

# Replace Your Ride

Tackling transportation poverty  
and accelerating emissions reduction

Responses to HTC Questions  
Linda McGinnis, Co-Chair RYR Steering Committee  
02/25/2021

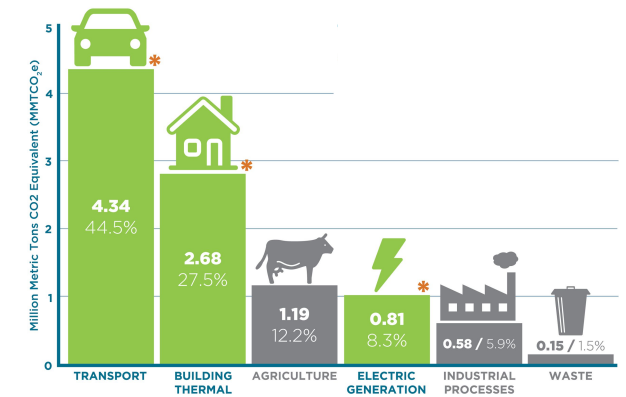
# Goals

Reduce Transportation Costs for Low-Income Vermonters

Help VT Meet Climate Goals in Transportation



Vermont's GHG emissions by sector<sup>1</sup>



How?



Make it cheaper for lower-income Vermonters to switch to cleaner, more affordable transportation options

Get higher-polluting, more expensive-to-maintain vehicles off the roads

# Targeted Population = Lower-Income Vermonters

Number of Vermont Tax Filers by AGI Categories (2019)

Filing Status/AGI	< \$25,000	\$25,000-\$49,999	\$50,000-\$74,999	\$75,000-\$99,999	\$100,000-\$124,999	≥125,000
Single	77,622	55,100	23,500	7,847	3,143	4,590
Head of Household	6,254	11,338	4,719	1,691	682	841
Widower/Surviving Spouse*	xxx	xxx	xxx	xxx	xxx	xxx
Married Filing Jointly	13,088	15,286	19,297	21,195	16,979	32,754
Married Filing Separately	1,564	2,593	1,422	506	209	313

\*Information not available

**Eligible Vermonters** - Lower Income Only (Total: 202,142)

**Category 1** <\$50,000 for Single, Head of Household, Married Filing Separately (Total: 154,471)

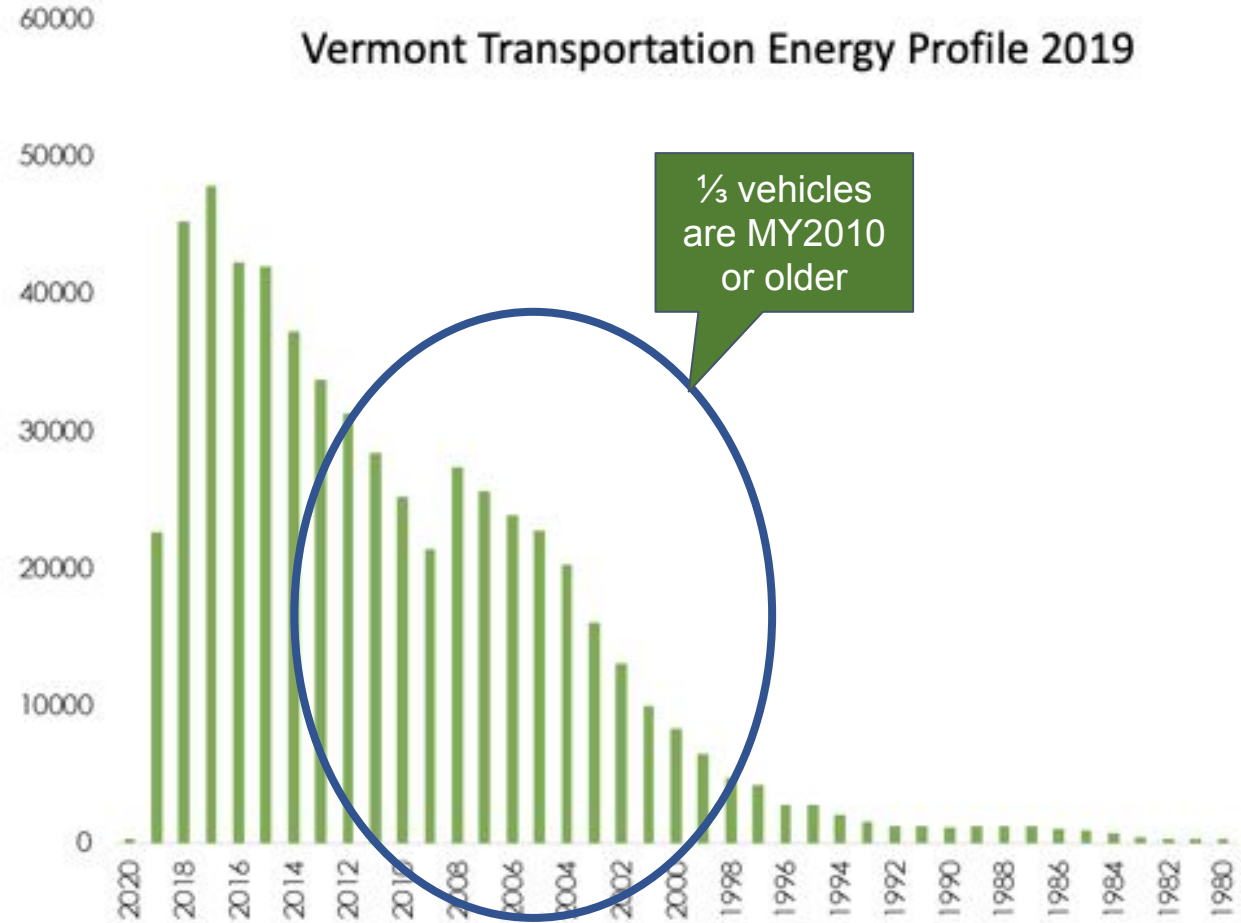
**Category 2** <\$75,000 for Married Filing Jointly (Total: 47,671)

