the level
39 and total amount of such incentives as well as the renewable
40 technologies eligible for such incentives which shall include, at a
41 minimum, photovoltaic, wind, and fuel cells. The board shall
42 simultaneously determine, as a result of the comprehensive resource
43 analysis, the programs to be funded by the societal benefits charge,
44 the level of cost recovery and performance incentives for old and
45 new programs and whether the recovery of demand side
46 management programs' costs currently approved by the board may
47 be reduced or extended over a longer period of time. The board

1 shall make these determinations taking into consideration existing
2 market barriers and environmental benefits, with the objective of
3 transforming markets, capturing lost opportunities, making energy
4 services more affordable for low income customers and eliminating
5 subsidies for programs that can be delivered in the marketplace
6 without electric public utility and gas public utility customer
7 funding;

8 (4) Manufactured gas plant remediation costs, which shall be
9 determined initially in a manner consistent with mechanisms in the
10 remediation adjustment clauses for the electric public utility and gas
11 public utility adopted by the board; **[and]**

12 (5) The cost, of consumer education, as determined by the
13 board, which shall be in an amount that, together with the consumer
14 education surcharge imposed on electric power supplier license fees
15 pursuant to subsection h. of section 29 of **[this act] P.L.1999, c.23**
16 **(C.48:3-53 et seq.)** and the consumer education surcharge imposed
17 on gas supplier license fees pursuant to subsection g. of section 30
18 of **[this act] P.L.1999, c.23 (C.48:3-53 et seq.)**, shall be sufficient
19 to fund the consumer education program established pursuant to
20 section 36 of **[this act] P.L.1999, c.23 (C.48:3-53 et seq.)**; and

21 (6) The costs of electric vehicle rebates disbursed for the "Light
22 Duty Plug-in Electric Vehicle Rebate Program," established
23 pursuant to section 14 of P.L. , c. (C.) (pending before the
24 Legislature as this bill). The board may order, pursuant to its rules
25 and regulations, an increase in the societal benefits charge to reflect
26 these costs.

27 b. There is established in the Board of Public Utilities a
28 nonlapsing fund to be known as the "Universal Service Fund." The
29 board shall determine: the level of funding and the appropriate
30 administration of the fund; the purposes and programs to be funded
31 with monies from the fund; which social programs shall be provided
32 by an electric public utility as part of the provision of its regulated
33 services which provide a public benefit; whether the funds
34 appropriated to fund the "Lifeline Credit Program" established
35 pursuant to P.L.1979, c.197 (C.48:2-29.15 et seq.), the "Tenants'
36 Lifeline Assistance Program" established pursuant to P.L.1981,
37 c.210 (C.48:2-29.31 et seq.), the funds received pursuant to the Low
38 Income Home Energy Assistance Program established pursuant to
39 42 U.S.C. s.8621 et seq., and funds collected by electric and natural
40 gas utilities, as authorized by the board, to offset uncollectible
41 electricity and natural gas bills should be deposited in the fund; and
42 whether new charges should be imposed to fund new or expanded
43 social programs.

44 (cf: P.L.1999, c.23, s.12)

45

46 27. This act shall take effect immediately.

1 STATEMENT

2
3 This bill would establish goals, initiatives, and programs to
4 encourage and support the use of plug-in electric vehicles in the
5 State.

6 Specifically, section 3 of the bill would establish State goals for
7 the use of plug-in electric vehicles and the development of plug-in
8 electric vehicle charging infrastructure to support that use. Under
9 the bill, no later than December 31, 2020, and every five years
10 thereafter, the Department of Environmental Protection (DEP)
11 would be required to prepare and submit to the Governor and the
12 Legislature a report that: (1) assesses the state of the plug-in
13 electric vehicle market in New Jersey; (2) measures the State's
14 progress toward achieving the goals outlined in the bill; (3)
15 identifies barriers to the achievement of the goals; and (4) makes
16 recommendations for legislative or regulatory action to address
17 those barriers.

18 Section 4 of the bill would establish the Electric Vehicle
19 Working Group, to be composed of 19 members, including the
20 Commissioner of Environmental Protection, the President of the
21 Board of Public Utilities, the Commissioner of Transportation, the
22 Executive Director of the New Jersey Transit Corporation, the
23 Executive Director of the New Jersey Turnpike Authority, the
24 Executive Director of the South Jersey Transportation Authority,
25 the Commissioner of Community Affairs, the Executive Director
26 of the Port Authority of New York and New Jersey, the Chief
27 Executive Officer of the New Jersey Economic Development
28 Authority, and the Director of the Division of Rate Counsel in, but
29 not of, the Department of Treasury, or their respective designees,
30 and various other stakeholders and subject matter experts.

31 The working group would be required to develop, and annually
32 update, a Statewide Vehicle Charging Infrastructure Plan, and
33 monitor implementation of that plan and its effectiveness in
34 advancing the goals established in the bill. Subsection h. of section
35 4 of the bill outlines the information to be incorporated into the
36 State Vehicle Charging Infrastructure Plan. The working group
37 would coordinate the development of the plan with the development
38 and revision of the Statewide Energy Master Plan. The working
39 group would also develop a public education program, to be
40 implemented by the DEP, to inform the public about plug-in electric
41 vehicles and the availability of vehicle charging infrastructure. The
42 working group would issue a final report on the Statewide Vehicle
43 Charging Infrastructure Plan during the calendar year 2035 and
44 dissolve 30 days after the report is issued.

45 Under the bill, the Board of Public Utilities ("the board"), in
46 cooperation with electric public utilities and various government
47 agencies, would be required to develop the essential public charging
48 network. The network would: (1) provide sufficient public

1 charging infrastructure to support a significant expansion in the use
2 of plug-in electric vehicles in the State and consumer confidence in
3 using these vehicles; (2) integrate with the electric distribution
4 system and the electric transmission system; and (3) provide a level
5 of public charging infrastructure sufficient to minimize consumer
6 range anxiety. Each electric public utility in the State would be
7 required to implement the essential public charging network in
8 accordance with the requirements of subsections b. and c. of section
9 of the bill.

10 Within one year after the effective date of the bill, each electric
11 public utility in the State would be required to submit to the board a
12 proposed plan for the construction and long-term operation of the
13 essential public charging network within its service territory in
14 accordance with the requirements of section 10 of the bill. No later
15 than 180 days after receipt of a proposed plan, the board would be
16 required to review and issue a determination approving, rejecting,
17 or approving with modifications a utility's plan. The board order
18 approving, or approving with modifications, a utility's proposed
19 plan would provide for and approve full and timely recovery,
20 through a separate utility rate clause, all reasonable costs, which
21 may be included in the utility's rate base as either a capital or
22 regulatory asset. Utilities would be permitted to use funding
23 sources other than recovering costs through customer rates
24 whenever feasible. The bill authorizes utilities to propose
25 programs, incentives, tariffs, and initiatives to support the
26 development of vehicle charging infrastructure.

27 Under the bill, the New Jersey Turnpike Authority, the South
28 Jersey Transportation Authority, and the Department of
29 Transportation would be required to establish publicly-accessible
30 electric vehicle charging parking spaces for the exclusive use of
31 plug-in electric vehicles at their respective service areas. These
32 agencies would be directed to charge a fee to plug-in electric
33 vehicle drivers using the charging equipment in a reasonable
34 amount to recover costs associated with installation and operation
35 of the charging equipment for public use, either directly or through
36 contracted third-parties.

37 No later than 90 days after the effective date of the bill, the
38 board, in cooperation with the State Treasurer and the DEP, would
39 be required to establish and implement the "Light Duty Plug-in
40 Electric Vehicle Rebate Program" for the purpose of encouraging
41 the purchase of light duty plug-in electric vehicles. The board
42 would implement the rebate program until June 30 of the 10th year
43 after the rebate program begins, or after \$300 million in rebate
44 disbursements have been paid from the fund, whichever occurs first.
45 The board would establish the rebate as a one-time payment to the
46 purchaser of a new light duty plug-in electric vehicle in an amount
47 set and calculated by the department as equal to at least \$25 per
48 mile of the eligible vehicle's electric power range as certified by the

1 U.S. Environmental Protection Agency and determined by the DEP,
2 up to a maximum of \$5,000 per eligible vehicle. The board may
3 adjust the rebate amount as necessary to achieve the goals outlined
4 in the bill, but not more than once per aggregate disbursement of
5 \$100 million in rebates. The board, in consultation with the
6 working group, would develop and implement a Statewide public
7 education program to publicize the availability of the rebates under
8 the bill.

9 An "eligible" vehicle is defined in the bill as a new light duty
10 plug-in electric vehicle with a manufacturer's suggested retail price
11 of \$55,000 or less, purchased after the effective date of the bill.

12 "Plug-in electric vehicle" means a vehicle that has a battery or
13 equivalent energy storage device that can be charged from an
14 electricity supply external to the vehicle with an electric plug, and
15 includes a plug-in hybrid vehicle. However, notwithstanding other
16 provisions of the bill, a light duty plug-in hybrid vehicle would not
17 qualify for a rebate after December 31, 2022.

18 Under the bill, a vehicle dealership may, in its discretion,
19 provide a purchaser the option to have the amount of the electric
20 vehicle rebate deducted from the final price of an eligible vehicle.
21 The dealer would then apply to the State Treasurer to receive the
22 rebate. A purchaser who does not receive the rebate at the time of
23 purchase may apply directly to the State Treasurer for the rebate.
24 The board would be required to keep track of, and provide to the
25 public, up-to-date information about rebate availability. Sections
26 17 through 19 establish the process by which an eligible recipient
27 must apply to the Department of Treasury to receive the rebate, and
28 the process by which the Department of Treasury must approve or
29 deny an application. Section 16 of the bill would establish the
30 "Plug-in Electric Vehicle Rebate Fund" to be used by the
31 Department of Treasury solely to make rebate disbursements to
32 eligible recipients. The board would be authorized to deposit into
33 the fund moneys received from the societal benefits charge
34 established pursuant to section 11 of P.L.1999, c.23 (C.48:3-60),
35 moneys made available to the board pursuant to the implementation
36 of the Regional Greenhouse Gas Initiative (RGGI) and P.L.2007,
37 c.340 (C.26:2C-45 et seq.), and moneys available from other
38 funding sources as determined by the board.

39 The bill amends existing law to address implementation issues
40 under the State's adoption of the California Low Emission Vehicle
41 Program and its zero emissions vehicle requirements. The bill
42 would require the Commissioner of Environmental Protection to
43 petition the California Air Resources Board and the Governor of
44 California to revise the State's rules and regulations to provide that
45 the vehicles "sold or leased" in the State meet program
46 requirements rather than vehicles "produced and delivered for sale
47 or lease." Upon revision by the California Air Resources Board, the

1 term "produced and delivered for sale" in existing State law would
2 be construed to mean "sold or leased," until State law is revised.

3 The bill provides that the first \$20 million of funds received by
4 the State each year from participation in RGGI would be deposited
5 into the "Plug-in Electric Vehicle Rebate Fund" established in the
6 bill. Finally, the bill would also permit the costs of electric vehicle
7 rebates disbursed under the bill to be recovered through the societal
8 benefits charge, and it would authorize the board, pursuant to its
9 rules and regulations, to order an increase in the societal benefits
10 charge to reflect these costs.

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ASSEMBLYWOMAN NANCY J. PINKIN (Chair): Good morning.

We're going to start our hearing of -- the Assembly Transportation and Environmental Committees hearing on electric vehicles.

So if everyone could please rise for the Pledge of Allegiance. (all recite Pledge)

ASSEMBLYMAN DANIEL R. BENSON (Chair): I want to welcome the members of the Transportation Committee as well; and our members of the Environment Committee.

I just want to let everyone know, given the number of speakers that we have invited, and the fact that we only have this room until noon, we're going to go through the invited speakers, first all with a time limit of three minutes. We're going to limit the questions from members to just one or two for each speaker at most. If there are questions that you want to ask that you don't get to, just know we will submit those in writing to the speakers, and we'll add them to the record afterward.

If things start going long, you'll see me cut folks off. It's not because I'm trying to be rude; it's just because we want to get as many of the speakers here as possible.

We do have a number of folks from the public who have submitted slips to testify. If they were not on the invited lists, I'm going to apologize; we may not get to everyone. Again, we will ask for written testimony after today that you can submit for our record. It's just a

function of time; and the Appropriations Committee needs to be in here by 12:30.

So I want to thank everyone.

I'm going to turn it back over to the Chair of Environment, if you'd like to say a few words.

ASSEMBLYWOMAN PINKIN: Well, I just want to say, you know, it's very exciting to be talking about environmental issues. We have so many challenges, with climate change. And when you look at the transportation sector, it represents a prime target for cutting American carbon pollution. And light-duty vehicles account for 60 percent of those emissions; medium- and heavy-duty trucks account for 23 percent.

So this is one area -- we're focusing on this issue. The industry is changing rapidly; and, you know, we could go on and talk about what we think, but we're here to hear what you think.

So with that, Chairman, I'll turn it back over to you.

ASSEMBLYMAN BENSON: Great.

Yes, I just think the opportunities for transforming both New Jersey's transportation infrastructure, but also the environment; and considering the benefits both on health and public health, and on where we get our power for our fuel -- I think it's an important component. Obviously, I think we'll continue to see traditional fueling for a number of years. But this is something that I think clearly hits a time, and there are a few barriers that I think this Bill seeks to address, and that these guests will talk about.

First up we're going to have Pam Frank, Vice President of Gabel Associates, and CEO of ChargeVC; along with Mark Warner, Vice President of Gabel Associates.

If you guys could come up.

