



The State of Electric Vehicles on Long Island

February 2023



Acknowledgements

Drive Electric Long Island is a coalition of stakeholders dedicated to encouraging and accelerating the adoption of electric vehicle usage and charging infrastructure on Long Island through advocacy, education and outreach efforts to local municipalities, companies, residents and industry stakeholders.

Led by the U.S. Green Building Council – Long Island Chapter (USGBC-LI), the coalition includes a broad range of electric vehicle (EV) stakeholders on Long Island including PSEG Long Island, Farmingdale State College, Suffolk County, Suffolk County Community College, The Sustainability Institute at Molloy University, the Sierra Club, the NY League of Conservation Voters, Emerald Alternative Energy Solutions, Long Island EVs, Cameron Engineering, as well as other Long Island municipalities, automakers, car dealerships, industry associations, business leaders and EV enthusiasts.

This 2023 State of Electric Vehicles on Long Island is the result of the hard work of many people:

At the USGBC-LI, Rosemary Mascali, Chair of the Drive Electric Long Island Education and Outreach Subcommittee put together most of the report with the helpful ideas, comments and revisions of many other coalition members including Beth Fiteni, Jacob Kraniak, Ron Gulmi and Marj Issapour.

This report could not have been created without the wealth of electric vehicle statistics and tools provided by New York State Energy Research and Development Authority (NYSERDA) including the Drive Clean Rebate Program dashboard and the EValuateNY tool that compiles New York State statistics on electric vehicle registrations and charging infrastructure. Links to these sites can be found in Appendix D.

The State of Electric Vehicles on Long Island

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State of Electric Vehicles on Long Island

It is well known that Long Islanders are car dependent. According to the American Community Survey (ACS), 72% of Long Islanders drive alone to work – 66% in Nassau County and 78% in Suffolk County. It's also well known that this dependency comes at a cost in terms of long commute times due to traffic congestion, poor air quality due to high ozone levels, and high greenhouse gas emissions. Transportation is a major source of greenhouse gas emissions on Long Island. In fact, 28% of Long Island's carbon emissions are from transportation as identified in 2013 in the Cleaner, Greener Long Island Regional Sustainability Plan.

While increasing mobility options other than driving, such as mass transit, carpooling, bicycling, and walking are important strategies to reduce our overall car dependency, perhaps the most realistic strategy to reaching our air quality and greenhouse gas goals is to aggressively move to electrify transportation.

Drive Electric Long Island is a coalition of electric vehicle stakeholders formed in 2018 and dedicated to encouraging and accelerating the adoption of electric vehicle usage and charging infrastructure on Long Island through advocacy, education and outreach efforts to local municipalities, companies, residents, and industry stakeholders. Since our first report published in September 2019, EV registrations have almost tripled from 12,833 to 35,426 at year end 2022.

This report details the current state of electric vehicles and supporting charging infrastructure adoption on Long Island including our findings based on detailed statistics on electric vehicle registrations and charging stations on Long Island. Appendix A includes Drive Electric Long Island's mission, goals and planned strategies. Appendix B provides basic information on electric vehicle and charging stations to provide a base level of knowledge to understand our findings. Appendix C & D provide information on available rebates and incentives for electric vehicles and charging stations, and other electric vehicle information resources.

I – Summary of Key Findings

1. Long Island is New York State’s largest market for electric vehicles.

Long Island has almost 3 million residents and one million households, with over 2 million registered vehicles - 2.2 vehicles per household in Suffolk County and 2.1 vehicles per household in Nassau County. 21% of all light-duty vehicles in NYS are registered on Long Island.

2. Long Island is a leader in electric vehicle adoption in New York State.

With 35,426 electric vehicles registered as of 12/31/22, Long Island represents 28% of the NYS total of 127,763 electric vehicles, despite being only 15% of the state’s population. Electric vehicles registrations on Long Island showed dramatic growth in 2021 and 2022.

3. Battery Electric vehicle models are most popular on Long Island led by the Tesla Model Y and Tesla Model 3.

Among all registered electric vehicles, battery electric vehicles have overtaken plug-in hybrid vehicles as the most numerous EVs on the road on Long Island with 61%. The three most popular models on Long Island are the Tesla Model 3 battery electric vehicle (6.7K), the Tesla Model Y (6.3K) and the Toyota Prius Prime plug-in hybrid (3.1K). Tesla vehicles are the most populous EVs on the road on Long Island (47%), followed by Toyota Plug-in Hybrid vehicles (13%).

4. EV Registrations in the past six months have rapidly accelerated in many Long Island communities.

On Long Island EV original registrations as a percent of total original registrations has grown significantly. While the percent of all registered light duty vehicles on the road today on Long Island that are electric powered is still modest at 1.64%, the percent of Long Island EV original registrations in the past six months has grown to 5.95%, with over 20 Long Island communities exceeding twice that rate. The communities with the highest percentage of EV original registrations in the past six months were South Jamesport (33%), Lake Success (20%), Kings Point (20%), Albertson (19%), Great Neck Village (18%), Fishers Island (18%), Mill Neck (18%), Jericho (17%), Roslyn Heights (16%), Old Westbury (16%), Lawrence (15%), Woodbury (14%), Manhasset (14%), Locust Valley (14%), Wainscott (13%) and Roslyn (13%), Glenwood Landing (13%), Port Washington (12%), Amagansett (12%), Quogue (12%),

Shoreham (12%) and Sag Harbor (12%).

5. In 2022, Tesla vehicles were the most popular electric vehicle in both Nassau County and Suffolk County.

As measured by the number of NYS EV rebates submitted by electric vehicle manufacturers and dealers, in 2022, Tesla vehicles continued to be by far the most popular EVs sold on Long Island in both Nassau and Suffolk counties with 65% of all EV rebates submitted in 2022.

6. In 2022, non-Tesla EVs were sold across a wider range of Long Island dealerships than in past years.

Since our last report in 2019, there has been a substantial increase in the number of electric vehicles sold by non-Tesla dealers on Long Island. In fact, 50% more dealers sold at least 10 electric vehicles on Long Island in 2022, reflecting the wider availability of electric vehicle models and the growing demand. In 2022, 21 brands and over 50 models of electric vehicle were available for purchase.

The top 10 performing non-Tesla dealerships were Smithtown Toyota (162), Millenium Hyundai (129), Sunrise Toyota (123), Westbury Jeep (123), 112 Hyundai/112 Chevrolet (123), Atlantic Hyundai (112), Rallye BMW (100), Habberstad BMW of Bay Shore (99) and Riverhead Toyota (97).

