

Federal Highway Administration

23 CFR Part 490

[Docket No. FHWA-2017-0025]

RIN 2125-AF76

National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program

AGENCY: Federal Highway Administration (FHWA), Department of Transportation (DOT).

ACTION: Final Rule.

SUMMARY: This final rule repeals the performance management measure in 23 CFR 490.507(b) that assessed the percent change in tailpipe carbon dioxide (CO₂) emissions, from the reference year 2017, on the National Highway System (NHS) (also referred to as the Greenhouse Gas (GHG) measure). The GHG measure was one of several performance measures that FHWA required State departments of transportation (State DOTs) and metropolitan planning organizations (MPOs) to use to assess performance in a variety of areas. After considering the comments received in response to the notice of proposed rulemaking (NPRM) published on October 5, 2017,¹ FHWA has decided to repeal the GHG measure.

¹ 82 FR 46427 Pg. 46427-46433: <https://www.federalregister.gov/documents/2017/10/05/2017-21442/national-performance-management-measures-assessing-performance-of-the-national-highway-system>

DATES: This final rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: For technical information: Michael Culp, Office of Planning, Environment and Realty, (202) 366-9229; for legal information: Christopher Richardson, Office of Chief Counsel, (202) 366-1383, Federal Highway Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590. Office hours are from 8:00 a.m. to 4:30 p.m. ET, Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access and Filing

The notice of proposed rulemaking (NPRM) was published at 82 FR 46427 on October 5, 2017. A copy of the NPRM, all comments received, and all background material may be viewed online at <http://www.regulations.gov>. Electronic retrieval help and guidelines are available on the Web site, which is available 24 hours each day, 365 days each year. An electronic copy of this document may also be downloaded from the Office of the Federal Register's Web site at <http://www.ofr.gov> and the Government Publishing Office's Web site at <http://www.gpo.gov>.

Table of Contents for Supplementary Information

- I. Executive Summary
 - A. Purpose of the Deregulatory Action
 - B. Summary of the Deregulatory Action in Question
 - C. Costs and Benefits
- II. Acronyms and Abbreviations
- III. Regulatory History
- IV. Decision to Repeal the GHG Performance Measure
 - A. Summary of Decision

- B. Reasons for the Repeal of the GHG Measure
 - C. Impact of Repeal on Effectiveness of Performance Management Program
- V. Response to Comments Received on the NPRM
 - A. Costs and Benefits of the GHG Measure
 - B. Utility and Burden of the GHG Measure
 - C. Duplication of Efforts at Federal, State or Local Levels
 - D. Appropriateness of the Measure Methodology
 - E. Alternatives to Current GHG Performance Measure
 - F. Other Comments
- VI. Rulemaking Analysis and Notices
 - A. Executive Order 13771 (Reducing Regulation and Controlling Regulatory Costs), Executive Order 12866 (Regulatory Planning and Review), Executive Order 13563 (Improving Regulation and Regulatory Review), and DOT Regulatory Policies and Procedures
 - B. Regulatory Flexibility Act
 - C. Unfunded Mandates Reform Act of 1995
 - D. Executive Order 13132 (Federalism Assessment)
 - E. Executive Order 12372 (Intergovernmental Review)
 - F. Paperwork Reduction Act
 - G. National Environmental Policy Act
 - H. Executive Order 12630 (Taking of Private Property)
 - I. Executive Order 12988 (Civil Justice Reform)
 - J. Executive Order 13045 (Protection of Children)
 - K. Executive Order 13175 (Tribal Consultation)
 - L. Regulation Identifier Number

I. Executive Summary

A. Purpose of the Deregulatory Action

The purpose of this deregulatory action is to repeal the requirement that State departments of transportation (State DOTs) and metropolitan planning organizations (MPOs) assess the performance of the National Highway System (NHS) under the National Highway Performance Program (NHPP) by measuring the percent change in tailpipe carbon dioxide (CO₂) emissions on the NHS from calendar year 2017 (also referred to as the Greenhouse Gas (GHG) measure). This measure was calculated using data on fuel use and vehicle miles traveled (VMT). After further consideration and

review of the comments received, as well as relevant statutory authorities, we have decided to repeal this measure. This repeal will alleviate a burden on State DOTs and MPOs that imposed costs with no predictable level of benefits. This final rule does not prohibit State DOTs and MPOs from choosing voluntarily to measure and assess CO₂ emissions.

B. Summary of the Deregulatory Action in Question

This final rule repeals the GHG measure. By repealing this measure, FHWA will no longer require State DOTs and MPOs to undertake administrative activities to establish targets, calculate their progress toward their selected targets, report to FHWA, and determine a plan of action to make progress toward their selected targets if they failed to make significant progress during a performance period.²

C. Costs and Benefits

This final rule is a deregulatory action estimated to result in cost savings of \$10.89 million, which rounds to \$10.9 million discounted at 7 percent over 9 years. This equates to annualized cost savings of \$1.67 million at a 7 percent discount rate, or \$1.64 million at a 3 percent discount rate. Table 1 displays the Office of Management and Budget (OMB) A-4 Accounting Statement as a summary of the cost savings associated with repealing the GHG measure.

² See 23 CFR 490.105, 107, 109.

Table 1—OMB A-4 Accounting Statement

Category	Estimates			Units			Source/citation
	Primary	Low	High	Year dollar	Discount rate %	Period covered (years)	
Benefits							
Annualized Monetized (\$ millions/year)	None	None	None	NA	7	NA	Not Quantified.
	None	None	None	NA	3	NA	
Annualized Quantified	None	None	None	NA	7	NA	Not Quantified.
	None	None	None	NA	3	NA	
Qualitative	More informed decision-making on project, program, and policy choices.						Final RIA.
Costs							
Annualized Monetized (\$/year)	(\$1,671,758)	.....	.....	2014	7	9	Final RIA.
	(\$1,644,687)			2014	3	9	
Annualized Quantified	None	None	None	2014	7	9	Final RIA.
	None	None	None	2014	3	9	
Qualitative							
Transfers	None						
From/To	From:			To:			
Effects							
State, Local, and/or Tribal Government	(\$1,671,758)	.....	.....	2014	7	9	Final RIA.
	(\$1,644,687)			2014	3	9	
Small Business	Not expected to have a significant impact on a substantial number of small entities.			NA	NA	NA	Final RIA.

II. Acronyms and Abbreviations

Acronym or Abbreviation	Term
AASHTO	American Association of State Highway and Transportation Officials
AGC	Associated General Contractors of America
AMPO	Association of Metropolitan Planning Organizations
APA	Administrative Procedure Act
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CMAP	Chicago Metropolitan Agency for Planning
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO ₂	Carbon dioxide
DOT	U.S. Department of Transportation
EO	Executive Order
EIA	Energy Information Agency, U.S. Department of Energy
EIS	Environmental Impact Statement
FAHP	Federal-aid Highway Program
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FR	Federal Register
GHG	Greenhouse gas
HPMS	Highway Performance Monitoring System

Acronym or Abbreviation	Term
MAP-21	Moving Ahead for Progress in the 21st Century Act
MOVES	Motor Vehicle Emission Simulator
MPO	Metropolitan Planning Organizations
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHPP	National Highway Performance Program
NHS	National Highway System
NPRM	Notice of proposed rulemaking
NRDC	Natural Resources Defense Council
OMB	Office of Management and Budget
PM3	“Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program” The third performance measure rule.
PRA	Paperwork Reduction Act of 1995
RIA	Regulatory Impact Analysis
RIN	Regulatory Identification Number
State DOTs	State departments of transportation
U.S.C.	United States Code
VMT	Vehicle miles traveled

III. Regulatory History

The Moving Ahead for Progress in the 21st Century Act (MAP-21)³ (Pub. L. 112-141) transforms the Federal-aid Highway Program (FAHP) by establishing new requirements for performance management to ensure the most efficient investment of Federal transportation funds. The Fixing America's Surface Transportation (FAST) Act⁴ (Pub. L. 114-94) continued these requirements. Performance management increases the accountability and transparency of the FAHP and provides a framework to support improved investment decisionmaking through a focus on performance outcomes for key national transportation goals.

As part of this mandate, FHWA issued a set of three related national performance management measure rules for State DOTs and MPOs to use to assess performance. In these rules, FHWA established performance measures in 12 areas generalized as follows: (1) serious injuries per VMT; (2) fatalities per VMT; (3) number of serious injuries; (4) number of fatalities; (5) pavement condition on the Interstate System; (6) pavement condition on the non-Interstate National Highway System (NHS); (7) bridge condition on the NHS; (8) performance of the Interstate System; (9) performance of the non-Interstate NHS; (10) freight movement on the Interstate System; (11) traffic congestion; and (12) on-road mobile source emissions.

The third performance management measures NPRM (PM3 NPRM) was published on April 22, 2016 (81 FR 23806).⁵ The PM3 NPRM proposed a set of national measures for State DOTs to use to assess the performance of the Interstate and non-Interstate NHS to carry out the NHPP; to assess freight movement on the Interstate System; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the CMAQ Program. In the preamble to the PM3 NPRM, FHWA sought public comment on whether and how to establish a CO₂ emissions measure in the PM3 Final Rule.

The FHWA published the third performance measure final rule (PM3 Final Rule) on January 18, 2017, at 82 FR 5971.⁶ As finalized, the rule measured total annual tons of CO₂ emissions from all on-road mobile sources. For a discussion of the comments received, FHWA's response to those comments, and FHWA's rationale for adopting the GHG measure, please see the PM3 Final Rule.

On October 5, 2017, FHWA published an NPRM proposing to repeal the GHG measure (82 FR 46427),⁷ while seeking additional public comment on whether to retain or revise the GHG measure established in the PM3 Final Rule. The rulemaking sought additional information that may not have been available during the development of the PM3 Final Rule. The NPRM was published with a 30-day comment period set to close

⁵ Third performance measure NPRM: "Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program" (RIN 2125-AF54): <https://www.gpo.gov/fdsys/pkg/FR-2016-04-22/pdf/2016-08014.pdf>

⁶ <https://www.gpo.gov/fdsys/pkg/FR-2017-01-18/pdf/2017-00681.pdf>

⁷ 82 FR 46427, October 5, 2017 <https://www.federalregister.gov/documents/2017/10/05/2017-21442/national-performance-management-measures-assessing-performance-of-the-national-highway-system>

on November 6, 2017. The comment period was extended to November 15, 2017,⁸ in response to requests submitted to the docket.

IV. Decision to Repeal the GHG Performance Measure

A. Summary of Decision

The FHWA initiated this rulemaking after reviewing existing and pending regulations pursuant to Executive Order 13771 and 13777. On January 30, 2017, the President issued Executive Order 13771, titled, “Reducing Regulation and Controlling Regulatory Costs,” which requires Federal agencies to take proactive measures to reduce the costs associated with complying with Federal regulations. In addition, on February 24, 2017, the President issued Executive Order 13777, titled, “Enforcing the Regulatory Reform Agenda,” which requires Federal agencies to designate a Regulatory Reform Officer and a Regulatory Reform Task Force to carry out the initiatives described in that Executive Order.

The objective of our review was to determine whether changes would be appropriate to eliminate duplicative regulations and streamline regulatory processes. Based upon this review, DOT identified the GHG measure of the PM3 Final Rule as being potentially duplicative of existing efforts in some States, and as potentially imposing unnecessary burdens on State DOTs and MPOs that were not contemplated by Congress. In addition, when the GHG measure was adopted, there were numerous comments regarding FHWA’s legal authority to adopt the measure. Due to those

⁸ 82 FR 51786, November 8, 2017 <https://www.federalregister.gov/documents/2017/11/08/2017-24345/national-performance-management-measures-assessing-performance-of-the-national-highway-system>

concerns and because the performance management statute (23 U.S.C. 150) does not require a GHG measure, FHWA decided to reconsider its legal interpretation of the statute under which the GHG measure was adopted. All of these concerns contributed to the decision to publish the NPRM proposing to repeal the GHG measure.⁹

The FHWA's decision to repeal is based on the combined effects of three primary factors. These are: (1) reconsideration of the legal authority under which the GHG measure was promulgated; (2) the cost of the GHG measure when considered in relation to the lack of demonstrated benefits; and (3) the potential duplication between information produced by the GHG measure and information produced by other initiatives related to measuring CO₂ emissions.

