



Comment-Response Document – For Draft 3rd Edition of The Texas Guide to Accepted Mobile Source Emission Reduction Strategies (MOSERS) Guidebooks

September 2020

Texas A&M Transportation Institute

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INTRODUCTION

The Texas Guide to Accepted Mobile Source Emission Reduction Strategies (commonly known as **MOSERS Guide**) is a set of reference documents and tools for use among Texas transportation practitioners who are undertaking air quality planning. The intent of the MOSERS Guide is to provide guidance and resources to understand and evaluate mobile source emissions reduction strategies. The MOSERS guide was originally developed by TTI in 2003 and updated subsequently in 2007.

The 2007 version of the MOSERS Guide is the current version that has been formally adopted by the Texas Technical Working Group for Mobile Source Emissions (TWG) and Texas Air Quality Stakeholders. It is a comprehensive guidebook covering an introduction to transportation air quality, an overview of accepted mobile source emissions reduction strategies, and recommended methods and equations for calculating their emission reduction benefits.

In recent years, the TTI team has worked to update the MOSERS Guide and develop a revised version which consists of *two standalone documents, a MOSERS spreadsheet tool, and a MOSERS web portal*. The standalone MOSERS guidebooks are as follows:

- **The Texas Guide to Accepted Mobile Source Emission Reduction Strategies (MOSERS) – Module 1: Overview of Transportation Air Quality** – Provides an introduction to transportation air quality and a high-level overview of accepted mobile source emission reduction strategies, and
- **The Texas Guide to Accepted Mobile Source Emission Reduction Strategies (MOSERS) – Module 2: Methodologies** – Provides recommended methodologies for the calculation of emissions reduction benefits of the accepted mobile source emission reduction technologies.

The MOSERS subcommittee of the TWG has been guiding and advising the development of the MOSERS Guide including the two standalone guidebooks. The MOSERS subcommittee consists of representatives of TxDOT, MPOs, and TTI's development team. The draft MOSERS Guide documents were shared with the member agencies of the TWG for review and feedback. The TTI team received 74 comments on the two MOSERS Guide documents and revised and modified the documents by incorporating these comments.

TTI shared the draft comment-response document with the commenting agencies and other key stakeholders. The TTI team then followed up with the commenting agencies and stakeholders through conference calls and email communication to ensure that all the comments and suggestions are adequately addressed. TTI collected and addressed any remaining concerns received from the commenting agencies. The commenting agencies and stakeholders submitted their concurrence with the final version of the document via email before August 31st, 2020.

The remainder of this document contains the comments received on the Draft 3rd Edition of the MOSERS Guide Moduel 1 and Moduel 2 documents and the responses thereto.

MOSERS MODULE 1 COMMENTS AND RESPONSES

This section contains the comments received on the 3rd Edition of MOSERS Module 1 guidebook and the responses thereto provided by TTI. The following agencies provided comments on this MOSERS Module 1 document:

- Capital Area Council of Governments (CAPCOG – Table 1),
- Houston-Galveston Area Council (H-GAC – Table 2),
- North Central Texas Council of Governments (NCTCOG – Table 3), and
- Texas Commission on Environmental Quality (TCEQ – Table 4).

Table 1. CAPCOG Module 1 Comments with TTI Response

Document Title	The Texas Guide to Accepted Mobile Source Emission Reduction Strategies – Module 1			Organization	TTI	Date	1/10/2017
Document Date	11/09/2016						
Commenter	Capital Area Council of Governments (CAPCOG)						
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
1-1	General		I think that it would be worthwhile to discuss somewhere in here to talk about the importance of the state, MPOs, and local governments working together on the development of on-road emissions inventories on the front end of the SIP planning process and as the process moves forward in order to ensure that the MPOs and local governments that are affected by the assumptions that go into these inventories have input into those assumptions, particularly if they are going to be expected to come up with TCMs.	Noted and discussed. The MOSERS subcommittee discussed this topic in greater detail. It was determined that the TCEQ website is a more appropriate resource for this purpose. The TCEQ website for each non-attainment and maintenance area provides current rules and regulations and provides the current status for each area. https://www.tceq.texas.gov/airquality/sip			

