

Clean Cars Minnesota

MPCA proposed new air quality rules to reduce greenhouse gas emissions from passenger vehicles, Minnesota Rules, 7023 – rules concepts

Introduction

This document provides an overview of what the Minnesota Pollution Control Agency (MPCA) is considering for the Clean Cars Minnesota rulemaking. Clean Cars Minnesota is intended to reduce greenhouse gas (GHG) and other harmful air pollutant emissions from passenger vehicles by adopting the Low Emission Vehicles (LEV) and Zero Emission Vehicles (ZEV) standards adopted by the California Air Resources Board, as allowed under section 177 of the Clean Air Act (CAA).

The MPCA is at the initial stage of the rulemaking process and is sharing proposed concepts for a new rule. This document will help readers understand the potential rules being considered and the reasons for those rules so that people may provide comments. Topics where input is specifically requested are highlighted, but comments are welcomed on any or all of this rule concept. Instructions on how to submit comments are provided at www.pca.state.mn.us/air/clean-cars-mn-rulemaking.

Purpose of the rulemaking

The main focus of the Clean Cars Minnesota rulemaking is to reduce GHG emissions from passenger vehicles. Minnesota statute 116.07 directs the MPCA to “adopt standards of air quality, including maximum allowable standards of emission of air contaminants from motor vehicles” and more broadly, standards “relevant to the prevention, abatement, or control of air pollution.” GHGs are harmful air pollutants that contribute to global climate change. MPCA therefore has the authority under Minnesota statute to regulate emissions of GHGs from motor vehicles.

In addition, the Next Generation Energy Act (NGEA), Minnesota statute 216H.02, subd. 1 establishes a statewide goal “to reduce statewide greenhouse gas emissions across all sectors producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025, and to a level at least 80 percent below 2005 levels by 2050.” Minnesota did not meet its 2015 goal and is not on track to achieve the 2025 or 2050 goals. Transportation is the largest emitter of GHGs in Minnesota and passenger vehicles are the largest source of GHG emissions within that sector. State-level regulation is needed in order to achieve the necessary emission reductions in this sector. The Clean Cars Minnesota rulemaking would help get the state on track to achieve its statutory goals.

This rulemaking would reduce tailpipe emissions of not just GHGs, but also other harmful air pollutants, including fine particles and the pollutants that form ground-level ozone. MPCA and the Minnesota Department of Health recently released the “Life and Breath” report that showed that fine particles and ground-level ozone contributed to roughly 2,000-4,000 deaths in Minnesota in 2013 as well as hundreds of increased hospital visits. Reducing emissions of these pollutants is therefore critical for protecting the health of Minnesotans. Reducing air pollution from vehicles is especially critical for addressing environmental justice. MPCA research shows that communities of color and lower-income communities are disproportionately exposed to pollution from vehicles because those communities are disproportionately located near busy roadways. Adopting this rule is necessary to help reduce exposures to these vulnerable and overburdened communities.

Clean Cars Minnesota is also about consumer choice and ensuring Minnesotans have more and better options for cleaner vehicles. The rule is intended to ensure that Minnesotans in all parts of the state can drive the cleanest vehicles, whether they drive a truck, an SUV, or a car. In addition, there are more electric vehicle (EV) models available in other states than can be easily acquired in Minnesota. Adopting Clean Cars Minnesota would mean that Minnesotans who wish to purchase and EV would have more options to choose from to meet their preferences and needs. Increasing the supply of EVs in the market may also help lead to more used EVs available in Minnesota, further increasing EV options for consumers, particularly people who are interested in used vehicles.

Background

The CAA gives the federal government responsibility for setting vehicle emissions standards for the country and bars states from setting their own standards. However, section 209 of the CAA allows California to set air emissions standards for motor vehicles that are more stringent than federal standards and section 177 allows other states to adopt those standards. California developed the LEV standard and the ZEV standard to reduce emissions of GHGs and other air pollutants. The Clean Cars Minnesota proposal would adopt both of these standards.

The LEV standard would require automobile manufacturers to deliver for sale in Minnesota only vehicles that meet the more stringent GHG and other air pollutant emissions standards established by California. The LEV standard applies to emissions of GHGs and other air pollutants for all passenger vehicles and gets more stringent every year. The LEV standard does not establish any requirements directly for vehicle owners and does not require a personal vehicle inspection program. LEV matches the current federal GHG emissions standards; however, the U.S. Environmental Protection Agency has proposed to weaken those standards starting in model year 2021. Adopting LEV would preserve the standards and protections that Minnesotans have been expecting.

The ZEV standard would require automobile manufacturers to deliver for sale in Minnesota a certain number of vehicles with ultra-low or zero tailpipe emissions each year, including battery electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), and hydrogen-fueled vehicles. These vehicles are collectively considered “zero emission vehicles” (ZEVs). Manufacturers are given ZEV credit quotas based on their average annual sales (i.e. big manufacturers must earn more credits annually than smaller ones), and the quotas get more stringent every year. Manufacturers generate different numbers of credits for delivering different types of vehicles for sale, based on vehicle technology and maximum range per charge. For instance, long-range full battery EVs receive the most credits while PHEVs with short electric ranges receive the least. Regular (non-plug-in) hybrids and highly efficient gas vehicles do not receive credits. Manufacturers can bank credits to meet requirements in future years and are able to buy and sell them from other manufacturers. The ZEV standard would result in additional ZEVs sold in Minnesota, but does not require any individual to purchase a ZEV.