FHWA adopted the GHG measure as a matter of discretion in interpreting 23 U.S.C. 150(c), as the statute does not explicitly address CO₂ emissions or require FHWA to include a GHG measure among the national performance measures. Repeal of the measure, for the reasons described in this final rule, is also a matter within FHWA's discretion, and repeal does not conflict with the statute. Further, repeal of the FHWA GHG measure does not preclude State DOTs and MPOs from tracking CO₂ levels related to their own transportation programs, or from independently establishing measures and targets outside the national performance management program.

The FHWA also considered alternatives to the repeal of the GHG measure. This consideration included whether FHWA should retain the measure as adopted in the PM3

⁹ 82 FR 46427, October 5, 2017 <https://www.federalregister.gov/documents/2017/10/05/2017-21442/national-performance-management-measures-assessing-performance-of-the-national-highway-system>

Final Rule, or adopt a modified version of the GHG measure within the framework of the national performance management program. The FHWA did not identify an alternative that would address its concerns with the GHG measure. For more information about the alternatives considered, including comments received on this topic and FHWA's responses, please see Section V.E.

B. Reasons for the Repeal of the GHG Measure

As noted above, in addition to the comments received, FHWA's decision to repeal the GHG measure is based on three primary factors.

1. Reconsideration of Legal Authority to Adopt GHG Measure

When FHWA adopted the GHG measure in January 2017, we noted that we had received comments from supporters and opponents addressing FHWA's legal authority to adopt such a measure.¹⁰ In response to the NPRM issued for this rule, we received an equally divided set of comments regarding our legal authority to adopt the GHG measure. Questions about FHWA's legal authority arose from the express provisions of 23 U.S.C. 150.

In the PM3 Final Rule, FHWA concluded that it had the discretion to interpret the term "performance" as it relates to the Interstate and non-Interstate NHS, pursuant to the Secretary's authority set forth in 23 U.S.C. § 150(c)(3)(A)(ii)(IV)-(V). FHWA's prior interpretation of the term "performance" included "environmental performance" and, consequently, FHWA determined that the adoption of the GHG measure was thus not

¹⁰ See 82 FR 5993 (Jan. 18, 2017).

outside the scope of section 150.¹¹ Upon reconsideration, as explained below, we have determined that although the statute confers upon FHWA the discretion to determine the proper interpretation of the statute, FHWA’s prior interpretation was based on a strained reading of the statutory language in section 150, and one that did not fully consider the limitations imposed by the statute itself and by other relevant considerations.

As outlined in the PM3 Final Rule, FHWA supported its discretion to broadly interpret the term “performance” with four arguments.¹² First, FHWA relied on other provisions in Title 23 that make the environment an integral part of the FAHP, such as the national goal of environmental sustainability in 23 U.S.C. 150(b)(6), to demonstrate support for its interpretation. Second, FHWA asserted that its interpretation of “performance” was supported by numerous other FHWA actions, including various reports and guidance related to CO₂ emissions, that treat the environment, including global sustainability and global climate change, as part of a State’s highway system performance. Third, FHWA noted that section 150(c)(3) mandated the measures for the purpose of carrying out 23 U.S.C. 119, which establishes the National Highway Performance Program. The purposes of the NHPP, as set forth in 23 U.S.C. 119, included providing support for the condition and performance of the NHS. Specifically, section 119(e) calls for a performance-driven asset management plan that would support progress toward achievement of the national goals identified in section 150(b), which include environmental sustainability. Finally, FHWA identified other FHWA statutory provisions found in Title 23 as potentially supporting its authority to address CO₂

¹¹ 82 FR 5994-95.

¹² 82 FR 5993-96.

emissions through the PM3 rulemaking. FHWA argued that because these provisions identified interrelationships among the environment, energy conservation, infrastructure performance, and performance-based decisionmaking, when read together, they provided a basis for FHWA to conclude that assessing infrastructure performance under 23 U.S.C. 150(c)(3) may properly encompass environmental performance and, by extension, assessment of CO₂ emissions.¹³

What is notable about these four arguments, however, is that none of them points to any statutory provision that specifically directs or requires FHWA to adopt a GHG measure. Instead they encourage State DOTs and MPOs to consider a variety of ways to incorporate environmental considerations under their existing authority. Further, even though FHWA has taken other actions, such as issuing reports and guidance regarding GHG emissions and climate change, those actions were not taken to fulfill the statutory mandate of section 150, and therefore, do not lead to the conclusion that FHWA is required to adopt a GHG measure. Since those actions were taken to fulfill other statutory obligations and policy goals, they do not lead to the conclusion that FHWA must adopt a comprehensive performance requirement, such as the GHG measure.

It is true that section 150 establishes seven national goals for the Federal-aid Highway program (FAHP), including “environmental sustainability.”¹⁴ However, subsection 150(c), in directing the Secretary to establish performance measures, imposes a specific limitation: the Secretary “shall...limit the performance measures only to those

¹³ Id.

¹⁴ 23 U.S.C. 150(b)(6).

described in [subsection c].”¹⁵ Subsection (c) specifically directs the Secretary to establish measures regarding the pavement and bridge conditions of the National Highway System (NHS), the performance of the Interstate System and the National Highway System (excluding the Interstate System), the Highway Safety Improvement Program, the Congestion Mitigation and Air Quality Program (CMAQ), and national freight movement.¹⁶ Though environmental sustainability is one of the enumerated national goals in section 150, it is not one of the categories of performance measures specifically mentioned in subsection (c).

Furthermore, in exercising its discretion previously, FHWA failed to fully consider the provisions in the National Highway Performance Program (NHPP) statute, 23 U.S.C. 119, when it originally decided to rely on the section 150(b) national goal of environmental sustainability to establish the GHG measure. The FHWA did not evaluate whether the national goals language in section 119(d)(1)(A) imposed limitations on how FHWA would meet the national goals enumerated in section 150 when establishing NHPP performance measures under section 150(c)(3). Section 119(d)(1)(A) defines eligibility criteria for projects funded under NHPP. While the provision references achievement of national performance goals, the statute also delineates *which* national performance goals are relevant to the NHPP: “...national performance goals for improving infrastructure condition, safety, congestion reduction, system reliability, or freight movement on the [NHS].” While these goals are consistent with an interpretation of “performance” that focuses on the physical condition of the system and the efficiency

¹⁵ Section 150(c)(2)(C).

¹⁶ Section 150(c)(3)-(6).

of transportation operations across the system, they do not support FHWA's prior, broader interpretation of "performance" under section 150(c)(3), which encompassed environmental performance. FHWA, in exercising its discretion to interpret the statute, now concludes that a narrower interpretation of the term "performance" is the better view of the statutory scheme and is more consistent with the text, structure, and purpose of the statute.

The structure of section 150 itself supports a narrower construction of the section 150 performance measures authorization than previously adopted by FHWA. Congress specifically directed the Secretary of Transportation to "limit performance measures only to those described in [section 150(c)]" in establishing the performance measures. One of those authorized performance measures, section 150(c)(5), directs the Secretary to establish measures for States to use in assessing on-road mobile source emissions. After reconsideration, FHWA believes that because Congress specifically designated a part of section 150(c) for on-road mobile source emissions measures, it is reasonable to conclude that Congress did not intend the other parts of section 150(c) to be used to address other similar or related performance measures, such as the GHG measure. At the same time, by placing the on-road mobile source emissions provision in section 150(c)(5), Congress limited the types of emissions that could be the subject of a performance measure to those listed in the CMAQ statute (23 U.S.C. 149(b)). CO₂ is not among those pollutants. Given the long history of congressional actions relating to on-road mobile source emissions and the CMAQ Program, FHWA must presume that Congress understood both the breadth of the term "on-road mobile source emissions," and the narrowness of the

criteria pollutants covered by the CMAQ Program. It is reasonable to conclude that Congress was well aware that, because CO₂ emissions are not a criteria pollutant covered by the CMAQ Program, section 150(c)(5) could not be used to create a performance measure for CO₂. Nothing in section 150 suggests that Congress wanted the Secretary to go beyond the express emissions provision in section 150(c)(5), to undertake an expansive program relating to on-road mobile source emissions. Had it wanted to do so, Congress could have crafted such an express provision, but it did not do so. Given this statutory analysis, the reasons we have explained above, and upon reconsideration of our prior interpretation, we believe that a narrower interpretation of “performance” as it relates to the “performance” of the Interstate System and the National Highway System is more consistent with the language of section 150. Accordingly, we have concluded that the term “performance” as it relates to the Interstate System and the National Highway System is better read not to encompass measures relating to CO₂, as previously concluded by FHWA in adopting the GHG measure in January 2017.

Moreover, consistent with our reinterpretation of the statutory language of subsection 150(c), FHWA believes the better approach is to focus on implementing the CMAQ Program, as Congress directed, through FHWA’s establishment of performance measures for States to assess on-road mobile source emissions pursuant to 23 U.S.C. 150(c)(5). One reason is that the CMAQ statute reflects a more localized approach that is based on each State’s nonattainment and maintenance areas for the covered pollutants.¹⁷ FHWA believes this tailored approach is more appropriate for the Federal-aid highway

¹⁷ 23 U.S.C. 149.

program than attempting to use a GHG measure to induce States to address global climate concerns. This view is supported by section 150(d)(2), which contemplates a localized approach by granting States the discretion to set different performance targets for urbanized and rural areas in developing and implementing the performance measures. Further, the CMAQ Program contains substantive requirements that are designed directly to ameliorate the localized effects of the covered pollutants.

Finally, although FHWA has decided to repeal the GHG measure, many sources of information exist regarding GHGs and their impact on the environment, on both regional and local levels, which State DOTs and MPOs can continue to draw upon in evaluating their transportation projects. In addition, there are other comprehensive statutory schemes, such as the Corporate Average Fuel Economy program, administered by the National Highway Traffic Safety Administration, which exist to address issues such as the environment and energy conservation.

2. Costs and Burdens of the Measure

Reducing regulatory burdens is a FHWA priority. FHWA is giving particular attention to opportunities to reduce burdens imposed by existing regulations through consideration of their repeal, replacement, or modification. Our efforts are guided by a number of Executive Orders, including Section 5 of Executive Order 12688, Section 2 of Executive Order 13777, and Section 3 of Executive Order 13783, titled “Promoting Energy Independence and Economic Growth.”

After considering the comments received in this rulemaking and the revised regulatory impact assessment (RIA), FHWA has decided that the GHG measure imposes unnecessary regulatory burdens on State DOTs and MPOs with no predictable benefits. FHWA is concerned about the potential the GHG measure has to cause adverse impacts on overall State DOT and MPO efforts to implement the national performance management program. FHWA assigns a high priority to the successful implementation of the national performance management program. The removal of the GHG measure from the program reduces the number of measures the State DOTs and MPOs must address, and allows those entities to focus their resources on implementing the remaining measures. We heard from commenters that the GHG measure would impose additional resource requirements that would either adversely affect the ability of State DOTs and MPOs to implement the national performance management program, or take focus away from the core mission of FHWA.