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Document Date	11/09/2016						
Commenter	Capital Area Council of Governments (CAPCOG)						
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
1-2	General		In line with that, I think it’s also worth highlighting Section 174 of the Clean Air Act, which stipulates such coordination between the state and local governments: “For any ozone, carbon monoxide, or PM–10 non-attainment area, the State containing such area and elected officials of affected local governments shall, before the date required for submittal of the inventory described under sections 7511a(a)(1) and 7512a(a)(1) of this title, jointly review and update as necessary the planning procedures adopted pursuant to this subsection as in effect immediately before November 15, 1990, or develop new planning procedures pursuant to this subsection, as appropriate. In preparing such procedures the State and local elected officials shall determine which elements of a revised implementation plan will be developed, adopted, and implemented (through means including enforcement) by the State and which by local governments or regional agencies, or any combination of local governments, regional agencies, or the State.”	Noted and discussed. The MOSERS subcommittee discussed this topic in greater detail. It was determined that the FHWA website is a more appropriate resource on this subject since it provides most up-to-date rules and regulations.		NA	

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Document Date	11/09/2016					
Commenter	Capital Area Council of Governments (CAPCOG)					
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)	New Page	
1-3	General		I think it would be worthwhile to spend a bit of time mentioning that these tools are useful for any area developing air quality plans, including “near-nonattainment” areas, and incorporating transportation emission reductions into their plans.	Text added to MOSERS Module 1 as follows: “These resources can be used by all areas that are developing air quality plans and incorporating transportation emission reductions into their plans.” Text added to MOSERS Module 2 as follows: “These equations can also be used by near non-attainment areas that are developing air quality plans and incorporating transportation emission reductions into their plans.”	Module 1, Page iii Module 2, Page 1	
1-4	General		I think that it is worth some discussion/mention of the opportunity that the state has to increase a motor vehicle emissions budget using “safety margins” and how those work.	Noted and discussed. The MOSERS subcommittee discussed this topic in greater detail. It was determined that while this is an important subject, it does not fit under the specific mandate of MOSERS and would be best addressed through other efforts.	NA	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
1-5	General	NA	I think that it would be helpful to provide, up-front, some perspective on the expected trends in on-road emissions over the next 10 years or so, and the relative effectiveness of TCMs to reduce ambient air pollution concentrations in earlier years compared to later years. Perhaps some of the trends data from this report: https://www.tceq.texas.gov/assets/public/implementation/air/am/contracts/reports/mob/5821111226FY1514-20150807-tti-MOVES2014_Onroad_EI_Trends_1990_2050.pdf .	Noted and discussed. The MOSERS subcommittee discussed this topic in greater detail. It was determined that because these trends analyses are updated periodically, it would not fit well in the MOSERS PDF documents that are intended to serve as a static resource for the next 5-10 years. The MOSERS subcommittee has recommended this information to be added as web-based visual content to the Texas Air Quality Portal (TxAQ Portal: www.txaqportal.org).		NA	
1-6	Page 33	Section 6.1	On page 43 of the PDF (33 of the document, section 6.1), the text in the bottom of the bubble is cut off.	The figure has been corrected.		Page 34	

Table 2. H-GAC Module 1 Comments with TTI Response

Document Title	The Texas Guide to Accepted Mobile Source Emission Reduction Strategies – Module 1		Organization	TTI	Date	1/09/2017
Document Date	11/09/2016					
Commenter	Houston-Galveston Area Council (H-GAC)					
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)	New Page	
2-1	Page 11	Section 2.2	In the first sentence, change “plans” to “transportation plans” and add “in the State Implementation Plan” after the word “budgets.”	Document revised to read “Transportation conformity is the process that links transportation planning, and air quality planning for the purpose of ensuring that changing <i>transportation</i> plans continue to meet established emissions budgets <i>in the SIP</i> , as shown in Figure 4.”	Page 12	
2-2	Page 12	Section 2.2	In the first sentence, add “for non-attainment areas” to the end of the sentence.	“for non-attainment and maintenance areas” was added to the end of the first sentence.	Page 13	
2-3	Page 15	Section 3.1	In figure 5, Dispersion Model needs to be replaced by Photochemical Model	“Dispersion and Photochemical models” was replaced with “Air Quality Models” in the figure.	Page 16	
2-4	Page 16	Section 3.1	Air quality models, also known as <i>photochemical</i> dispersion models, translate emissions inventories into predicted ambient pollutant concentrations that carry through space and time.	“Dispersion models” was changed to “Dispersion and Photochemical models,” as suggested.	Page 17	

