



**Montana Department of Transportation
Scope of Work**

2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001
www.mdt.mt.gov

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RESEARCH PROGRAMS

Scope of Work		
Date: February 26, 2024	Champion: Kendra Smith	Technical Panel Members: Kendra Smith (Chair), Linda Hicks, Nicole Pallister, and Dorianne Minkoff, Carol Strizich
Solicitation Number: 23-020	Sponsor: Larry Flynn	
Project Number: 10404-954	Research Project Manager: Vaneza Callejas	
Maximum Project Cost: \$133,000.00		
Project Title: The Future of Transportation Funding in Montana		View Description
Project URL: https://www.mdt.mt.gov/research/projects/admin/transportation-funding.aspx		
Project Background:	High-efficiency motor vehicle use (including electric, hybrid, natural gas, and other alternative fuel vehicles) is on the rise in Montana and across the country. Vehicles with standard diesel or gasoline-powered engines are also manufactured to be more efficient. As the motor vehicle fleet becomes more efficient, using less gasoline and diesel per vehicle mile traveled (VMT), there will be a significant slowing in the growth, or a reduction, of revenue from traditional motor fuels taxes, decreasing Montana's ability to deal with the operational and maintenance impacts associated with increasing population and travel demand. The commercial and large vehicle sector is also moving in the direction of high efficiency motor vehicle use and alternative fuels, which will significantly impact revenues as well. In addition, GVW fees have not been adjusted for many years and this is potentially another source of lost revenue.	View Description
Benefits/Business Case/Impact:	Provide a framework by which policy makers can organize the various factors affecting motor fuel receipts over time by providing options for supplementing motor fuel receipts. Assist MDT in determining necessary future legislation and to prevent loss of revenue.	View Description
	<p>The purpose of this research is to develop a long-term forecast of motor fuel receipts that incorporates the changes that are occurring with respect to fuel consumption and to look at the Montana specific characteristics of alternative fuel and high efficiency fleet growth. The research will analyze and assess the impacts of changes in motor fuel receipts, GVW receipts, and other factors that impact MDT's funding and ability to build and maintain roads into the future.</p> <p>Specifically, the research should focus on the impact of increased rates of adoption of these higher fuel-economy vehicles, electric vehicles, and alternative fuel vehicles on anticipated motor fuel receipts from 2024 through 2050. As well as the impact of not increasing GVW fees.</p> <p>The research should be divided into parts: The research should be divided into parts: A) Selected vendor should review the current structure of the motor fuel tax and GVW fees in Montana and provide a discussion of the recent trends in motor fuel receipts and GVW</p>	

Timeliness - Time is of the essence. The proposal must be submitted (original and revised), research conducted, and deliverables submitted as detailed in the proposal and the resulting contract.



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View
Description

Objectives:

- fees. National and other similar states trends will be included.
- B) Analyze recent trends in EV adoption and alternatively fueled vehicles nationally and in Montana. Assessment will include in-state and National trends and how each contribute to fuel tax receipts.
- C) Analyze the underlying trends in fuel economy and vehicle miles traveled (VMT) that influence the overall level of motor fuel consumption Nationally and in Montana as well as other influences on motor fuel consumption.
- D) Conduct and document analyses relating to current gasoline and diesel consumption, MPG, VMT, and GVW fees at the state level.
- E) Forecast the short and long-term motor fuel tax rate receipts and GVW fees receipts for 2024 through 2050 for Montana based off existing conditions and various future scenarios.
- F) Forecast the short and long-term econometric forecast of motor fuel receipts and GVW fees for Montana versus fore-casted National receipts.
- G) Analyze the future forecasts to quantify problems, identify and evaluate scenarios, propose solutions, and recommend changes to mitigate impacts to Montana transportation funding in the short and long term through 2050.
- H) Document methodologies, logic, outcomes, and fatal flaws for multiple scenarios and all vendor proposed transportation funding solutions.
- I) Analyze potential implementation, social and economic costs associated with each proposed option including fatal flaws that the selected vendor has identified.
- J) Survey other transportation departments to determine if similar research reports have been published documenting different tax structures, proposed solutions, alternative funding mechanisms, challenges and lessons learned.
- K) Analyze and develop a cost/benefit assessment for all options or combination of options to ensure adequate transportation funding in Montana.
- L) Analyze and forecast projected decline in motor fuel receipts and GVW fee losses if no action is taken.