These costs include the resources needed to obtain and review the required data, to calculate the measure, and to coordinate and select a CO₂ emissions target. The FHWA considered comments received about costs to set and report targets, and to calculate the metric. Also, if a State DOT does not achieve its selected target under the previous rule, it would incur additional costs to develop and report on actions the State DOT will take to make progress towards its target.¹⁸

Other types of costs are harder to predict with reasonable certainty, such as the GHG measure's potentially adverse impact in rural States. While the GHG measure did

¹⁸ 23 U.S.C. 119(e)(7) and 23 CFR 490.109

not require States to reduce CO₂ emissions, a State could feel pressured to change its mix of projects to reduce CO₂ emissions. Rural States may face more challenges, and indirect costs, in adapting their programs to reduce CO₂ emissions. The challenges are rooted in the type of driving typically done in rural areas, and the predominantly system-preservation focus of rural States' highway programs. Commenters¹⁹ indicated rural residents drive relatively long distances, often in heavy-duty vehicles. Such States may have limited ability to reduce VMT. In some rural States, such as Alaska, on-road vehicle CO₂ emissions represent a much smaller share of total CO₂ emissions than in other States or in the United States as a whole.²⁰ For rural States, this may mean shifting away from their typical system-preservation focus.²¹ A reduction in system preservation investments could result in adverse cost impacts because the failure to take timely preservation measures can result in higher costs over the life of a facility and other unintended results.²² According to one commenter,²³ failure to preserve highway pavements could increase CO₂ emissions as drivers reduce speeds due to rough surfaces.

While the RIA for this final rule estimated marginally lower total costs than the RIA in the NPRM, FHWA reaches the same conclusion regarding the costs and burdens of the GHG measure. That analysis, summarized in Section VI.A. of this document, found that the aggregate costs to State DOTs and MPOs to implement the GHG measure

¹⁹ DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-4.

²⁰ Alaska DOT and Alaska Department of Environmental Conservation, FHWA-2017-0025-0135-3.

²¹ Wyoming DOT, FHWA-2017-0025-0124-2.

²² See, e.g. *Life Cycle Cost Analysis Primer*, FHWA (August 2002) at page 10, available online at <https://www.fhwa.dot.gov/asset/lcca/010621.pdf> (as of May 1, 2018).

²³ Wyoming DOT, FHWA-2017-0025-0124-2.

would be \$10.9 million over 9 years, discounted at 7 percent.²⁴ These costs represent a burden that would be imposed on State DOTs and MPOs with no discernable benefits.

While some commenters argued that the GHG measure would produce wide-ranging benefits, it is important to recognize that the measure itself did not require reductions in CO₂ emissions and would not have produced predictable climate change effects. The measure did not require State DOTs or MPOs to adopt targets that reflect declining emissions levels. As described in the PM3 Final Rule,²⁵ the benefits that may possibly flow from the GHG measure came from its potential to influence State DOT and MPO investment decisions, and it is not possible to conclude with certainty the GHG measure would cause State DOTs and MPOs to make decisions that change CO₂ emissions levels. Similarly, it is not possible to conclude with certainty that repeal of the rule will cause State DOTs and MPOs to make decisions that result in increases in CO₂ emissions. The GHG measure had no legal power to force any change in CO₂ emissions levels, and the GHG measure had no predictable effect on those emissions. The GHG measure required very limited actions (though with some cost) from State DOTs and MPOs, and those actions were purely administrative in character.²⁶ FHWA concludes that it is not possible to predict, with any reasonable degree of certainty, the extent to which the influence effects of the GHG measure might result in actual changes in

²⁴ Rounded from \$10.89 million discounted at 7 percent.

²⁵ National Performance Management Measures: Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program” (RIN 2125-AF54): <https://www.gpo.gov/fdsys/pkg/FR-2017-01-18/pdf/2017-00681.pdf>

²⁶ Under the previous rule, State DOTs and MPOs were required to set CO₂ emissions targets, which can be for declining emission levels, increasing emission levels, or unchanged emission levels, as compared to a 2017 baseline. State DOTs were required to use data from existing sources to calculate the CO₂ emissions measure at various points in time, reporting the results to FHWA. If the State DOT did not meet its target, it was required to report to FHWA on actions the State DOT would take to reach its selected target.

emissions levels. Thus, FHWA does not believe the speculative and uncertain benefits are a sufficient reason to retain the GHG measure, especially given the very definite costs associated with the measure.

3. Duplication of Other Efforts

FHWA also considered whether the GHG measure is duplicative, as raised by some commenters. In addition, the recent executive mandates to reduce regulatory costs and burdens mean FHWA must consider whether the information the measure would produce duplicates information produced by others.

FHWA considered that there are other existing methods for producing nearly the same information as would result from the implementation of the GHG measure, using publicly available data and methodologies, if that information is desired. FHWA also recognized that the repeal of the measure would not affect the ability of State DOTs and MPOs to create their own CO₂ emissions measures and targets independently outside the national performance management program. Indeed, several State DOTs and MPOs said that they are already tracking CO₂ emissions, either voluntarily or to comply with State requirements.²⁷

Other Federal agencies, such as the Environmental Protection Agency (EPA) and the Department of Energy (DOE), have undertaken regulatory and other efforts to address CO₂ emissions. Among those efforts is the annual DOE publication of State-by-State

²⁷ Washington State DOT, FHWA-2017-0025-0132-10; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158-6; City of New York, FHWA-2017-0025-0195-7; City of Portland, OR, FHWA-2017-0025-0234-3; Northeast Ohio Areawide Coordination Agency (NOACA), FHWA-2017-0025-0243-2.

data on CO₂ emissions for the transportation sector.²⁸ That DOE transportation data includes CO₂ emissions from all mobile sources (e.g., aviation, highway), not just motor vehicles (although the published table does not break the CO₂ emissions data into subcategories, such as CO₂ emissions on the NHS). Thus, the information published by EPA and DOE overlaps with, but is not precisely identical to, the information that would be produced by calculation of the GHG measure. However, that existing collection of data does provide States with trend information on CO₂ emissions from mobile sources in each State, and the highway component is based on the same fuel sales information used for the GHG measure.

In light of these circumstances, FHWA now concludes that the GHG measure in the performance management program is unnecessary. The information available through DOE informs State DOTs and MPOs whether transportation CO₂ emissions in their States are increasing, decreasing, or staying the same. Although this existing information is provided at the transportation sector level, rather than the systems level, the information addresses the same ultimate point as the GHG measure. FHWA acknowledges there may be instances when States or MPOs may want to have CO₂ emissions data for specific transportation systems or facilities, rather than data at the transportation sector level. State DOTs and MPOs are free to create such data, if they wish, by using publicly available data and existing methodologies.

²⁸ See “CO₂ Emissions from Fossil Fuel Combustion – Million Metric Tons CO₂ (MMTCO₂),” available online at <https://www.epa.gov/statelocalenergy/state-co2-emissions-fossil-fuel-combustion> (as of January 19, 2018).

Pursuant to the mandates of Executive Order 13771, Executive Order 13777, and Executive Order 13783, FHWA concluded that the data needed to support the GHG measure is at least somewhat duplicative of the EPA and DOE data on CO₂ emissions. That duplication, together with other options States and MPOs can use independently to produce more specific data if they wish, reduces the need for the FHWA GHG measure, and makes imposition of incremental regulatory costs less supportable. Even if the degree of duplication is limited, FHWA believes the duplication in information produced by the Federal government is a concern and a factor that supports repeal of the GHG measure.

FHWA believes the repeal of the GHG performance measure will reduce the existing duplication, streamline the regulations, and reduce the potential for the confusion that can arise when multiple Federal and State entities impose different requirements for categorizing and measuring CO₂ emissions. FHWA acknowledges that multi-jurisdictional regulation of the same matter does occur, but FHWA believes that it ought to be avoided where reasonably possible and not inconsistent with statutory requirements.

C. Impact of Repeal on Effectiveness of Performance Management Program

In the context of the national performance management program, FHWA believes the GHG performance measure can be repealed without harm to the overall effectiveness of the national performance management program. As described in the performance management statute, the purpose of the program is to provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the FAHP, and

improving project decisionmaking through performance-based planning and programming. The program is broad-based, and FHWA has substantial discretion in determining which types of performance measures will be given priority and adopted as national measures. After the repeal of the GHG measure, the remaining 17 national performance measures will fully meet the 23 U.S.C. 150 requirements, and serve the interests of the FAHP. The transparency and accountability effects of the national measures are unaffected by the repeal. The repeal of the GHG measure will permit State DOTs and MPOs to reallocate resources they would have used to implement the GHG measure, providing a potential benefit to implementation efforts for the remaining measures.

V. Response to Comments Received on the NPRM

FHWA received 251 comment submissions to the public docket on the proposed NPRM to repeal the GHG measure. Many submittals were signed by multiple organizations or representatives. This section of the preamble provides a response to the most significant issues raised in the comments received.

A. Costs and Benefits of the GHG Measure

As part of the rulemaking that was finalized in January 2017, FHWA estimated the incremental costs associated with the new requirements for a GHG measure that represented a change to current practices of DOT, State DOTs, and MPOs. The 9-year, discounted cost to comply with the GHG measure was estimated at \$10.9 million in the

PM3 Final Rule.²⁹ In the NPRM to repeal the GHG measure, FHWA used this same \$10.9 million figure as the amount of cost savings that would be achieved.

Commenters who supported the repeal of the GHG measure cited two primary reasons related to its costs. First, commenters argued that requiring the GHG measure diverts resources during a time of limited State resources, which could potentially affect their ability to deliver projects and programs, implement existing performance measures, and provide other transportation investments. Second, commenters argued that FHWA underestimated additional burdens of complying with the GHG measure requirement, though no further detail on those additional costs was provided.

Commenters who stated that the measure should be retained cited a number of reasons as well. These commenters felt that the benefits would outweigh the costs of the measure and that FHWA overestimated the cost of compliance. Some commenters noted that several States and MPOs are already tracking CO₂ emissions, either voluntarily or to comply with State requirements, and that repealing the GHG measure would, therefore, provide little if any savings to those particular entities. Other commenters argued that the cost of complying with the GHG measure is small when considered in relation to overall investments in transportation infrastructure, and that costs are “negligible” when spread out across State DOTs and MPOs. In response to the NPRM’s request for comments on any costs to States associated with the NHPP “significant progress” determination for the GHG measure,³⁰ some noted that States that failed to meet their targets would need to document actions that would be taken to achieve the target in the future. However, the

²⁹ Rounded from \$10.96 million discounted at 7 percent.

³⁰ See 23 U.S.C. 119(e)(7).

commenters indicated such States would likely need to perform ongoing investment-decision analysis anyway and, therefore, preparation of the action plan would not incur a significant additional burden.

Several commenters also discussed that the proposed repeal did not take into account the benefits of keeping the GHG measure, such as foregone benefits associated with reduced household transportation costs, congestion, and delay. One commenter provided an analysis claiming that even minimal reductions in CO₂ emissions, when monetized using FHWA's estimate of the social cost of carbon, would yield monetary benefits that would exceed the estimated cost of complying with the GHG measure. Other commenters³¹ cited as benefits the ability to compare CO₂ emission rates with peer regions and States, measure and communicate the effect of transportation investments on CO₂ emissions region-wide, and track emissions to set business goals.

Finally, several commenters³² said that without the GHG measure, the transportation-investment decisions by States and MPOs would result in increased CO₂ emissions, which would result in increased economic costs from climate change. Many of them argued that these costs would exceed the benefits of repealing the GHG measure, and that the RIA did not estimate benefits.

³¹ Oregon Environmental Council, FHWA-2017-0025-0130-2; Metropolitan Council, FHWA-2017-0025-0140-3; City of New York, FHWA-2017-0025-0195-6; U.S. Green Building Council, FHWA-2017-0025-0247.

³² Oregon Environmental Council, FHWA-2017-0025-0130-1 and -2; Safe Routes to School National Partnership, FHWA-2017-0025-0133; Diaz, FHWA-2017-0025-0143; Caltrans and CARB, FHWA-2017-0025-0162-10; Mass Comment Campaign led by NRDC, FHWA-2017-0025-0184; Institute for Policy Integrity at NYU School of Law, FHWA-2017-0025-0189; Joint submission led by NRDC (12), FHWA-2017-0025-0190-3, -4, and -5; City of New York, FHWA-2017-0025-0195-1, -4, -6, and -7; Transportation for America, FHWA-2017-0025-0200-4; NOACA, FHWA-2017-0025-0243-2; Southwest Energy Efficiency Project, FHWA-2017-0025-0244-2; TRANSCOM, FHWA-2017-0025-0253.