7. Public DC Fast Charge and Type 2 electric vehicle charging ports have been expanding on Long Island.

There has been a steady increase in the availability of both Type 2 and DC Fast Charge public electric vehicle charging infrastructure on Long Island, but a large majority of the DC Fast Charge ports are Tesla proprietary charging stations. In addition, many of the non-Tesla DC Fast Charge ports on Long Island are older devices that operate at slower charging speeds.

Overall, the state of electric vehicles on Long Island is very promising. The increased variety of electric vehicle models, attractive incentives, increased awareness of the benefits of electric vehicles and expanding EV infrastructure all point to another high growth year in 2023.

II. Electric Vehicle Statistics for Long Island and NYS

Using data from the New York State Department of Motor Vehicles (DMV), NYSERDA developed the tool EValuateNY that compiles statistics on the electric car market, including where registrations are and what make and models are most popular. EValuateNY also incorporates additional data from U.S. Department of Energy, U.S. Census Bureau, and other sources to provide information about demographics of communities with high electric car ownership and where charging stations are located. In addition, NYSERDA's Drive Clean Rebate program dashboard includes aggregated information on which models and technologies are most popular in the program, when New Yorkers claimed their rebates, and which car dealers are making the most sales, among other statistics.

This section includes statistics that were largely derived from the use of the above tools:

1. Long Island and NYS population and vehicle registrations
2. Long Island and NYS electric vehicle annual registrations
3. Long Island electric vehicles on the road by model
4. Long Island EV Registrations as a percent of total registrations
5. Long Island electric vehicle 2022 NYS rebates
6. Long Island electric vehicle 2022 NYS rebates by model
7. Long Island top EV dealerships submitting NYS rebates in 2022
8. Long Island Public EV Charging Infrastructure

1. Long Island and NYS Population and Vehicle Registrations

Long Island has almost 3 million residents living in over one million households. These households collectively have over 2 million registered vehicles – an average of 2.2 vehicles per household in Suffolk County and 2.1 vehicles per household in Nassau County compared to only 1.3 per household in New York State. As such, Long Island represents the largest market for electric vehicles in New York State. In fact, 21% of all light-duty vehicles in New York State are registered on Long Island.

Vehicle Registrations

YE 2022	NYS	Nassau	Suffolk	Total LI	% of NYS
Light-Duty Vehicles	10,226,577	973,463	1,177,282	2,150,745	21%

Population, Households, Cars per person and Cars per household

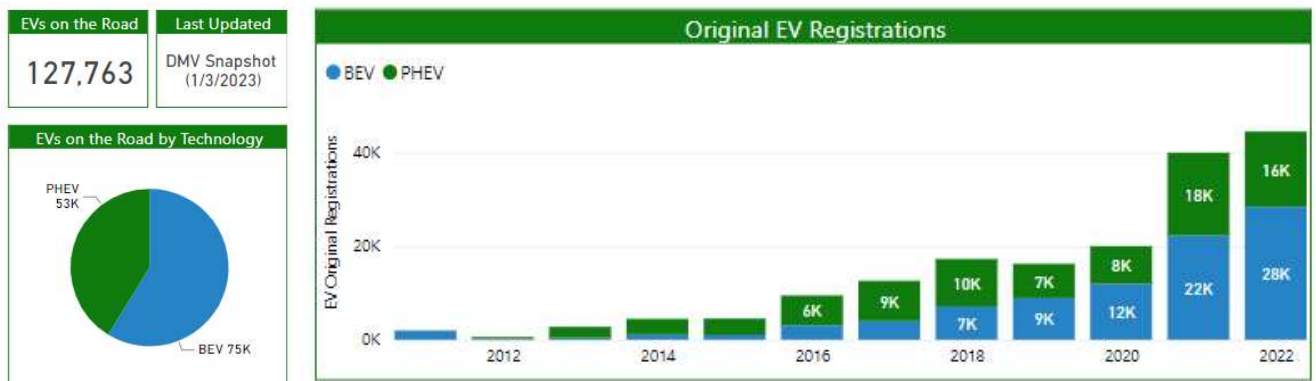
2022	NYS	Nassau	Suffolk	Total LI	% of NYS
Population	19.68 million	1.41 million	1.53 million	2.94 million	15%
Households	7.50 million	.45 million	.51 million	.96 million	13%
Cars per person	.48	.7	.74	.71	148%
Cars per household	1.3	2.1	2.2	2.2	169%

2. Long Island and New York State Annual Electric Vehicle Registrations

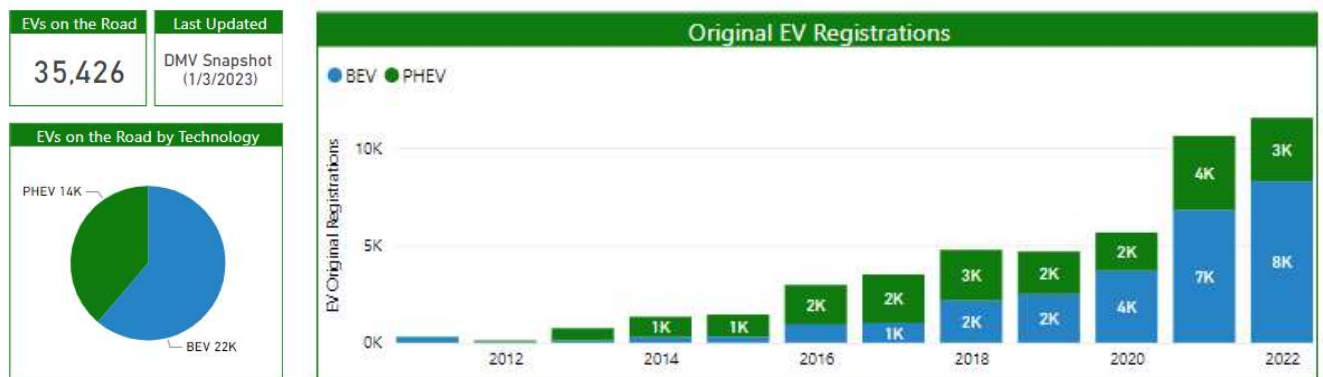
Long Island has been a leader in electric vehicle adoption in New York State, with electric vehicles registrations showing steady growth since 2012. With a total of 35,426 electric vehicles registered as of 12/31/22, Long Island represents 28% of the New York State total of 127,763 electric vehicle registrations, despite being only 15% of the state’s population, and having 21% of the state’s registered light-duty vehicles. Both Long Island and New York State experienced significant growth in EVs original registrations in 2021 and 2022.