The MPCA may consider adopting the LEV standard, the ZEV standard, both, or neither. Section 177 requires that implementation of California standards in another state can only begin after a minimum of two model years after the final adoption of the rules into state code. Since the CAA requires states wishing to adopt California’s standards to do so exactly, Minnesota has no flexibility within the rules to adopt Minnesota-specific changes. To date, 13 states and the District of Columbia have adopted the LEV standard and 10 states have adopted both the LEV and ZEV standards.

State	LEV	ZEV
Colorado	X	X
Connecticut	X	X
Delaware	X	
Maine	X	X
Maryland	X	X
Massachusetts	X	X
New Jersey	X	X
New York	X	X
Oregon	X	X
Pennsylvania	X	
Rhode Island	X	X
Vermont	X	X
Washington	X	
District of Columbia	X	

Rulemaking concept and questions

The concepts described in this document are preliminary and may or may not occur. The MPCA will provide additional opportunity for review and comment if and/or when any rules are formally proposed.

Structure of the rules

The MPCA is considering adopting both the LEV and ZEV standards as part of the Clean Cars Minnesota rulemaking. Colorado is the most recent state to have adopted these standards. The MPCA is considering using Colorado's rule language as a model from which to develop our own. The following questions refer to Colorado's final rules (5 Code of Colorado Regulations 1001-24) (available under "Rulemaking Documents" at www.pca.state.mn.us/air/clean-cars-mn-rulemaking).

1. Generally, does the structure of Colorado's rule serve as a good model for Minnesota? What, if any, changes would you recommend to the language and structure of the rule to make it more straightforward?
2. The rule essentially incorporates the California regulations by reference (Part D – Incorporations by Reference, pages 10-13). The rest of the rule language at 5 CRR 1001-24 provides context to the incorporation by reference. Should Minnesota provide similar contextual rule language? If yes, what purpose would it serve? Or should Minnesota minimize rule language and simply adopt the rules by reference?

Initial credit bank

The one area of flexibility for implementing the ZEV standard is if or how Minnesota might allow manufacturers to establish an initial bank of ZEV credits prior to the first year of implementation. Since Minnesota would be adopting the ZEV standard much later than other states, manufacturers would be required to increase delivery of ZEVs much more quickly than they have in other states to meet their annual quotas. There are many more ZEV models available for sale around the country than there were when the ZEV standard was first adopted by most other states. This larger number of available models would assist the manufacturers in more rapidly increasing their delivery in Minnesota. Even with the number of available vehicles, it is possible some manufacturers may find it challenging to reach their quotas in the first years of the program. States that adopt the ZEV standard can develop mechanisms for manufacturers to start the program with some ZEV credits already in the bank, which would help ease them into the early years of the program. The MPCA has several questions about this potential flexibility:

3. Should Minnesota develop a mechanism to help manufacturers meet their quotas in the early years of the program? Why or why not?
4. Should Minnesota decide whether or not to develop such a mechanism based on an analysis? If so, what should Minnesota consider in such an analysis?
5. Colorado's ZEV rule includes a mechanism for manufacturers to bank EV credits prior to the start of the program (Subparts V.B-V.C., page 9 – see link above). It allows manufacturers to begin the program with an established bank of credits based on (1) a proportional number of credits to what they have in the bank in California and (2) sales of ZEVs for each manufacturer between the finalization of the rule and the beginning of implementation (2 years). Should Minnesota adopt the same strategy as Colorado? Are there changes we should make to it to adapt it for the Minnesota context?
6. Are there other mechanisms to ease into implementation of ZEV that the MPCA should consider?

Rulemaking analysis

The MPCA will analyze this rule for potential impacts and benefits, including health and cost impacts for all Minnesotans. The MPCA is also committed to analyzing this rule and addressing any potential disproportionate negative impacts on communities of color and/or lower income, as well as ensuring these communities benefit from this rulemaking.

Below is a list of potential topics the MPCA is considering analyzing to better understand the potential impacts of this rule on all Minnesotans, and especially on communities of color and lower income communities. Is this an appropriate list of areas to analyze? Are there other areas the MPCA should consider analyzing?

- Air pollution emissions and where these emissions occur
- Health co-benefits and where these occur
- Cost of purchasing and owning a vehicle
- Economic effects, including employment, economic output, and secondary impacts on other sectors of Minnesota's economy

The MPCA is considering using Colorado's regulatory analysis methodologies as a model from which to develop our analysis of costs and benefits. The following questions refer to Colorado's regulatory analysis documents (available under "Rulemaking Documents" at www.pca.state.mn.us/air/clean-cars-mn-rulemaking).

- Do you have any recommended changes to the methodology Colorado used for its regulatory analysis?
- Are there different data sources or models that the MPCA should use?
- Did Colorado use appropriate methods for calculating emissions and cost impacts?
- Are there additional topics, issues, or impacts that the MPCA should address in its analysis?