FHWA Response:

FHWA reviewed the comments relating to the costs and benefits associated with keeping the GHG measure, including establishing performance targets, assessing and reporting on progress toward meeting those targets, and calculating the GHG-related system performance metrics and measures. FHWA cannot accurately and confidently estimate the amount and value of the likely benefits of the GHG measure, and thus FHWA is not persuaded that the benefits of the GHG measure would justify its costs to States and MPOs. As with the other PM3 measures, there are requirements to set targets, but the GHG measure does not mandate changes in State DOT or MPO decisions on investments or management of the NHS relative to the measure or those targets. The GHG measure relies on influencing the behavior of State DOTs and MPOs. The measure does not require States or MPOs to reduce CO₂ emissions levels. Accordingly, any changes in CO₂ emissions levels would be caused by the independent actions of State DOTs and MPOs when they make transportation-investment and operations decisions, and not as a direct result of the GHG measure. Any actions those entities might take to change the CO₂ emissions levels associated with their portions of the NHS would occur only as part of a mix of issues they consider when making transportation-investment decisions. Many of the competing issues, such as safety, mobility, and congestion relief, would usually be of higher priority. Therefore, there is greater uncertainty about how much, if at all, overall agency decisions would be different if a GHG measure were in place versus not having it as a PM3 measure. FHWA notes that the RIA conducted for

this rulemaking cannot clearly show that the GHG measure “is necessary,”³³ as per OMB Circular A-4.

Regarding comments relating to the cost and burden of the GHG measure, FHWA carefully considered whether to adjust its analysis of the relative costs of the GHG measure and assessment of the measure’s burden on States and MPOs. With respect to the comments that specifically addressed the estimated hours to calculate the GHG-related system performance metrics and measures, FHWA carefully considered them while preparing this final rule’s RIA, refined the estimate of the number of hours it would take State DOTs to calculate the GHG measure, and conducted multiple sensitivity analyses. Commenters stated that the burden to establish performance targets or to assess and report on progress toward meeting those targets would be minimal. Comments regarding other factors that could reduce the overall burden to States and MPOs, such as future technology improvements and mutual assistance among States, were also considered. The final rule’s RIA estimated marginally lower total costs than the NPRM’s RIA, but this does not lead FHWA to a different conclusion regarding the costs and burdens of the GHG measure.

FHWA reviewed comments regarding the fact that some States are already preparing a similar (or the same) GHG measure, independent of the rule, and that FHWA should therefore lower its estimated costs of implementing the GHG measure. The NPRM’s accompanying RIA already assumed that some States are doing so, estimating that 42 of 52 States would have additional costs related to the GHG measure. None of

³³ See OMB Circular A-4, September 17, 2003 and Economic Assessment: Repeal of Green House Gas Performance Measure. <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf>

the comments received specified a different estimate and this conclusion remains unchanged in the RIA for the final rule.

While reviewing the comments that the total cost of the GHG measure is small relative to total annual expenditures on transportation, FHWA noted that it is required to look at the total costs of implementing the GHG measure and balance them against the total benefits directly due to that measure, not against another metric, such as overall transportation spending. Similarly, comments about the total costs per State or MPO on a per entity basis are not pertinent and do not address the fact that FHWA is required to analyze overall costs against overall benefits, not total costs relative to other costs, expenses, revenues, or other measures.

In reviewing public comments and estimated costs of the proposed rule, FHWA considered the fact that alternative ways exist in which the same information could be collected but with less burden on States and MPOs. Data to calculate the GHG measure by State is already publicly available and can be calculated by a single person for all States at once, rather than having each State perform individual calculations. Under this scenario, overall efficiencies should lower the total costs of calculating the GHG measure.

FHWA reviewed the comments on the forgone benefits of repealing the GHG measure requirement. FHWA carefully considered the comments that the GHG measure would lead to decreases in CO₂ emissions, which the commenters thought would lead to other benefits, including fewer negative impacts on people's health and the natural environment. To attribute such health and environmental benefits to the GHG measure,

FHWA must be confident that implementation of the GHG measure would result in different transportation-investment decisions by State and local agencies that directly cause reductions in CO₂ emissions. As noted by commenters, some agencies are already calculating a GHG-type measure for their State and others are not. Since, under the GHG measure, the State DOT can choose to establish its own GHG targets for a rise or decrease in CO₂, the States that are more concerned with CO₂ emissions are likely to set more aggressive targets. In such circumstances, FHWA believes that it is not possible to determine that the presence or absence of the GHG measure will result in changes in the overall set of investment transportation decisions by State and local agencies in the next few years. This uncertainty supports FHWA's decision to repeal the GHG measure.

FHWA also carefully considered the comments stating that the GHG measure would lead to reductions in household transportation costs, congestion and delay, and transportation infrastructure and maintenance costs. In order for these benefits to be attributable to the GHG measure, the implementation of the GHG measure would need to result in different investment decisions by State and local agencies that would allow people to travel faster and more cheaply and that would be more cost effective to build and maintain. FHWA is not confident that including the GHG measure with other performance management metrics will result in transportation investments that are more efficient to develop, operate, and use. The comment that the GHG measure would also help foster a more competitive and growing economy is related to the above arguments; it is based on the presumption that the measure would result in transportation investment choices that are more efficient for the economy, which is not evident at this time. States

wishing to compare themselves to their peers can do so independent of the presence of the GHG measure since the necessary data for all States is already publicly available.

Regarding the comments that the NPRM's RIA does not include a quantitative assessment of the potential benefits of keeping the GHG measure, FHWA notes that the RIA is not required to include quantitative analysis (of either costs or benefits) if the agency does not have the necessary data and metrics to do so. OMB Circular A-4 states that some important benefits and costs may be difficult or impossible to quantify or monetize, given current data and methods. The circular advises agencies to carry out a careful evaluation of non-quantifiable and non-monetized benefits and costs.³⁴ Based on this guidance, the RIA for both the NPRM and for this final rule include a qualitative analysis of potential forgone benefits resulting from repeal of the GHG measure.

B. Utility and Burden of the GHG Measure

Utility of the GHG Measure

Twenty-eight commenters discussed whether the GHG measure, including the methodology adopted in the PM3 Final Rule, provides meaningful utility for assessment of environmental performance of the NHS. Twenty-three³⁵ commenters said that the

³⁴ https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/

³⁵ Washington State DOT, FHWA-2017-0025-0132; Rails to Trails Conservancy, FHWA-2017-0025-0139-2; Metropolitan Council, FHWA-2017-140-1; Metropolitan Area Planning Council, FHWA-2017-0025-0150; Stratford MPO, FHWA-2017-0025-0151; Oregon DOT, FHWA-2017-0025-0152; Oregon Metro, FHWA-2017-0025-0160; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158; Caltrans and CARB, FHWA-2017-0025-0162; Mass comment campaign led by U.S. PIRG (28), FHWA-2017-0025-0172-2; Joint submission led by NRDC (12), FHWA-2017-0025-0190-7, -8, and -9; City of New York, FHWA-2017-0025-0195-6; Mass comment campaign sponsored by Transportation for America (87), FHWA-2017-0025-0197; Transportation for America, FHWA-2017-0025-0200; Chicago Metropolitan Agency for Planning (CMAP), FHWA-2017-0025-201; Members of Congress (51), FHWA-2017-0025-0206-1; Colorado DOT, FHWA-2017-0025-0208; CrossTown Connect TMA, FHWA-2017-0025-222; Association for Commuter Transportation, FHWA-2017-0025-225; City of Portland, OR, FHWA-2017-0025-0234-1; Local Government Commission, FHWA-2017-0025-0236; Joint submission

GHG measure does provide utility, while five commenters³⁶ said that it does not provide utility.

Commenters who stated that the measure should be repealed cited three primary reasons. First, these commenters noted that State DOTs and MPOs have little to no ability to reduce CO₂ emissions through highway programs because it has not been demonstrated that States or MPOs have the ability to effect meaningful change in CO₂ emissions through stewardship of the highway program. They commented that the GHG rule effectively looks for GHG reductions from a largely preservation-oriented highway program where they are not available to be had. According to the commenters, the rule would place pressure on a State to change its mix of highway projects for speculative benefits.

Second, two submissions³⁷ noted that rural States may face particular challenges and program distortions under the rule. Five State DOTs jointly asserted that many of the strategies for how a State might influence CO₂ emission that were included in the PM₃ Final Rule are not well-suited to rural settings, where residents drive relatively long distances, often in heavy-duty vehicles. The Wyoming DOT³⁸ noted that rural States are focused on system preservation and that the GHG measure could pressure the agency to change its mix of projects away from preservation. According to the Wyoming DOT,

led by California Association of Councils of Governments (5), FHWA-2017-0025-0242-1; Brookings Institution, FHWA-2017-0025-0248-3 and -4.

³⁶ Wyoming DOT, FHWA-2017-0025-0124-2 and -3; DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-4; Texas DOT, FHWA-2017-0025-0127-3; Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196-2 and -3; AGC, FHWA-2017-0025-0213-4 and -5.

³⁷ Wyoming DOT, FHWA-2017-0025-0124-2; DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-4.

³⁸ Wyoming DOT, FHWA-2017-0025-0124-2.

failure to preserve pavement could increase CO₂ emissions through reduced speeds due to rough surfaces. In a joint comment, two Alaska State agencies³⁹ said on-road vehicle CO₂ emissions represent a much smaller share of total CO₂ emissions in Alaska than in other States or in the United States as a whole.

Third, another commenter⁴⁰ asserted that GHG tailpipe emissions are already subject to regulation through the fuel economy standards set by DOT and EPA, and another⁴¹ stated that other Federal agencies, like EPA, already have set new nationwide standards and guidelines for CO₂ emission reductions that are focused on the most significant sources.

The commenters who stated that the GHG measure should be retained because it does provide utility⁴² cited the following reasons: Several State DOTs⁴³ commented that the measure would be highly useful in understanding the trend of transportation emissions at the State level, evaluating national performance, and pursuing GHG

³⁹ Alaska DOT and Alaska Department of Environmental Conservation, FHWA-2017-0025-0135-3.

⁴⁰ Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196-2 and -3

⁴¹ AGC, FHWA-2017-0025-0213-4 and -5.

⁴² Washington State DOT, FHWA-2017-0025-0132; Rails to Trails Conservancy, FHWA-2017-0025-0139-2; Metropolitan Council, FHWA-2017-140-1; Metropolitan Area Planning Council, FHWA-2017-0025-0150; Oregon DOT, FHWA-2017-0025-0152; Oregon Metro, FHWA-2017-0025-0160; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158; Caltrans and CARB, FHWA-2017-0025-0162; Mass comment campaign led by U.S. PIRG (28), FHWA-2017-0025-0172-2; Joint submission led by NRDC (12), FHWA-2017-0025-0190-7, -8, and -9; City of New York, FHWA-2017-0025-0195-6; Mass comment campaign sponsored by the Transportation for America (87), FHWA-2017-0025-0197; Transportation for America, FHWA-2017-0025-0200; CMAP, FHWA-2017-0025-201; Members of Congress (51), FHWA-2017-0025-0206-1; Colorado DOT, FHWA-2017-0025-0208; CrossTown Connect TMA, FHWA-2017-0025-222; Association for Commuter Transportation, FHWA-2017-0025-225; City of Portland, OR, FHWA-2017-0025-0234-1; Local Government Commission, FHWA-2017-0025-0236; Joint submission led by California Association of Councils of Governments (5), FHWA-2017-0025-0242-1; Brookings Institution, FHWA-2017-0025-0248-3 and -4.