P A M E L A F R A N K: Thank you; and good morning, Chairman and Chairwoman.

Thank you, also, to the members of the Committee for making today available to take testimony on this important initiative.

My name is Pam Frank; I serve as the CEO of ChargeVC. And the coalition comprises auto dealers, manufacturers, tech companies, environmental groups, not-for-profits, consumer advocates, local governments, power generators. We are all together, advocating for the electrification of our transportation sector.

So to the Chairs -- I did warn them I was going to speak a little bit over the three-minute allocation, as is Mark Warner. But I'll beg your indulgence here as we go through.

ASSEMBLYMAN BENSON: We'll do the best we can.
(laughter)

MS. FRANK: So the Bill we're discussing today does three major things to advance us towards the goal of electrification. It puts goals in statute; it calls for the building of an Essential Public Charging Network to ensure minimal charging coverage throughout the State of New Jersey; and it authorizes a program that will provide rebates for vehicles that plug in to our grid.

I want to jump right to the 800-pound gorilla in the room. The gorilla is the cost to our ratepayers. And I'm here to slay that gorilla, so to

speaking. It's false; it's fake news; and in the interest of time, I'm going to say just six things.

One, I want to remind our legislators of the commitments that were made through the passing of two important laws, the Global Warming Response Act and the Clean Car Act. These laws were efforts to reduce global warming emissions and our toxic air emissions. And these laws were passed, in part, as a recognition that we're vulnerable as a coastal state; and that the dirty air we all breathe every day -- this includes ratepayers -- is, to a large degree, a direct result from the petroleum-fueled cars, trucks, buses that we're driving every day. And they are, literally, choking us. And I'll remind you, 1 in 13 people in New Jersey have asthma.

Second, I want to compel you to act with courage and demonstrate national leadership. Pass this Bill out of Committee, and let's begin the most significant action we can take to realize the goals that this body committed to as a matter of law; law matters.

Third, recognize that the birth of this coalition, ChargeEVC, was based on the insight that by making bold policy moves to electrify our transportation segment we not only demonstrate our commitments to the law and to future generations, but here's the key point -- we can simultaneously grow our economy and save all of those people who ride in cars and buses, and all of our electric customers, money.

Fourth, please do not ignore our hard work. My colleague Mark Warner -- a pretty bright guy -- led a one-and-a-half-year study to give you, our lawmakers, ammunition and facts that you would need for both good policy and good politics; to make the bold moves called for in this Bill. Now, hundreds of thousands of dollars have been raised by the members of

our coalition, in conjunction with philanthropic foundations, to do this work, partly in recognition that the public sector cannot do it alone.

So do not ignore or dismiss this work and the important facts that it brings to light. You know, there are a lot of young people I talk to about this initiative, and they are crushed when I explain to them that all of this work could actually be ignored; that facts don't matter. Demonstrate, please, by voting "yes" on this Bill, that such efforts are not in vain.

Fifth, let me attempt to disabuse you of some faulty facts and assumptions, highlight good news, and shed some light on key motivations.

No one, first and foremost, says the utility should do it all. We should, however, acknowledge their important and unique role in the market again; and also private sector money is very anxious to invest in this state and in the EV space. It's exciting. You'll hear from an investment group like this today. And to be smart, we will need to figure out the proper balance of just enough public sector to attract the maximum amount of private capital needed. And we call that *leverage*, a popular word for good reason.

And there are really two key reasons why the public, in the form of the utilities, needs to be involved. First, the private sector ain't doing it, folks. Range anxiety persists, and that's based on perception grounded in fact that prevents customers from getting in the cars. The fact is, if you run out of charge on one of our roads today in New Jersey, unless you own a Tesla your options to charge up quickly and be on your way, like you do with gas today, are significantly limited.

In the interest of time I'm not going to bore you with my own close-call stories; my plans to set up camp one night in a cornfield, really;

but I will not indulge here. I know I'm not normal, but my husband is; and he says he won't get one of these cars until he doesn't even have to think about what happens *if*. And he doesn't want to open an app to find the answer.

So we need charging infrastructure out there and fast, and we need it to be publicly available. Elon Musk understood this; he knew we needed to solve this problem to sell his cars. He did it on his own dime. But his stations are not available for the rest of us.

We also need to involve the utilities from the get-go -- and this is very important -- to ensure no harm -- and Mark's going to talk a little bit about this more -- and to realize the biggest benefits for everyone. We think of this as *responsible grid integration*; and I'll just say that charging a car at home is not like plugging in a refrigerator.

And then last, we're literally choking on our air. The suffering is the worst in urban areas, and we know public transit is in trouble. Ridesharing, car sharing services -- fueled with electricity that we can unleash in urban areas that require particular infrastructure -- must be directed to those areas. There are also scooters, bikes, tiny cars that move people around in clean, affordable, and reliable manners.

Sixth and last, the State economy. First, let's consider what happens when we have more disposable income; because we're going to spend 4 cents a mile to fuel these cars, versus 12 cents a mile, that unleashes billions of dollars into our economy.

And second, while I can't prove this one, it doesn't require too much of a leap of faith to understand the unique place we are in history, with respect to the growth of electric mobility. Now, it didn't take off in

the beginning of the 20th century, for reasons many of us know; but it's about to take off now, and this is driven by one thing: lower energy storage costs in the form of batteries.

As Jim Appleton can tell you, major manufacturers have already spent hundreds of millions of dollars -- they've already spent this money to develop production lines for these cars, and they're going to flood the market in the next few years. And while California is the center of this on the West Coast, many industries that make up this market are looking for the place to plant their flag on the East Coast.

Ask the folks over at EDA who study this; they understand there are numerous factors that go into a decision about why a company locates somewhere. There's location. We should remind ourselves we're situated right in the middle of the East Coast; there is infrastructure. We are, in fact, a port state; and the linkage between two major markets.

And there is a market. We drive an awful lot in this state; we like our new cars, and we sit in the middle of the largest transportation market on the East Coast.

And there is policy. A leading EV manufacture, when I asked why they headquartered where they did, the answer was simple. "They buy a lot of what we make."

Tim Sullivan just said in the press, relating to wind, that we have a once-in-a-generation opportunity to attract the wind industry to locate here in New Jersey. The exact same can be said about the electric mobility industry.

I'd now like to introduce colleague Mark Warner, who's going to talk a little bit about the facts undercoating this study.

Thanks.

MARK WARNER: Good morning to the Committee.

Thank so much for the chance to talk to you this morning.

My name is Mark Warner; I'm a Vice President with Gabel Associates. We support the organization ChargeVC; and I lead up our research and market development efforts, especially regarding policy development.

So as Pam mentioned, we knew that as we started to develop these new policies, we really wanted it to be a fact-based initiative; that we would be able to present compelling evidence about why it was worthwhile for the State to implement policies that would grow, and accelerate, and ensure the equitable access to vehicle electrification.

So we spent about a year-and-a-half doing this study. We benefited from the ChargeVC membership, the very diverse input of automobile manufactures, the car retailers, all four electric utilities, the charging companies, consumer advocates, and many others. So the study was informed by the perspective and experience of a lot of different folks and stakeholders in the market.

We published that study in January 2018; it's about a 75-page study, so I'm not going to go through that in detail for you this morning. (laughter) Instead, I've condensed the key aspects of the results to a one-page summary, which I will walk through briefly.

And the focus here is, on what the benefits are.

I own an EV; EVs are really fun to drive. I feel like I'm part of the future when I drive around in it. But beyond that, vehicle electrification, as a policy initiative, is worthwhile because the benefits are

huge. This is truly a transformative impact on our economy in many ways. If I only leave you with one message, it's this -- that electric cars are more than just transportation. It has a big impact on our economy, on our environment, on our public health, and it has a potentially positive impact on the cost of electricity for all of our ratepayers.

Electric vehicles are now going to put an entirely new type of load on our public grid; and if we're smart about it, it can make the load on that grid much more optimal and save ratepayers money.

So now that everybody has the one-page chart, let me walk you through, briefly, the way we looked at the benefits in this study. And I would be happy to go through this in detail with anyone else who would like to follow up.

We looked at three different populations in New Jersey: EV owners, utility customers who do not own EVs, and society at large. For each of those three different populations, we looked at three specific types of benefits. One is the benefits related to vehicle fuel and maintenance savings. That one's really simple. The short answer -- the one to throw out at your next cocktail party -- is that fueling an electrically fueled mile costs about half as much as a gasoline-fueled mile. So for reference, we spend somewhere between \$7 billion and \$10 billion a year on gasoline for our vehicles in New Jersey; just the cars. So if we're now going to take half of that and buy electricity instead, we're releasing, on average, about \$5 billion worth of new, disposable income into New Jersey households. That translates, through 2035, to about \$7.5 billion of new disposable income for New Jersey folks. Translated to a household level, if you have two EVs in your home, you're going to be saving a little over \$1,400 a year.

So that's real disposable income that's now circulating in the local economy, rather than buying an imported product, like petroleum, just because efficiency is much more cost-effective than petroleum is.

And by the way, when we did that calculus we assumed that electric vehicle owners would continue to pay, in some form, their fair share of the investment in the Transportation Trust Fund, all right?

The second thing we looked at is how vehicle changing would affect electricity costs. And the short answer is that, especially if we're smart, those costs will go down. The easiest way to understand it is that when people start charging on the grid, the consumption of electricity is going to up. The utility costs are predominantly fixed costs, and so we're now diluting those fixed costs over a larger number of kilowatt hours.

There are some additional factors going on as well. If most of this charging is at night, rather than at peak times, you end up leveling the load and you're purchasing more of the kilowatt hours overall during less-expensive, off-peak times. So as a result, the average cost of wholesale power goes down.

Now, the important point here is that this is a benefit that's realized by all ratepayers, not just the people who own the vehicles. Everybody who is now charging their electric vehicle is helping to change the economics of the grid itself, and deliver benefits to everyone on the grid. That adds up to almost \$2 billion through the period 2035; and by that point in time, those combination of effects that I described would reduce electricity costs, on a unit basis, by about 12 percent

I can't overemphasize this point enough that this is now a very large load; ultimately, 20 to 30 percent of our electricity consumption will

be for fueling our vehicles when we get to high levels of adoption. But what's unique is that we have some influence over when and how that load happens, unlike all the other loads that we carry during the day. So if we use that load to optimize the grid, it has a significant impact on costs, and that's where these results come from.

The last one is the value of reduced air pollution. The key thing to know is that every electrically fueled mile in New Jersey is about 80 percent cleaner than a gasoline-fueled mile. There are other pollutants, besides just CO₂, that are also reduced, especially NO_x, which has a significant impact directly on public health. If we use national figures to ascribe an economic value to those reduced emissions, that adds up to about \$2.5 billion, realized at the State level through the period 2035.

On a household basis, a two-car house that has EVs in the garage would have about 17,000 pounds worth of lower emissions than they normally would.

ASSEMBLYMAN BENSON: We're going to have to ask you to wrap up.

MR. WARNER: I will; I'm on my last point.

So that just gives you a quick profile of the benefits overall.

As Pam said, we look at this in the context of the net benefits, considering the costs. So we inventoried our best estimate of what the costs are to achieve the roadmap that the organization has published. We looked at the cost of our proposed incentive program, which is around \$700 million, including the proposed rebate program; and \$400 million worth of potential EV programs by the utilities.

We also looked at the potential need for grid reinforcement by the utilities, and we included those costs. And we looked at the costs by others -- by non-utility members. When you add all those costs up -- not just the benefits that I talked about, but all the costs as well -- the benefits exceed the cost by about a factor of 2, with about a net \$11 billion benefit to the State.

As Pam described, we assume that part of this comes in the form of an incentive program; but there is a lot of cost-share going on. For every \$1 in that \$400 million hypothesized utility program, there's about \$9 being spent in the public sector on the charging infrastructure that's needed.

So this is a large-net benefit that affects multiple sectors; it affects multiple populations; has a direct impact on our environment and our public health. We think it will make the economy stronger because we're now giving each household more disposable income. And if we do it right, it'll reduce the costs for all ratepayers, given the positive impacts it could have on the grid.

So that's a short summary, but we'd be happy to either take questions, or follow up as needed.

Thank you.

ASSEMBLYMAN BENSON: Any questions from the Committee? (no response)

Okay, seeing none--

Next up we'd like to have Tom Ashley from Greenlots.

And then, after that, we're going to bring up Kevin Miller and Michael Farkas, from ChargePoint and Blink Charging; after Tom Ashley is finished.

T H O M A S A S H L E Y: Good morning, Chairs Pinkin, Benson, and members of the Committees.

My name is Thomas Ashley, and I am Vice President of Policy for Greenlots. Greenlots is a leading electric vehicle charging software and services company based in Los Angeles. Currently, our East Coast office is in Manhattan; and we maintain an office in Princeton, where our Vice President of Market Development is based, who lives in West Windsor.

Greenlots is actively installing charging stations at workplace and multi-family sites in Englewood and Parsippany; and is committed to the accelerated and aggressive growth of the electric vehicle market in New Jersey.

I am here today in strong support of Assembly Bill 4634. Greenlots is a member of the Board of ChargeVC, and 4634 represents a consensus position of the Coalition. Indeed, through the convening process of ChargeVC, there has been consensus across a diverse group of organizations that electric vehicle adoption will provide benefits for all New residents, including ratepayers, as well as the environment, while supporting economic development and resulting in cost savings, many of which you just heard before me.

I would note that the breadth of this cooperation across diverse organizations is, in fact, unique to New Jersey; and is a testament to the consumer demand driving electric vehicle adoption.