Battery electric vehicles have overtaken plug-in hybrid vehicles as the most numerous registered electric vehicles on Long Island with 61% battery electric vehicles as compared to 59% in NYS.

New York State Electric Vehicle on the Road by Technology and Original EV Registrations by Year



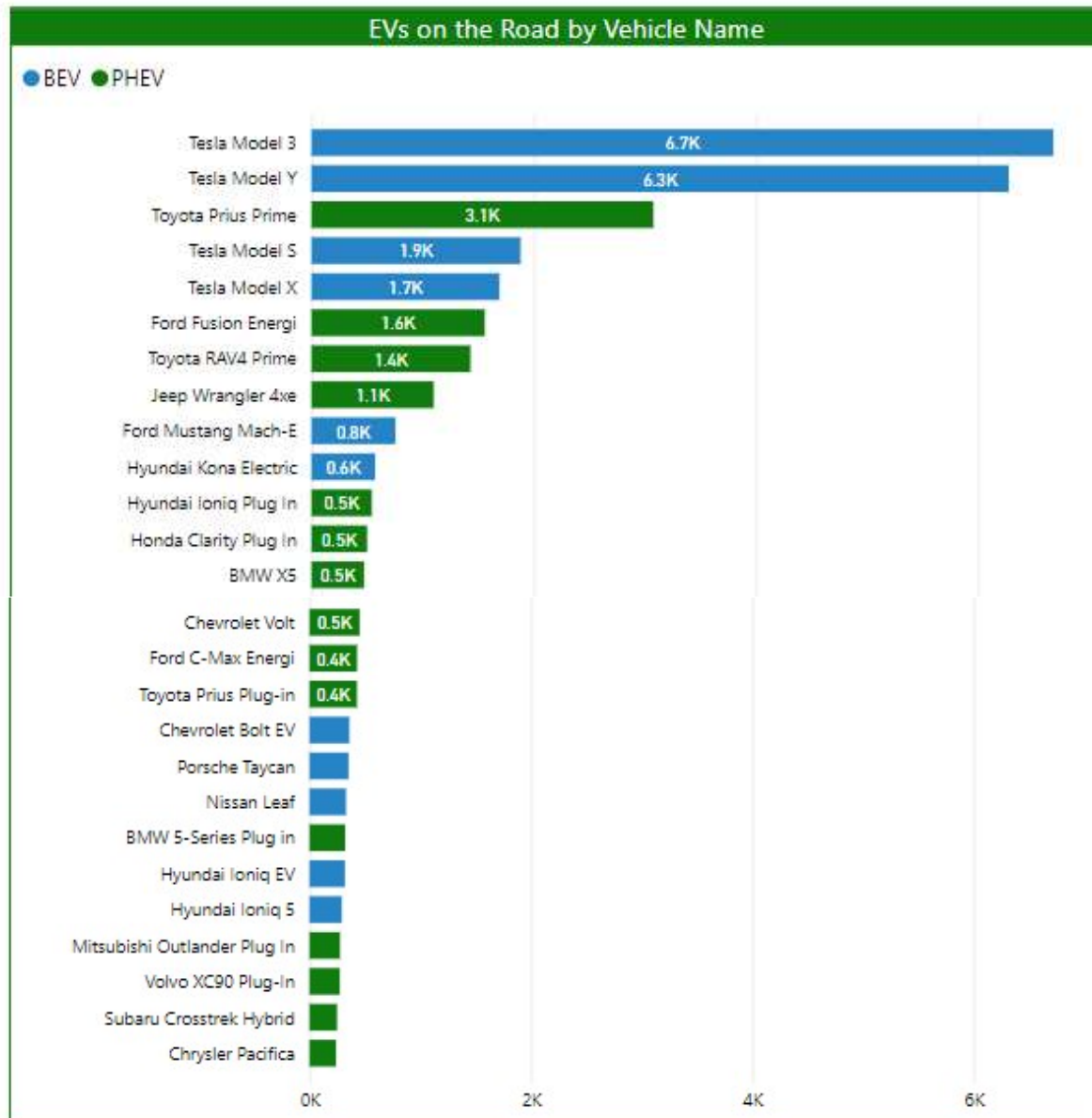
Long Island Electric Vehicle on the road by Technology and Original Registrations by Year



3. Long Island Electric Vehicles On the Road by Model

Among all electric vehicles on the road on Long Island, the three most popular models are the Tesla Model 3 (6,678), Tesla Model Y (6,277) and the Toyota Prius Prime plug-in hybrid (3,078).

Long Island EVs on the Road



4. EV Registrations on Long Island as a percent of Total Registrations

On Long Island, EV original registrations as a percent of total original registrations have grown significantly. While the percent of all registered light duty vehicles (LDV) on the road across Long Island that are electric powered is a modest 1.64%, adoption is more widespread in Long Island’s North Shore and East End towns.

Following are the percent of EVs on the road on Long Island by town and city:

	Town	EVs on the Road	LDVs on the Road	% EVs on Road
1	North Hempstead	4,983	173,769	2.9%
2	East Hampton	623	25,052	2.5%
3	Shelter Island	71	2,829	2.5%
4	Huntington	3,838	159,299	2.4%
5	Southampton	1,397	60,893	2.3%
6	Southold	422	18,124	2.3%
7	Oyster Bay	5,284	239,643	2.2%
8	Smithtown	1,871	104,082	1.8%
9	Brookhaven	5,614	343,902	1.6%
10	Riverhead	590	39,139	1.5%
11	Hempstead	3,814	271,554	1.4%
12	City of Glen Cove	247	20,300	1.2%
13	City of Long Beach	237	22,154	1.1%
14	Islip	2,730	268,995	1.0%
15	Babylon	1,290	154,774	0.8%

The growth of electric vehicles on Long Island is accelerating. The percent of Long Island electric vehicle original registrations in the last six months of 2022 grew to 5.95%, with over 20 Long Island communities exceeding twice that rate. Following are the communities showing the fastest growth in electric vehicles over the last six months of 2022:

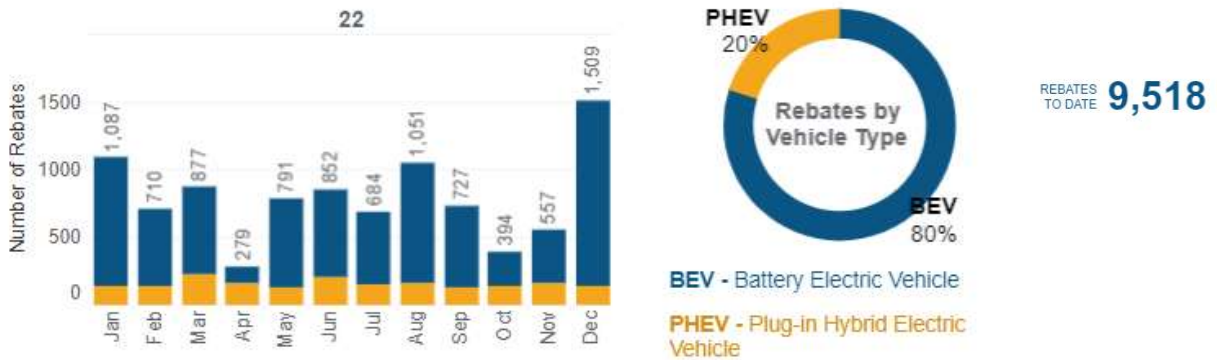
	Community	Town	EVs on the Road	LDVs on the Road	% EVs on Road	EV share of Registrations last 6 months of 2022
1	South Jamesport	Riverhead	11	336	3.3%	33.3%
2	Lake Success	North Hempstead	207	4,169	5.0%	19.9%
3	Kings Point	North Hempstead	312	4,857	6.4%	19.8%
4	Albertson	North Hempstead	190	5,577	3.4%	18.5%
5	Great Neck Village	North Hempstead	279	5,871	4.8%	18.3%
6	Fishers Island	Southold	6	435	1.4%	18.2%
7	Mill Neck	Oyster Bay	20	629	3.2%	17.9%
8	Jericho	Oyster Bay	521	9,315	5.6%	16.8%
9	Roslyn Heights	North Hempstead	390	8,924	4.4%	16.5%
10	Old Westbury	Hempstead	194	3,067	6.3%	15.6%
11	Lawrence	Hempstead	212	5,011	4.2%	15.2%
12	Woodbury	Oyster Bay	353	6,809	5.2%	14.3%
13	Manhasset	North Hempstead	583	13,088	4.5%	14.2%
14	Locust Valley	Oyster Bay	143	5,428	2.6%	14.0%
15	Wainscott	East Hampton	41	1,142	3.6%	13.3%
16	Roslyn	North Hempstead	490	9,792	5.0%	13.2%
17	Glenwood Landing	Oyster Bay	18	843	2.1%	12.8%
18	Port Washington	North Hempstead	636	20,924	3.0%	12.3%
19	Amagansett	East Hampton	74	2,141	3.5%	12.2%
20	Quogue	Southampton	65	1,661	3.9%	11.9%
21	Shoreham	Brookhaven	138	5,189	2.7%	11.9%
22	Sag Harbor	Southampton	229	7,295	3.1%	11.6%

5. Long Island Electric Vehicle 2022 NYS Rebates

Long Island dealers submitted 9,518 NYS Rebates in 2022, 5,266 in Nassau County and 4,252 in Suffolk County, of which 80% were battery electric vehicles and 20% were plug-in hybrids. In Nassau County, 84% of the rebates were for battery electric vehicles slightly more than in Suffolk County where 75% of the rebates were for battery electric vehicles.

The month of December 2022 showed a dramatic increase of 1,509 total rebates on Long Island.

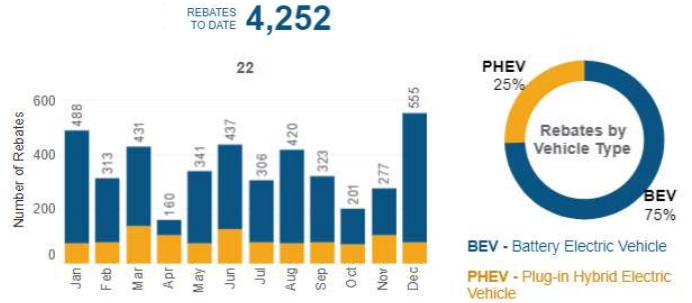
Total Long Island 2022 EV Rebates



Nassau County 2022 EV Rebates



Suffolk County 2022 EV Rebates



6. Long Island Electric Vehicle 2022 NYS Rebates by Model

In 2022, over 50 electric vehicle models from 21 brands were sold on Long Island. The Tesla Model Y, Model 3 and Model X were the most popular EV models in both Nassau County and Suffolk County. Other popular models on Long Island were the Toyota RAV4 Prime, the Toyota Prius Prime, the Jeep Wrangler, and the Ford Mustang Mach E and the Hyundai Ioniq 5.

Nassau County		
Rebates by Make and Model		
Tesla	Model Y	2,006
	Model 3	1,116
	Model X	386
	Model S	264
Hyundai	Hyundai Ioniq 5 ..	108
	Kona Electric	84
	Santa Fe	38
	Tucson	28
	Ionic Plug-In Hy..	22
	Ionic_Electric	4
Toyota	RAV4 Prime	175
	Prius Prime	91
	bZ4X	5
Ford	Mustang Mach-E	170
	Escape	31
	F-150 Lightning ..	14
Jeep	Wrangler	192
	Grand Cherokee	23
BMW	X5	62
	330e	21
	BMW i4	20
	BMW iX	18
	530e	17
Volvo	XC90 T8	30
	XC60 T8	18
	XC40	10
Audi	S60	7
	e-tron	36
	Q5	9
	e-tron S Sportba..	2
Chevrolet	Audi Q4 e-tron	1
	Bolt	48
Kia	Kia EV6	22
	Sorento	13
	Niro	7
	Sportage	1
Volkswagen	ID.4	39
Polestar	Polestar 2	22
Chrysler	Pacifica	21
Nissan	LEAF	16
MINI	Cooper	15
Porsche	Taycan	13
	Cayenne E-Hybri..	1
	Panamera 4 E-H..	1
Genesis	GV60	14
Mercedes-Benz	Mercedes EQS	9
	EQB	3
Lincoln	Aviator	4
	Lincoln Corsair ..	2
Subaru	Crosstrek PHEV	4
Lexus	Lexus NX450h+	3
Grand Total		5,266