⁴³ E.g., Oregon DOT, FHWA-2017-0025-0152; Washington State DOT, FHWA-2017-0025-0132-3.

reduction work. In a joint comment, 51 Members of Congress⁴⁴ said that a GHG performance measure is critical for State DOTs and MPOs to determine the type of investments needed to accommodate future increases in passenger and freight travel. The lawmakers added that one of the national goals established in MAP-21 was environmental sustainability and that repealing the GHG measure would inhibit the ability of decisionmakers to make progress toward that national goal. Rails-to-Trails Conservancy⁴⁵ stated that the GHG measure provides some assurance that State and local transportation agencies are tracking the full benefits of active transportation and trail networks. Similarly, the Association for Commuter Transportation⁴⁶ said that repealing the GHG measure would cause a policy bias that would thwart efforts to improve air quality, reduce congestion, and create an efficient transportation system. Finally, four commenters⁴⁷ asserted that tracking carbon emissions would be a valuable way to evaluate the spending decisions made by transportation agencies.

Burden of the GHG Measure

FHWA received 22 comments related to the resource burdens associated with the GHG measure. Twelve of the comments stated that the costs and resource burdens would be minimal, while ten of the comments noted that measure would be burdensome.

⁴⁴ Members of Congress (51), FHWA-2017-0025-0206-1.

⁴⁵ Rails to Trails Conservancy, FHWA-2017-0025-0139-1.

⁴⁶ Association for Commuter Transportation, FHWA-2017-0025-225.

⁴⁷ Metropolitan Area Planning Council, FHWA-2017-0025-0150; Stratford MPO, FHWA-2017-0025-0151; mass comment campaign sponsored by Transportation for America (87), FHWA-2017-0025-0197; mass comment campaign sponsored by Environmental Law & Policy Center (360), FHWA-2017-0025-0255.

Seven State DOTs⁴⁸ and a joint letter by 38 associations⁴⁹ commented that the GHG performance measure would require State DOTs to dedicate additional resources and effort to regulatory compliance, instead of focusing on the core mission of highway projects and programs. Similarly, the American Association of State Highway and Transportation Officials (AASHTO),⁵⁰ the Association of Metropolitan Planning Organizations (AMPO),⁵¹ and the Georgia DOT⁵² commented that any new national-level measures added will require further implementation and evaluation, which may translate to less adequate resources and data to ensure effective implementation of existing measures. The AASHTO and the Western Connecticut Council of Governments⁵³ said that State DOTs, MPOs, and DOT need both time and experience successfully to implement the other 17 new national-level measures that are currently required by regulations (in addition to those required by the National Highway Traffic Safety Administration and the Federal Transit Administration) before more measures are added. The Georgia DOT⁵⁴ commented that, unlike many of the performance measures in effect, some performance measures such as the GHG measure are not appropriate to be implemented from a national or one-size-fits-all approach. The Missouri DOT⁵⁵ said that

⁴⁸ Wyoming DOT, FHWA-2017-0025-0124-2; DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125; Alaska, FHWA-2017-0025-0135; Tennessee DOT, FHWA-2017-0025-0258.

⁴⁹ Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196.

⁵⁰ AASHTO, FHWA-2017-0025-0138.

⁵¹ AMPO, FHWA-2017-0025-0179.

⁵² Georgia DOT, FHWA-2017-0025-0156.

⁵³ AASHTO, FHWA-2017-0025-0138; Western Connecticut Council of Governments, FHWA-2017-0025-0240-1.

⁵⁴ Georgia DOT, FHWA-2017-0025-0156.

⁵⁵ Missouri DOT, FHWA-2017-0025-0131.

transportation agencies should have the flexibility to develop performance measures other than those explicitly required by Federal statute without having to report them to FHWA. The Wyoming DOT specifically referenced the additional resources necessary to implement the GHG measure, which it said would take away staff resources and funds from achieving its core mission of highway projects and programs.

Many other commenters, including six State DOTs,⁵⁶ four planning agencies,⁵⁷ one local government,⁵⁸ and a joint letter by six State Attorneys General,⁵⁹ said that calculating the GHG measure would place a minimal burden on the States, particularly in comparison to the other performance measures already in place.⁶⁰ The commenters noted that the data needed to calculate the measure is already collected and reported by States. The Minnesota DOT (MnDOT)⁶¹ said that it took only 2 hours for one of its employees to collect the data, perform the analysis, and complete a mock report that met FHWA requirements. MnDOT added that it expects the annual staff burden for analysis and reporting to be less than 2 hours per year, or approximately \$530 over 9 years. The City

⁵⁶ Washington State DOT, FHWA-2017-0025-0132; Minnesota DOT, FHWA-2017-0025-0149; Oregon DOT, FHWA-2017-0025-0152; Vermont DOT, FHWA-2017-0025-0155; Caltrans and CARB, FHWA-2017-0025-0162; Colorado DOT, FHWA-2017-0025-0208

⁵⁷ DVRPC, FHWA-2017-0025-0145; National Capital Region Transportation Planning Board, FHWA-2017-0025-158-5; Joint submission led by California Association of Councils of Government (5), FHWA-2017-0025-0242; TRANSCOM, FHWA-2017-0025-0253.

⁵⁸ City of New York, FHWA-2017-0025-0195.

⁵⁹ Attorneys General of CA, MD, OR, VT, WA, and MA, FHWA-2017-002-0199.

⁶⁰ See Washington State DOT, FHWA-2017-0025-0132; Minnesota DOT, FHWA-2017-0025-0149; Oregon DOT, FHWA-2017-0025-0152; Vermont DOT, FHWA-2017-0025-0155; Caltrans and CARB, FHWA-2017-0025-0162; Colorado DOT, FHWA-2017-0025-0208; DVRPC, FHWA-2017-0025-0145; National Capital Region Transportation Planning Board, FHWA-2017-0025-158-5; Joint submission led by California Association of Councils of Government (5), FHWA-2017-0025-0242; TRANSCOM, FHWA-2017-0025-0253; City of New York, FHWA-2017-0025-0195; Attorneys General of CA, MD, OR, VT, WA, and MA, FHWA-2017-002-0199.

⁶¹ Minnesota DOT, FHWA-2017-0025-0149.

of New York⁶² commented that if the GHG measure were repealed, then the cost and time involved in doing transportation sector GHG analysis will be higher due to the lack of standardization of assumptions and reporting methods. The city asserted that, without the GHG measure, it will be harder to ensure consistency across the MPOs in the NJ-NY-CT metropolitan region, and to compare transportation CO₂ emissions and mitigation strategies against those of other States and regions.

FHWA Response:

In considering the potential burden of the GHG measure, many States and planning agencies have accurately noted that establishing the target and calculating the measure would not require many additional resources, though the burden would vary by State and MPO depending on previous experience with the topic and the data. However, FHWA is concerned that even a marginal increase in effort generated by the GHG measure could cause some States and MPOs to reduce resources devoted to the other national performance measures.

While the measure could help foster a structure for analyzing potential reductions at the State or local level, FHWA finds persuasive other commenters' concern that such a situation has adverse impacts. Those commenters⁶³ stated the GHG measure puts pressure on them to reduce emissions, and that reducing emissions would be difficult, particularly in rural States. Others noted that there are already policies in effect to reduce tailpipe CO₂ emissions. However, FHWA notes that the GHG measure did not force

⁶² City of New York, FHWA-2017-0025-0195.

⁶³ Wyoming DOT, FHWA-2017-0025-0124-2; DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-4.

transportation entities to reduce CO₂ emissions; the States and local agencies themselves set GHG targets at their discretion. Rather, the GHG measure required States to go through the process of setting targets, allowing States at their discretion to set targets that either increase, decrease, or maintain the *status quo* over time.

FHWA agrees that more rural or preservation-focused States that are not building as much new infrastructure may have fewer options for reducing emissions. There are some available options, such as transportation system management and fuel switching strategies, for example, that may be appropriate for States to use voluntarily.⁶⁴ These strategies do not rely on VMT reductions that arguably may be difficult to achieve in rural areas. Also, while valuable, the fuel economy standards raised by commenters represent only one method for addressing CO₂ emissions from on-road vehicles.

C. Duplication of Efforts at Federal, State, or Local Levels

Seven agencies submitted comments related to whether repealing the measure would be appropriate to eliminate duplication of efforts, or to eliminate duplicative regulations and streamline the regulatory processes. Several State DOTs and MPOs⁶⁵ said that they are already tracking CO₂ emissions, either voluntarily or to comply with

⁶⁴ See [FHWA's Reference Sourcebook for Reducing Greenhouse Gas Emissions from Transportation Sources \(2012\)](#).

⁶⁵ Washington State DOT, FHWA-2017-0025-0132-10; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158-6; City of New York, FHWA-2017-0025-0195-7; City of Portland, OR, FHWA-2017-0025-0234-3; NOACA, FHWA-2017-0025-0243-2.

State requirements. Seven commenters⁶⁶ stated that the measure should be retained, and four⁶⁷ said it should be repealed.

One State DOT said that the GHG performance measure should be repealed because it is duplicative of other government efforts to estimate and regulate air emissions.⁶⁸ Another commenter said that the transportation conformity process already governs air emissions and could be extended to include GHGs, possibly at lower cost.⁶⁹ One commenter⁷⁰ stated that the EPA MOVES14 vehicle emissions model already has the capability of estimating vehicle CO₂ emissions. One State DOT and one State environmental agency⁷¹ jointly noted that the EPA GHG Emissions Inventory relies on information already provided by State DOTs to FHWA on a monthly basis. The commenters added that the U.S. Department of Energy's Energy Information Administration (EIA) also tracks fuel production and use by the transportation sector.

One State DOT,⁷² referencing comments submitted previously during the prior rulemaking by nine additional State DOTs, noted FHWA incorporated many of their suggestions in the January 2017 PM3 Final Rule, and as a result the rule is not

⁶⁶ Washington State DOT, FHWA-2017-0025-0132-6 and -10; Oregon DOT, FHWA-2017-0025-0152; Joint submission led by California Association of Councils of Governments (5), FHWA-2017-0025-0242; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158; City of New York, FHWA-2017-0025-0195; City of Portland, OR, FHWA-2017-0025-0234-3; NOACA, FHWA-2017-0025-0243.

⁶⁷ Arkansas DOT, FHWA-2017-0025-0054, Alaska DOT and Alaska Department of Environmental Conservation, FHWA-2017-0025-0135; AASHTO, FHWA-2017-0025-0138; Western Connecticut Council of Governments, FHWA-2017-0025-0240.

⁶⁸ Alaska DOT and Alaska Department of Environmental Conservation, FHWA-2017-0025-0135-1.

⁶⁹ Western Connecticut Council of Governments, FHWA-2017-0025-0240-2.

⁷⁰ AMPO, FHWA-2017-0025-0179-2.

⁷¹ Alaska DOT and Alaska Department of Environmental Conservation, FHWA-2017-0025-0135-1 and -2.

⁷² Minnesota DOT, FHWA-2017-0025-0148.

duplicative. Two State DOTs and one MPO noted that the rule is aligned with their existing goals and would therefore not be duplicative.⁷³

FHWA Response:

Other Federal agencies, such as EPA and DOE, have undertaken regulatory and other efforts to address CO₂ emissions. Those efforts include production by DOE of annual State-by-State CO₂ emissions information for the transportation sector. FHWA has reviewed the comments in this area and the efforts of other agencies, and concludes that the rule is unnecessarily duplicative of efforts at the Federal level to produce information on CO₂ emissions.

FHWA fully considered the comments relating to duplication, as well as the potential impacts on the national performance management program if FHWA repeals the GHG performance measure. As noted in the PM3 Final Rule,⁷⁴ the existence of other governmental efforts in this area does not necessarily bar FHWA from using CO₂ emissions as a performance measure; however, FHWA must consider whether the existence of duplication in this area might indicate that this is not the best use of Federal regulation. After further consideration, FHWA believes the duplication issue is meaningful to FHWA's reconsideration of the GHG performance measure at this time. FHWA believes the repeal of the GHG performance measure will reduce duplication at the Federal level, and reduce the potential for the confusion that could arise when

⁷³ Washington State DOT, FHWA-2017-0025-0132-6; Oregon DOT, FHWA-2017-0025-0152-10; Joint submission led by California Association of Councils of Governments (5), FHWA-2017-0025-0242-2.