I would share with you that while I'm responsible for policy and regulatory strategy across North America, and am, in fact, based in Los Angeles, Trenton has been a more frequent destination for me this year than any other city in the U.S.

New Jersey has significant opportunity and potential for growth of electric vehicles. This growth can yield savings for ratepayers and benefits to the electric grid, including the promise of significantly improving system efficiency if well managed.

Indeed, a deep and flexible utility role -- as outlined by the legislation -- is essential to leverage the full involvement, assets, and capabilities of the utilities to accelerate transportation electrification; and best position ratepayers to realize the full array of benefits this technology transformation can bring.

This does not happen automatically, however; and Greenlots draws a direct line between the deeper the role for the utility and the greater the benefit to ratepayers.

I would also note that while the Bill before you represents consensus language for the ChargeVC coalition, there are ongoing attempts to weaken it and the ability of the utilities to potentially manage charging to the benefit of all ratepayers, by removing the capability of the utilities to choose the best technology to manage the charging infrastructure networks deployed as part of their programs. While we don't believe this to be in the best interests of the State, to the benefit of ratepayers or the market, we believe the appropriate venue for this topic to be decided is within the BPU, and not here.

I would also note that the market needs utilities to play a robust role, as the economics in deploying charging stations has not yet yielded adequate private investment, and has not created a positive private market business case despite significant investment in charging technology companies, like ours, themselves.

In closing, I would note that while there are costs associated with transportation electrification and this Bill, there are greater economic benefits; and these are beyond the passenger vehicle segment. For example, research shows that while electric transit, shuttle, and school buses have higher up-front costs, they have reduced fuel and maintenance costs, a longer vehicle lifespan, greater potential to reduce criteria air pollutants and greenhouse gases, and provide health benefits for diverse communities, spanning from port workers to schoolchildren.

Thank you.

ASSEMBLYMAN BENSON: Thank you so much.

As I mentioned before, we'd like to have Kevin Miller from ChargePoint, and Michael Farkas from Blink Charging.

You both come up.

And Kevin, start whenever you're ready.

KEVIN GEORGE MILLER: Okay, great; thank you.

Thank you, Chair Benson and Chair Pinkin; and through you, to your Committees, for the chance to provide testimony today.

As the Director of Public Policy for ChargePoint, I'd like to express my gratitude, to all of you, for your continued focus on transportation electrification.

I'd like to start with a quick confession. I don't own an electric vehicle (laughter), but that's because I don't own *any* vehicle. I live in New York City; I don't own a personal vehicle. And the opportunities of transportation electrification really extend beyond personal vehicles. They extend to all forms of transit, and they represent a huge opportunity to create benefits for everyone in New Jersey.

ChargePoint designs, manufactures, and sells hardware and software solutions in every category where EV drivers and fleet operators charge: at home, at work, around town, and on the road. We sell EV charging equipment, and then provide a variety of services and software solutions to customers who independently own and operate electric vehicles charging stations. We call them our *site hosts*.

We're a founding member of ChargeVC and the EV Charging Association, which is a national EV charging industry group.

So New Jersey's at the center of a paradigm shift, in both the environment, with climate change coming on quicker and stronger; the energy world being in flux, with cleaner opportunities to clean up the grid upon us; and transportation really being at a tipping point towards transportation electrification. Underlying all of this is the need to take advantage of opportunities to promote economic development and local job opportunities. And this Bill represents an opportunity to address all of those things.

Very briefly, EV drivers refuel their vehicles when they arrive at their destination, not on their way to it. And that is the key to all of the grid benefits that we've heard about so far. Ninety percent of charging takes place at home and at work; but a lot of it also takes place at

destination locations -- retail centers, hospitals, apartments, condos, universities, gas stations; you name it -- in our experience in deploying over 57,000 charging stations.

Site hosts that have skin in the game -- that they're investing themselves -- are in the best position to manage that driver experience. And the EV charging market in New Jersey and around the world is growing. Last month, ChargePoint announced that we secured \$240 million as our latest multimillion dollar Series H funding wrap, our largest ever; and that's a total of more than half-a-billion dollars in funding. And that fund raise was fueled by a diverse portfolio of partners, including American Electric Power; joining groups like Chevron, Daimler Trucks and Buses, Siemens, BMW -- a number of institutional players that are really showing that this is not just a theoretical shift; that we're in the middle of it.

ChargePoint is committed to deploying 2.5 million charging stations around the world; and we think that a huge number of those can be in New Jersey if we get a couple of things right.

So first, in order to do that, EV drivers need to have a seamless charging experience at home, around town -- no matter where they are or what vehicle they're driving.

They need to have a seamless experience, while helping to identify challenges and provide solutions for site hosts and utilities, which can happen collaboratively. And that collaboration is really key to moving forward. And this Bill represents an opportunity to strike a balance between incentivizing and reducing barriers.

We have two brief recommendations related to how we can strengthen this piece of legislation, related to regulated electric utilities and processes that are pretty in the weeds at the Board of Public Utilities.

So as has been noted, and as ChargePoint fully agrees with, utilities have a vital role in the deployment of a fueling network for the future that's going to be at the cornerstone of supporting the revolution in mobility. It's essential, though, that at the same time, customers -- those site hosts that I mentioned -- who are participating in programs, have choice in both the hardware and the software the network services. Currently, the legislation only requires that customers get to choose hardware, not the network services, not the smarts -- the pieces that are critical to ensuring that we can effectively manage that load and create widespread grid benefits for all ratepayers. Innovations in network services include some of those load management pieces, pricing, and access controls. There's no one-size-fits-all approach. And if we limit the options to just one, we'll hamstring New Jersey's ability to manage that new load and ensure equitable access to all for electric transportation.

We don't want to stifle the market; we want to move it forward and we want to collaborate. So we need to make sure that our utility partners can effectively manage the grid, while also making sure that the site hosts, who are providing these valuable charging services in so many different places -- like in a retail environment, where they could offer an hour of free charging to bring in a customer, and then send them a price signal to get them to move along -- we need to make sure that they have that flexibility to participate.

And secondly, it's important to establish one clear set of criteria to make sure that regulated and competitive market participants participate in a collaborate manner and avoid any kind of winner-take-all approaches. States like California and Massachusetts have established clear sets of criteria, and those practices would strengthen this Bill.

So I want to cut it short; I know there are a lot of folks who are looking forward to participating.

So thank you again for your consideration, and I'd be happy to take any questions.

ASSEMBLYMAN BENSON: Thank you, Kevin.

Michael.

M I C H A E L D. F A R K A S: Hello, Chairman; Committee members.

Thank you for having us at Blink Charging -- to allow us to participate.

We're friends and competitors in certain ways. In the past, actually, we were ChargePoint's largest customer.

We own and operate charging infrastructure, more so than sell hardware; although we do also sell hardware to third parties.

We have many locations throughout New Jersey already, where we own and operate charging infrastructure. We've made the investment ourselves; and played chicken-and-egg, not only in New Jersey but throughout most of the states in the United States.

We've deployed close to 15,000 charging stations. And again, our model is quite different. We're not the gas pump manufacturer of the future; we're actually the gas station of the future. We partner with

property owners, all different kinds -- whether they're multi-family residential operators, retail operators, municipalities throughout the country. And we actually own and operate, and sometimes partner with municipalities in the ownership and deployment of that infrastructure.

So it's a little bit of a difference. All of the data, all the facts that my friend at ChargePoint brought up -- they are correct. Ninety percent of charging is done not where you're going to go, but, really, where you are; mostly at home. If there's infrastructure available at home, that's where you're going to charge.

I spend a lot of time in Miami, where I live in a single-family home. And I'm in the city -- New York -- quite often. In Miami, I charge nowhere but my home. I do own electric cars; I have a Model 3 and a Model S today. I drive electric cars quite often, and have since they've been released. And I will tell you, there are certain amazing data points that you can get. For the last, I would say, eight or so years, when someone drives by me or I'm walking by, and I see someone in an EV, I typically knock on their window, ask them to open up their window, and say, "Hey, what's your favorite thing about driving an EV?" I would say, out of about 70 or so females who I have approached, all of -- one, who was standing in front of a bright red Tesla Model S Ludicrous, who said she's in love with her car -- every other -- and I mean every other single female, without hesitation -- their favorite thing about having an EV is not going to a gas station.

So this concept of going to a gas station, or a fueling station of gas stations, in the past -- when you can charge at home, I think most people will end up taking the option of charging at home. There are security issues, there's fear, there's dirt -- so on and so forth. Men -- a lot

more, “I love my car,” “I love fueling at home.” But it’s been amazing how consistently females will say, “I don’t like the environment of fueling stations, and I love the fact that I’m able to charge at home.”

And females today, really, dictate a lot of automotive purchases; and it’s been really -- show trends of where things are happening.

So we believe that our main focus has been deploying charging infrastructure in multi-family residential locations. In addition, you can go on Amazon and buy one of our home charging stations.

And what I think the government needs to do, on a State or municipal level, is really focus on assisting those to have fueling capabilities in their immediate vicinity. We have a solution, that’s a patented solution, that allows adding charging stations to light poles that were just recently converted from prior technology into LED. There’s a lot of access capacity. And when you go into residential communities and areas -- in urban areas, where there are no parking facilities, you do quite often have 8, 10, 7, 5 light poles that are there. There’s power available; we have energy management systems that allow for us to go ahead and manage the loads throughout those urban areas. And it’s a solution where it’s a very, very easy way to deploy charging infrastructure in low-income areas; and that’s a focus that I think we really need to look at.

Wealthier people have the ability of putting charging stations in their own homes. Building owners have the ability of putting that infrastructure in, and then partnering with operators like us and subsidizing that. But what we really need to focus on is the masses; really bringing these savings to the people who need it most, which are the lower-income housing residents.

ASSEMBLYMAN BENSON: Great; thank you both.

We have, just a quick question.

ASSEMBLYMAN McKEON: Just a quick question, knowing everyone's time schedule.

Kevin, more towards you -- having met with a lot of the stakeholders, as we all have, privately -- I keep hearing about *data mining* as a big part of this process. You know, could you comment on that? You know, those who -- the best intentions stated indicate that's really what this is about -- not wanting to share information with the utility, as opposed to keeping it proprietary; and this whole struggle is going on, state by state, between ChargePoint and the others in the industry.

So I just want to get it out in the open and hear what you have to say,

MR. MILLER: Sure; no, thank you very much for the question, Assemblyman.

ChargePoint is in strong support of having open standards and making sure that we can have as easy to access a network as possible. And we should have as few barriers to plugging in your vehicle as possible, and we should have as few barriers to ensuring collaboration with utilities as possible.

Recently, ChargePoint announced a first-in-the-industry roaming agreement so that you, as a driver, could roam between competitor networks using the same membership card. We've announced two roaming agreements: one with FLO, our neighbors to the north in Canada, and one with EVBox, one of the largest networks in the world.

But on the data itself, ChargePoint's own site hosts are responsible for the data that accrues in the stations that they use. We have data that we make accessible, with agreement with our site hosts, to utilities, using open standards; one of which is called *OpenADR 2.0*, and it's a standard that allows for load management.

So we are not a proprietary network. We use open standards to allow access to data; while, at the same time, allowing our site hosts to manage their own stations and analyze the data that they have. But we also simultaneously partner with academic institutions around the world to analyze that very data set to make sure that we can get to the right solutions.

ASSEMBLYMAN McKEON: Is the premise -- and I'm taking away from ChargePoint for a moment -- is it the case that the data -- and I don't know what it says about somebody from a perspective of marketing, if they use electric cars -- is it occurring now around the country, relative to the data being mined from users, that is being salable to third parties interested in knowing?

MR. MILLER: So ChargePoint does not partake in that practice. So the data that we have, or any personally identifiable information, is not shared externally. When we talk about those open data protocols that are used to partner with utilities to manage load, that's done with the agreement of site hosts. And drivers often have the chance to opt out of any potential load management programs which could effectively manage that charging, which we refer to as *smart charging*.

ASSEMBLYMAN McKEON: Interesting.

Thank you for the deference, Chair and Chair.

ASSEMBLYWOMAN PINKIN: I just have one question.

ASSEMBLYMAN BENSON: Go ahead.

ASSEMBLYWOMAN PINKIN: One question in regards to the -- whether it's the data sharing or the idea of having -- using the telephone poles. How are people paying for that? I mean, that might be a quick way to get the system up and running. And how do people pay for that; if they're going to a telephone pole, they're going to put in their charge card; or how will that work?

MR. MILLER: So ChargePoint deploys its stations; either they could be wall-mounted or pedestal-mounted. We don't currently integrate in the same way that Michael referred to. What our stations have for residential charging stations -- you're not paying anyone aside from your utility for the energy use. If you're using a commercial station -- which could be owned by a municipality or a retail location -- that site host is responsible for determining what price, if any, to set for charging; which could be price-based on how much energy is used, or it could be price-based on how long you stay at the station.

So we provide multiple forms of payment at our stations, which you can use one of our membership cards to pay; you can use a contactless credit card; you can use Apple Pay, Android Pay; you can pay through a number of means to get your charging session started and then get back on the road.

ASSEMBLYWOMAN PINKIN: And the telephone poles?

MR. FARKAS: Very similar. You're able to use mobile applications, RFID cards, smart credit cards, contactless credit cards. And you would pay based upon either per kilowatt hour or on a time basis.

ASSEMBLYMAN WOLFE: Excuse me; I have a question.

ASSEMBLYMAN BENSON: Go ahead.

ASSEMBLYMAN WOLFE: Yes, I just want to make a statement.

The Eagles got robbed yesterday by the referees.