Suffolk County		
Rebates by Make and Model		
Tesla	Model Y	1,140
	Model 3	872
	Model X	195
	Model S	173
Toyota	RAV4 Prime	312
	Prius Prime	231
	bZ4X	11
Hyundai	Hyundai Ioniq 5 ..	133
	Santa Fe	65
	Kona Electric	62
	Tucson	29
	Ionic Plug-In Hy..	19
Ford	Ionic_Electric	1
	Mustang Mach-E	152
	F-150 Lightning ..	51
	Escape	46
Jeep	F-150 Lightning ..	2
	Wrangler	143
	Grand Cherokee	16
BMW	X5	65
	330e	27
	530e	24
	BMW i4	18
	BMW iX	13
Chevrolet	Bolt	104
Kia	Kia EV6	42
	Niro	30
	Sorento	9
	Sportage	3
Volkswagen	ID.4	67
Volvo	XC90 T8	15
	XC60 T8	12
	S60	5
	XC40	5
Audi	Volvo C40	3
	e-tron	21
	Audi Q4 e-tron	10
Nissan	Q5	4
	LEAF	25
Mercedes-Benz	Mercedes EQS	14
	EQB	1
Porsche	Taycan	13
	Cayenne E-Hybri..	1
	Panamera 4 E-H..	1
Chrysler	Pacifica	14
MINI	Cooper	14
Polestar	Polestar 2	12
Genesis	GV60	8
Subaru	Crosstrek PHEV	8
Lexus	Lexus NX450h+	6
Lincoln	Lincoln Corsair ..	3
	Aviator	2
Grand Total		4,252

7. Long Island Top EV Dealerships Submitting NYS Rebates in 2022

Since our last report in 2019, there has been a substantial increase in the number of electric vehicles sold by dealers on Long Island. Over the past four years, there was a 50% increase in the number of dealers that sold at least 10 electric vehicles on Long Island, reflecting the wider availability of electric vehicle models and the growing demand.

The top 10 performing manufacturers/dealerships were Tesla Motors (6,152), Smithtown Toyota (162), Millenium Hyundai (129), Sunrise Toyota (123), Westbury Jeep (123), 112 Hyundai/112 Chevrolet (123), Atlantic Hyundai (112), Rallye BMW (100), Habberstad BMW of Bay Shore (99) and Riverhead Toyota (97).

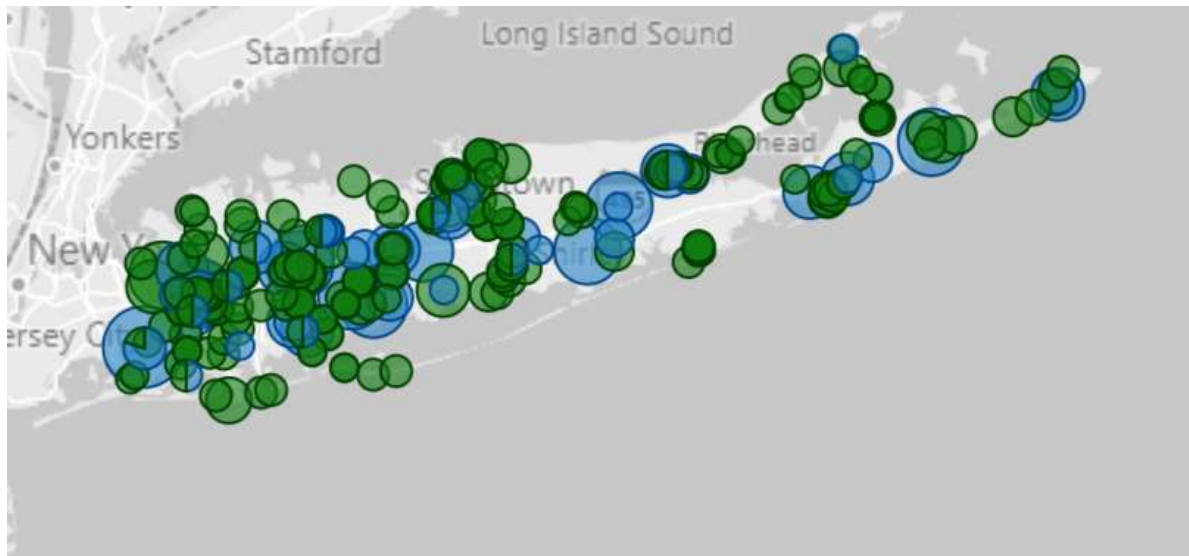
2022 Rebates by Dealer		
Tesla Motors New York LLC	6,152	
Smithtown Toyota	162	
Millennium Hyundai	129	
Sunrise Toyota	123	
Westbury Jeep Chrysler Dodg..	123	
112 Mazda Nesenger, Mazda 1..	118	
Atlantic Hyundai	112	
Rallye BMW	100	
Habberstad BMW of Bay Shore	99	
Riverhead Toyota	97	
Westbury Toyota	81	
Centereach Hyundai	78	
Sunrise Toyota North	68	
Huntington Toyota	62	
Hassett Ford Lincoln Mercury l..	60	
Route 110 Hyundai Route 110 ..	58	
North Shore Chevrolet of Smit..	55	
Millennium Toyota Scion	54	
Hempstead Ford Lincoln	53	
Advantage Hyundai	52	
Levittown Ford LLC	50	
Smith Haven Chrysler Jeep Do..	50	
East Hills Chrysler Jeep Dodge	46	
Toyota of Massapequa	44	
Biener Ford LLC DBA AS Bien..	43	
Security Dodge Chrysler Jeep ..	43	
Competition BMW of Smithtown	37	
Otis Ford Inc	36	
Volvo Care Glen Cove	36	
Huntington Ford Lincoln	34	
Porsche Manhattan	34	
Biener Audi	33	
Penn Toyota	33	
Atlantic Toyota	31	
South Shore Hyundai	31	
Ford of Smithtown	30	
Smithtown Kia	30	
Garden City Jeep Chrysler Do..	29	
Newins Bay Shore Ford	28	
Ramp Motors Inc	27	
Volvo Cars of Huntington	26	
Advantage Toyota	25	
Crown Ford Inc.	25	
Kia of Huntington	25	
Merrick Jeep Chrysler Dodge ..	25	
Mercedes-Benz of Huntington	24	
Sayville Ford	24	
Atlantic Chrysler Jeep Dodge ..	23	
Riverhead Bay Motors	23	
Audi of Smithtown	21	
Browns Jeep Eagle Chrysler P..	21	
Riverhead Ford Lincoln Buick ..	21	
Audi of Huntington	20	
Eagle Auto Mall Corp	19	
Empire Volvo Cars Smithtown	19	
Porsche of Huntington	19	
Town & Country Jeep Chrysler..	19	
Generation Kia	18	
Habberstad MINI	18	
Volvo Cars of Queens	18	
Riverhead Nissan	17	
Huntington Jeep Chrysler, Inc	16	
BMW of Bayside	15	
Volkswagen Of Huntington	15	
Atlantic Chevrolet Cadillac	14	
Bayside Volkswagen	14	
East Hills Volkswagen of Sayvi..	14	
Atlantic Kia	12	
BMW of Manhattan	12	
Buzz Chew Chevrolet Cadillac ..	12	
Sunrise Volkswagen	12	
Volkswagen of Smithtown	12	
BMW of Freeport	11	
East Hills Chevrolet of Freeport	11	
Nissan 112 Sales Corp	11	
Millennium Chevrolet	10	
Platinum Volkswagen LLC	10	
Star Toyota of Bayside	10	
Central Avenue Chrysler	9	
Eagle Chevrolet	9	
Karp Kia	9	
MINI of Freeport	8	
Nissan of Westbury	8	
Porsche South Shore	8	
Storms Ford	8	
Chevrolet of Huntington	7	
Ford Lincoln of Queens Boule..	7	
Legend Nissan, Ltd.	7	
Volkswagen of West Islip	6	
Arnold Chevrolet Buick	5	
BMW of Southampton	5	
Brooklyn Chrysler Jeep Dodge..	5	
Lucas Ford Lincoln Mercury Inc	5	
Plaza Kia	5	
South Shore Kia	5	
Stevens Ford	5	

