

Clean Cars MN
ZEV Credit Banking
2/10/21

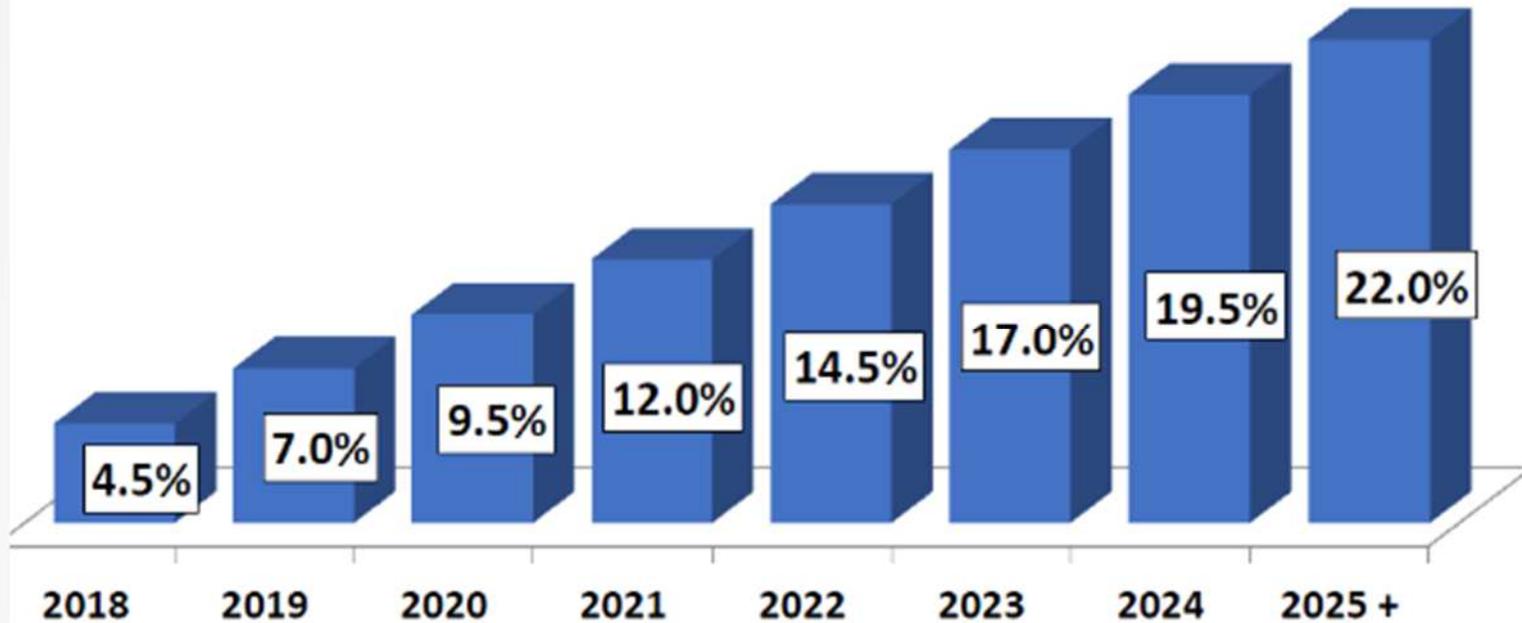
Statewide Mandate on Auto Manufacturers

- LEV standards and ZEV targets apply to new cars. The burden is on the manufacturers to improve efficiency of the portfolio of autos they sell in the state and offer ZEV models that appeal to consumers .
- ZEV Standards do not go into effect until ~2025. Manufacturers have 2-3 years to develop and tune their strategy.
- MPCA resource: Statement of Need and Reasonableness(SONAR) addresses most questions.