**Note:** If a person qualifies under the MileageSmart program, they automatically qualify for RYR

Who?

What?

## Target Gas/Diesel powered cars 10 years or older (higher maintenance/higher GHG emissions)



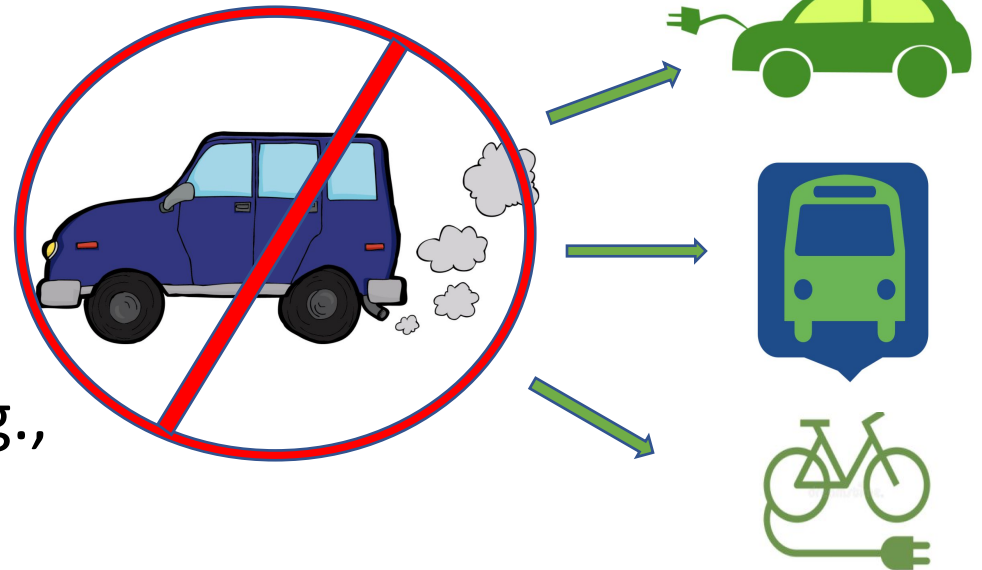
Source: VTRANS Vermont Transportation Energy Profile 2019, using DMV data

The older the car, the higher the maintenance and GHG emissions

# Replace Your Ride

\$3000 incentive for lower-income Vermonters to:

- **Scrap** older high-maintenance high-polluting vehicle (10 yrs +)
- **Replace** with new/used clean transportation or shared-mobility options
- **Stack** on top of existing incentives (e.g., MileageSmart and State Incentive)



Removing older vehicle = accelerated GHG emissions impact



Build on what works

- ❖ Same eligibility requirements
- ❖ Same application forms
- ❖ Same administration

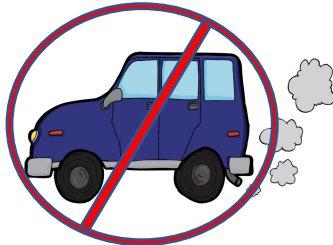
Used EVs



New EVs



+ \$3000



# New EV Price with Incentives

## New Car Comparison

	Nissan LEAF 150 Mile Range		Nissan Sentra
	Standard Incentive	< \$50k Income Incentive	
Starting Price	\$31,600	\$31,600	\$19,310
Federal Tax Credit	-\$7,500	-\$7,500	--
State Incentive	-\$2,500	-\$4,000	--
OEM Discount	-\$6,000	-\$6,000	--
Utility Incentive	-\$1,500	-\$2,500	--
Price after Incentives	\$14,100	\$11,600	\$19,310
Replace Your Ride		\$3,000	
Price After RYR	\$14,100	\$8,000	\$19,310