⁷⁴ Final Rule on "National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program": Docket No. FHWA-2013-0054, RIN 2125-AF54, Federal Register - Vol. 82, No. 11, Pg. 5996 - January 18, 2017: <https://www.gpo.gov/fdsys/pkg/FR-2017-01-18/pdf/2017-00681.pdf>

multiple Federal entities impose different requirements for categorizing and measuring CO₂ emissions. FHWA acknowledges that multi-jurisdictional regulation of the same matter does occur, but FHWA believes that it ought to be avoided where avoidance is reasonably possible and not inconsistent with statutory requirements.

States and MPOs are free to continue to adopt their own measures for CO₂ emissions, including measures that rely on the same methodology and data as the FHWA GHG performance measure. They also are free to produce CO₂ emissions information specific to highway systems and individual facilities. The CO₂ emissions data used in the FHWA CO₂ measure is publicly available, and that availability is not impacted by the repeal of this measure.

D. Appropriateness of the Measure Methodology

Five commenters addressed the level of precision associated with the original rule, and whether the measure impedes the ability of State DOTs and MPOs to use the measure and associated targets in evaluating system performance and making investment decisions. All five⁷⁵ agencies stated the measure is accurate enough so as to provide sufficient trend information to determine whether the rule is effective at reducing emissions and should be retained. These commenters found the GHG measure to be simple and replicable nationwide, that it provides sufficiently accurate trend information to make significant progress determinations, and that it would provide a useful reference point and inform decision-making over time.

⁷⁵ Washington State DOT, FHWA-2017-0025-0132-4; Metropolitan Council, FHWA-2017-0025-0140-2; Oregon DOT, FHWA-2017-0025-0152-5 and -7; National Capital Region Transportation Planning Board, FHWA-2017-0025-0158-3; City of Portland, OR, FHWA-2017-0025-0234-2.

FHWA Response:

FHWA has decided to repeal the GHG measure for reasons unrelated to the soundness of the measure's methodology. For those commenters who find that the methodology for the GHG measure is well-suited for use with a GHG performance measure, FHWA notes that State DOTs and MPOs may independently choose to adopt this methodology outside of the national performance management program.

E. Alternatives to Current GHG Performance Measure

FHWA considered alternatives to the repeal of the GHG measure, including alternatives suggested by commenters. This included consideration of whether FHWA should retain the measure as adopted in the PM3 Final Rule, or adopt a modified version of the GHG measure within the framework of the national performance management program.

The AMPO⁷⁶ stated that if CO₂ emissions must be measured, EPA is the Federal agency that should administer such a requirement, because EPA already requires emissions measures for criteria pollutants as part of the transportation-conformity process. The commenter indicated the EPA MOVES14 vehicle emissions model already has the capability of estimating vehicle CO₂ emissions; however, those estimates are rather crude and based on assumed fuel economy and the amount of fuel consumed. Thus, a State-by-State estimate of CO₂ emissions could just as easily be determined by EPA or FHWA based on fuel sales and vehicle fuel economy. For this reason, AMPO stated, there is no need to burden the States and MPOs to report these estimates.

⁷⁶ AMPO, FHWA-2017-0025-0179-2.

The CMAP⁷⁷ suggested establishing a measure that addresses all on-road mobile sources and reporting the measure both in absolute and normalized terms using population. CMAP stated that the EPA’s Motor Vehicle Emissions Simulator (MOVES) or a simplified speed-emissions rate lookup table based on MOVES could be used to help address the concerns that the original measure calculation (using VMT and fuel sales to calculate CO₂ emissions) is not sophisticated enough to capture some of the nuances of CO₂ emissions.

The Western Connecticut Council of Governments⁷⁸ recommended FHWA work with EPA to expand the existing transportation-conformity process that EPA oversees, and in which State DOTs and MPOs participate, to include CO₂ emissions. They thought there was the potential for the benefit-cost ratio of such an extension to be more favorable than the creation of a GHG performance measure under Title 23. They also discussed the benefits of voluntary measures, such as allowing States’ focus to remain on requirements relating to other performance measures while also allowing for policy experimentation, innovation, and peer learning.

In addition to alternatives submitted by commenters, FHWA considered directly publishing CO₂ emissions trend information as an alternative means to achieve the outcomes FHWA expected from the GHG measure. Under this alternative, FHWA would calculate trend information using much the same methodology as the GHG measure, though the trend information would not involve any performance targets. This alternative would not use a “measure and target” framework, which is required in the

⁷⁷ CMAP, FHWA-2017-0025-0201.

⁷⁸ Western Connecticut Council of Governments, FHWA-2017-0025-0240-1.

performance management program under section 150. For that reason, adopting this alternative would result in the repeal of the GHG measure.

FHWA Response:

None of the alternatives provide a way to modify the GHG measure while retaining it as part of the national performance management program at this time. The alternative proposed by AMPO would have a Federal agency calculate the measure for each State DOT and MPO. FHWA agrees that a single Federal or private entity could calculate the measure based on fuel sales. However, the State DOTs and MPOs still would have to carry out the remaining activities required for the national performance management program. These include setting their CO₂ emissions targets (a local, not a Federal, decision), reporting to FHWA on progress toward their targets, and determining a plan of action to make progress toward their selected targets if they failed to make significant progress during a performance period.⁷⁹ Therefore, having FHWA or EPA calculate the measure would not substantially reduce the overall burden on States or MPOs.

In addition, with respect to CMAP's comments on using MOVES to calculate the measure, FHWA considered this suggestion during the PM3 rulemaking. FHWA elected to use fuel sales to calculate the measure, instead of MOVES, because such a requirement to use MOVES would create an extra burden for State DOTs and MPOs that do not currently use that model. One of the reasons FHWA is repealing the GHG measure through this rulemaking is to reduce the burdens on State DOTs and MPOs. Switching to

⁷⁹ See 23 CFR 490.105, 107, 109.

the use of MOVES would likely increase, not decrease, the burdens imposed on State DOTs and MPOs by the GHG measure.

FHWA interprets the Western Connecticut Council of Governments' comment as suggesting it might be more beneficial if the transportation air quality conformity program, rather than the national performance management program, were used to address CO₂ emissions in transportation. FHWA believes this comment supports its decision to remove the GHG measure from the national performance management program. EPA has used the conformity program to mandate changes in emissions levels of pollutants subject to conformity. FHWA defers to EPA on whether adding CO₂ emissions to the conformity program is an appropriate action.

FHWA acknowledges the Western Connecticut Council of Governments' suggestion that the voluntary use of a GHG performance measures might prove useful, but FHWA does not believe a voluntary measure can be included in the national performance management program. Making the GHG measure voluntary would require FHWA to establish a new category for voluntary measures, create a set of procedures for voluntary measures, and exempt voluntary measures from certain parts of the existing performance management regulations in 23 CFR part 490. FHWA is also concerned that an attempt to accommodate voluntary performance measures in the national performance management program could cause confusion among stakeholders, including State DOTs, MPOs, and the public. Such confusion would be harmful to the national performance management program. FHWA encourages State DOTs and MPOs to continue to

establish and use performance measures independent of the national performance management program, as many have done for a long time.

In addition to alternatives suggested by commenters, FHWA considered the alternative of having FHWA provide CO₂ emissions information directly. Under this alternative, FHWA would directly calculate the State-by-State trends and publish the information, which would eliminate requirements for State DOTs and MPOs to implement the GHG measure. This alternative could have the some of the influencing effects FHWA described in the PM3 Final Rule, although this alternative has some potential to result in lower levels of engagement by State DOTs and MPOs than alternatives that retain a GHG measure. This alternative would require FHWA to provide some additional administrative resources, or reallocate existing resources that FHWA currently uses for other work. Like State DOTs, FHWA operates in a resource-constrained environment. FHWA declines to adopt this alternative at this time.

F. Other Comments

1. Legal Authority for the GHG Measure

Roughly one in ten commenters submitted opinions on FHWA's legal authority to establish this rule. Eleven commenters⁸⁰ stated that FHWA does have the authority;

⁸⁰ Metropolitan Council, FHWA-2017-0025-0140-1; Association of Pedestrian and Bicycling Professionals, FHWA-2017-0025-141-1; Minnesota DOT, FHWA-2017-0025-0149-2; Metropolitan Area Planning Council, FHWA-2017-0025-0150; Caltrans and CARB, FHWA-2017-0025-0162-7 and -8; Straw, FHWA-2017-0025-0173; Joint submission led by NRDC (12), FHWA-2017-0025-190-1 and -2; mass comment campaign led by U.S. PIRG (mayors) (66), FHWA-2017-0025-0192; Attorneys General of CA, MD, OR, VT, WA, and MA, FHWA-2017-0025-0199-3; Transportation for America, FHWA-2017-0025-0200-1 and -3; Colorado DOT, FHWA-2017-0025-0208-3.

whereas, twelve commenters⁸¹ had the opposite opinion. A number of commenters suggested that FHWA has authority to regulate, arguing that a GHG measure is authorized by 23 U.S.C. 150 and other Title 23 statutes, reiterating the same reasons articulated in the PM3 rulemaking.⁸² One commenter⁸³ stated the EPA's endangerment finding⁸⁴ for CO₂ emissions provides FHWA with legal authority to regulate CO₂ emissions.

Most of the comments received in this rulemaking stating that FHWA does not have legal authority to adopt a GHG measure recited the same reasons as comments received during the PM3 rulemaking.⁸⁵ These comments pointed to the language in 23 U.S.C. 150(c)(2)(C) that limits FHWA authority to adopting performance measures described in that statute. Given that GHG is not expressly mentioned anywhere in the statute, the commenters viewed a GHG measure as prohibited by 23 U.S.C. 150(c)(2)(C). Some commenters noted that while 23 U.S.C. 150(c)(5) calls for an emissions measure, that provision is tied to the CMAQ program. Because CO₂ emissions are not a criteria

⁸¹ Arkansas DOT, FHWA-2017-0025-0054; Michigan DOT, FHWA-2017-0025-0070; DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125; Texas DOT, FHWA-2017-0025-0127; Michigan DOT, FHWA-2017-0025-0134; Nebraska DOT, FHWA-2017-0025-0146; Montana DOT, FHWA-2017-0025-0153; National Ready Mixed Concrete Association, FHWA-2017-0025-0159-2; Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196-3; AGC, FHWA-2017-0025-0213-1; ARTBA, FHWA-2017-0025-0246-1; Tennessee DOT, FHWA-2017-0025-0258.

⁸² "National Performance Management Measures: Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program" (RIN 2125-AF54): <https://www.gpo.gov/fdsys/pkg/FR-2017-01-18/pdf/2017-00681.pdf>

⁸³ Isbell, FHWA-2017-0025-0169.

⁸⁴ <https://www.gpo.gov/fdsys/pkg/FR-2009-12-15/pdf/E9-29537.pdf>

⁸⁵ "National Performance Management Measures: Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program" (RIN 2125-AF54): <https://www.gpo.gov/fdsys/pkg/FR-2017-01-18/pdf/2017-00681.pdf>

pollutant targeted by the CMAQ Program, the commenters concluded 23 U.S.C. 150(c)(5) could not provide a legal basis for a GHG measure.⁸⁶

Two joint submissions⁸⁷ stated that principles of statutory construction barred FHWA from adopting a GHG performance measure. The commenters pointed out that Congress expressly addressed emissions in 23 U.S.C. 150(c)(5). Applying the statutory construction principle that “the specific governs the general,” the commenters concluded that Congress expressly stated how to address emissions in 23 U.S.C. 150(c)(5), and that nothing in the remainder of 23 U.S.C. 150(c) provided other authority to regulate emissions.

Finally, the Michigan DOT⁸⁸ pointed out that GHGs are not criteria air pollutants targeted by CMAQ funding and expressed concern about the precedent that would be set if FHWA were to establish a performance measure for which Congress did not designate any funding.

FHWA Response:

FHWA appreciates the many comments received in this rulemaking on the question of FHWA’s legal authority. Please see our resolution of the legal authority issue above in Section IV.B.1.