<https://www.pca.state.mn.us/air/clean-cars-mn-rulemaking>

ZEV Credit goal % of annual auto sales

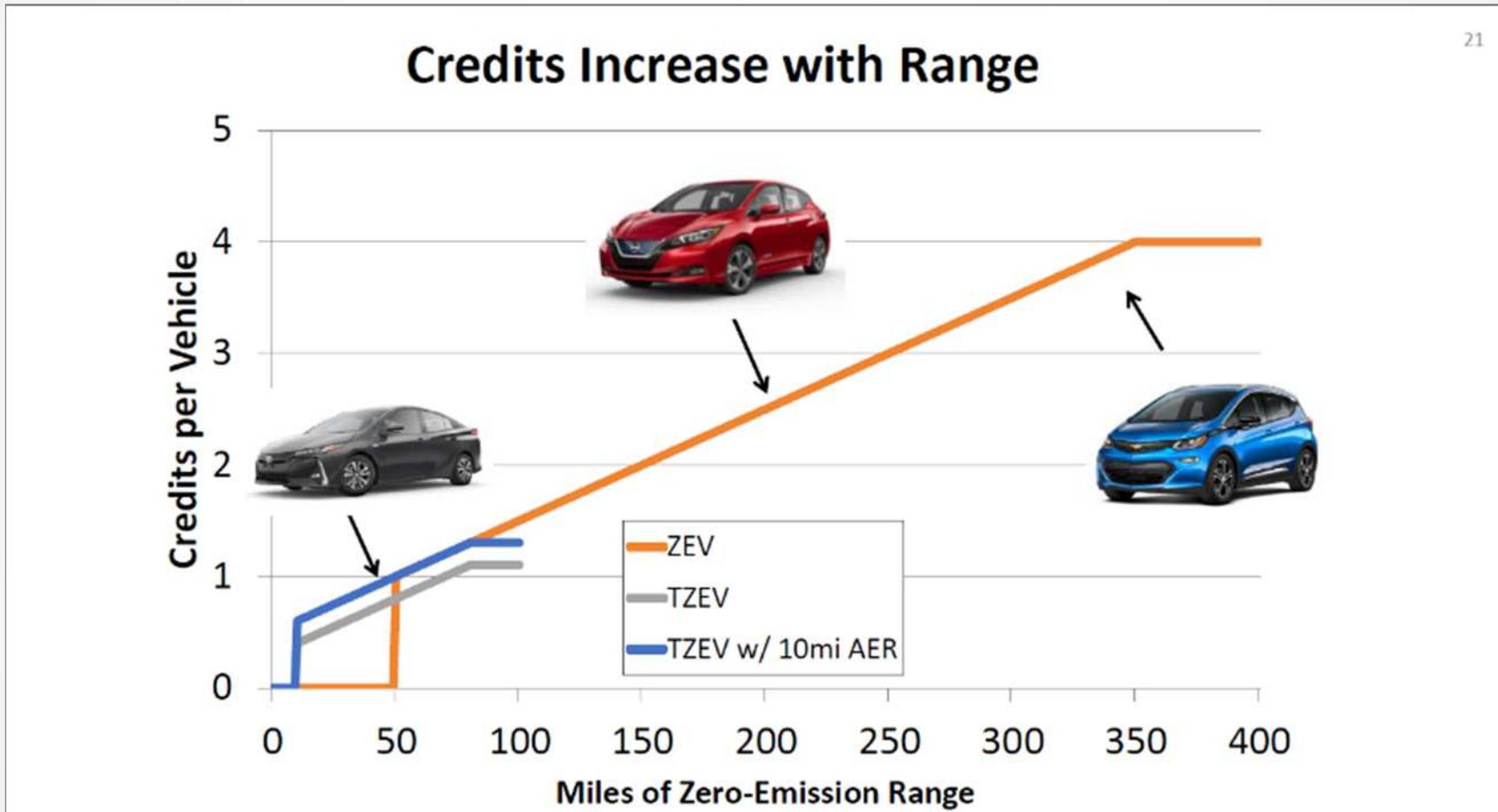
Total ZEV Credit Percentage Requirement for 2018 and beyond



