# Preliminary CVRP Projections: 2021–2023

New methodology implemented that is intended to account for impact of the COVID-19 pandemic and other factors. Under review and subject to change.

March 3, 2021

James Tamerius, John Anderson, Colin Evans and Keir Havel

Transparency and Insights



## Method Overview: Prophet

- Based on open-source tools developed by Facebook <u>https://facebook.github.io/prophet/</u>
- Simulates market conditions and rebate demand based on estimates of market recovery following the COVID-19 pandemic
- Includes estimates of the impact of CFR, increasing the LMI-IR income threshold to 400% FPL, and the PHEV minimum electric-range change
- Adjusts for the large increase in sales after the release of the Tesla Model 3 in 2018 and the pent-up demand in winter 2020-21
- Assumes linear growth for most vehicle categories and rebate types
- Assumes state and federal incentives remain constant

#### **Funding Demand Over Time**



Ribbons indicate 95% confidence interval

## **Three-year Program Demand Estimates**

Year	Rebate Type	Projected Funding Demand (millions)			Projected Rebates (thousands)		
		Min.	Median	Max.	Min.	Median	Max.
2020	General Funds Remaining		\$55		-	-	-
	Lower-Income Inc. Funds Remaining		\$3		-	-	-
2021	Standard and DAC-Fleet Increased	\$66	\$91	\$119	33	45	59
	Lower-Income Increased Rebates	\$36	\$49	\$69	8	11	16
	Total Need	\$102	\$140	\$188	41	56	75
2022	Standard and DAC-Fleet Increased	\$79	\$115	\$158	40	56	77
	Lower-Income Increased Rebates	\$41	\$64	\$102	9	14	23
	Total Need	\$120	\$179	\$260	49	71	101
2023	Standard and DAC-Fleet Increased	\$78	\$125	\$190	39	61	94
	Lower-Income Increased Rebates	\$35	\$74	\$136	8	17	31
	Total Need	\$113	\$199	\$326	47	77	124
3-Year Average		\$112	\$173	\$258	46	68	100

#### **Estimated End of Funding**

	Soonest	Median	Latest
General	May 2021	Jun 2021	Jul 2021
LMI-IR	Jul 2021	Aug 2021	Nov 2021

Based on remaining funding as of 3 Mar 2021.

#### **Progress Toward State Goals**



Assumes no changes in federal or state incentive levels.

Contains content from IHS Markit<sup>©</sup> 2020.

Preliminary modeling with Caret<sup>™</sup> algorithm, CSE's proprietary EV diffusion modeling software, suggests a change to policy mix may be needed to reach goals.

## Planned Refinements and Next Steps

- Upcoming PEV models release regressor
- Other regressors found to be predictive of EV sales
- Seasonality
- Regional forecasting
- Monthly refresh