ASSEMBLYMAN McKEON: And the Giants two weeks earlier, just for the record. (laughter)

ASSEMBLYMAN WOLFE: I mean, if you saw that game, you would know that.

But anyway, I wasn't going to say anything; I just wanted to listen, because I'm very interested in this topic we're talking about today.

My wife purchased a Tesla two years ago; she bought another one last year. I don't drive it; I'm not allowed to drive it. (laughter) I've driven it once. It's a lovely car; it's great.

We recently moved; but we worked with Tesla. We had a contractor, that they recommended, put a charging station in our house; and I don't think our electric bills went up that much from what they were previously. Charged it, maybe, overnight. But when we take a trip, we have to go to a Tesla charging station; it takes about, maybe, 40 minutes for a full charge, and that's not really that bad. You have a map and you know really where you're going to go; you know where the stations are.

However, I think one of the problems is, we recently moved from our house to a condominium complex, and there's no charging station. So we drive, now, maybe, 15 miles or 20 miles to the supercharger; that's the price we pay.

So I think it's very economical, it's very convenient, it's very comfortable, it's very quiet. You do not have to go to a gas station; you're correct. Service is great.

But I think it's -- what you're saying now-- And the Bill offers the opportunity to have almost like an unlimited number of charging stations, which I think is really good for anybody who really wants to think of purchasing the vehicle.

So I'm just really here-- I'm going to listen. The Model S is really great, the backseat rides wonderfully. (laughter)

So I'm just going to sit here and listen; but I think the concept is great, and I really thank all of you for being here today.

I will shut up.

MR. FARKAS: I have a solution for your condo.

ASSEMBLYMAN WOLFE: Oh, yes, sir. Okay.

MR. FARKAS: That's what we do.

ASSEMBLYMAN WOLFE: Okay.

MR. FARKAS: We partner with condo management companies and owners and operators.

ASSEMBLYMAN WOLFE: I'm not soliciting anything, by the way.

MR. FARKAS: No problem.

ASSEMBLYMAN WOLFE: Okay.

MR. FARKAS: But that's what we do.

ASSEMBLYMAN WOLFE: Okay.

MR. FARKAS: We make sure that when people buy an EV that we partner with locations that are in the vicinity of where they live and deploy infrastructure.

ASSEMBLYMAN WOLFE: Okay, thank you very much.
Go Eagles.

ASSEMBLYMAN BENSON: Assemblywoman DeCroke.

ASSEMBLYWOMAN DeCROCE: Thank you, Mr. Chairman.

I apologize that I was late getting here. I had an early-morning meeting that kept me from being here on time.

Michael; I guess, Michael.

MR. FARKAS: Yes.

ASSEMBLYWOMAN DeCROCE: You did make a comment that wealthy people have charging stations in their home; I guess, like my colleague sitting to my left here. (laughter)

ASSEMBLYMAN WOLFE: No, my wife--

ASSEMBLYWOMAN DeCROCE: No pun intended.

But my question to you is, what is the average cost of an electric car? Because you're talking about having charging stations in urban areas for people who cannot afford to have a charging station in their home. But what's the price of the average electric car right now?

MR. FARKAS: Today, because of-- I would say you're seeing cars at the higher end of the market; full electric cars. But you have Nissan Leafs; you have now Kias that are coming out. With the Federal subsidies and the state subsidies, we're going to start seeing parity pretty soon on pricing, where--

ASSEMBLYWOMAN DeCROCE: But what's that pricing right now, and what do you think it's going to go to?

MR. FARKAS: Well, if you look at a Tesla -- right? -- and you compare it to its true equivalent -- right? So a Model S is, what would you say, either a Mercedes S-Class, or a BMW 7 series; or maybe it's slightly under, and it's the 5 Series and the E-Class -- when you compare them, the Tesla is actually cheaper than its comparative car.

ASSEMBLYWOMAN DeCROCE: Well, but, that's only wealthy people who can afford them at this point.

MR. FARKAS: Correct. Well, now you have Model 3s; the Model 3 is now the sixth-highest selling car in the United States. And while it's--

ASSEMBLYMAN BENSON: And we note that Tesla is actually going to be the next person speaking, so--

ASSEMBLYWOMAN DeCROCE: Yes; you know, it's just that, you know, I mean, the cost-- We're looking at the cost--

MR. FARKAS: When you're looking at total costs--

ASSEMBLYWOMAN DeCROCE: --for less than even the average person to be able to afford to have a convenience. And, you know, just so you know, in New Jersey -- and this will be a chuckle -- at gas stations, we don't pump, you know? (laughter)

MR. FARKAS: Right; I know that, I realize that.

ASSEMBLYWOMAN DeCROCE: I'm a Jersey girl; I don't pump.

MR. MILLER: Assemblywoman, I would add, though, that the price of driving an EV is half that of a regular car on a per-mile basis. And

we see more and more models that are hitting the market now at below \$30,000. But also, interestingly, the resale market -- some of the top-selling resale vehicles -- the top five in the last few years have all had plugs of one form or another.

And so we're seeing more and more opportunities to increase access to charging. And having home charging isn't just for one group of folks or the other. You can go on Amazon right now and you can order -- or whatever website you choose to--

ASSEMBLYWOMAN DeCROCE: You can always get anything on Amazon today.

MR. MILLER: --but it's not an exorbitant amount. We're talking very accessible amounts for that residential charging, which is where 60 percent of charging takes place and a lot of that value is created.

ASSEMBLYWOMAN DeCROCE: And just for the Committee itself--

MR. FARKAS: Home chargers are a \$500 piece of equipment.

ASSEMBLYWOMAN DeCROCE: --excuse me, sir -- just for the Committee itself, as we're looking and talking about this -- which sounds so futuristic for us -- we still have to worry about the TTF and how we pay for the roadways with all of this being considered. And I feel we cannot lose sight of that because that's an extremely important issue. You can plug it in your house--

MR. MILLER: Sure.

ASSEMBLYWOMAN DeCROCE: --but you're still going to ride the roadways and have to pay for it.

MR. MILLER: Sustainable funding for roads is critical.

ASSEMBLYWOMAN DeCROCE: Well, that's something that we can't lose sight of.

ASSEMBLYMAN BENSON: Sure; yes.

ASSEMBLYWOMAN DeCROCE: And I know our Chairman will not.

So thank you so much.

MR. MILLER: Thank you, Assemblywoman.

ASSEMBLYMAN BENSON: Thank you both.

MR. FARKAS: Thank you.

MR. MILLER: Thank you.

ASSEMBLYMAN BENSON: Next up is Ryan Barnett from Tesla.

R Y A N B A R N E T T: Chairs Pinkin and Benson; Committee members, especially Assemblyman Wolfe (laughter), thanks for the admiration.

I happen to agree with you about the Eagles, so--

My name is Ryan Barnett; I'm a Senior Associate with Tesla's Policy and Business Development Team here in the region.

Tesla supports Assembly Bill 4634 that will encourage electric vehicle adoption, and allow New Jersey the ability to capitalize on the social, environmental, and economic benefits and opportunities associated with this market.

Tesla's mission is to transition the world to a sustainable energy future. Our most critical focus is to design, manufacture, sell, and service compelling and increasingly affordable all-electric vehicles. We've been selling our vehicles in New Jersey since 2012, when we opened our first

locations in northern New Jersey promoting our first premium sedan, the Model S. With a relentless focus on consumer education, New Jersey drivers have learned of the inherent benefits of owning an EV, and how this new type of personal transport fits into their lifestyle.

Since then we've built up a workforce of over 300 sales, operations, and service personnel, dedicated to providing the best possible customer experience for prospective customers, and the more than 8,500 in-service vehicles and 11,000 renewable energy customers who we've amassed across the state so far.

In addition to our current customer base, more than 10,000 New Jersey drivers have placed a deposit on our newest and most affordable EV, the Model 3. These delivery and demand figures illustrate what we, at the leading edge of the market, already know -- and that's New Jersey is primed to be a top U.S. market for EVs.

This amount of demand requires a corresponding investment in infrastructure. As such, Tesla has planned a rapid expansion of our DC fast-charging Supercharger network in the state, from 12 active sites today with over 100 stalls, to more than double that amount to be deployed in 2019.

Each of these sites represents a roughly half million-dollar investment in local infrastructure, supplied by local vendors and installed by local contractors. All this to say that these private investments that we make are a gauge, indicating the scale of critical EV infrastructure will grow exponentially as more EV models are introduced into the market from other manufacturers.

In addition to all the provisions in this legislation, we do believe that for New Jersey to hit its 2025 target of 330,000 EVs, it must consider Tesla's share of the market when theorizing how to get there.

In North America this year, Tesla has sold 77 percent of all battery electric vehicles. In New Jersey, specifically, Tesla makes up more than 80 percent of the market; all this while current law restricts Tesla to only four licensed locations in the state.

For Tesla to adequately serve consumer demand there should be consideration to allow Tesla, as an American innovation and manufacturing company, to deepen its roots and increase its investment in the state. Enabling additional licensed sales, service, and delivery centers will naturally prompt more EVs onto New Jersey roads, all while creating employment and job training opportunities to equip a new workforce to sell and service these exciting new machines.

Tesla hopes that this current reality can be remedied so we can more effectively support the state and industry partners, and ensure real progress towards these goals.

For all these reasons and others, Tesla asks that you support this legislation; and I'd be happy to take any questions.

ASSEMBLYWOMAN DeCROCE: I do.

I'm going to talk about the fact that you are limited to six, which was the approval when you came into the State of New Jersey -- or four.

MR. BARNETT: Four.

ASSEMBLYWOMAN DeCROCE: Okay.

Just for the record, my father was a car dealer for 54 years.

MR. BARNETT: Sure.

ASSEMBLYWOMAN DeCROCE: And he had to buy a franchise license. And that franchise license made a value to his business. So I have a really hard time not saying to you, to Tesla, buy into New Jersey and do a franchise like everybody else--

MR. BARNETT: Sure.

ASSEMBLYWOMAN DeCROCE: --and be a part of us. Because by allowing something that you want, you're going to devalue all those franchise licenses for all those car dealers that have been here for years, and years, and years.

So, you know, that's one issue that I'm going to be very hard talking about, saying to you, why don't you do the reverse? Why don't you start a franchise business and do it like everyone else?

MR. BARNETT: Sure.

ASSEMBLYWOMAN DeCROCE: So, you know, I'm going to be up-front. I don't think it's right that -- you know, I walked through the mall, and then there's a regional place to take my car to be serviced. I have heard people complain about that to me.

So I am going to go on the record, right here and now, that I have an issue -- that's just me -- on that subject. And I look more towards Tesla giving on your end, to consider the franchise policy of how we operate car dealerships here in New Jersey.

MR. BARNETT: Sure.

And I'll just say, I don't want to divert the focus of this hearing to address our mode of distribution and direct sales model. But I respect

your position; and look, we can only aspire to have the type of impact that franchise dealers have had in the state for years -- for a century, right?

But we do believe, for many reasons, that creating a direct relationship with customers is existential to us executing our mission.

ASSEMBLYWOMAN DeCROCE: Well, I--

MR. BARNETT: And I'm happy to meet with you in private and discuss it.

ASSEMBLYWOMAN DeCROCE: Yes, I could just say this, and I'll say it very shortly.

For 54 years of seeing my dad work, he had very personal relationships with his customers.

MR. BARNETT: Absolutely.

ASSEMBLYWOMAN DeCROCE: And you brought up the subject of the franchise, not me; so that's why I directed it.

MR. BARNETT: Sure.

ASSEMBLYWOMAN DeCROCE: Thank you.

MR. BARNETT: Thank you, Assemblywoman.

ASSEMBLYMAN BENSON: Thank you so much.

Assemblyman Giblin, you had a question?

ASSEMBLYMAN GIBLIN: A question -- what is the life expectancy of an EV?

MR. BARNETT: A hundred years. Our batteries are built to charge and discharge for a century without -- with very little power loss.

ASSEMBLYMAN GIBLIN: And what about the issue of maintenance of those vehicles?

MR. BARNETT: There's much less maintenance required of EVs than a traditional internal combustion engine car. We have about six or seven components; whereas, an IC engine has 1,500 to 2,000 components that could all go wrong.

We have learned that 75 percent of our service doesn't even require the use of a lift; it's more like a computer upgrade or a Geek Squad visit, more so than a visit to the mechanics.

ASSEMBLYMAN GIBLIN: You're saying they'll last a hundred years.

MR. BARNETT: The battery itself.

ASSEMBLYMAN GIBLIN: Well, I'm looking at the whole issue about vehicles right now, becoming outdated or need for a new model -- about the whole issue about what this impacts, as far as the economy is concerned. You know, there's going to have to be loss of revenue to the State because people won't be turning over vehicles, correct? -- that might be your thinking, right? I mean, there's no need to go out-- You know, people go out and buy a car now, maybe, every three, four, five years. So that won't necessarily be the case if you have EVs, right?

MR. BARNETT: In a sense, sure; I can respect that position. But I think everybody is looking -- consumers are looking for the newest and best models; and these EVs -- not just ours -- will continue to improve. Range will continue to improve.

ASSEMBLYMAN GIBLIN: Won't you see traditional auto dealers being impacted significantly, which would result in possible cutbacks or closures? It would seem to me that's where we would be headed. I'm

looking at the whole issue of economy, about tax revenue, about people who are auto mechanics--

MR. BARNETT: Sure.

ASSEMBLYMAN GIBLIN: --people who have traditional dealerships. It can't be all one way; I would think it's going to wind up being cut back in those areas. Or am I not looking at this properly?