Source: California Air Resources Board

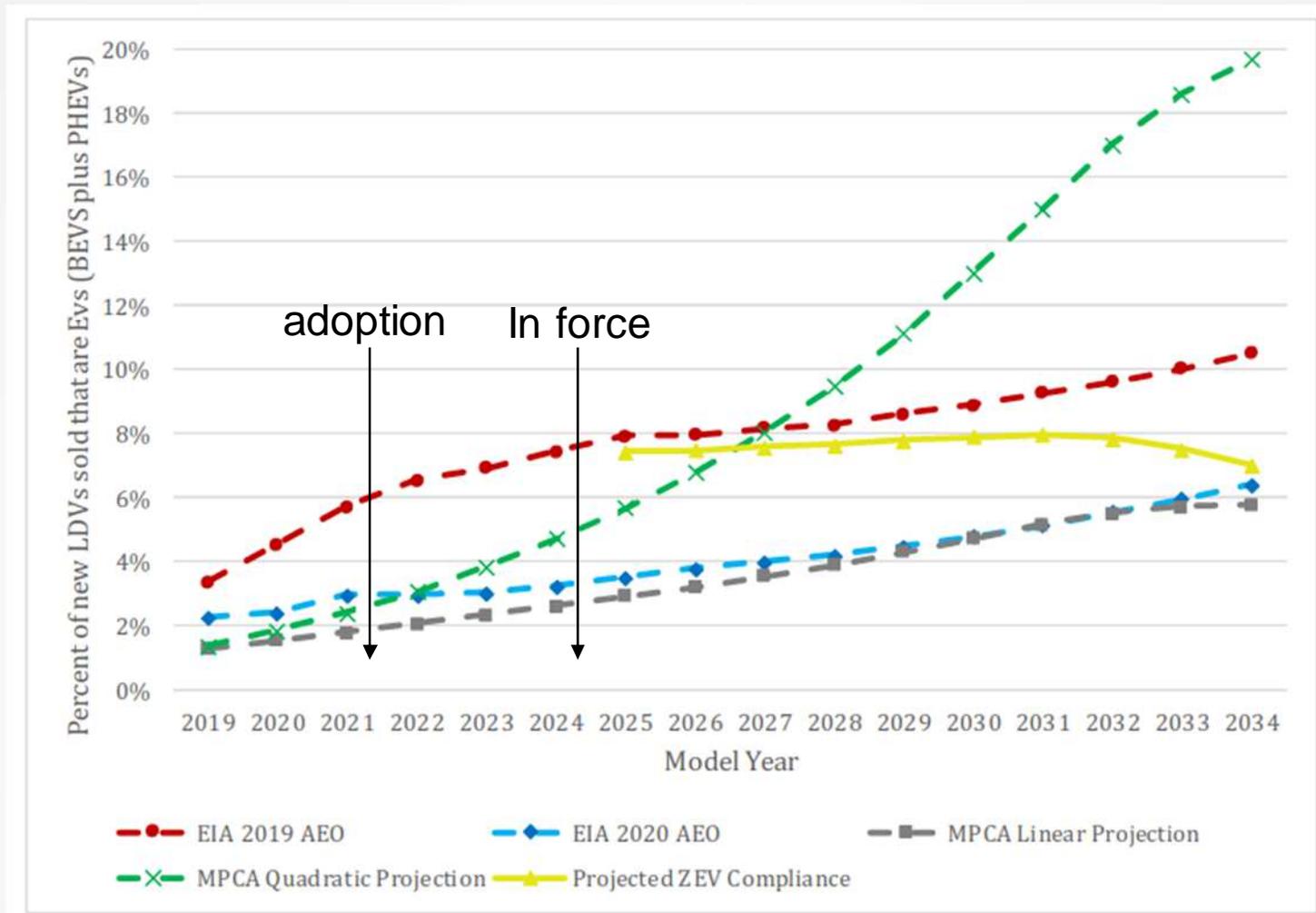
What Are ZEV Credits

- Manufacturers earn ZEV credits by selling a car with an all electric range.