8. Long Island Public EV Charging Infrastructure

There has been a steady increase in the availability of both Type 2 and DC Fast Charge public electric vehicle charging infrastructure on Long Island, but a large majority of the DC Fast Charge ports are Tesla proprietary charging stations. In addition, many of the non-Tesla DC Fast Charge ports on Long Island are older devices that operate at slower charging speeds.

The most convenient and economical method of charging an electric vehicle is home charging taking advantage of PSEG Long Island's overnight discounted time of use rates. However, while 82% of Long Island households in single family homes can charge at home, the remaining 18% (180,000 households) live in multi-family dwellings without easy access to home charging. As the number of non-Tesla electric vehicles increases on Long Island, having robust DC Fast Charge and Type 2 charging options will be particularly important to service these multi-family dwellings.

Public Electric Vehicle Charging Stations on Long Island



Source: <https://www.nyserda.ny.gov>

Charging Level ● DC Fast Charge Ports ● Level 2 Ports

Electric Vehicle Charging Stations on Long Island by County and Type

	Level 2 Ports	Level 2 Locations	DC Fast Charge Ports	DC Fast Charge Locations
Nassau County	150	68	105	18
Suffolk County	316	153	202	43
Long Island	466	221	307	61

Electric Vehicle Charging Station Density on Long Island and New York State

Type	NYS Charging Station Density	Long Island Charging Station Density
EVs per Level 2 Port	16.81	76.02
BEVs per DC Fast Charge Port	64.81	70.67

DC Fast Charge Ports on Long Island by Plug Type and Speed

Plug Type	Number of Ports by Speed		Percent of DCFC Ports
	DCFC 100-350kW	DCFC <100 kW	
Tesla	218	-	72%
Non-Tesla	57	28	28%

APPENDIX A - Drive Electric Long Island Mission and Goals

Goals

Drive Electric Long Island is a coalition of electric vehicle stakeholders dedicated to accelerating the adoption of electric vehicles and EV charging infrastructure on Long Island. The coalition goals are to:

- Support the goals of the Climate Act to reduce greenhouse gas emissions from 1990 levels by 40 percent by 2030, and no less than an 85 percent reduction by 2050, through the acceleration of the electric vehicle market toward the goal of 100% light duty zero-emission vehicle sales by 2035.
- Support the Multi-State ZEV Action Plan and enable New York State to meet the Zero-Emission Vehicle (ZEV) objective of 850,000 new ZEVs by 2025, which includes 178,500 new ZEVs for Long Island.

Mission

The Drive Electric Long Island is dedicated to encouraging and accelerating the adoption of electric vehicle usage and charging infrastructure on Long Island through advocacy, education and outreach efforts to local municipalities, companies, residents, and industry stakeholders.

Led by the U.S. Green Building Council – Long Island Chapter (USGBC-LI), the coalition includes a broad range of electric vehicle (EV) stakeholders on Long Island including PSEG Long Island, Farmingdale State College, Suffolk County, Suffolk County Community College, The Sustainability Institute at Molloy University, the Sierra Club, the NY League of Conservation Voters, Emerald Alternative Energy Solutions, Long Island EVs, Cameron Engineering, as well as other Long Island municipalities, automakers, car dealerships, industry associations, business leaders and EV enthusiasts. Our vision is to accelerate the adoption of electric vehicles and infrastructure on Long Island, both consumer and commercial, by addressing the key barriers to widespread adoption, including awareness, charging infrastructure and cost.

Strategies

Key priorities of the coalition include consumer outreach and education, increased public and workplace EV infrastructure, conversion of commercial fleets, and advocacy for EV friendly policy. The Coalition will accomplish this through the following planned activities:

- Regular meetings of the steering committee and subcommittees of key stakeholders including municipal administrators, local car dealerships, business leaders, PSEG Long Island, infrastructure providers, current EV owners and educational institutions, to offer ideas, provide demonstration vehicles, make introductions within the community and monitor progress.
- Evaluate existing codes, policies, and regulations to determine what is already in place to support EV adoption on Long Island, how these policies can be leveraged, and which new ones should be implemented.
- Build awareness by conducting EV 101 events and Ride and Drives to promote EV adoption, with each event type targeting a different group of participants.
- Establish strong relationships with local and regional dealerships.
- Coordinate with the village, town and county planners and building departments to produce high impact EV infrastructure policies. Support the adoption of codes and standards for building codes that will accelerate the adoption of the infrastructure development.
- Collaborate with infrastructure manufacturers and network/software solutions to assist in promoting the various alternatives available.
- Function as a resource to educate and inform stakeholders regarding the different technologies, incentives, rebates and funding for infrastructure. Conduct informational sessions at existing infrastructure to increase awareness and understanding about the various infrastructure solutions.