MR. BARNETT: I think you're talking about a new product -- that Jim Appleton, NJCAR, will talk about -- dealers need and intend to sell, and consumers want to buy. If consumers want to buy EVs, then every franchise dealership in the State will sell those EVs.

Unfortunately, auto manufacturers have less skin in the game, and they haven't made the commitment that Tesla has to build a compelling, and more and more affordable product. There are remedies there that it's not my position to make or convince you of. But I think consumers are demanding this new product, this new mode of transport.

ASSEMBLYMAN GIBLIN: I know I'm thinking this thing out a bit. In case of power outages, how would you deal with this issue?

MR. BARNETT: Power outages at the residential level?

ASSEMBLYMAN GIBLIN: Residential; even, you know, regional level. We've seen it happen.

MR. BARNETT: Sure; it's a problem.

We at Tesla sell solar panels, solar generation products; we also sell the same battery that is in our vehicle to be deployed as stationary storage at people's homes and businesses. We like to think we have a solution for that problem of an outage -- that if customers choose to put solar panels on their home, hook those solar panels up to a bank of power

walls or residential storage product, that they can effectively be off-grid and charge their vehicle even in the event of an outage.

So we're selling the entire sustainability ecosystem, not just a vehicle that is totally dependent upon grid power.

ASSEMBLYMAN GIBLIN: You've been successful in other states. What has the impact been, in terms of some of those areas I mentioned -- about cutbacks with dealerships, or people who might be in training to become automotive mechanics? That means -- is there less need for that, you know--

MR. BARNETT: Yes. So far we haven't seen any evidence to suggest that our growth in a state or market has any negative impacts on dealers and other distribution models. We've done significant studies in California and Nevada where we have really robust presence. I'd be happy to share those studies with the Committee and any members who would be interested in reading them.

But there's also significant third-party consumer reporting studies that support our position that this is -- our presence is a net-positive for any state.

ASSEMBLYMAN GIBLIN: Well, just my observation, the car industry in the state is an economic engine--

MR. BARNETT: It sure is.

ASSEMBLYMAN GIBLIN: --and the dealerships, the people who work at those dealerships, the people who repair the vehicles -- it's somehow, you know, it's not on the same level as you. But it just seems to me that it could be a negative. And then the other side is the revenue side,

as far as what it means to the State with the fees, or DMV, or sales tax issues like that.

MR. BARNETT: Sure.

ASSEMBLYMAN GIBLIN: Okay.

MR. BARNETT: I respect your position.

ASSEMBLYMAN GIBLIN: I'm listening and learning.

MR. BARNETT: Thank you, sir.

ASSEMBLYMAN BENSON: Thank you so much.

MR. BARNETT: Thank you.

ASSEMBLYWOMAN PINKIN: Okay, next we'll bring up Jim Appleton, President of the New Jersey Coalition of Automotive Retailers; and Secretary of ChargeVC.

J A M E S B . A P P L E T O N: Good morning.

Thank you, Madam Chairwoman and Mr. Chairman.

I'm Jim Appleton; I'm President of the New Jersey Coalition of Automotive Retailers. NJCAR is the statewide trade association that represents all of the franchised new car and truck dealers here in the State of New Jersey. It's a \$35 billion a year industry here in the state, with 38,000 fulltime employees; good paying, predominantly union jobs; great benefits. Jobs that cannot be outsourced, or shipped to the Sun Belt or overseas.

Mr. Chairman, Madam Chairwoman, my friend from Tesla acknowledged that he was drawing you off-topic. If you will just indulge me; because while he said he didn't want to shift the debate, he actually did.

You know, to be clear, car dealers are all in on EVs. Automakers have invested tens of billions of dollars in EV technology, considerably more than Tesla has.

Tesla has 8,500 vehicles in operation here in the State of New Jersey; and only two places where you can go to take that vehicle to be fixed. Car dealers, on the other hand, have 520 rooftops here in the state where consumers can have their vehicles maintained.

The car business is not about new cars sales; the car business is about serving and protecting the investment that your constituents make in that new motor vehicle.

And I think that what you'll see is that the franchise system of independent business owners -- locally owned and operated business owners, for the most part -- is a more effective way of ensuring that consumers get what they intend.

When a consumer shows up at an independently owned local car dealership with a warranty or safety recall problem, they are viewed as a neighbor and somebody with whom the dealer has a business relationship; and they want to serve that customer. But far more importantly, frankly, is they're viewed as revenue; because State law requires the automakers to pay dealers, local businesses, to fix their mistakes.

This is not the case at a Tesla location. Tesla has a financial different point of view. They see a consumer with a recall or a safety problem as an expense; and they will work, as you might expect, as hard as they can to ensure that they limit or reduce that expense to the corporation.

This is why State law in New Jersey has required franchisees to operate motor vehicle dealerships for the last 40-plus years -- is because --

not because it's good for dealers, but because it's good for consumers, and because it advances the public interest in competition -- price competition for the vehicle; competition for service; and also for protecting a consumer's investment in that very expensive product that they own.

Now, as to the State law that limits Tesla to having only four locations -- they're not limited to four locations. They're limited to four *factory-owned* locations. And for good reason; I just told you -- it's not in the public interest to have a vertically integrated monopoly.

So what we're talking about is, if Tesla wants to have 7, 10, 15, 18 locations, they can do that. They can appoint locally owned and controlled business owners to make those investments.

ASSEMBLYMAN BENSON: In the time left you have -- which is negative two minutes (laughter) -- can you talk a little bit about the Bill?

MR. APPLETON: Okay, let me move on to-- And you all have my comments on this legislation.

ASSEMBLYMAN BENSON: Yes.

MR. APPLETON: I really do appreciate your giving me the opportunity to speak about it.

And again, I apologize for getting drawn off task.

ASSEMBLYMAN BENSON: That's okay.

MR. APPLETON: But it would have been association executive malpractice not to address the issue that was raised earlier. (laughter)

Look, on the Bill-- As you've heard from our friends at ChargeVC and others, this legislation addresses what's really been an effort that's gone on over the last several years, to identify the key friction in the marketplace for EV adoption. I'm going to tell you that the new car dealers

are all in on EVs; automakers have invested tens of billions of dollars in this technology. Right now, there are 40 different models of plug-in electric vehicles available in the marketplace; and by 2021, there will be 60 different models. So the good news is that there is great product available and great product coming.

Two pieces of bad news, I guess. First and foremost, this year we expect that EV sales will account for just about 0.4 percent of the marketplace. That's in a marketplace that the Cal-LEV -- the California car law that is on the books in New Jersey, and that you're obligated to enforce -- requires 4.5 percent, this year, pure electric vehicle sales. So we're nowhere near where we have to be.

And the reason for that is really quite simple. It's twofold: One, the price. Somebody -- I think, perhaps, it was the Assemblywoman -- had asked about the differential in price. You know, an EV is typically \$10,000 to \$15,000 more expensive than a comparable internal combustion engine vehicle. And while there are a lot of benefits to EV ownership and there are a lot of early adopters who are flocking to EVs, that delta in the difference in price is problematic. And so that's why incentives are needed.

The other aspect of the price concern is, frankly, a quirk in the California Air Resources Board regulations -- which was adopted and written into New Jersey law -- which is that automakers aren't actually required to see vehicles retailed. They are only obligated, under State law, to deliver vehicles for sale, which means they can deliver those vehicles to new car dealers, force new car dealers to buy and stock those vehicles, and not see those vehicles actually placed in service -- which, of course, does nothing to help the environment and only is a burden on local businesses.

So I know that under Section 23 of this statute there was an effort to address that issue. I'll just go on record saying that we don't think it's gone far enough; that we really do need New Jersey to reverse the CARB ruling. Automakers will argue that Section 177 of the Clean Air Act, the identical rule, prohibits or prevents us from making that change. Our legal analysis says just the opposite; that you, the State Legislature, are free to adopt whatever means of enforcement for the CARB rules that you think is appropriate; but you cannot create a different standard or require the automakers to build a different vehicle.

And then, lastly, I would say, in addition to cost being an obstacle to EV adoption infrastructure-- And this legislation, again, I think takes a sober and a considered view of both the cost issue, *cash on the hood* incentives for motor vehicles to help close that gap, as well as infrastructure investment to help overcome range anxiety in the marketplace.

Two other quick points about the incentives. I note that there was a question as to whether or not vehicles that are leased would be eligible for the cash on the hood incentives. You should know that half of the vehicles in the State of New Jersey, fully half of the vehicles in the State of New Jersey are leased. And to leave half of the vehicles out of that picture I think would be a big mistake for the Legislature.

ASSEMBLYMAN BENSON: I think that's a great point.

MR. APPLETON: And additionally--

ASSEMBLYMAN BENSON: We're going to have to wrap it up there.

MR. APPLETON: Let me just--

ASSEMBLYMAN BENSON: Just for questions.

MR. APPLETON: Oh, incentives, also, for partial zero-emission vehicles -- hybrids and the like -- any vehicles that are eligible for CARB or California Resources Board Clean Air credits ought to be eligible for some incentive, whether it's a pro rata portion-- Because again, we're never going to meet that CARB mandate, that 4.5 percent of the market that has to be EVs, or ZEVs. We're never going to meet that if we don't also include some of those other alternative technology vehicles in the incentive plan.

I apologize if I've run over, Mr. Chairman, Madam Chairwoman; but thank you.

I'm happy to answer any questions you have.

ASSEMBLYMAN BENSON: Thank you.

ASSEMBLYWOMAN PINKIN: Well, they're all good points, and we will definitely take them under consideration.

ASSEMBLYMAN BENSON: Okay.

MR. APPLETON: Thank you.

ASSEMBLYMAN ROONEY: I just have one question.

ASSEMBLYMAN BENSON: Go ahead.

ASSEMBLYMAN ROONEY: So Jim, just a question -- and I don't want to make this about Tesla -- but we did speak earlier that their new Model 3 is an entry-level car, which online -- the entry-level is \$46,000 to \$56,000; at least that's what the stat is.

Isn't it true that GM, right now, has dropped many models because there's a shift in the dynamics of what people want in this country, more towards SUVs? And do you feel that some of that is being driven by the low price of gasoline right now?

But more importantly, how do we change the minds of the consumer right now to invest in a car that is significantly higher; and it comes with a price point that doesn't necessarily allow the pocketbook to really work out, when they sit down and do their monthly analysis of their budgets? And then, more importantly, you know, we have a lot of young folks coming in and looking for a car to start, and they certainly can't afford a \$46,000 car.

So I hope you can answer to some degree.

MR. APPLETON: Well, this legislation provides part of the answer. Because, again, without cash on the hood incentives, the difference between an internal combustion engine vehicle and an even entry-level EV is \$10,000 to \$15,000 or more.

Now, when you factor in -- assuming it continues, the Federal tax break -- if you have a \$7,500 tax bill -- and for a lot of young people who are looking to buy their first car, that wouldn't be the case; they wouldn't be able to take advantage of that Federal tax break perhaps. But, you know, when you factor in the tax break, and you look at the cash incentives that this legislation would provide, we're starting to close that gap and make it more affordable.

But the marketplace is a wonderful thing, and consumers are very smart at picking value. I think it was PSE&G had some incentives on BMW i3s recently. Now, the BMW i3 retails for less than a Model 3; I think it's \$40,000, \$42,000. And with a \$10,000 cash incentive, dealers couldn't stock i3s. But without it, dealers aren't stocking i3s because they know that the consumers aren't buying that.

So this legislation is an attempt to address the two obstacles that have really been identified as the biggest stumbling points for EV adoption. First, the price of the vehicle, versus a comparably equipped internal combustion engine vehicle. Incentives -- cash on the hood incentives will help there. Secondly, shifting the burden from the automaker to simply deliver vehicles to dealers, to actually seeing those vehicles placed in service, will ensure that manufacturers are forced to price and equip vehicles so that they sell in the marketplace; not so they can force their dealers to take them, but so that they can actually sell in the marketplace.

And then, lastly, the infrastructure development will make consumers feel more comfortable -- that driving that EV is a good choice for them here in the State of New Jersey.

ASSEMBLYMAN ROONEY: Thank you.

MR. APPLETON: Thank you.

ASSEMBLYWOMAN PINKIN: Next, we're going to have Robert Revelle (indicating pronunciation).

ASSEMBLYMAN BENSON: Revelle (indicating pronunciation), ACE; and Andrew Hendry, President and CEO of New Jersey Utilities Association.

ANDREW D. HENDRY: Thank you, Chairs.

Shall I begin?

ASSEMBLYWOMAN PINKIN: Sure, if you want. You're there first.

MR. HENDRY: All right.

Chairs, members of the Committees, my name is Andrew Hendry. I'm the President of the New Jersey Utilities Association. We represent all the private sector utility companies serving your constituents.

And I'm speaking on behalf of the four electric distribution companies today.

I'm going to be really brief, because people who are far more knowledgeable on this issue have already made a lot of the points that I was going to make, and have made some of my arguments for me.

Obviously, as an industry, we're extremely supportive of this legislation. Many thanks to the sponsors, Chairwoman Pinkin and Assemblyman Kennedy; and also the charge for leading the way and getting us to this point.

We feel, as an industry, that enhancing and increasing electric vehicle ownership is a win-win-win; it's a win for consumers and ratepayers, for utilities, and for the environmental community and our environmental efforts in this state. And it's great that these disparate interests are able to work together on this issue, as we've been able to do.

I just wanted to make two quick points, sort of, essentially, to put them on your radar screen -- sort of caveats, given all the other points that were made. And one already has come up; Pam mentioned it, and a few others may have.