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Document Date	11/09/2016						
Commenter	Houston-Galveston Area Council (H-GAC)						
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
2-5	Page 16	Section 3.1	In the fourth paragraph, last sentence of section, replace last sentence with “Photochemical models are much more complex than dispersion models since they take into account the chemistry of the atmosphere. For example: using a given set of meteorological conditions, the concentration of emissions for NOx and VOCs react in the atmosphere to form ozone. Ozone is not being emitted by any source, it is only formed in the atmosphere by chemical reactions.”	Text revised as follows: “Photochemical models are much more complex than dispersion models since they take into account the chemistry of the atmosphere and the formation of secondary pollutants such as ozone.”		Page 17	
2-6	Page 17	Section 3.3	In the third paragraph change “MOSERS” to “MOVES”.	MOSERS is intended. The sentence has been revised to the following for clarification. “Table 3 provides a summary list of the most important <i>MOVES</i> user input parameters being used to extract the emission factors needed for analyzing MOSERS.”		Page 18	
2-7	Page 20	Section 4.1	Add “emissions” to the end of the second sentence of the first paragraph.	Text revised as suggested.		Page 21	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
2-8	Page 21	Section 4.1	Add "included as" between "not" and "mobile" in last sentence of the third paragraph. This sentence seems to be a contradiction with the strategy #16 in figure 6 [Vehicle Replacements, Retrofits and Repowering].	Text added as suggested, and the sentences were revised to address the referenced contradiction.		Page 22	
2-9	Page 26	Section 5.1	In the second sentence of the second paragraph, add "to prevent double counting" at the end of the sentence ending in "...taking proper credits of mobile source emission reduction strategy projects."	Sentence revised as suggested to read: "This can pose a challenge to MPOs on taking proper credits of mobile source emission reduction strategy projects to <i>prevent double counting</i> ."		Page 27	
2-10	Page 29	Section 5.4	In Table 5, sixth row, the sentence is incomplete. "Intelligent transportation systems (ITS), new buses or _____."	The sentence in this table (now Table 6) is completed with "... alternative fuel buses, bicycle/pedestrian facilities, and park-and-ride lots".		Page 29	
2-11	Page 33	Section 6.1	In the first sentence of the first paragraph, first sentence, please note that before "off-model" was referred as on model and off model without the hyphen.	Graphic corrected. All appropriate text ("on-model" and "off-model") changed to include a hyphen throughout the document.		Page 33	

Table 3. NCTCOG Module 1 Comments with TTI Response

Document Title	The Texas Guide to Accepted Mobile Source Emission Reduction Strategies – Module 1		Organization	TTI	Date	1/10/2017
Document Date	11/11/2016					
Commenter	North Central Texas Council of Governments (NCTCOG)					
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)	New Page	
3-1	Page 3	Section 1.1	Since this is a Texas Guide, is it best to source Broward County Florida over EPA or TCEQ?	Reference to the source removed.	page 3	
3-2	Page 4	Section 1.1	Suggest updating this page to include TCEQ recommendations for non-attainment counties for revised 70 ppb ozone standard.	Text updated to reflect updated standards	Page 4	
3-3	Page 4	Section 1.1	Consider updating classification breakpoints, if EPA will disclose this information for the 70-ppb ozone standard	Text has been updated.	Page 4	
3-4	Page 4	Section 1.1	Consider listing what, if any counties are non-attainment for PM and CO	Added a reference to the EPA website to provide a current list of the attainment/maintenance status for each county in Texas.	Page 4	
3-5	Page 4	Section 1.1	Recommend adding information about NO2 near-road monitoring, and locations of monitors in Texas.	Additional text added to provide information on NO2. The MOSERS subcommittee decided not to include the list of locations of the monitoring stations since they can change.	Table 1 on Page 3 and text on Page 5	