⁸⁶ DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-3; Texas DOT, FHWA-2017-0025-0127-2; Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196-3; ARTBA, FHWA-2017-0025-0246-3.

⁸⁷ DOTs of ID, MT, ND, SD, and WY, FHWA-2017-0025-0125-3; Joint submission led by American Highway Users Alliance (38), FHWA-2017-0025-0196-3.

⁸⁸ Michigan DOT, FHWA-2017-0025-0070-1.

2. Legal Duty to Adopt a GHG Measure

Two submissions⁸⁹ stated that FHWA has a duty to adopt a GHG measure. One⁹⁰ described FHWA's obligation to use "unenumerated performance criteria" when such measures are "appropriate or necessary to further Congress's purposes." That commenter also stated that emissions that cause climate change would be a critical aspect of NHS performance in the future, and that it would be "contrary to the statute, and to the record, for the FHWA to decline to exercise its discretion to include" a GHG measure.

FHWA Response:

FHWA does not believe that a GHG measure is mandated by 23 U.S.C. 150(c). As noted by commenters in this rulemaking, there is no explicit reference to a GHG measure in 23 U.S.C. 150(c). Thus, adoption of a GHG measure rested entirely on FHWA's discretion to interpret 23 U.S.C. 150(c). As discussed in the legal authority section in Section IV.B.1, FHWA has concluded, upon reconsideration, that the better reading of the statute does not encompass the GHG measure.

3. Administrative Procedure Act Concerns

We received a joint comment from State Attorneys General⁹¹ arguing that repealing the GHG measure would be arbitrary and capricious under the Administrative Procedure Act (APA). The comment claimed that FHWA's NPRM had not provided sufficient justification to repeal the measure, and FHWA could not provide the reasoned

⁸⁹ Caltrans and CARB, FHWA-2017-0025-0162-7; Attorneys General of CA, MD, OR, VT, WA, and MA, FHWA-2017-0025-0199-5.

⁹⁰ Caltrans and CARB, FHWA-2017-0025-0162-7.

⁹¹ Attorneys General of CA, MD, OR, VT, WA, and MA, FHWA-2017-0025-0199-4.

analysis needed to support a repeal of the GHG measure. The comment also stated that FHWA must consider alternative solutions to address alleged problems with the GHG measure, rather than repealing it. Two other commenters⁹² noted similar APA concerns, with one⁹³ stating that a repeal would be inconsistent with “relevant executive orders,” based on a comparison of the cost analysis in the PM3 Final Rule and the cost analysis in the NPRM for this rulemaking.

FHWA Response:

FHWA has examined the relevant data and other information, and carefully considered the comments received, as outlined in this document. FHWA has examined the facts and has provided a reasoned explanation for the repeal of the GHG measure consistent with APA requirements, as detailed throughout this preamble.

4. Rulemaking Concerns

FHWA received comments⁹⁴ concerning the comment period, requesting an extension or otherwise stating the 30-day comment period was inadequate. Four commenters⁹⁵ stated that FHWA should issue a new, full NPRM to effectuate the repeal to better define the proposed regulatory action, and allow for broad comment on the specifics of a proposed policy.

⁹² Straw, FHWA-2017-0025-0173; Joint submission led by NRDC (12), FHWA-2017-0025-0190-1 and -3.

⁹³ Joint submission led by NRDC (12), FHWA-2017-0025-0190-1 and -3.

⁹⁴ Joint submission led by Clean Air Carolina (4), FHWA-2017-0025-0027; City of New York Law Department, FHWA-2017-0025- 0060; Joint submission led by Clean Air Carolina (4), FHWA-2017-0025-0027; City of New York Law Department, FHWA-2017-0025- 0060.

⁹⁵ Schroeckenthale, FHWA-2017-0025-0030; Oregon DOT, FHWA-2017-0025-0152-1; Caltrans and CARB, FHWA-2017-0025-0162-12; Denver Regional Council of Governments, FHWA-2017-0025-0163.

FHWA Response:

FHWA considered the comments stating FHWA should have provided a 90-day comment period for this rulemaking, questioning whether the proposed regulatory action and related matters were adequately described in the NPRM, and suggesting FHWA should have engaged in additional rulemaking to seek comments on certain topics not specified in the NPRM.

While FHWA sometimes uses a 90-day comment period in its rulemaking proceedings, that length of time is not required. In this instance, FHWA received not only comments asking for a longer comment period, but also comments asking for a quick decision so States could have certainty about the national performance measures. FHWA did provide a short extension of the 2017 comment period, from November 6 to November 15. However, FHWA concluded the comment period represented a reasonable balance of the various concerns and declined to further extend the time for comment.

FHWA reviewed the NPRM in response to the suggestions that the NPRM did not meet APA requirements for notice of the proposed regulatory action. FHWA concluded the NPRM provides adequate notice of the proposal. The NPRM describes the history of the GHG measure, some of the concerns identified by commenters in the PM3 rulemaking, the reasons FHWA was proposing a repeal, and a request for comments on specific questions and on whether FHWA should take an action other than repeal (i.e., retain or revise the GHG measure). The NPRM included the regulatory language needed for a repeal of the measure. Considered together, these elements provided more than

adequate notice that FHWA was considering repeal of the GHG measure due to various concerns, including policy changes, reconsideration of the legal authority for the measure, implementation costs and other regulatory burdens, lack of precision in the measure, lack of utility of the measure, and duplication of requirements. FHWA received comments in this rulemaking on all of these topics. FHWA concluded no additional rulemaking proceeding is needed before FHWA makes a decision on the GHG measure.

5. Environmental Reviews

Caltrans and the CARB⁹⁶ jointly argued that, because repeal would result in increased CO₂ emissions and exacerbation of climate change, FHWA may not repeal the GHG performance measure without considering the implications of such a repeal on “many affected resources and communities.” The commenters asserted that the required analytic considerations, include, but are not limited to, the following: a full environmental impact statement (EIS) pursuant to the National Environmental Policy Act (NEPA); analysis and consultation under the Endangered Species Act (ESA); review under the National Historic Preservation Act (NHPA); review under Executive Order 13211; and review under Executive Order 12898.

FHWA Response:

Repeal of the GHG measure does not require an EIS or the other reviews called for by the comment. The commenters incorrectly conclude that the repeal of the measure would “result in increased GHG emissions.”^[1]

⁹⁶ Caltrans and CARB, FHWA-2017-0025-0162.

^[1] Caltrans and CARB, FHWA-2017-0025-0162.

As a matter of law, the 23 U.S.C. 150 performance measures are part of a congressionally mandated performance management system intended to provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the FAHP, and improving project decisionmaking through performance-based planning and programming. The planning statutes incorporate performance management into the metropolitan and statewide transportation planning processes.^[2] Those statutes call for use of the performance measures and targets adopted pursuant to 23 U.S.C. 150(c) and (d) to assess performance and progress towards critical outcomes for the States and regions of the MPOs, not to regulate State and MPO activities. Performance management, together with asset management plans prepared pursuant to 23 U.S.C. 119, and other State plans, feed into the metropolitan and statewide transportation planning process that States DOTs and MPOs use to identify their investment priorities.^[3] The performance measures and resulting targets are planning and administrative activities that do not involve or lead directly to construction. The comprehensive, interrelated, planning-based nature of this system is evident in MAP-21, where Congress addressed metropolitan and statewide planning and performance management together in their own subtitle of the reauthorization legislation.^[4]

As previously described, the GHG measure relies on influencing the behavior of State DOTs and MPOs. It does not require any action by those entities to reduce CO₂

^[2] See 23 U.S.C. 134(h)(2) and 135(d)(2).

^[3] See 23 CFR 450.206(c)(4)-(5) and 450.306(d)(2) and (4).

^[4] See Map-21, Subtitle B, Sections 1201-1203.

emissions. The repeal of the GHG measure cannot be determined to cause increases in CO₂ emissions because the GHG measure has no legal power to force any change in CO₂ emission levels under 23 U.S.C. 150, and the GHG measure does not have a predictable effect on those emissions. State DOTs and MPOs were free to choose targets that reflect an increase, a decrease, or static levels of CO₂ emissions. The GHG measure required limited actions from State DOTs and MPOs, and those actions are administrative in character.^[5] The measure, which did not set any regulatory limit or emissions target, relied on the potential that it may produce an “influencing” effect on third-party behavior.^[6] But acting to influence others is different from an action that imposes a requirement to meet an emissions limit, or otherwise commands State DOTs and MPOs to produce a specific outcome with respect to CO₂ emissions. It is not possible to determine whether the behavior of third parties will change as a result of the retention, modification, or repeal of the GHG measure, or to what degree a change in third-party behavior will have any effect on CO₂ emissions. None of the laws cited by the commenter require FHWA to engage in such speculation.

The impacts of Title 23-funded projects and programs selected by State DOTs and MPOs through the metropolitan and statewide planning process are subject to NEPA and other reviews listed in the comment prior to the project’s implementation. That is the correct point in the process for such reviews, as that is the time when potential impacts

^[5] State DOTs and MPOs must set CO₂ emissions targets, which can be for declining emission levels, increasing emission levels, or unchanged emission levels, as compared to a 2017 baseline. State DOTs must use data from existing sources to calculate the CO₂ emissions measure at various points in time, reporting the results to FHWA. If the State DOT does not meet its target, it must report to FHWA on actions the State DOT will take to reach its selected target.

^[6] 82 FR at 5975-76.

can be determined with reasonable accuracy. Thus, there is no basis now for the reviews that the commenters seek. Rather than “escaping” evaluation as commenters contend, these issues can be addressed at an appropriate time in connection with the particular projects or programs. Please see Section VI.G. of this document for FHWA’s regulatory analysis conducted pursuant to NEPA.

VI. Rulemaking Analyses and Notices

A. Executive Order 13771 (Reducing Regulations and Controlling Regulatory Costs), Executive Order 12866 (Regulatory Planning and Review), Executive Order 13563 (Improving Regulation and Regulatory Review), and DOT Regulatory Policies and Procedures

FHWA has determined that this action is a significant action within the meaning of Executive Order (EO) 12866 and within the meaning of DOT regulatory policies and procedures. However, it is anticipated that the economic impact of this rulemaking will not be economically significant within the meaning of EO 12866 as discussed below. This action complies with EOs 12866, 13563, and 13771 to improve regulation. This action is considered significant because of widespread public interest in the transformation of the FAHP to be performance-based, although it is not economically significant within the meaning of EO 12866.

FHWA considers this final rule to be an EO 13771 deregulatory action, resulting in \$1.67 million in annualized cost savings at a 7 percent discount rate.⁹⁷ Details on the

estimated cost savings of this final rule are presented in the RIA, which may be accessed from the docket (docket number FHWA–2013–0054). The RIA evaluates the economic impact, in terms of costs and benefits, on Federal, State, and local governments, as well as private entities regulated under this action, as required by EO 12866 and EO 13563. However, the RIA is unable to quantify any changes from improved decisionmaking that would result in benefits if the GHG measure requirement were retained.

Estimated Cost Savings of Repealing the GHG Measure

To estimate cost savings of this final rule, FHWA assessed the level of effort that would have been needed to comply with each section under the PM3 rule with respect to the now-repealed GHG measure. These costs are expressed in labor hours and the labor categories for those needed to implement the GHG measure. Level of effort by labor category is monetized with loaded wage rates to estimate total costs.

Table 2 displays the total cost savings of this final rule for the 9-year study period (2018–2026) and the corresponding annualized values.