Some will argue that the utilities shouldn't have a role in the ownership and the management of electric vehicle infrastructure. And, oftentimes, that's driven by market concerns. We think that it's absolutely essential, and that you're simply not going to be able to meet your goals under this legislation, and be able to adequately address the range anxiety

issue that's been brought up numerous times as a leading factor driving down EV deployment, without utility ownership on the table as an option. And again, to make clear: It's an option and not a requirement; and the legislation is very clear about that -- that it's one of many options.

For a lesson in this regard we need to look no further than California, which has been mentioned already. I think all of us would agree that they've been on the vanguard, in terms of environmental issues and clean vehicle issues in the country.

California, back in 2011 -- their Public Utilities Commission precluded utilities from ownership, and operation, and deployment of charging infrastructure, in most cases. A mere three years later, they reversed their decision because they realized that they couldn't reach the milestones that they wanted to reach without a heavy utility involvement. And what they're doing there is, they're looking at individual utility filings, on a case-by-case basis, as would be the process here. They've approved a number of utility programs, but after negotiations amongst the parties and sort of the quasi-litigated process that we would have here in front of the Board of Public Utilities.

There are states you can look at as well on this front: Oregon, Georgia, Kentucky, Washington. There's a great Pew research study that I can share with you that talks about the utility role in a number of these other states.

But in a nutshell, if you really want to adequately address range anxiety, don't leave any tools out of the tool belt. Utilities are going to be an essential part of that process.

The second point is a little more of an arcane topic, but it did come up today; it was mentioned by ChargePoint, and you may hear more about it as you are debating this issue -- this legislation and, perhaps, other bills -- and that is so-called *network choice*. It sounds very nice, but we consider it a bit of a wolf in sheep's clothing. The basic argument of the proponents of this is that the end-user should be able to choose what kind of network software -- and I'm not talking about the hardware; I'm not talking about the charging station -- but the network software that is used to communicate data back from the charging station, to other stations and to the charging network.

But that puts the network operator -- which would be the utility, in our case -- in a position of potentially having to support a bunch of different data subnetworks in a single charging network. It's expensive; it will be inefficient; and it would be impractical. And frankly, it would defeat the whole purpose of having a network in the first place.

Our greatest concern is that it could be essentially used as a poison pill by a vendor to blow up a project, simply because that vendor is unhappy that they were not chosen in the bidding process for that particular project.

So my only reason for putting that on the table is that, to the extent that you hear this term *network choice* or it comes up during the debate, that you look at it with a skeptical eye. We're happy to sit down with any of the members who want to discuss this issue further, including with the proponents of it. But I just wanted to put that on the table as something to be cautious about.

And that's really all I had, given all the other comments that were made.

ASSEMBLYMAN BENSON: Okay; thank you so much.

Robert.

ROBERT REVELLE: Thank you.

Good morning, Chairwoman Pinkin and Chairman Benson, and members of their respective Committee who are before us this morning.

I am Robert Revelle, New Jersey Government Affairs Director for Atlantic City Electric, an Exelon Company.

I want to thank you for the opportunity to testify on A-4633. We are very supportive of this Bill as a positive step forward in realizing the goals of lower emissions, while bringing more jobs to New Jersey.

We believe Atlantic City Electric has an essential role in reducing carbon emissions in our service territory, by accelerating the adoption of electric vehicles and in investing in charging infrastructure; while at the same time ensuring electric transportation is available to everyone.

We believe electrification of transportation can benefit all communities in New Jersey, including those communities with lower incomes, by helping to reduce emissions statewide. We believe Atlantic City Electric is well-positioned to help ensure EV infrastructure build-out that meets the needs of diverse, and low-income and moderate-income customers as well.

The electrification of the transportation sector can also ensure that all customers share in the benefits of easier and more accessible EV

charging, cleaner air and water, less vehicle noise, and more electric transportation options.

As Andrew said earlier, ours was one of the utilities that filed a petition before the Board of Public Utilities in February of this year -- a \$14.5 million program for a plug-in vehicle charging initiative in New Jersey. And through this proposed program, Atlantic City Electric will provide special rates for its residential customers who charge their electric vehicles during off-peak hours. Also, we'll provide discounts off of the equipment and/or installation costs for Smart Level 2 Charging Stations for residential and commercial customers. We'll also install and operate Direct Current Fast Chargers and Smart Level 2 Stations, and manage a program that encourages such innovative projects, as electric school buses, to facilitate the electrification of the transportation sector in New Jersey.

In closing, Atlantic City Electric, we believe, is well-poised to assist in the development and deployment of EVs, which will support New Jersey's clean energy and transportation goals. We think it will also expand customer options to help ensure the availability of needed EV infrastructure to support the growing number of EVs on the road.

I'll cut my testimony short and say thank you very much today; and we'll be happy to answer any questions that you may have.

ASSEMBLYMAN BENSON: Okay; one question.

Assemblyman Freiman, and then Assemblyman Giblin.

ASSEMBLYMAN FREIMAN: Thank you for being here.

Earlier we heard testimony that, overall, by switching -- charging at home at night will actually lower the residential cost, because it will bring-- Peak hours will change, will be done. New peaks will occur

overnight; and then we'd see, for residential customers, a reduction in electricity costs. From what I heard, perhaps, the wholesale electricity costs will be going down; and that's, I guess, how you acquire some electricity as well.

It's new information. I just wanted to wait until you actually were here, so you could comment on this as well, so I can get some more information behind that.

MR. HENDRY: Sure.

ASSEMBLYMAN FREIMAN: And aside from just-- You mentioned that you're just filing unique rates; that's different. I'm just wondering, from a larger grid perspective.

MR. HENDRY: Right; so-- And there are experts, like Mark Warner, here who can probably explain this better than me.

But the greater the amount of electric usage at one particular period of time, the per-unit cost goes up; because the cost is driven by the highest cost generated that's generating electricity during that period.

So to the extent that you can do what's called *peak-shaving* -- shave off some of those peaks, and smooth out the load, you can help keep the per-kilowatt hour cost of electricity down for all consumers. So that's certainly part of the goal with this legislation. And also part of, I think, the potential benefit -- having charging station networks that are able to communicate with each other, that can incentivize; not just at home, but incentivize charging at night or before everybody gets home, and so when usage or load is lower; and discourage it when it's higher -- is some of the great promise that this system holds.

ASSEMBLYMAN FREIMAN: But if we create a different peak -- if we just shift our peak from daytime to nighttime, how does that help reduce costs?

MR. REVELLE: Yes, I think we anticipate that there won't be an equal peak -- right? --

ASSEMBLYMAN FREIMAN: Okay.

MR. REVELLE: --to what we see in daytime. So there will be, actually, a little bump up in the evening; but that's preferred. Because as Andrew said, it's going to shave off the incredible peak that we have when companies and everybody is out in the marketplace buying, and making purchases, and running their companies.

So it will be a slight bump; but it's not going to compete with the peak that we see now that we're trying to shave off.

ASSEMBLYMAN FREIMAN: So the daytime usage, somehow, will go down?

MR. REVELLE: Well, it will go down if, in fact, cars are being charged at night; so, off-peak. We'll see that load begin to move down a little bit -- right? -- but not -- it's not going to be an equal shift; meaning, the cars will charge at night. To some extent, that's a new load coming in.

MR. HENDRY: On the grid.

ASSEMBLYMAN FREIMAN: So, perhaps, I can have this conversation offline--

MR. REVELLE: Please.

ASSEMBLYMAN FREIMAN: --because, quite honestly, this is a brand new utilization of electricity. So I'm not sure how I'm seeing the

shift from the daytime usage to the evening. So we can take this offline.

MR. REVELLE: We're happy to have that conversation.

MR. HENDRY: Sure; yes. Thanks.

ASSEMBLYMAN FREIMAN: Thank you.

ASSEMBLYWOMAN PINKIN: For one thing, we're going to have turbines coming online, bringing more energy. So that will help.

MR. HENDRY: So, I mean, I can't speak to how the total load will climb or fall. I mean, certainly part of the goal is-- There is certainly going to be increased electric usage. Plugging in an electric vehicle at home, I believe, can drive up the load for that home 30 or 40 percent. But the idea is to -- of the networks that are being considered by this legislation -- is to ensure that that doesn't occur at the normal peak time. And so, therefore, that would not require you to fire up some of those additional generators to meet that peak.

And so that's the goal of the Smart Charging Network that's being considered in this legislation -- is to help try and ensure that even though there may be greater demand, we're actually trying to drive down the peak and push that and spread that out more evenly through the day.

ASSEMBLYMAN BENSON: Assemblyman Giblin, you had a question?

ASSEMBLYMAN GIBLIN: One of the speakers previously had mentioned that they thought that the BPU might be a better venue than the Legislature for developing some of the legislation regarding electric vehicles. Do you have any opinion on that; or has anything even been done with the BPU in this regard?

MR. HENDRY: Well, as Robert mentioned, a couple of utilities do have filings in. PSE&G has a pretty significant one, about \$300 million; and Robert's company, about \$15 million. So they are actively considering a couple of proposals from utility companies right now.

I would argue that the Board, under this legislation, does have a pretty significant amount of authority and ability to shape this program, because the utilities will file with the Board their plans for their service areas. And then, just like any other matter that comes before the Board, that goes through a process where the various parties, including Rate Counsel, negotiate the aspects of that proposal. And then the Board makes a final decision about what it should look like.

So I think the Board is going to have a pretty significant role, even under this legislation. I think the legislation strikes a good balance towards pressing for and setting goals, and giving the Board of Public Utilities a lot of discretion to help shape what it will look like when it's actually implemented.

ASSEMBLYMAN GIBLIN: Thank you.

ASSEMBLYMAN BENSON: Assemblyman Karabinchak.

ASSEMBLYMAN KARABINCHAK: Thank you, Mr. Chairman.

As everybody has testified today, do I believe EVs are our future? The answer is "yes." However, I haven't heard anything about what our projected electric needs are, in the next 5 years or 10 years, if this grows at the exponential numbers that I'm hearing today. If it's 100 percent or 50 percent, next year it's going to grow bigger and bigger. What are our electric needs?

And the second part of this question is, how do the utilities plan on servicing this extra electric need that New Jersey is going to see?

MR. HENDRY: I'll take first shot at that.

One, I would say that all of the investor-owned electric distribution companies are actively -- have active investment programs, either filed before the Board or ongoing right now, and have been making billions of dollars of investment in their infrastructure, to upgrade, and harden, and make more resilient their infrastructure and upgrade their circuits in general, which will benefit towards this as well.

I may be going out on a limb a little bit here, but I think that the answer to your question depends on what level of deployment ends up occurring at the end of the day, and how rapidly electric vehicles are adopted. But to the extent that we can -- through the mechanisms in this Bill, through Smart Charging, through networks -- encourage people to charge off-peak and discourage them from charging on-peak, we can very much minimize that impact on the grid.

And there's even promise down the road for electric vehicles being able to discharge into the grid and help, potentially, drive down the need for other generation at other times of the day. So to the extent that we can actively work to try to shape that load, and stop this, and try and smooth the curve, as it were, we may be able to minimize the need for additional investments because of the deployment of electric vehicles.

MR. REVELLE: And I agree. I think most utilities have a five-to ten-year, sort of, planning horizon. And Exelon -- Atlantic City Electric is no exception to that.

So this is one of the reasons this Bill is so important, because it sets in place a sort of program that allows utilities to begin to plan even more specifically. So the clearer the direction is, as to how many cars are going to be coming on stream, certainly it's easier for us to determine where that load is going to occur and how to best meet that load.

ASSEMBLYMAN KARABINCHAK: Thank you.

ASSEMBLYMAN BENSON: Thank you so much.

ASSEMBLYWOMAN PINKIN: Any other questions? (no response)

MR. HENDRY: Thank you, Chairs.

MR. REVELLE: Thank you.

ASSEMBLYWOMAN PINKIN: All right, next we'll have Stefanie Brand, New Jersey Division of Rate Counsel

S T E F A N I E A. B R A N D, Esq.: Good morning.

ASSEMBLYMAN BENSON: Good morning.

MS. BRAND: Thank you so much, to the Committee Chairs and to the Committees, for having this hearing. I think it's a really important topic that we all need to talk about.

I will say that I am, apparently, the 800-pound gorilla, because the people I represent are the ones who have to pay for everything we've talked about so far today.

I'm going to start off by saying that we understand that it's necessary to electrify our transportation sector; no one is disputing that. And in fact, no one is disputing that ratepayer dollars are going to play a role in that transition.

But we can't do the whole thing on the backs of electric utility ratepayers; we really, really can't. As you've seen today, there is a competitive industry that exists and should be allowed to flourish; and we need to see what they will build. Some people have already dismissed it and said, "It can't be done; it's not cutting it." But frankly, I think it's a little too early in this process for us to make that conclusion, and to take what is currently a competitive industry and turn it into a monopoly.

We've heard several times today -- and I'm very curious about this -- that the Bill doesn't *require* the utilities to do this; it simply *allows* them to do it. Well, you know, that's just not really accurate.

I was just flipping through, while I was sitting back there -- if you look at Section 10(b), for example, it *requires* the utilities to implement the charging network statewide. And they're allowed to do it by contracting with other companies or hiring third-party contractors, like they do with much of their work today. But ratepayers will still pay for it. And it's not as if it's going to not show up on people's bills. When you look at -- the *cash on the hood*, is what they're calling it -- the incentives for people buying these cars, again the Bill, in Section 14, says that the BPU *shall* create a fund. Now, the BPU has no source of funding other than ordering a charge on people's electric bill. That's the reality of it.