TZEV = Plug in Hybrid

ZEV Auto sales volume projections from MPCA

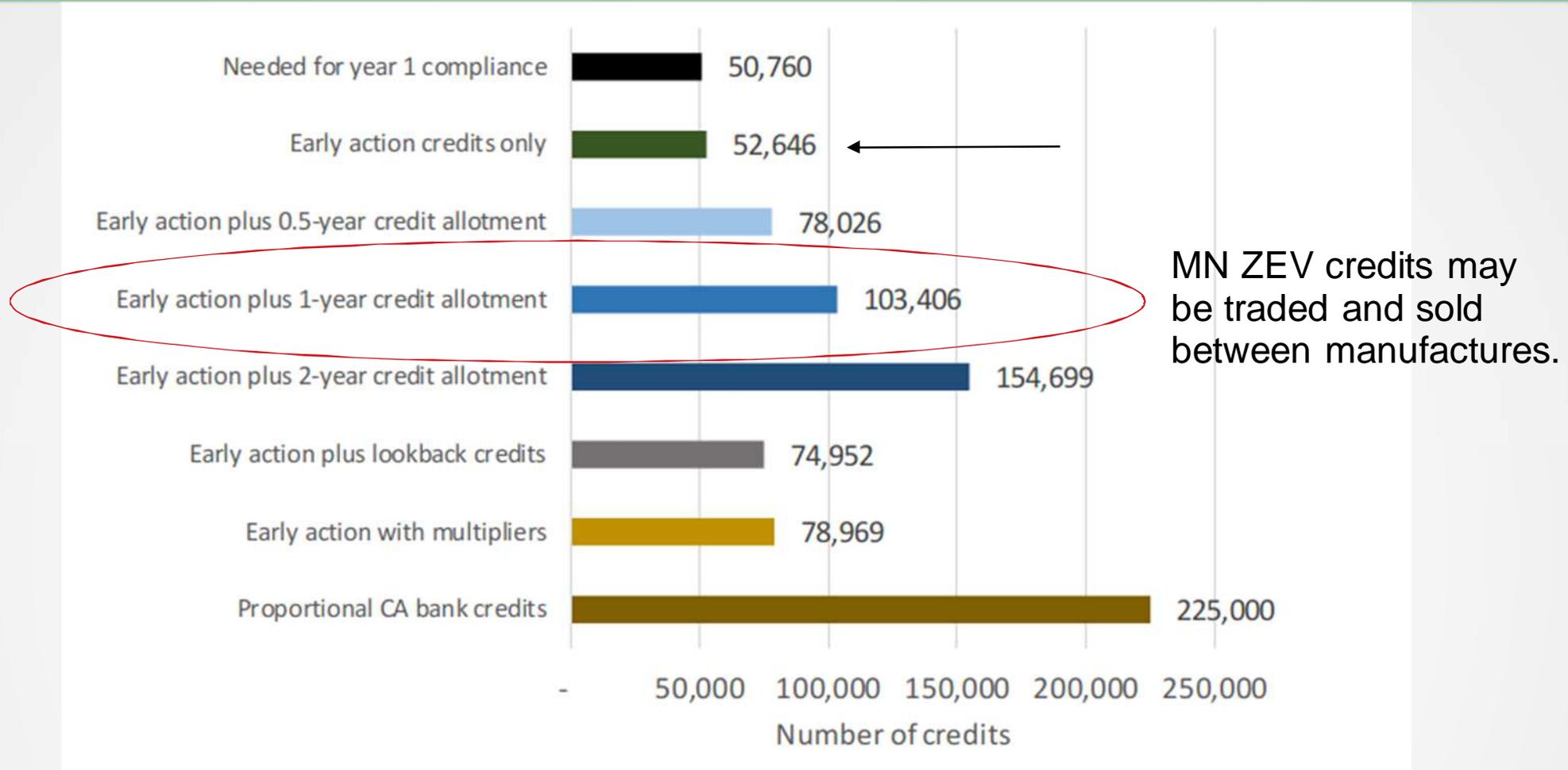


- ZEV compliance may roughly double the projected ZEV auto sales volume in MN in 2025.