Most Popular 2020

Nissan Leaf  
Chevy Bolt

**PLUS annual operations & maintenance savings of \$500 to \$1,500**



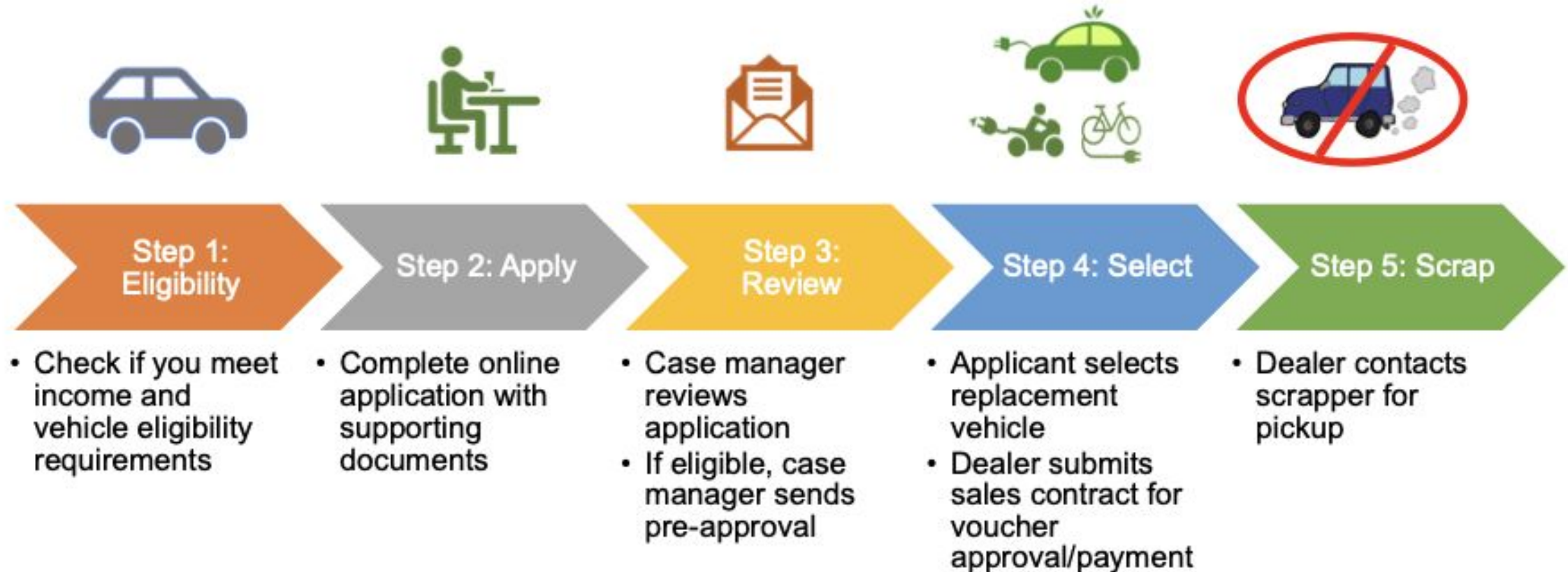
# Used EV Price with Incentives

## Used Car Comparison

	Nissan LEAF (2017) 107 range	Chevy Bolt (2017) 238 range	Nissan Sentra (2017)
Starting Price	\$11,000	\$17,000	\$15,000
Mileage Smart	-\$2,750	-\$4,250	-
Utility Incentive (varies)	-\$1,500	-\$1,500	-
Current Price After Incentives	\$6,750	\$11,250	-
Replace Your Ride	-\$3,000	-\$3000	-
Price After RYR	\$3,750	\$8,250	\$15,000

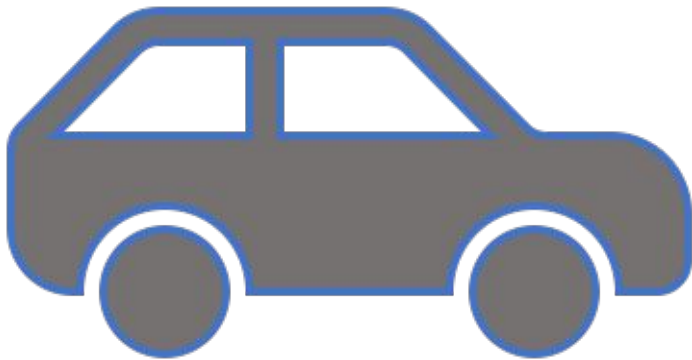
**PLUS annual operations & maintenance savings of \$500 to \$1,500**

# Proposed Vermont RYR Step-by-Step Guide



\*Modeled off of CA [Replace Your Ride Program](#), adapted to Vermont

# VT RYR Applicant Step 1 - Eligibility



Model Year 2010 or older

- Are you a VT resident?
- Is your car Model year 2010 or older?
- Is your annual income less than \$50,000 AGI (individual) or \$75,000 (married)?
- Do you own your vehicle and is it registered in Vermont?
- Does your vehicle have an approved inspection sticker within the past year?

# VT RYR Applicant Step 2- Apply Online



Complete a simple online form for vehicle to be replaced

## Required documents

- Copy of Vt Issued Driver's license
- License Plate Number
- Income level
- Copy of vehicle title (with make and model)
- Copy of up-to-date inspection (within past year)

## Select desired clean transportation option

- Electric Vehicle (or Plug-in Hybrid)
- Electric Bicycle
- Electric Motorcycle
- Voucher for Alternative Mobility

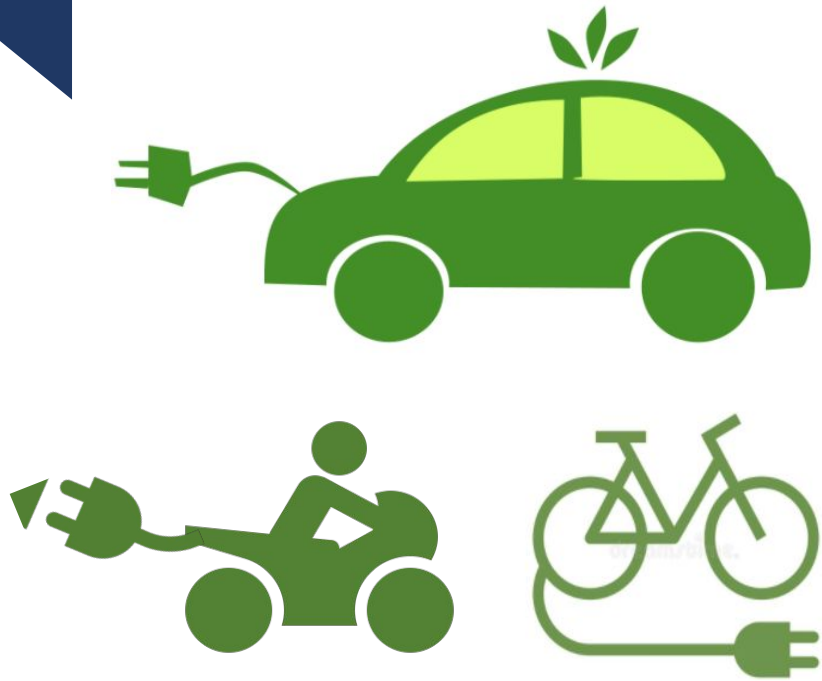
# VT RYR Step 3: Case Manager Review/Preapproval