So what we need to do is target ratepayer dollars to the places where we really need them, and not to the other places. So for example, one of the things we've heard about today is that there are going to need to be upgrades to the distribution system as a result of everybody coming home at night and plugging their car in. I imagine those will be paid for by the ratepayers. Those are things that are part of running our distribution

system; and it's not unreasonable, within limits, for ratepayers to pay for that.

Some of the infrastructure may also have to be paid for by ratepayers. If it turns out the competitive industry does not build out where we need it, in terms of charging stations, then we can consider whether or not the utilities should have a role.

But to charge ratepayers right off the bat for 1,300 charging stations -- it's too much, and we don't know yet that it's necessary.

We also know that, in this Bill, the normal protections-- We do have utilities playing in competitive markets in a few places. But they are under EDECA, which is the Electricity Discount -- I don't know; I don't know all the acronyms -- but it's our basic statute that governs how, in a competitive world, our utilities run these days.

There's a provision that says if they do a competitive business, all the revenues have to go back to ratepayers, because we're providing the venture capital for them. We are helping them fund these things; they don't, then, get to keep the profits. That is not in this Bill. In this Bill, we fund them, and then they keep the profits, as do the car companies, as do the charging stations. So that's another inequity here that needs to be addressed.

And ratepayer dollars -- it should not be open-ended. The ChargeVC study, that we heard about earlier today, assumed a \$700 million contribution from ratepayers; and that was over a period of -- may not be spent the same amount every year -- but that was over a period of 17 years. Frankly, if there was a cap in this Bill for that amount of money, I would probably not even be sitting here today.

But the Bill itself doesn't have -- it will cost way more than \$700 million. Just for the rebates on cars alone, it's \$300 million over 10 years. So that's \$30 million a year; \$700 million over 17 years is only \$40 million a year.

So there needs to be some caps included in this legislation so that ratepayers are not given open-ended liability to pay for what we're trying to do here.

And in that vein, Section 10(h) needs to come out in its entirety. I mean, Section 10(h) -- I call it the *kitchen sink provision*, because it basically says, "Utilities, while you're proposing to build these charging stations, and while you're proposing to fund all these programs, go ahead and propose anything else you feel like might it be a good thing to do." And ratepayers just simply can't afford that.

There should be no ratepayer money, frankly, for the rebates for the vehicles. Just to answer your question -- which you never really got an answer to before -- the cheapest electric vehicle, right now, for sale in the U.S., is about \$30,000. But it is the equivalent in size to about a Honda Fit, right? So first of all, I know-- When I bought a car last year, I couldn't afford \$30,000 on my State salary; and a lot of people can't afford even a \$30,000 car.

And even if they can, a Honda Fit -- that's not going to help a family of four. That's not something that the average person is going to be able to do.

So what we're doing here, basically, is taking people who can't afford this and putting it on their electric bills. They're going to pay for this; and yes, usage is going to go up. And the reason that we use-- They

want to try to use this to shave peak; the idea of shaving peak is so that you don't have to use those peaking plants; you don't have to build new peaking plants. But if our usage is going up, we probably -- we might need new generation.

So you can't say that, in the end, an open-ended liability like this will ultimately save ratepayer money. What it will do is essentially transfer money from people who can't afford even a new car, who only buy used cars, and they will then be subsidizing the people buying the Teslas and buying the other electric vehicles. And it's just an enormous transfer of wealth in the wrong direction.

So there is a lot to do. We have a lot of other things that we need to do. We want to build offshore wind; we want to expand our solar. But if we're going to spend money like this on just electric vehicles, we're not going to be able to afford everything that we want to do.

So we've asked for some specific amendments to this Bill. I've provided written testimony; I provided a letter, so I'm not going to go into detail here. But we do need-- This Bill needs to be reined in. We need to take advantage of the competitive industry where we can; we need to limit the amount of ratepayer dollars where we can; and we need to make sure that everybody gets to benefit from this future, and not only those who can afford these vehicles currently.

Thank you.

ASSEMBLYMAN BENSON: Thank you so much.

Any questions? (no response)

Okay.

Next up can I have Kate Monahan, Friends Fiduciary. And then, after that, we're going to bring up Jeff Tittel, Doug O'Malley, and Noah Garcia; so just be ready.

KATE MONAHAN: Thank you, Chairwoman and Chairman, and members of the Committee.

My name is Kate Monahan, and I'm pleased to be here representing my firm, Friends Fiduciary Corporation.

We're an investment manager, based in Philadelphia, and we serve Quaker organizations across the country. That includes 48 meeting schools and retirement communities in New Jersey.

So I really appreciate the opportunity to speak to you about business and investor support for accelerating the adoption of electric vehicles, and our support for A-4634.

So we're a long-term investor; we're a faith-based institution; and we're also a member of the Ceres Investor Network on Climate Risk.

And so we prioritize socially responsible investments, and we recognize that advocating for climate solutions is really essential to keeping our communities prosperous and healthy for generations to come.

And so I will make several points outlining our views on this important Bill.

So first, we believe that climate change is the world's foremost economic challenge. Research by the Intergovernmental Panel on Climate Change, or the IPCC, has shown that we have little more than a decade to stave off catastrophic climate change. And climate change will impact the economy as a whole -- the companies in which we invest, and the communities which we call home.

And so for investors like us, climate change is really a risk multiplier that decreases investor confidence and hinders long-term prosperity.

Environmental stewardship is also deeply ingrained in Quaker values; and confronting climate change is a priority for many of our communities.

So secondly, reducing emissions from transportation requires concerted action today. So New Jersey emits far more greenhouse gases from the transportation sector than from power plants. And getting those emissions under control will require a suite of strategies, including electrifying the automobile industry; but also including expanding reliable public transit, making streets more bikeable and walkable. But again, electrifying the automobile industry is part of that.

This Bill would make New Jersey the most ambitious state in the nation in advancing the transition to electric vehicles. And that leadership is really needed now more than ever.

So thirdly, accelerating the adoption of electric vehicles would create huge investment opportunities for New Jersey. So A-4634 sends a really clear market signal that will drive investment for years to come.

The goal of 90 percent electric vehicles sales by the year 2040, and increased availability of accessible, affordable, and convenient public charging infrastructure, will ensure that New Jersey is ready for the clean economy of the future.

So fourth, and finally, the business case for electric vehicles is strong. So nearly 50 percent of the Fortune 500 and 60 percent of Fortune 100 companies have greenhouse gas, renewable energy, or energy efficiency

goals. New Jersey businesses, such as Unilever, IKEA, Hackensack Meridian Health, and Amazon are already investing in electric vehicles and EV charging infrastructure, not only because it's the right thing to do, but because it makes sense for their bottom lines.

So in conclusion, Friends Fiduciary is proud to advocate for policy action to reduce greenhouse gas emissions and promote electric vehicle adoption in New Jersey.

As investors, we have a clean tech allocation in our portfolio because we believe this sector is essential to the economy of the future. And current policies alone are really insufficient to meet the requirements set by the Global Warming Response Act and the United States' present obligations under the Paris Agreement.

And we really see this Bill as making it easier for New Jerseyans to invest in electric vehicles, which would make the state a leader in the clean transportation economy, and would help improve the health and prosperity of our communities.

Thank you for the opportunity to testify today.

ASSEMBLYMAN BENSON: Thank you again.

ASSEMBLYWOMAN PINKIN: Okay, so next we have Jeff Tittel from Sierra Club; Doug O'Malley, Director of Environment New Jersey and President of ChargeVC; and Noah Garcia, from NRDC.

J E F F T I T T E L: Hi; thank you.

And I just want to say that we worked on this Bill for about -- the California car bill for about three years, until it finally got passed in 2014. And it's amazing I'm still here to see it actually, now, come to reality and get implemented.

We support the legislation, but believe that there needs some fixes. Because we believe that it needs to be focused-- Jeff Tittel, Sierra Club; and I'm also on the Board of ChargeEVC.

I think, first and foremost, part of what we need to have in this state is an education program on why electric vehicles are so important, and why they're a good fit for our economy. I think that will help move them forward, and I think that needs to be part of any legislation.

New Jersey, as you know -- 45 percent of our greenhouse gases come from mobile sources, from automobiles; and there are communities in this state that are choking to death on auto pollution, especially in many of our urban areas.

So we believe that when we look at how we are going to deal with the benefits and using different funding sources, we should really focus electric vehicles on those communities that have a disproportionate share of pollution; especially the charging stations. And we need to make sure that as we develop programs, that where the market can take care of electric vehicles or charging stations, let the market do it; but in the areas where we have underserved communities -- especially low- and moderate-income communities -- that's where we really need to focus our benefits.

We strongly believe that we need to make sure that we can put in charging stations in places like Belleville and Newark. I think Short Hills will take care of itself. The same thing on rebates -- someone living in Alpine may not need a rebate, but someone living in Kearny definitely will. And I think that's something we should really look at, and look at the location for the charging stations.

And I believe utilities should play a role; but again, a lot of it should be in the grid and bringing in the power to those charging stations. When they come in and put in charging stations, again they should be looking at -- since the ratepayer's involved -- into the more underserved communities. I think it would be a benefit, versus other areas.

We also believe that we need to try to make sure that we can get everybody included into electric vehicles. So that would include making sure that ride shares, and Zipcars, and other places like that will also go electric; electrifying buses and school buses eventually should be part of that. But we should also think about resales of electric cars, because I think that electric cars are going to be a lot like iPhones, where everybody wants the latest and brightest model; and that there's going to be cars coming back from lease or turned in when people are going for the latest one -- to recondition them and put them back out again into those communities where you can afford-- Like Stefanie said, she's a State employee. She may not be able to afford a new Tesla, but maybe a reconditioned one, you know, would make sense -- since they last a long time. The motors are good, and it's just making sure there are batteries.

The other thing that I also think, is we need to work on electric fleets as well.

And one of the better ways we can also move electric vehicles forward -- the Bill sort of talks about it in generalities -- but if you're going to be getting State money, a BEEP grant, an EDA loan, or a tax increment financing, why aren't electric vehicles part of that? Charging stations? I think that would make a lot of sense to include that, especially in Tax

Increment Financing; also in building codes for new multi-family or large commercial and office developments, you know, since that's part of it.

We also think -- let the gas stations also compete if they want to. But I think we should be looking at some of the more market solutions for it, with construction codes. We also would like to see, as part of the rebate program, like a cash-for-clunker, to be able to retire some of the dirtier vehicles. I think that would also make a lot of sense to get the dirtier vehicles off the road.

But for us, you know, we see another area -- addressing Assemblyman Wolfe's new concern, where he moved -- other states are working on right-to-charge legislation; so that if you move into a multi-family, or co-op, or condo development, that if enough people petition, that they'd have to put one in for people to use. I mean, it would make sense; also so that people are not necessarily charging hogs. I mean, I'll give you one of the best examples. We have a charging station here in the State House; and yet, it's only for State employees. So you, as a legislator, can't use it. It makes no sense.

We need to allow, and open up, these charging stations around, and charge a fee. You can charge a fee, but to open up these places so that more -- we have more access to charging.

And finally, I just want to add -- we want to talk about electrifying our ports as part of any comprehensive legislation. But for us, we see this as a golden opportunity for us to grow our economy, create new jobs, to ensure a cleaner, healthier future for other people of the state by moving forward with electric vehicles. We think there's work to be done, and we need to focus; because we don't have a lot of money. And we need

to also look at some other funding sources, like a carbon tax for transportation, or a luxury tax on gas guzzlers, or things like that, to help get some of the money that we're going to need to move this forward.

But we think this is a great first start; it's been a long time coming. And this legislation will not only help create jobs, but it will help us all breathe easier.

Thank you.

ASSEMBLYWOMAN PINKIN: Thank you.

Doug.

DOUG O'MALLEY: Thank you, Madam Chairwoman; and thank you, Chairman Benson; and thank you, prime sponsor Kennedy.

I want to start off by saying that I represent Environment New Jersey; but I also represent Jersey Renews -- which is a broad faith, labor, environmental, and community group coalition -- that's represented in this room today with GreenFaith, the Work Environment Council, multiple environmental allies, Amalgamated Transit Union, New Jersey Sustainable Business Council, and Isles.

MR., TITTEL: And the Sierra Club.

MR. O'MALLEY: Yes; and Sierra Club, and Clean Water Action, and Re-Think Energy.

So what we-- You know, I'm also here as a Board member of ChargeVC. And you already heard from Jim Appleton and his testimony.

And I think that the central message for today is that a lot has changed since 2003. Britney Spears is no longer on the charts (laughter); we are not just talking about early model Priuses. We also have a big difference from that last fight; there's a lot more grey hair on my head and

Jeff's head. And we have a world now where we're working closely with the car dealers to promote electric vehicles.

What has not changed, however, is the persistent plague on New Jersey from air pollution; and specifically, ozone pollution, which hits all of our communities, especially on hot summer days. There are close to 200,000 children in the state with pediatric asthma; close to 600,000 adults; and close to 600,000 individuals who suffer from cardiovascular disease. And in a vast majority of our counties, the American Lung Association gives a big fat *F* to our air quality.

I don't want to run through every county, but I do want to highlight that Bergen had 23 orange and red ozone alert days; Camden had 25. Hudson had 23; Hunterdon had 13; Mercer had 29; Middlesex had 25; and Ocean had 19. There are only four counties in the state that don't fail; and that's a reminder that, obviously, the cost of air pollution is real. It is economic, and it's also incredibly personal.

What we also know is that premature deaths are directly linked to ozone alert days, and so we see higher rate of heart attacks on days that have unhealthy levels of ozone in the air.