Tasks:

- Develop a research plan that will accomplish the project objectives.
- Tasks are broken into the following:
 - A) Evaluation of Montana's current structure of the motor fuel tax and GVW fees in Montana including historical motor fuel consumption and GVW fee collections from 2010-2022. Selected vendor should review other states transportation funding models. Selected vendor will spend minimal time replicating available data. Selected vendor will communicate with other state research teams to determine benefits/future actions that are results of the past research.
 - B) Evaluate recent trends in EV adoption and alternatively fueled vehicles nationally and in Montana. Identify and analyze potential revenue changes due to EV adoption, private investment, IJJA implementation and alternatively fueled vehicle adoption.
 - C) Evaluate the underlying trends in fuel economy and vehicle miles traveled (VMT) that influence the overall level of motor fuel consumption. Provide a framework for understanding the underlying influences on motor fuel consumption.
 - D) Conduct, analyze, and report gasoline and diesel consumption, MPG, VMT, and GVW fees at the state level.
 - E) Provide report of forecast of the motor fuel tax rate receipts and GVW fees receipts for 2024 through 2050 for Montana.
 - F) Provide report on forecasts of the short and long-term econometric forecast of motor fuel receipts and GVW fees for Montana versus forecasted National receipts.
 - G) Identify and explain all vendor proposed transportation funding alternatives.

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<p>H) Conduct a feasibility and an impact/trade-off analysis that supports recommendations for proposed changes. Create an implementation tool which would include a menu of options for state officials and lawmakers which would clearly show a gradation of benefits to Montana. Provide selection of menu options that will provide maximum benefit to Montana transportation funding and Montana citizens. Document what is needed to implement recommendations and anticipated cost recovery.</p> <p>I) Evaluate potential implementation, social, and economic costs associated with each proposed option. Provide fatal flaws that selected vendor has identified.</p> <p>J) Create, distribute, compile, and analyze best practices and lessons learned by other states who have made changes based on expected transportation funding shortfalls.</p> <p>K) Provide a report on the cost/benefit analysis that includes calculating the potential benefits to Montana transportation funding based on selected vendor recommended options.</p> <p>L) Create, compile, and analyze projected decline in motor fuel receipts and GVW fee losses in Montana if no action is taken.</p>	View Description
Acceptance:	View Description
Cooperators, Stakeholders, Partners:	View Description
<p style="margin-left: 40px;">MDT Administration MDT Planning</p> <p style="margin-left: 40px;">MDT Legal</p> <p style="margin-left: 40px;">Montana Legislators</p> <p style="margin-left: 40px;">Montana Department of Commerce</p> <p style="margin-left: 40px;">Montana Department of Environmental Equality</p>	
Communications:	View Description
<p style="margin-left: 40px;">The selected vendor will provide the expertise to evaluate options and forecasting scenarios, which will be presented to technical panel.</p> <p style="margin-left: 40px;">The selected vendor will provide initial report identifying and evaluating projected state of motor fuel receipts and GVW fees if no modifications are made.</p> <p style="margin-left: 40px;">The selected vendor will provide business plan and assessment for recommended options.</p>	
Data Requirements:	View Description
<p style="margin-left: 40px;">MDT will provide available data the selected vendor believes it needs to complete the work.</p>	
IT:	View Description
Intellectual Property:	View Description
MDT and Technical Panel Involvement:	View Description
<p style="margin-left: 40px;">Technical panel wants a economically viable strategy for transportation funding in Montana for 2024-2050.</p>	
Deliverables:	View Description
Risks:	View Description
<p style="margin-left: 40px;">There may be a low risk due to the inaccuracy of data housed by the Department of Justice Motor Vehicle Division on electric vehicles and hybrid vehicles.</p>	
Implementation:	View Description
<p style="margin-left: 40px;">Selected Offeror will include guidance for MDT to follow regarding implementation of recommended options to transportation funding in the state. Implementation steps should include identification of potential hurdles, timelines, responsible party, and resources needed. Should legislative actions be necessary to implement changes to MDT's current revenue structure, the timeline of this project should align with the timetable for the 2027 biennium executive budget development process. Drafting of legislation begins in November of 2024.</p>	
Performance Measures:	View Description

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Scope of Work Background and Description

Title: [Back](#)

The title should briefly and immediately convey to the reader what the proposed study is about. It does not have to capture every element, nuance, and expected task of the research problem. It is like the title of a book --it should attract your attention, quickly convey the subject, draw you in, and make you want to read what's inside. A good title is like a good sound bite --people will remember it.

Hint: Look at every word in your title and ask yourself if it's necessary.

Background: [Back](#)

This section sets the stage for the research. It describes the issue, and indicates why we care and why we are seeking to fund the research in the first place.