Administrator reviews online application to:

- Identify and assist with any missing information
- If applicant is eligible, send pre-approval email to applicant
- Include information on participating dealers/programs (also available on website)

# VT RYR Step 4: Applicant Selects Replacement



- Applicant has 30 days to select replacement
  - EV/PHEV at a participating dealer
  - Ebike/Emotorcycle at participating program/dealer
  - Transit\*/Mobility voucher (to be developed)
- Dealership/program submits sales contract to Administrator for voucher approval
- Once approved, applicant is contacted to pick up replacement vehicle
- Dealer sends sales contract to RYR and receives payment

\* If Vt decides to continue with Free Fare Transit, then transit will not be included

# VT RYR Step 5: Scrap Vehicle



- ❑ Applicant brings older vehicle to participating dealership/organization when picking up replacement vehicle
- ❑ Dealership/organization\* contacts dismantling broker (e.g., [IAA](#)) for pickup
- ❑ Broker completes verification form that vehicle has been scrapped

\*refers to other participating organizations such as LocalMotion or Old Spokes Home for ebikes

## VT RYR Step 5 cont'd: Statewide Scrappage Broker



- ❑ State-wide coverage
- ❑ Can pick-up vehicle from any location (dealership, organization, home)
- ❑ Can sign agreement to sell only to Vermont salvage buyers
- ❑ All viable parts to be recycled or used for other vehicle repairs (except disabled engine)
- ❑ Completes form that verifies the vehicle has been scrapped



# RYR Pre-Approved Dealerships

1. Interested Dealers contact Administrator
2. Administrator provides overview of program and sales agreement template
3. Dealership agrees to comply with the following responsibilities
  - Is licensed to do business in VT, with all permits required by the federal, state and local laws.
  - Makes the Replace Your Ride Dealer Manual available to all sales and finance underwriting personnel and management, as appropriate.
  - Shall not make any misleading statements to consumers regarding the Program or discourage consumers from participating in any portion of the Program.
  - Will market Replace Your Ride to Vermont drivers in their customer area.
  - Will provide proof that participating vehicles have been rendered inoperable

# National Seachange in Transportation in 2021

- **Manufacturers/Dealers on board**
  - ◆ Manufacturing ramping up - Currently 40 models from 20 manufacturers
  - ◆ Top companies: Nissan, GM/Chevrolet, Tesla, BMW, Ford
  - ◆ GM will sell ONLY EVs by 2035, 30 new models by 2025
  - ◆ Prices dropping (now from as low as \$21K Cooper SE, M3 Tesla at \$35K)
  - ◆ AWD and SUVs now available
  - ◆ Trucks on market 2021 (4 models)
  - ◆ Battery Prices dropped 90% over past decade
  
- **Federal Administration Shift**
  - ◆ Focus on vehicle electrification and expanding public transit
  - ◆ Restore and expand EV tax credit
  - ◆ 500,000 *new* charging stations by 2030
  - ◆ New stricter fuel economy standards
  - ◆ Possible new Federal Replace Your Ride (listen to [NPR Story](#))
  
- **State Level**
  - ◆ Massive investment in charging stations
  - ◆ Widespread EV/PHEV incentives
  - ◆ CA all new passenger vehicles must be zero emissions by 2035

*“Climate Change is real, and we want to be part of the solution by putting everyone in an electric vehicle.”*