And this is also why we work to pass clean cars -- is to get New Jersey to join the California Clean Car standards. And as Jim Appleton noted, we finally are on the hook, and we have a long way to go. If we do not get in gear, we are not going to hit the California clean car's mandate of 330,000 electric vehicles on the road by 2025. And we have a President right now, and an Administration, that's attacking those mandates. Our Attorney General is representing our State, going after that.

But the end result is that we desperately need to fix air pollution and carbon pollution coming from our cars and trucks. It's the largest source of global warming pollution in the state, and one of the most persistent sources of air pollution.

So if we're going to get serious we have to change what we're driving. And I think that the good news to this is that driving is believing. And unlike in 2003 -- you pick a car, you can find an electric version of it. And increasingly, the cars are becoming more and more affordable. When the Chevy Volt was initially on the market -- which is a hybrid -- they were, like, \$40,000. We now have a Volt that's marketing with a tax credit -- you can get it for under \$30,000. Is that affordable? Not quite, but it's getting there.

And that speaks to the fact that-- How many of us lined up to get one of these (indicates), an iPhone, or a smart phone like it, in 2007? How many people have this now? That's the sort of market change that we can see. We've already seen tremendous investments by automobile companies to bring electric cars, not only to New Jersey, but to those clean car states. And that's the sort of investment we need to make to make it easier for everyone.

I think one of the other things that we have not spoken a lot about in this Bill is the fact that there are nearly one million New Jersey residents who don't drive. They are dependent upon public transit; and this Bill helps to catch New Jersey up in that fight to electrify our public transit fleet. This is something that Ray Greaves, from the Amalgamated Transit Union, can speak to; because the simple reality is that other-- New Jersey Transit is about to hit its PTC deadline; but we need to start

electrifying New Jersey Transit's fleet because it's cheaper in the long-term. And obviously that has a real impact on air pollution, especially in our cities.

And this is something we obviously want to work with the sponsors on -- to ensure that we're providing more equity in the legislation, specifically to include language for a pilot for electric school buses; other states are starting to do this. And this, obviously, speaks to our vulnerable population, to include benchmarks and an implementation plan after the study.

I want to stop my comments here.

Thank you.

ASSEMBLYMAN BENSON: Thank you.

Go ahead.

N O A H G A R C I A: All right; good morning.

Thank you, Chair Pinkin and Chair Benson, and members of the Joint Committees, for the opportunity to speak this morning about this very important Bill.

I am Noah Garcia with the Natural Resources Defense Council; I'm a Transportation Policy Analyst. And for 50 years, NRDC has been advancing policy that safeguards our communities and mitigates the worst impacts of climate change.

We're also a member of ChargeVC; and with that, we strongly advocate that you move forward and pass this Bill.

So you know that EVs already are 80 percent cleaner than their comparable internal combustion engine vehicles; and they're only getting cleaner as more renewable energy gets on the grid today.

And you already know that transportation is the single-biggest challenge that New Jersey and, indeed, the nation faces in our efforts to mitigate climate change.

But this Bill is also a good news story for the economy as well; and that starts with reducing fuel costs. Today, in New Jersey, an average household pays I think, roughly, around \$1,200 a year for electricity service; and we're thankful that we have resources and State agencies dedicated to making those bills reasonable and moderate.

But one story that gets overlooked is that an average household also pays, roughly, \$2,000 a year in transportation fueling costs; and that's all going to the pump.

And when electricity is roughly half the cost of gas or, indeed, cheaper with the introduction of the new rates that I think Robert spoke about earlier, you're really starting to see those fuel cost savings add up.

Second, you're putting downward pressure on rates as a result of better utilization of the grid. And I think one Assembly member had -- was seeking greater clarification on how that actually works. And if you'll indulge me, I'll introduce a short analogy that hopefully makes more sense of it. And because we're getting close to lunch, it's going to be about pizza. (laughter)

So if I buy a pizza oven -- you know, a significant upfront capital cost -- and I only make 10 pies, I'm going to have to sell those pies for a lot of money to recoup my investment in that pizza oven. But if I'm selling, let's say, 100 pies, or 500 pies, I can sell those units of pizza for much less than I otherwise would have if I was only making few.

And although that's a very oversimplified analogy for how the grid works, you're starting to see, with that electric vehicle load, filling valleys in the grid. Where there is underutilization, you actually see that downward pressure, indeed, happen; and we're starting to see that in California, which is the nation's largest EV market.

And there's been a lot of discussion today about light duty vehicle costs. And I'd like to point out that although there might be somewhat of a delta today, it's widely expected that the upfront costs of these vehicles will be much more in line with the internal combustion engine vehicles by 2024 or 2025; and this Bill provides critical rebates and incentives for bridging the gap in that time period, as the battery technology is advancing, as the range of these vehicles gets better.

So we're really strongly advocating for that time-limited rebate to bridge that gap between now and then.

So finally, I'll just close with this remark. This Bill is transformational, but it's not revolutionary. Other states have, indeed, passed similar legislation that has clarified a strong and complementary role for utilities to address the serious changing infrastructure barriers that are holding back the EV market today; and have also passed -- other states have also passed legislation that includes a strong rebate for driving these electric vehicles forward. And we have seen the results in those states. I mean, heck, even Texas has one.

So with that, you have the facts. You have the broad coalition of environmental groups, auto makers, utilities, technology companies, behind you, and we strongly urge to move forward with the passage of this Bill.

So thank you.

ASSEMBLYWOMAN PINKIN: Thank you.

Next, we're going to have Eric DeGesero, Fuel Merchants Association of New Jersey; Sal Risalvato, New Jersey Gasoline; and JoAnn Milliken, New Jersey Fuel Cell Coalition.

And we are going to ask you if you can make your comments within three minutes.

Thank you.

E R I C D e G E S E R O: Thank you, Chairwoman Pinkin and Chairman Benson.

Eric DeGesero, Fuel Merchants Association of New Jersey.

We represent the businesses that deliver fuel to gas stations, fleets, governments, farms; in short, everyone who we won't be delivering to as we move to the electrification of everything. We're looking at this not only in the transportation sector, but in the building sectors as well.

But that's not the reason why I'm here opposing this Bill today.

But putting us out of business isn't the reason why I'm here today opposing this Bill. There's a very famous quote that says that when it's time to hang the last capitalist, they'll sell us the rope. That's when a capitalist is going to make the decision to do it, not be compelled to do it; which this legislation does by virtue of the fact of us being ratepayers having to subsidize, through our utility bills, us being put out of business by the utility.

And that gets to a point that's been made by a couple of others today, regarding how the public utility is involved in the last step of this process.

Currently, when we remediate at a gas station, we have to pay for it; fight with the insurance company to, hopefully, get reimbursed for the policy that we paid a lot of money for. Whereas, the public utilities get to charge the rate base for it.

When we get stuck by a customer -- we make a delivery of gasoline to a gas station and the customer doesn't pay us -- we have to write that off; we have to eat the loss; and still compete in the marketplace. The public utility gets to charge the rate base for their bad debt.

The second tenant of the Bill -- that has been mentioned before by Ms. Brand -- references the utilities participation. Quite simply, if this is a brave new world, if this is a competitive market, then there's no business whatsoever for the electric public utility to do anything south of the transmission and distribution of electricity, as they do currently. A competitive market, as EDECA is set up, should be more than adequate for the utility, its shareholders, to make this decision. So as we move forward, our objection is how the end of this process is giving utilities an advantage by charging it through the rate base that others don't get.

So we welcome the opportunity. If the world is changing, we simply want the opportunity to be able to change with it; as opposed to our competitor, who is being given something that they get to underwrite the investment through us, as opposed to through those that capitalize their companies.

Thank you.

ASSEMBLYWOMAN PINKIN: Thank you.

S A L R I S A L V A T O: Madam Chair, Mr. Chair, my name is Sal Risalvato.

I'm the Executive Director of the New Jersey Gasoline, Convenience Store, and Automotive Association.

We represent the existing infrastructure that fuels vehicles. And similar to my friend from the Fuel Merchants -- because his members sell my members the gasoline-- And yes, looking into the future, seeing vehicles on the road that use a different fuel than what we sell now, is a threat. However, I view it a little bit differently; and I've asked my members to view it a little bit differently.

We've asked our members to not consider themselves just in the *gasoline and diesel fuel business*. We've asked our members to consider that they are in the *transportation energy business*.

Alternate fuels, particularly electric vehicles, are the future for a number of reasons; we don't need to get into them. It is very important to discuss the infrastructure, not just the vehicle and the incentive to purchase the vehicle. That chicken-and-egg situation has existed since this debate started years ago; it's going to continue on for a little bit. And if we don't have the vehicles to use the electricity, then we won't have an infrastructure to sell the electricity, because there won't be anybody to sell it to. People won't buy the vehicles if they can't get the fuel to fuel them.

I personally would consider an electric vehicle if I had the means of refueling along my transportation route daily as conveniently as I can with gasoline. Even if I fueled up overnight -- which we talk about that a lot -- I will still need to refuel during the day. What better way than to incentivize the existing infrastructure that fuels vehicles today than that? If we can incentivize the existing infrastructure, we can eliminate that part of the chicken and the egg.

I've asked my members to consider this; it's really very simple. I have to invest, maybe, \$60,000 in a fast-charging system; and that fast-charging system is going to refuel my customer's vehicle in, maybe, 20 minutes to half-hour. That's the fast-charging system. And I may not get 100 percent charge at that point.

Another roadblock that we have is that we're not permitted, under current law, to charge for the electricity; we can charge for the time.

ASSEMBLYWOMAN PINKIN: Your three minutes are up; I'm sorry.

ASSEMBLYMAN BENSON: Just wrap it up.

ASSEMBLYWOMAN PINKIN: Yes.

MR. RISALVATO: I will, then, very quickly say that one thing that this Committee needs to consider is that it asks for a 90 percent goal, by 2040, of electric vehicles. That, in effect, snuffs out hydrogen vehicles, which are electric vehicles, which can be refueled very similar to gasoline vehicles today. You pull in, you refuel in two to three minutes, and you're back on the road. Whereas, we don't run into that issue with the electric vehicles. And I think that unless that change is made to this legislation-- We do support it, but we are asking for some of those changes to be made, and more attention paid to the infrastructure itself so it's successful.

ASSEMBLYWOMAN PINKIN: Thank you.

ASSEMBLYMAN BENSON: Can I bring up Tony Bawidamann, New Jersey Business and Industry Association?

T O N Y B A W I D A M A N N: I'll revise my hour-long comments.
(laughter)

ASSEMBLYMAN BENSON: And Tony's going to be our last speaker. I'm going to read into the record everyone else; and I'm going to make the offer I did before -- that anyone who wasn't called up -- it's not because we don't like you; it's for time. I'm going to read everyone's names quickly, after Tony is done; and I'm just going to give it -- if anybody has a last comment to make, from members -- if you want to take a minute, feel free to do so.

Tony.

MR. BAWIDAMANN: Thank you for your time today.

And like I said, I'll revise these remarks.

On behalf of New Jersey Business and Industry, we represent more than one million jobs in the state.

We understand the goal of this legislation, but we are concerned about the cost to ratepayers. We understand the laudable goal of the sponsor to grow the electric market in New Jersey; however, residents of New Jersey are continually challenged by affordability and the high cost of living here.

We understand the Governor's and Legislature's vision of a clean-energy economy; but we think there is a better cost-effective way and approach to accomplish this objective.

NJBIA feels that a market-based approach to creating and growing a sustainable electric vehicle market should be done by the private market, rather than funded by the ratepayer. The intersection between the consumers and business should drive competition to grow this marketplace.

It should not be government's role to create the market for products; but rather, the market should be created by the concept of supply and demand, ultimately promoted by business.

It is imperative that you consider New Jersey's affordability as a public policy goal that this is important in its own right. In current form, NJBIA cannot support this Bill unless the businesses that represent and profit FROM the marketplace can accept the risk for this venture, not the ratepayer.

ASSEMBLYMAN BENSON: Thank you so much.

MR. BAWIDAMANN: Thank you.

ASSEMBLYMAN BENSON: I also have Dennis Hart, Chemistry Council of New Jersey, who is also opposed; Janna Chernetz, Tri-State Transportation Campaign, in favor; Debra Coyle, New Jersey Work Environment Council, in favor; James Sherman, Climate Change Mitigation Technologies, in favor; Richard Lawton, New Jersey Sustainable Business Council, in favor; Renee Koubiadis, Anti-Poverty Network, in favor; Jane Cohen, Isles, Inc., in favor; Henry Gajda, New Jersey League of Conservation Voters, in favor; Jersey Renews, Norah Langweiler, in favor; Christine Clarke, Our Climate Goals, in favor; Molly Dykstra, GreenFaith, in favor; Reverend Ronald Toff, GreenFaith, in favor; Ray Greaves, ATU New Jersey Council, in favor; Dave Pringle, Clean Water Action, in favor, with some friendly amendments that I'm sure that he will forward to staff; and Margaret Babcock, Environmental Justice Task Force of UU Faith Action, in favor, also seeking some improvements.

Again, anyone who didn't get a chance to testify, feel free to send us written testimony. We'll include this into our formal record.

As you know, this Bill is in discussion only. We'll take this into account; and hopefully we'll have it back up to be heard in the future.

ASSEMBLYWOMAN PINKIN: Do any members of the Committee have any comments? (no response)

ASSEMBLYMAN BENSON: Okay, seeing none, I just want to thank everyone again for being here.

Obviously, electric vehicles are the future; and we look forward to working with all of our stakeholders to make that future a reality.

Thank you so much.

Meeting is adjourned.

(MEETING CONCLUDED)