The Drive Electric Long Island Coalition will accelerate the growth of the electric vehicle market on Long Island by simultaneously leveraging and strategically coordinating all the components of success, resulting in improved air quality, reduced greenhouse gases, reduced transportation costs, and a strengthened utility grid.

APPENDIX B - Electric Vehicle and Charging Basics

Battery Electric Vehicles (BEVs)

Battery electric vehicles use batteries to store the energy that powers the motor. The batteries are charged by plugging the vehicle into an electric power source. In addition, BEVs are charged in part by regenerative braking, which generates electricity from some of the energy normally lost when braking.

The mainstream EV range target is approximately 200-250 miles on a fully charged battery, although some BEVs can reach ranges of over 400 miles. The range depends on size of the battery, driving conditions and driver habits, among other factors. The time required for charging depleted batteries – which can range from 15 minutes to over full day – depends on the size and type of the batteries, as well as the type of charging equipment used.

Plug-In Hybrid Electric Vehicles (PHEVs)

PHEVs use batteries to power an electric motor and also use an internal combustion engine (ICE) powered by gasoline. Powering the vehicle with electricity from the grid reduces operating costs, cuts petroleum consumption and reduces tailpipe emissions compared with conventional vehicles. When driving distances are longer than the all-electric range, PHEVs perform like traditional hybrid vehicles, consuming less fuel and producing fewer emissions than similar conventional vehicles.

The PHEVs battery pack gives an all-electric driving range of about 10-80 miles. This enables the vehicle to travel a moderate distance without using its ICE. The ICE powers the vehicle when needed, such as when the battery is mostly depleted, during rapid acceleration, or when

Key Acronyms

EVs (all-electric vehicles) are powered by one or more electric motors. They receive electricity by plugging into the grid and store it in batteries. They consume no petroleum-based fuel and produce no tailpipe emissions. EVs are also referred to as battery-electric vehicles (BEVs).

EVSE (electric vehicle supply equipment) delivers electrical energy from an electricity source to charge a vehicle's batteries. EVSE communicates with the PEV to ensure that an appropriate and safe flow of electricity is supplied.

HEVs (hybrid electric vehicles) combine an ICE or other propulsion source with batteries, regenerative braking, and an electric motor to provide high fuel economy. HEVs rely on a petroleum-based or alternative fuel for power and are not plugged in to charge. HEV batteries are charged by the ICE and during regenerative braking.





ICES (internal combustion engines) generate mechanical power by burning a liquid fuel (such as gasoline, diesel, or a biofuel) or a gaseous fuel (such as compressed natural gas). They are the dominant power source for on-road vehicles today.

PEVs (plug-in electric vehicles) derive all or part of their power from electricity supplied by the electric grid. They include EVs and PHEVs.

PHEVs (plug-in hybrid electric vehicles) use batteries to power an electric motor, plug into the electric grid to charge, and use a petroleum-based or alternative fuel to power the ICE. Some types of PHEVs are also called extended-range electric vehicles (EREVs).

using the heating/air conditioning. Like the BEV, the PHEV is charged by plugging into the grid and also captures some energy from regenerative braking. Compared to the BEV, the PHEV takes less time to reach a full charge because of its smaller battery pack.

HOW CLEAN IS YOUR RIDE? CARS ARE POWERED IN MANY DIFFERENT WAYS.

 CONVENTIONAL GAS	 CONVENTIONAL HYBRID	 PLUG-IN HYBRID	 BATTERY-POWERED
POWERED BY Gas engine	POWERED BY Gas engine & electric motor	POWERED BY Electric motor & gas engine	POWERED BY Electric motor
BATTERY TRAVEL None	BATTERY TRAVEL Short distances	BATTERY TRAVEL Medium distances	BATTERY TRAVEL Long distances
FUEL SOURCE Gas	FUEL SOURCE Gas	FUEL SOURCE Electricity & Gas	FUEL SOURCE Electricity

WHY BUY ELECTRIC?

The technology-rich experience that an electric car presents is hard to beat. Electric cars deliver fast and smooth acceleration, they are quiet, and they offer an unmatched level of responsiveness. Electric cars also save time and money. Electric motors don't need oil changes and have many fewer parts, so they require less maintenance than conventional gas cars and the cost of fuel is about half that of ICE vehicles. Electric car owners make fewer or no trips to the gas station.

TYPES OF CHARGING EQUIPMENT

Electric Vehicle Supply Equipment deliver electrical energy from an electricity source to charge a vehicle's batteries. There are several types of charging equipment:

LEVEL 1 Charging

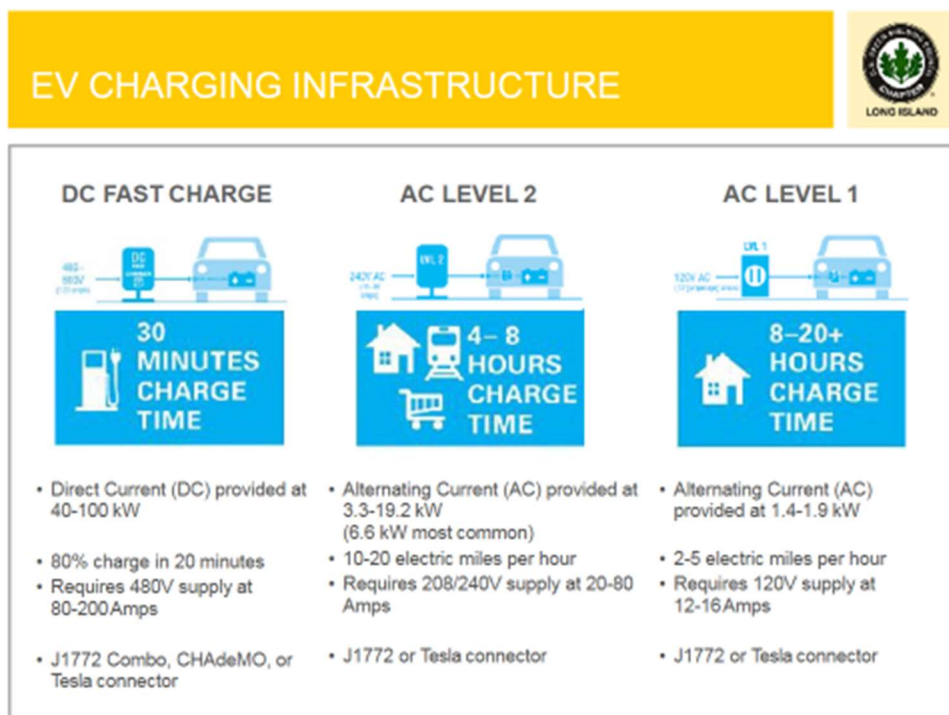
- Cord and Plug connected, single-phase 110V/120V, up to 16A (1.9 kW)
- 8-20+ hours for a full charge

LEVEL 2 Charging

- Wired to individual branch circuit, single-phase 208V/240V, up to 80A (19.2kW)
- 4-8 hours for a full charge

DC Fast Charging

- 400-900V DC, up to 200 A (15-350 kW); 15-45 minutes for a full charge
- Tesla Supercharging – V3 Chargers charge at a rate of 250kW – approximately 75 miles in 5 minutes. Stations available to Tesla customers only.