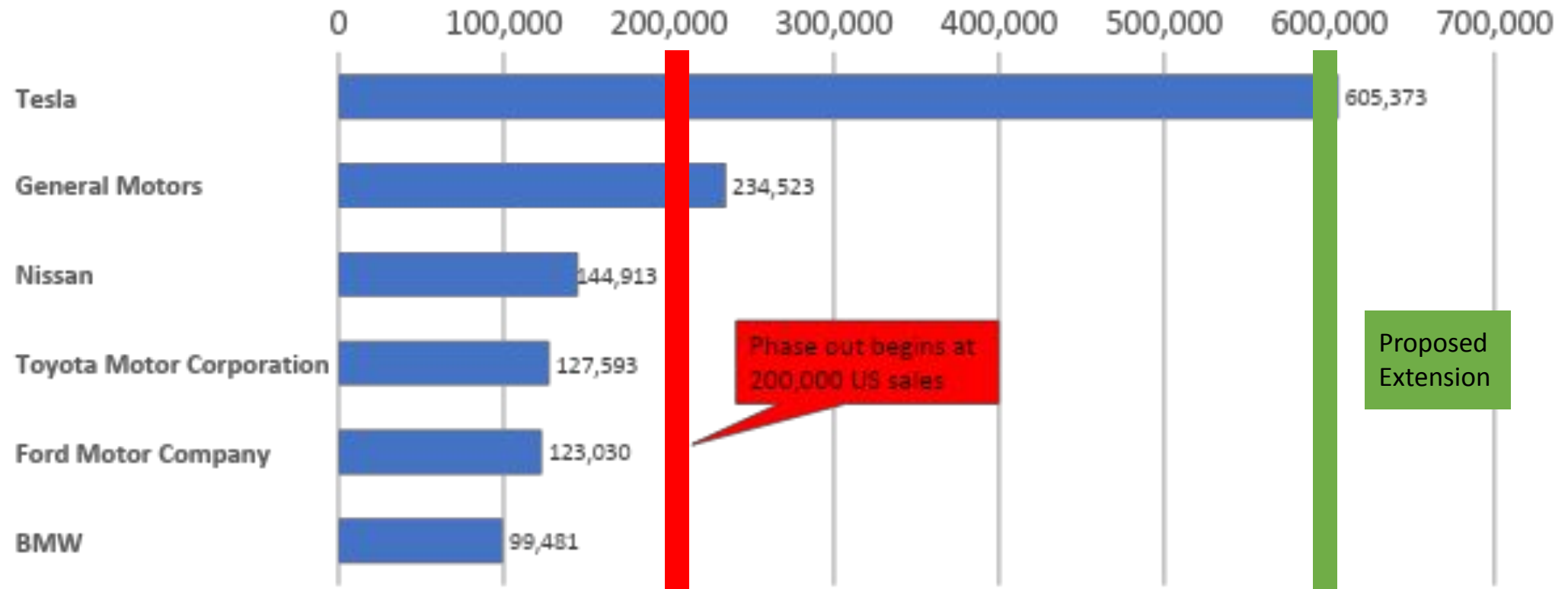
- Mary Barra, GM Chair and CEO (Jan 2021)

# New EV Purchase Incentives - Federal

## Federal Tax Credit

- Available for *new* EV purchases starting in 2010
- Up to \$7,500, based on battery size
- Begins to sunset when manufacturer reaches 200,000 EV sales
  - No longer available for Tesla and General Motors EVs (they hit limit in 2019)
  - Biden Administration proposing to extend it to 600,000
- Claim on income taxes (unless leasing)
  - If leasing, then the tax credit is claimed by the leasing company as they technically own the vehicle. The leasing entity will usually pass through the value of the tax credit as a lease incentive.
- Tax credit also available for charging equipment installation