Table 2: Total Cost Savings of the Rule

Cost Components	9-Year Total Cost*		Annualized Cost	
	7%	3%	7%	3%
Section 490.105 - 490.109 - Reporting Requirements	\$9,090,263	\$10,652,791	\$1,395,232	\$1,368,179
Establish and Adjust GHG Targets	\$6,368,958	\$7,392,818	\$977,549	\$949,488
Reporting on GHG Targets and Progress Toward Them	\$2,573,869	\$3,068,421	\$395,054	\$394,089
Develop and Report Plan to Achieve GHG Targets	\$147,435	\$191,552	\$22,629	\$24,602

Section 490.511 - Calculation of System Performance Metrics	\$1,752,927	\$2,094,857	\$269,051	\$269,051
Calculate Annual Total Tailpipe CO ₂ Emissions	\$1,752,927	\$2,094,857	\$269,051	\$269,051
Section 490.513 - Calculation of System Performance Measures	\$48,703	\$58,061	\$7,475	\$7,457
Calculate % Change in Tailpipe CO ₂ Emissions the NHS Compared to the Calendar Year 2017 Level	\$48,703	\$58,061	\$7,475	\$7,457
Total Cost of Final Rule	\$10,891,892	\$12,805,709	\$1,671,758	\$1,644,687

* Results presented in 2014 dollars for consistency with GHG Repeal NPRM RIA.

The effects potentially caused by the national GHG performance measure established in the PM3 Final Rule were administrative activities (such as holding meetings and the use of energy to operate offices) that State DOTs and MPOs would undertake to establish targets, calculate their progress toward their selected targets, report to FHWA, and determine a plan of action to make progress toward their selected targets if they failed to make significant progress during a performance period.⁹⁸ Those effects serve as the baseline in this analysis. It is foreseeable that the decision to repeal the GHG measure in this rulemaking will cause (1) State DOTs and MPOs that have not yet set a CO₂ emissions target to terminate their 23 U.S.C. 150(d) target-setting activities for the GHG measure; and (2) State DOTs and MPOs that have selected a CO₂ emissions target to terminate activities related to tracking their performance and progress towards a 23 U.S.C. 150(d) CO₂ emissions target. The repeal also will relieve State DOTs and MPOs of all future obligations with respect to this national CO₂ emissions measure, including

⁹⁸ 23 CFR 490.109.

the obligation to calculate and report on their progress and to identify an action plan if they do not make significant progress toward their CO₂ emissions target. The effects will be to reduce or eliminate the administrative activities associated with implementing the GHG measure.

This action complies with the principles of EO 13563. After evaluating the costs and benefits of the rule, FHWA believes that the cost savings from this rulemaking would exceed the forgone benefits. These changes are not anticipated to adversely affect, in any material way, any sector of the economy. In addition, these changes will not create a serious inconsistency with any other agency's action or materially alter the budgetary impact of any entitlements, grants, user fees, or loan programs.

B. Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (Pub. L. 96-354, 5 U.S.C. 601-612), FHWA has evaluated the effects of this action on small entities and has determined that the action would not have a significant economic impact on a substantial number of small entities. The rule addresses the obligation of Federal funds to State DOTs for Federal-aid highway projects. The rule affects two types of entities: State governments and MPOs. State governments do not meet the definition of a small entity under 5 U.S.C. 601, which have a population of less than 50,000.

The MPOs are considered governmental jurisdictions, and to qualify as a small entity they would need to serve less than 50,000 people. The MPOs serve urbanized areas with populations of 50,000 or more. As discussed in the RIA, the rule is expected to impose costs on MPOs that serve populations exceeding 200,000. Therefore, the

MPOs that incur economic impacts under this rule do not meet the definition of a small entity.

We hereby certify that this regulatory action would not have a significant economic impact on a substantial number of small entities.

C. Unfunded Mandates Reform Act of 1995

FHWA has determined that this action does not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4, March 22, 1995, 109 Stat. 48). This rule does not include a Federal mandate that may result in expenditures of \$151 million or more in any 1 year (when adjusted for inflation) in 2012 dollars for either State, local, and tribal governments in the aggregate, or by the private sector. In addition, the definition of “Federal mandate” in the Unfunded Mandates Reform Act excludes financial assistance of the type in which State, local, or tribal governments have authority to adjust their participation in the program in accordance with changes made in the program by the Federal Government. The FAHP permits this type of flexibility.

D. Executive Order 13132 (Federalism Assessment)

FHWA has analyzed this action in accordance with the principles and criteria contained in EO 13132. FHWA has determined that this action does not have sufficient federalism implications to warrant the preparation of a federalism assessment. FHWA has also determined that this action does not preempt any State law or State regulation or affect the States’ ability to discharge traditional State governmental functions.

E. Executive Order 12372 (Intergovernmental Review)

The regulations implementing EO 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program. Local entities should refer to the Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction, for further information.

F. Paperwork Reduction Act

Under the PRA (44 U.S.C. 3501, et seq.), Federal agencies must obtain approval from the OMB for each collection of information they conduct, sponsor, or require through regulations. FHWA has analyzed this action under the PRA and has determined that this rulemaking would reduce PRA burdens associated with this measure.

G. National Environmental Policy Act

FHWA has analyzed this action for the purpose of NEPA, as amended (42 U.S.C. 4321 et seq.), and has determined that this action would not have any significant effect on the quality of the environment and meets the criteria for the categorical exclusion at 23 CFR 771.117(c)(20).⁹⁹

The nature and potential effects of the GHG measure are described in detail in Section V.F.5. of this document. With respect to this rulemaking, changes in CO₂ emissions are not a direct or indirect effect of the repeal of the GHG measure because there is no reasonably close causal connection between the repeal and actions taken by the State DOTs and MPOs to change CO₂ emissions levels. Any potential change in CO₂ emissions levels associated with the NHS would be the result of independent actions

⁹⁹ This rulemaking also qualifies for a categorical exclusion under 23 CFR 771.117(c)(1) (activities which do not involve or lead directly to construction).

taken (or not taken) by State DOTs and MPOs. These intervening State DOT and MPO actions are not reasonably foreseeable effects¹⁰⁰ of the GHG measure because the measure does not require those entities to take steps to reduce CO₂ emissions, and the GHG measure does not prescribe any method for State DOTs and MPOs to take such steps. The absence of a sufficiently close causal connection, and reasonable foreseeability, also means that NEPA does not require FHWA to consider CO₂ emissions effects as a cumulative impact.

FHWA's conclusion that the GHG measure would not be a legal cause of changes in CO₂ emissions levels, and thus would not produce effects that NEPA requires FHWA to analyze in this rulemaking, is further supported by Clean Air Act regulations promulgated by the EPA. In 40 CFR 93.152, EPA adopted a "but for" approach, defining direct and indirect emissions caused by a Federal action as emissions that would not otherwise occur in the absence of Federal action. As described above, a decision to leave the GHG measure in effect would not result in the reduction of CO₂ emissions. For the same reasons, the decision to repeal the measure does not result in an increase in CO₂ emissions.

Pursuant to 23 CFR 771.117(c)(20), this repeal qualifies as categorically excluded from preparation of an EIS or environmental assessment under NEPA. FHWA concluded that the repeal of the GHG measure will not involve reasonably foreseeable significant environmental impacts. The GHG measure imposed no limits or controls on

¹⁰⁰ Courts have interpreted "reasonably foreseeable" as meaning that the likelihood that the effects will occur is high enough that a person of "ordinary prudence" would consider the effects when making decisions.

CO₂ emissions, had no legal power to force changes in CO₂ emissions, and left target-setting entirely to the discretion of State DOTs and MPOs. The repeal of the GHG measure is not a legally relevant cause of any change, or lack of change, in CO₂ emissions levels or the direct, indirect, or cumulative impacts potentially related to those emissions. This is true regardless of the geographic impact area considered. With respect to other types of potential environmental impacts from the repeal of the GHG measure, they are minor and consistent with the type of impacts related to administrative activities, such as analyzing data and reporting on the results (e.g., use of energy to operate computers, telephones, and office space). Such activities fit squarely within the boundaries of 23 CFR 771.117(c)(20).

In making the determination that the repeal of the GHG measure qualifies for a categorical exclusion, FHWA considered whether the proposed regulatory action involves unusual circumstances. 23 CFR 771.117(b). Given FHWA's determination that the GHG measure is not reasonably causally connected to CO₂ emissions levels, the analysis of unusual circumstances in this instance focuses on whether there are unusual circumstances relating to other types of potential environmental effects. FHWA found none of the environmental impacts from implementing, not implementing, or ceasing current implementation of the GHG measure rose to the level of significance under NEPA (23 CFR 771.117(b)(1)). FHWA found no substantial controversy exists over the size, nature, or effect of potential environmental impacts from the States DOTs and MPOs not carrying out the administrative activities associated with CO₂ emissions target-setting or reporting on their performance with regard to those targets (23 CFR

771.117(b)(2)). There are no anticipated impacts from those administrative activities, or lack thereof, on properties protected by the NHPA or section 4(f) (23 U.S.C. 138) (23 CFR 771.117(b)(3)). Finally, FHWA found no inconsistencies with other laws, requirements, or determinations within the meaning of 23 CFR 771.117(b)(4).

H. Executive Order 12630 (Taking of Private Property)

FHWA has analyzed this action under EO 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights. FHWA does not anticipate that this action would affect a taking of private property or otherwise have taking implications under EO 12630.

I. Executive Order 12988 (Civil Justice Reform)

This action meets applicable standards in sections 3(a) and 3(b)(2) of EO 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

J. Executive Order 13045 (Protection of Children)

We have analyzed this rule under EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. FHWA certifies that this action would not cause an environmental risk to health or safety that might disproportionately affect children.

K. Executive Order 13175 (Tribal Consultation)

FHWA has analyzed this action under EO 13175, dated November 6, 2000, and believes that the action would not have substantial direct effects on one or more Indian tribes; would not impose substantial direct compliance costs on Indian tribal governments; and would not preempt tribal laws. The rulemaking addresses obligations

of Federal funds to State DOTs for Federal-aid highway projects and would not impose any direct compliance requirements on Indian tribal governments. Therefore, a tribal summary impact statement is not required.

L. Regulation Identifier Number

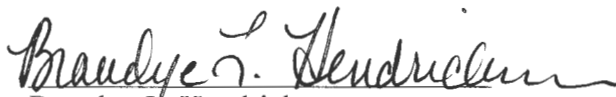
A RIN is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects in 23 CFR Part 490

Bridges, Highway safety, Highways and roads, Reporting and recordkeeping requirements.

Issued in Washington, DC on May 21, 2018 under authority delegated in 49 CFR

1.85:



Brandye L. Hendrickson
Acting Administrator
Federal Highway Administration

In consideration of the foregoing, FHWA amends 23 CFR part 490 as follows:

PART 490 NATIONAL PERFORMANCE MANAGEMENT MEASURES

1. The authority citation for part 490 continues to read as follows:

Authority: 23 U.S.C. 134, 135, 148(i), and 150; 49 CFR 1.85.

Subpart A—General Information

2. Amend § 490.105 by removing and reserving paragraphs (c)(5) and (d)(1)(v).
3. Amend § 490.107 by removing and reserving paragraphs (b)(1)(ii)(H), (b)(2)(ii)(J), (b)(3)(ii)(I), and (c)(4).
4. Amend §490.109 by removing and reserving paragraphs (d)(v) and (f)(1)(v) and revising paragraph (d)(vi) to read as follows:

§ 490.109 Assessing significant progress toward achieving the performance targets for the National Highway Performance Program and the National Highway Freight Program.

* * * * *

(d)

* * *

(vi) Baseline condition/performance data contained in HPMS and NBI of the year in which the Baseline Period Performance Report is due to FHWA that represents baseline conditions/performances for the performance period for the measures in § 490.105(c)(1) through (4).

* * * * *

Subpart E - National Performance Management Measures to Assess Performance of the National Highway System

5. Amend §490.503 by removing and reserving paragraph (a)(2).
6. Amend §490.505 by removing the definition for “Greenhouse gas (GHG).”
7. Amend §490.507 as follows:

- a. by replacing the word “three” with “two” in the introductory paragraph; and
 - b. by removing and reserving paragraph (b).
8. Amend §490.509 by removing paragraphs (f) – (h).
 9. Amend §490.511 by removing and reserving paragraphs (a)(2), (c), (d), and (f).
 10. Amend §490.513 by removing paragraph (d).