

Electric Vehicles Indicator Tracking Report

2018 Update

Final

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Updates from 2017 baseline indicator values to the current 2018 values related to the planned outputs and outcomes for the Electric Vehicles initiative are presented in this report. This analysis was conducted in-house by NYSERDA staff given the availability of credible data sources and focused on 2018 values. A comprehensive Transportation-related market evaluation is planned for 2019.

Table 1 presents the initiative specific metrics reported to the New York State Department of Public Service (DPS) on an annual basis for the Electric Vehicles Investment Plan within the Clean Transportation Chapter¹. The baseline values for each indicator were assessed in 2017 by Industrial Economics, Incorporated (IEC)². Goals for 2019 and 2022 are included in Table 1 and will be measured against in future studies using the data source listed.

Table 1. DPS Reported Initiative Specific Metrics

Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019 Goal	2022 Goal	Data Source
Consumers receive rebates for ZEV's at the point of sale	# of rebates issued	0	8,747	38,000	46,000 ³	NYSERDA (Salesforce)
	% of rebate recipients completing follow-up surveys	0	25%	75%	80%	NYSERDA contractor (Salesforce)
Program marketed jointly with stakeholders	# of industry stakeholders engaged in consumer awareness programs	0	18	20	50	NYSERDA
New partnerships formed to encourage consumer awareness and local EV adoption						

¹ NYSERDA. CEF Clean Transportation Chapter. <https://www.nyserda.ny.gov/-/media/Files/About/Clean-Energy-Fund/CEF-Clean-transportation.pdf>

² Manson, C. (2017, May). NYSERDA Transportation Program Market Characterization Report Volume 3: Electric Vehicles Market Characterization and Baseline Assessment. Retrieved from <https://www.nyserda.ny.gov/-/media/Files/Publications/PPSER/Program-Evaluation/2017ContractorReports/Clean-Transportation-Market-Characterization-Study-Vol3.pdf>

³ Note that the rebate program is currently anticipated to end by 2020, not 2022. This limits Activity/Output metrics, while Outcome metrics are anticipated to continue growing beyond the end of the rebate program because of momentum generated in the EV market.

Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019 Goal	2022 Goal	Data Source
Development and demonstration of products for improved technical performance, business models, innovative financing, and charging technologies	# of product development and demonstration projects initiated	0	13	21	33	NYSERDA (Salesforce)
	# of product development and demonstration companies supported	0	7	15	22	NYSERDA (Salesforce)
Fast-charge stations funded and installed	Geographic availability of charging stations, especially DC fast charging stations that enable greater intercity EV travel	Fast charging stations (non-Tesla) in 29 cities	Fast charging stations (non-Tesla) in 42 cities	-	-	Alternative Fuels Data Center ⁴
Fast-charging station network expands to 30 locations statewide along major interstate corridors						
Geographic availability of charging stations, especially DC fast charging stations that enable greater intercity EV travel	# of charging stations installed in NYS	1,639	2,320	3,000	4,500	Alternative Fuels Data Center ⁵

⁴ Alternative Fuels Data Center (AFDC). Alternative Fueling Station Locator. Downloaded August 7, 2018.
<http://www.afdc.energy.gov/locator/stations/>

⁵ Alternative Fuels Data Center (AFDC). Alternative Fueling Station Locator. Downloaded August 7, 2018.
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Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019 Goal	2022 Goal	Data Source
Demonstration of models for aggregate EV purchases supported	# of aggregate charging station purchase participants	0	0	150	400	NYSERDA
Aggregation pilots for EVs and EV charging stations begin engaging customers and facilitating initial bulk purchases						
Increased rate of EV sales	# of EVs registered in NY	16,131 ⁶	29,931	52,000	150,000	NYSERDA EValuate NY Electric Vehicle Registration Map ⁷
Growth in EV registrations						
Increased rate of EV sales	EV market share (EVs as a percentage of total car sales in NYS)	0.6% ⁸	1.2% ⁹	1.5%	4%	Auto Alliance - values for current year
Growth in consumer awareness and experience with EVs, including growth in consumer understanding of the value proposition of EVs	Consumer awareness and experience with EVs	72% familiar with PHEVs, and 68% with BEVs	No update	-	-	Edelman Intelligence survey ¹⁰
Reduction of installed cost of charging stations	Average installed cost of Level 2 charging station per port	\$8,774	No new projects funded	\$ 7,500	\$ 6,500	NYSERDA (based on projects funded)
Products commercialized	# of products commercialized	0	0	2	4	NYSERDA (Salesforce)

⁶ Energetics. NY DMV EV Analysis 2016-11-30. Data provided by NYSEDA on January 31, 2017.