ZEV Credit Bank

- Current Proposal from MPCA includes early action credits for 2022-2024 and loading of ~1 years worth of credits in 2025 for each manufacturer.
- Some manufacturer may start with 1 year of allotment credits(0 early action credits), and some may start with >2 years of total credits.
- MN ZEV credits may be traded and sold between manufactures. (but not between states.)
- Markets for ZEV credits value 1 ZEV credit at between \$1000 and \$5000.

Establishing an initial ZEV credit bank



- Reducing credit allotment would put more emphasis on early action as an incentive to manufacturers to start ramping ZEV sales right away.

Auto Manufacturer's MN Sales Volume and market share estimate in 2020

Manufacturer	MN 2020 estimate	MN ZEV=7%	MN Credits 2025
General Motors	35,526	2,487	7,816
Toyota Motor Corp	29,581	2,071	6,508
Ford Motor Company	28,484	1,994	6,267
FCA	25,486	1,784	5,607
Honda Motor Company	18,715	1,310	4,117
Hyundai Kia Auto Group	17,112	1,198	3,765
Nissan Motor Co	14,065	985	3,094
Subaru Corporation	8,567	600	1,885
Volkswagen Group	7,946	556	1,748
BMW Group	4,317	302	950
Daimler	4,546	318	1,000
Mazda	3,907	273	860
Tesla	4,101	287	902
Volvo	1,542	108	339
Jaguar Land Rover	1,425	100	314

- <https://www.goodcarbadcar.net/2021-us-auto-sales-figures-by-manufacturer/>

Resource links

- **MN350**

<https://mn350.org/comment-on-clean-cars-minnesota/?emci=aed14daa-c567-eb11-9889-00155d43c992&emdi=16c2ff69-6569-eb11-9889-00155d43c992&ceid=4509600>

- **FRESH ENERGY**

<https://fresh-energy.org/clean-cars-comment/>

- **MPCA**

<https://www.pca.state.mn.us/air/clean-cars-mn>

- **CLEAN CARS MN SONAR**

<https://www.pca.state.mn.us/air/clean-cars-mn-rulemaking>

RuleMaking

- **What is “Rulemaking”?**

- Executive Branch(bureaucratic) process for implementing regulations to meet goals set by legislative branch. Rulemaking is subject to the priorities and interpretation of the executive branch.
- Minnesota Pollution Control Agency is modifying/adding regulations in order to meet MN Next Generation Energy Act goals for Green house gas emissions set in 2007. (13+ years ago).
- The Federal Clean Air Act passed and amended by legislators in multiple administrations since 1970, gave CA an exemption to set tighter standards, and gave other states 2 options: Federal or CA emissions standards.
- Federal Clean Cars Standards for emissions were tightened in 2012 and aligned with the CA LEV standards with support from all major auto manufacturers. (One National Standard)
- Supreme Court affirmed that the Federal EPA/DOT can regulate CO2 and other pollutants in 2014 under the Clean Air Act.
- In 2020 the Federal standards were weakened and CA LEV standards diverged.
- MPCA currently has the Statutory authority to regulate auto emissions including GHG.
- Rulemaking process is defined and includes multiple opportunities for stakeholder input.
- Should Clean Cars MN be passed through legislation? Legislation could affirm MN adoption of stronger LEV standards and ZEV goals aligned with the CA act, but cannot not modify the standards.
- 2021 Bills introduced in the MN house and MN Senate seek to remove the authority of the MPCA to set limits on emissions from Autos.
- Senate is scrutinizing MPCA commissioner Laura Bishop’s actions surrounding Clean Cars Rulemaking
- Clean Cars MN implementation strategy includes timing that aligns with the resolution of lawsuit challenging CA waiver.