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Commenter	North Central Texas Council of Governments (NCTCOG)						
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
3-6	Page 4	Section 1.1	Recommend including a map illustrating, or an appendix listing, non-attainment counties in Texas.	Added a reference to the EPA website to provide a current list of the attainment/maintenance status for each county in Texas.		Page 4	
3-7	Page 29	Section 5.4	Since TWG is having on-going conversations about project life spans, and this issue was raised by FHWA during the most recent DFW Conformity, perhaps table should be updated/revisited? At a minimum, can a more recent source be cited?	No Change. The source life span information was obtained from Table 4 from the following FHWA webpage: https://www.fhwa.dot.gov/ENVIRonment/air_quality/cmaq/research/safetea-lu_phase_1/section_four.cfm If an update or addition to the life span information from FHWA is desired by TWG stakeholders, please submit a request to TWG to be coordinated by TxDOT.		Page 29	
3-8	Page 33	Section 6.1	Resize figure the word "data" is cut off.	Graphic revised.		Page 34	
3-9	Page 35	Section 6.3 Figure 8	Change wording to "vehicle-miles of travel".	Text revised to "VMT."		Page 36	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
3-10	Page 37	Section 6.4	Recommend expanding definition of "Current available data" and refining definition of "Professional judgment" to ensure data is based on some form of peer/literature review and not just one person's knowledge base.	Text updated to include agency data sources.		Page 38	
3-11	Pages 47-48	Appendix A & B	Remove underlining on numbered and bulleted lists.	Text reformatted, as suggested.		Pages 49-50	
3-12	Page 56.	Appendix E	Table E1 Row 1, Column 2 - increase column width to correct heading. Row 1 Column 7 - correct to read ">\$500K"	Table column width adjusted as suggested and text corrected.		Page 58	

Table 4. TCEQ Module 1 Comments with TTI Response

Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)	New Page
4-1	Page 4	Section 1.1	This paragraph can be updated now and will likely need another update before long. If this is a living document, then this shouldn't be an issue.	This information will be revised as the latest information becomes available.	Page 4
4-2	Page 5	Section 1.1	In the last sentence of the first paragraph, add the word "of" to the sentence "EPA developed a list <u>of</u> priority..."	Inserted "of" in the recommended phrase. Sentence revised to reflect updated standards.	Page 5
4-3	Page 16	Section 3.1	In the second sentence of the fourth paragraph, change "It uses data on emissions..." to "They use data on emissions..."	Text revised as suggested.	Page 17
4-4	Page 16	Section 3.1	In the third sentence of the fourth paragraph, change "The model then predicts the concentrations..." to "They then predict the concentrations..."	Text revised as suggested.	Page 17