⁷ NYSEDA. Electric Vehicle Registration Map. Accessed August 30, 2018. <https://www.nyserda.ny.gov/All-Programs/Programs/ChargeNY/Support-Electric/Map-of-EV-Registrations>.

⁸ Auto Alliance. ZEV Sales Dashboard. Accessed April 25, 2017. <https://autoalliance.org/energy-environment/zev-sales-dashboard/>

⁹ Auto Alliance. ZEV Sales Dashboard. Accessed August 29, 2018. <https://autoalliance.org/energy-environment/zev-sales-dashboard/>

¹⁰ Edelman Intelligence. Survey results provided by NYSEDA via email on March 22, 2017.

Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019 Goal	2022 Goal	Data Source
Revenue (\$ millions)	\$ millions of revenues from sales of commercialized products	0	0	\$1	\$5	NYSERDA (\$ of revenue from sales of commercialized products)
Replications from demonstrations	# of replication projects from demonstrations	0	0	2	6	NYSERDA (Salesforce/ R&D Demo Survey)
New business models that monetize second-life battery uses and enable charging station financing	# of new business models	0	0	-	-	NYSERDA (qualitative information based on meetings/ relationships)
Introduction of new products and new utility programs that enable smart EV charging that benefits both EV drivers and utilities/grid operators	# of new products enabling smart charging	0	0	-	-	NYSERDA (Salesforce) – projects funded by NYSERDA
	# of new utility programs enabling smart charging	0	1	-	-	NYSERDA

Table 2 presents supplemental initiative specific metrics derived from the logic model for the Electric Vehicles investment plan. Updated indicator values for 2018 are included in Table 2 where available. Progress toward the broad outcomes in Table 2 may be qualitatively tracked without a specified goal.

Table 2. Supplemental Initiative Specific Metrics

Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019	2022	Data Source
Utilities advised on approach and business models supporting EVs	# of meetings with utilities	0	5	-	-	NYSERDA (Salesforce)
Case studies developed and “how-to” materials	Case studies and “how-to” materials complete	0	1	-	-	NYSERDA (information posted online)
Beginning of in-service demonstrations of promising EV-enabling technologies	# of demonstration projects initiated	0	3	-	-	NYSERDA (Salesforce)
Pilot consumer engagement programs initiated	# of pilot programs initiated	0	3	-	-	NYSERDA (Salesforce)
Coordination with other states and DOE on developing and possibly jointly funding EV awareness campaigns	Coordination with other states ongoing	Coordination underway	Coordination active and funded joint EV awareness campaign	-	-	NYSERDA
Car dealers and employers understand how to participate in EV market	Education with car dealers and employers in progress	Not yet started	Funded trainings and incentives for car dealers to get more involved in EV sales	-	-	NYSERDA
Charging station purchasing collaborative instituted paired with incentives	Charging station purchasing collaborative instituted paired with incentives	Not yet started	Planned launch in September 2018	-	-	NYSERDA

Outputs/Outcomes	Indicators	2017 Baseline	2018 Update	2019	2022	Data Source
Standardized policies and programs with coordination between entities	Coordination with other entities ongoing	Coordination underway	Coordination underway	-	-	NYSERDA
Adoption encouraged for standardized policies and programs						
Municipalities adopt standard policies to support EV-friendly zoning, building codes, planning procedures, and permitting	Standard policies adopted	Some policies exist (e.g., NYC), but comprehensive data are not available	Some policies exist (e.g., NYC), but comprehensive data are not available	-	-	NYSERDA/ Evaluation (Literature review and stakeholder interviews)