Appendix C - Available Rebates and Incentives for EVs Charging Stations

Rebates and Incentives for Electric Vehicles

- **Federal Tax Credit: New Clean Vehicle - up to \$7,500**
 - A federal IRS tax credit of up to \$7,500 per new EV purchased for use in the U.S. Eligibility and size of the tax credit depends on the sourcing of its battery components and its critical minerals, where the vehicle was assembled, its suggested retail price and the buyer's income. <https://www.irs.gov/credits-deductions/credits-for-new-clean-vehicles-purchased-in-2023-or-after>
- **Federal Tax Credit: Used Clean Vehicle – up to \$4,000**
 - A federal IRS tax credit of 30% of the sales price up to \$4,000. Must meet eligibility requirements including income limits, a sales price of \$25,000 or less, and purchase from a dealer. <https://www.irs.gov/credits-deductions/used-clean-vehicle-credit>
- **Federal Tax Credit: Qualified Commercial Clean Vehicles – up to \$40,000**
 - Businesses and tax-exempt organizations that buy a qualified commercial clean vehicle may qualify for a federal clean vehicle tax credit of up to \$40,000, with a maximum credit of \$7,500 for vehicles under 14,000 pounds. Leasing companies can claim the credit for vehicles they purchase to lease to consumers, regardless of where they were assembled or how much they cost. <https://www.irs.gov/credits-deductions/commercial-clean-vehicle-credit>
- **New York State Drive Clean Rebate: Up to \$2,000**
 - Open to all New York State residents, the Drive Clean Rebate offers a point-of-sale rebate of up to \$2,000 towards the purchase or lease of a new electric car. Amount of rebate depends on all electric range and suggested retail price of vehicle. <https://www.nyserda.ny.gov/All-Programs/Drive-Clean-Rebate-For-Electric-Cars-Program/How-it-Works>
- **New York Clean Pass Program**

Allows eligible low-emission, energy efficient vehicles to use LIE/HOV lanes regardless of number of occupants in the vehicle. <https://www.dot.ny.gov/programs/clean-pass>

Rebates and Incentives for Charging Stations

- **New York State Charge Ready NY**
 - Through Charge Ready NY, NYSEDA provides rebates of \$4,000 per charging port for Level 2 charging stations installed at public, workplace, and multi-unit dwelling parking lots. (Funding is currently exhausted for this program a new round of funding is expected.)
<https://www.nyserda.ny.gov/All-Programs/ChargeNY/Charge-Electric/Charging-Station-Programs/Charge-Ready-NY>
- **New York State Tax Credit for Public and Workplace Charging**
 - Businesses and employers can receive an income tax credit of up to \$5000 for the purchase and installation of an electric vehicle charging station through the end of 2025. https://www.tax.ny.gov/pit/credits/alt_fuels_elec_vehicles.htm
- **Federal IRS Alternate Fuel Infrastructure Tax Credit up to \$100,000**
 - Federal tax credit in designated rural or low-income census tracts. EV chargers are eligible for a tax credit of 30% of the cost, not to exceed \$100,000. Consumers who purchase qualified residential chargers may receive a tax credit of up to \$1,000. <https://afdc.energy.gov/laws/10513>
- **PSEG Long Island Make Ready Program and DC Fast Charging Credit for Businesses**
 - Up to 100% off the infrastructure costs associated with EV charging stations. <https://www.psegliny.com/saveenergyandmoney/greenenergy/ev/makeready>
 - The Fast Charge incentive program offers an annual per-plug declining incentive to owner/operators of DCFC for public use on Long Island and in the Rockaways. <https://www.psegliny.com/saveenergyandmoney/greenenergy/ev/dcfc>
- **NYS Department of Environmental Conservation (DEC) Municipal ZEV Vehicle Rebate and Infrastructure Grant Programs**
 - Provides rebates and grants to cities, towns, villages, and counties for costs associated with the purchase or lease of eligible clean vehicles, and installation of eligible infrastructure that supports public use of clean vehicles. (Current funding round closed.) <https://www.dec.ny.gov/energy/109181.html>

Appendix D - Electric Vehicle Information Resources

1. Compare Electric Cars and Plug-in Hybrids by Features, Price, Range
<https://www.plugstar.com/>
2. Convenient charging options
<https://www.nysersda.ny.gov/All-Programs/Programs/Drive-Clean-Rebate/Charging-Options>
3. US Department of Energy (DOE) Alternative Fuels Data Center (AFDC) – Alternative Fuels Station Locator <https://afdc.energy.gov/stations/#/find/nearest?fuel=ELEC>
4. Electric Vehicle Charger Finder Apps – available on Google Play and the Apple App Store
 - PlugShare – <https://www.plugshare.com>
 - Chargeway – <https://www.chargeway.net>
5. US Department of Energy (DOE) Alternative Fuels Data Center (AFDC) – Electricity
<https://afdc.energy.gov/fuels/electricity.html>
6. Drive Clean Rebate Program Dashboard
<https://www.nysersda.ny.gov/All-Programs/Drive-Clean-Rebate-For-Electric-Cars-Program/Rebate-Data/Rebate-Stats>
7. NYSERDA Electric Vehicle Registration Map and EVALuateNY tool that compiles NYS statistics on the electric vehicle registrations and charging infrastructure.
<https://www.nysersda.ny.gov/All-Programs/ChargeNY/Support-Electric/Map-of-EV-Registrations>



About Drive Electric Long Island

The Drive Electric Long Island electric vehicle coalition is dedicated to encouraging and accelerating the adoption of electric vehicle usage and charging infrastructure on Long Island, through advocacy, education and outreach efforts to local municipalities, companies, residents and industry stakeholders.

For more information about the coalition or to download a copy of this report, visit our website at DriveElectricLongIsland.org