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Commenter	Texas Commission on Environmental Quality (TCEQ)						
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
4-5	Page 20	Section 4.1	<p>This section doesn't appear to be specific to TCMs, so maybe "Introduction" or "Transportation Control Strategies" would more appropriately head this section. Or leave a heading off as the main heading for 4.0 seems most appropriate.</p> <p>Based on my interpretation of this subsection, it seems like you're offering MOSERS as an umbrella term for several types of mobile emission reduction strategies (excluding I/M, etc.). If so, this heading confuses your purpose.</p>	Section changed to "4.1 Introduction".		Page 21	
4-6	Page 20	Section 4.1	Add the sentence "Only approved TCMs can be included in a state's SIP." at the end of the [third] paragraph.	Text added, as suggested.		Page 21	
4-7	Page 21	Section 4.1	<p>I think this could be illustrated to emphasize the differences between and among strategies (TCMs, VMEPS, TERMS, I/M, CMAQ). I'm not sure what it would look like, but I think a visual would help here.</p> <p>A visual may also help with the categorization of MOSERS in Figure 6.</p>	<p><i>Table 4 – Measures Terminology</i> added to Section 4.1 to describe the differences between the types of measures. Text was also added above the table to provide a brief description of the table.</p>		Page 22	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
4-8	Page 21	Section 4.2	(Note at first non-numbered header under section 4.2) Consider changing these all to present tense since they still apply, and since the 1990 amendments are listed in present tense.	Text revised to present tense as suggested.		Page 22	
4-9	Page 21	Section 4.2	In the first sentence under header “Clean Air Act, 1970”, change “Established” to “Establishes”.	Text revised to present tense as suggested.		Page 22	
4-10	Page 21	Section 4.2	In the first sentence under header “Clean Air Act, 1970”) Change “State Implementation Plans” to “SIP requirements”.	Text revised as suggested.		Page 22	
4-11	Page 21	Section 4.2	In the first bullet under “Clean Air Act Amendments, 1977”, change “SIPs were required to develop” to “SIPs <u>are</u> required to <u>contain</u> ”.	Text revised to present tense.		Page 22	
4-12	Page 21	Section 4.2	In the second bullet under “Clean Air Act Amendments, 1977”, change “Regulations in 1981 were issued that required transportation plans, programs, and projects to conform to the approved SIPs giving priority to transportation control measures.” to “Regulations in 1981 <u>are</u> issued that <u>require</u> transportation plans, programs, and projects to conform to approved SIPs, giving priority to transportation control measures.”	Text revised to present tense.		Page 22	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
4-13	Page 22	Section 4.2	In the bullet under “Intermodal Surface Transportation Efficiency Act”, revise “ISTEA authorized the Congestion Mitigation and Air Quality Improvement Program” to “Authorized the CMAQ Program to”	Text revised as suggested.		Page 22	
4-14	Page 22	Section 4.2	In the first bullet under “Transportation Equity Act...” header, revise “TEA-21 reauthorizes CMAQ” to “Reauthorizes CMAQ”.	Text revised as suggested.		Page 23	
4-15	Page 22	Section 4.2	In the first bullet under “Safe, Accountable, Flexible...”, revise “SAFETEA LU reauthorizes the CMAQ program” to “Reauthorizes the CMAQ Program”.	Text revised as suggested.		Page 23	
4-16	Page 22	Section 4.2	In the second bullet under “Safe, Accountable, Flexible...”, revise “It required the Secretary” to “Requires the Secretary”.	Text revised as suggested.		Page 23	
4-17	Page 22	Section 4.2	In the first bullet under “Moving Ahead for Progress...”, revise “MAP-21 places and emphasis” to “Places an emphasis”.	Text revised as suggested.		Page 23	
4-18	Page 22	Section 4.2	In the fifth bullet under “Moving Ahead for Progress...”, revise “It required the Secretary” to “Requires the Secretary”.	Text revised as suggested.		Page 23	

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4-19	Page 22	Section 4.2	In the first bullet under “Fixing America’s Surface Transportation...”, revise “The FAST Act was passed in December” to “Passed in December”.	Removed the text referencing the date in the first bullet since the date is already in the subheading. The first bullet was revised to: “FHWA has developed guidance and rules related to various aspects of the legislation.”		Page 23	
4-20	Page 22	Section 4.2	In the second bullet under “Fixing America’s Surface Transportation...”, revise “The CMAQ program was continued under the FAST Act. It added eligibility for” to “Continues the CMAQ Program and adds eligibility for”.	Text revised as suggested.		Page 24	
4-21	Page 22	Section 4.2	In the third bullet under “Fixing America’s Surface Transportation...”, revise “The eligible uses of CMAQ funds set aside for PM _{2.5} were amended, and a new exemption for states with low population density was added.” to “Amends the eligible uses of CMAQ funds set aside for PM _{2.5} and adds a new exemption for states with low population density.”	Text revised as suggested.		Page 24	
4-22	Page 23	Section 4.3	Revise section header “Mobile Source Emission Reduction Strategies” to “Categorizing Mobile Source Emission Reduction Strategies.”	Text revised as suggested.		Page 24	