# US EV Sales by Automaker – Through June 2020



# Proposed Federal GREEN Act EV Tax Credit

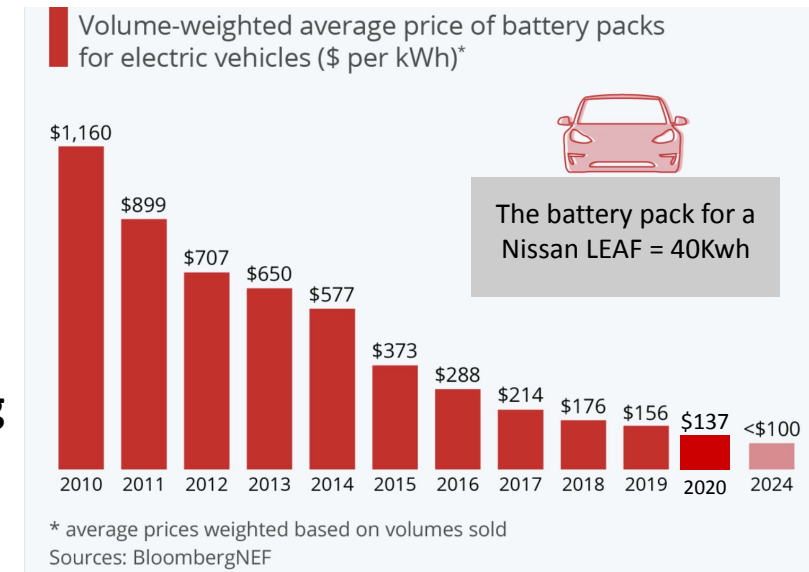
## Growing Renewable Energy and Efficiency Now (GREEN) Act

- EV tax credit for new EVs extended to 600,000 per automaker
  - Not retroactive for Tesla or GM purchases made prior to enactment
  - Would reduce the amount of the tax credit by \$500 for automakers going over 200,000 US sales
- Adds a used EV tax credit
  - Half the value of the new EV credit (up to \$3,750)
  - Only available for lower income filers (up to \$45k AGI single; \$75k AGI joint)

<https://www.congress.gov/bill/117th-congress/house-bill/848/>

## What about batteries?

- **EV Battery Warranty = 8 yrs/100,000 miles**
  - Most used EVs are <3 yrs old, so batteries would still be under warranty
  - EVs sold in U.S.: 2011-2018 = 750,000; 2018-2020 = 980,000
- **EV Battery Lifespan = 200,000 miles**
  - Consumer Report estimates. Equivalent to 17 years of use if driven 12,000 miles/year
- **Cold Climates = Longer Battery Life**
  - Cars that are located in hotter climates will typically experience a faster battery degradation.
- **EVs have far fewer moving parts needing replacement than Gas/Diesel cars**
  - Gas/diesel cars have over 24 components that do not exist on an EV
  - Replacing a transmission can cost between \$4,000 and \$8,000 (same as battery)
- **EV Battery Price Drop 90% over the past decade**
  - From \$1,160 in 2010 to \$137/kwh in 2020
  - A Nissan LEAF has a 40 kWh battery



# Proposed RJR Evaluation Criteria

- ❑ # low income households served (by income and town)
- ❑ \$ funding spent per GHG saved
- ❑ # Vehicles Scrapped per year (by MY)
- ❑ # of vehicles purchased or leased (new and used)
- ❑ # of non-vehicle options selected (by category)
- ❑ Mobility metric (survey asking beneficiaries if program assisted in increasing mobility)
- ❑ Change in VMT (survey or other research evaluation)
- ❑ Ease of administration (share of total budget)

## Vermont All-Electric Vehicle / Plug-in Hybrid EV Incentives Comparison

	Beneficiary	Incentive Amount	Targeting	Eligible Actions	Tax Based or Cash	GHG Impact
<b>Proposed Replace Your Ride</b>	Low-Income	\$3,000 for PHEV/AEV Stacked on other incentives with scrappage of higher polluting vehicle	<\$50,000 AGI (single) <\$75,000 (married filing jointly)	New or Used AEV/PHEV -or- Other clean transportation options	Cash Voucher	<b>Highest</b> (EV/Clean option plus permanent removal of high GHG vehicle)
<b>State Incentives</b>	Low-Income  Moderate Income	\$3,000 for PHEV \$4,000 for EV  \$1,500 for PHEV \$2,500 for EV	< \$50,000 AGI  Up to \$125,000 AGI	<b>New ONLY</b> AEV/PHEV Base price under \$40,000	Cash Voucher/ Rebate	<b>High</b> (New EV)
<b>MileageSmart</b>	Low-Income	25% of purchase price up to \$5,000	<b>Weatherization eligible households</b>	<b>Used Only</b> AEV/PHEV -or- <b>High MPG</b>	Cash Voucher	<b>Medium</b> (Used higher MPG vehicle, PHEV or AEV)





# Thank You!

Linda McGinnis ([lindamcginnis0@gmail.com](mailto:lindamcginnis0@gmail.com))