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4-23	Page 26	Section 5.1	In the first sentence of the second paragraph, add an "s" to SIP in the first sentence after the bullet list.	Text revised as suggested.		Page 27	
4-24	Page 26	Section 5.2	[In the first sentence of the first paragraph,] Are you talking about TCMs here? If so, I think they should be called TCMs since that is how they are referenced in the FCAA as well as federal and state regulations. Perhaps you could refer to these as the MOSERS categories qualified as TCMs for inclusion in the SIP --- or something that clarifies that you're talking specifically about TCMs.	The title has been changed to reflect "Inclusion of MOSERS in SIPs."		Page 27	
4-25	Page 27	Section 5.2 graphic	VMEPs are not TCMs, but they may also be included in the SIP.	The following sentence has been added to the end of section 5.2: "Additionally, VMEPs are not considered as TCMs, but they may also be included in the SIP."		Page 28	
4-26	Page 26	Section 5.2	Do you mean outside of the SIP, for conformity purposes? If so, those would not be called TCMs. One of our MPOs calls those TERMS, but I don't think there is a set label.	Noted. Section 5.2 has been updated to distinguish TERMS from TCM.		Page 28	

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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page	
4-27	Page 26	Section 5.2	[Comment located in the first sentence of the third paragraph] It is a given that TCMs are in a SIP, no? Revise “TCMs included in the SIP must” to TCMs must”.	Yes. Text revised as suggested.		Page 28	
4-28	Page 27	Section 5.2	(third paragraph, second sentence) Revise “Funding schedule” to “The funding schedule”.	Text revised as suggested.		Page 28	
4-29	Page 27	Section 5.2	[Comment located in the first sentence of the third paragraph] Same question as above [4-24] - are you talking about TCMs here? If so, then they should be called TCMs.	Text revised as follows: “Nonattainment and maintenance areas can include MOSERS in SIPs as TCMs to support the SIP demonstration or as contingency measures.”		Page 28	
4-30	Page 29	Section 5.4	Change the last word in paragraph “lives” to “lifespans”.	Text revised in the paragraph as suggested and in the caption for Table 6.		Page 30	
4-31	Page 29	Section 5.4	In the first sentence of the third paragraph, revise “claim credit for the Voluntary” to “claim credit for emission reductions under the Voluntary”.	Text revised as suggested.		Page 30	
4-32	Page 29	Section 5.4	This description would fit well under Chapter 4.	Noted and discussed. The MOSERS subcommittee decided to keep it in Section 5. No change was made.		Page 30	
4-33	Page 30	Section 5.5 graphic	In the first graphic in the section, last line in green text box is out of alignment	Graphic edited to align text.		Page 31	

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4-34	Page 30	Section 5.5	The first sentence in the second paragraph starting with “The goal of the documentation...” This sentence is awkward. Please consider rewording.	Sentence revised as follows: “Proper documentation should demonstrate the use of appropriate analysis methods and provide details of the methodology used for each measure.”		Page 31	
4-35	Page 36	Section 6.3	In the second sentence of the sixth paragraph beginning “Only in rare cases should...”, do you mean estimates based solely on professional judgment? If yes, then consider rewording. As is, the phrasing is confusing to me.	Sentence revised as follows: “Only in rare cases should estimates based on professional judgement be used to determine travel impacts.”		Page 37	

MOSERS MODULE 2 COMMENTS AND RESPONSES

This section contains the comments received on the 3rd Edition of MOSERS Module 2 guidebook and the responses thereto provided by TTI. NCTCOG provided comments on the MOSERS Module 2 document, which are documented in Table 5.

Table 5. NCTCOG Module 2 Comments with TTI Response

Document Title	The Texas Guide to Accepted Mobile Source Emission Reduction Strategies – Module 2		Organization	TTI	Date	1/10/2017
Document Date	11/09/2016					
Commenter	North Central Texas Council of Governments (NCTCOG)					
Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)		New Page
5-1	General	General	<p>Recommend adding additional resources to the end of each section introduction so that users can explore more about description, application, etc. for strategies that are of particular interest. Examples:</p> <ul style="list-style-type: none"> • Section 10: http://www.afdc.energy.gov/conserve/idle_reduction_basics.html • Section 16: www.epa.gov/cleandiesel, www.epa.gov/smartw; https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deg; https://www.tceq.texas.gov/airquality/terp 	<p>Noted and discussed. We are considering adding a “resources/references” section for each strategy on the web-edition of MOSERS on the TxAQ Portal. (https://txaqportal.org/mosers)</p> <p>Because of its flexible nature, the web-based edition of MOSERS can accommodate these types of content/material much better than the PDF version.</p> <p>Please submit your recommendations and suggestion for resources and references to be included in the web-version of MOSERS to the MOSERS subcommittee.</p>		NA

Document Title	The Texas Guide to Accepted Mobile Source Emission Reduction Strategies – Module 2		Organization	TTI	Date	1/10/2017
Document Date	11/09/2016					
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Item #	Page	Section	Comment / Recommended Solution	How Addressed (or why not addressed)	New Page	
5-2	General	General	<p>Narrative in Module 2 is wordy and overly technical in some instances. If the general idea is to create a more user-friendly guide, consider simplifying language so the descriptions and instructions seem less daunting. Consider rewording as follows:</p> <p>“17.0 Pricing Strategies - Reduce vehicle trips and VMT by discouraging driving, including congested zones or roadways.</p> <p>Introduction</p> <p>Pricing strategies discourage driving to reduce congestion overall vehicle miles of travel. Congestion pricing, specifically, is the implementation of a fee structure based on factors such as: time of day, location, and level of congestion.”</p>	<p>Noted.</p> <p>This is a great recommendation. The MOSERS subcommittee discussed this suggestion in detail and decided to implement it for the web version of the MOSERS that is being currently developed.</p>	NA	
5-3	TOC	Section 3.1	Page v: Insert space between "4.2" and "Trip-Reduction Programs".	Text revised as suggested.	Page v	

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5-5	General	Section 10.0	Recommend adding Section 10.3 to provide equations to quantify impacts of a verified idle control technology (i.e., APU) to quantify the reduction in truck engine emissions and adjusts for emissions produced by the APU.	<i>Strategy 10.3 – Controls on Idling – Idle Reduction Technology</i> has been added. Minor text edits were also made to Strategies 10.1 and 10.2 to improve flow with Strategy 10.3.	Pages 110 and 111	
5-6	Page 94	Main Components	The time threshold for idling restrictions should cite TCEQ's state rule limiting idling of vehicles over 14K pounds to 5 minutes. This standard applies to any local governments who have adopted the State rule or an ordinance consistent with it. This rule allows for up to 30 minutes of idling for passenger safety and comfort.	Thank you, this is a great suggestion. This was noted and discussed. It was decided to add this information and resources would be best implemented as part of the MOSERS section on the TxAQ Portal to be able to capture and update any potential changes in the future without needing to update the entire document.	NA	

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5-7	Page 94	Other Considerations	Suggest section be revised to reflect TCEQ state idling rule, which requires restrictions to be implemented at the local government level by signing an MOA. Since this is a Texas resource, it needs to be consistent with existing practice in Texas. Additionally, include explanation if idling control activities involve use of an idle-reduction technology, the quantification of emissions reductions must factor in any emissions produced by that technology (i.e. APUs.).	Thank you, this is great suggestion. This was noted and discussed. It was decided to add these information and resources would be best implemented as part of the MOSERS section on TxAQ Portal to be able to capture any potential changes in the future without needing to update the entire document.	NA	
5-8	Page 97	Section 10.2	Suggest adding a notation explaining the equations presented may be used for projects in which heavy-duty vehicles shut down the main engine through use of an external grid-connected power source; however, they are not appropriate for a project using idle reduction technology such as an APU.	Text added to the Description section of 10.2.	Page 108	

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5-9	General	Section 14	Suggest integrating narrative and equations from Sections 14.0 and 14.1 into Section 16, since the description for Section 16 includes "Vehicle Replacement". The equation and narrative in 14.1 can be expanded to accommodate repowers if the narrative is structured to reflect replacement of either vehicles and/or engines.	Revised as suggested.		Page 147
5-10	Page 132	Section 16.1	Update "Description" to include any higher-cost, lower-emission to make it consistent with the Introduction on page 132. Equation" and "Description" are not consistent. Equation and variables are written to describe a vehicle replacement activity, but description specifies incremental cost of a lower-emission vehicle. Update "Application" to remove the word "large" since this is unnecessarily restrictive.	Text revised.		Page 147