Benefits/Business Case/ Impact: [Back](#)

Address urgency, timeliness, and importance of the research. Identify if the research is required for any federal or state initiative or compliance. This section must include a description of how this research will help to meet MDT's mission (i.e., serve the public by providing a transportation system and services that emphasize quality, safety, cost effectiveness, economic vitality and/or sensitivity to the environment). It should also indicate the expected outcomes, such as cost savings, improvements in safety, user benefits, and process improvements.

Objectives: [Back](#)

Describe in very brief terms the expected product(s) of the research. The objective should be short, concise, and accurate. Don't put details in the objective related to how the study will be done unless some new or innovative research methodology is the key element of the research. The details will be in the research plan and reflected in the final product. If your objective is "to produce a new fuel-efficient vehicle," say so. Don't say that the objective is "to produce a new fuel-efficient vehicle, including the design, construction, testing, and installation of all necessary components including body, frame, power train, tires, wheels, seats, mirrors, and other appurtenances to be determined through a survey of user needs, performance measures, and financial constraints." If those things need to be done to accomplish the objective, put them in task statements.

Hint: Go back and read the advice above on titling your research statement. A very reasonable objective statement is "...to develop (insert your title).

Tasks: [Back](#)

If you have identified specific tasks that absolutely have to be part of the project work plan, include them in the SOW. However, don't let your own biases determine the research plan. Focus your attention on providing a full and accurate description of the final product(s). To the extent possible, give the proposing research team the flexibility to describe a research plan that they feel will accomplish the project objectives.

Hint: The more detail you include in the task statements, the less opportunity a researcher has to show initiative and innovation, and the more every proposal will come in looking the same. Don't be prescriptive.

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Acceptance: [Back](#)

As appropriate and only as required, establish milestones or management control points in the sequence of events where actions for review, approval, acceptance, or rejection are required.

Collaborators, Partners, and Stakeholders: [Back](#)

Identify individuals and/or organizations that need to be brought into the fold to create buy-in and acceptance of the results; review results; and/or participate in communications, decisions, and/or deployment. Specify the relationship and roles.

Communications: [Back](#)

Identify any communication needs, including technology/knowledge transfer, marketing, and training. Consider such factors as the target audience, end users, communication methods, events, responsible person/area, required approvals, and efforts needed for full implementation. Timing for communications should also be considered.

Data Requirements: [Back](#)

Identify available data that may be helpful in conducting the research. Include the limits of the data, such as fields and date ranges. Identify the format, such as Excel spreadsheet or hardcopy documents. Indicate what MDT can provide to the consultant and how.

IT: [Back](#)

Identify if the project involves software, hardware, data management, or technology devices, including maintenance, that may require coordination with ISD and/or SITSD.

Intellectual Property: [Back](#)

Describe any potential intellectual property issues.

MDT and Technical Panel Involvement: [Back](#)

As much as is known at this point, identify all MDT and consultant participation needed for the project, as well as the nature and extent of this participation. For example, MDT will provide gravel samples, traffic control, core samples to the consultant. The consultant may need to provide the time frame and required quantities. Another example may be that the consultant is required to visit MDT to review project hardcopy files or the consultant is required to provide specific equipment for use during the project.

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Deliverables: [Back](#)

It is critical to identify deliverables needed to implement the results of the research. Final reports, while required, cannot typically be implemented. Determine the products that will facilitate implementation. To achieve a significant impact, products must be well specified, well matched to the needs of the users, implemented in a deliberate and adaptive manner, and supported by a hospitable environment and learning processes.

Risks: [Back](#)

Identify risks to budget, resources, schedule, and scope. Identify potential mitigation measures, forewarning indicators, and contingencies. Determine impact and probability. Rate risks as high, medium, and low. Develop a plan to mitigate risks.

Implementation: [Back](#)

As much as is possible at this point, describe how the results will be implemented, who will implement the results, and any barriers to implementation and how these barriers might be reduce or eliminated. Define/describe successful implementation and activities necessary for successful implementation. Describe the criteria for judging the progress and consequences of implementation.

Performance Measures: [Back](#)

The research to be conducted should include both qualitative and quantitative performance measures if at all possible. Performance measures include such improvements as cost and time savings; improved process, safety, environmental considerations, efficiency, quality, and service; and user benefits. As much as possible, these benefits need to be quantified. This is an indication of the value of the research. Consideration needs to be given to the data that will need to be collected to report performance measures. The proposal must describe how performance measures will be quantified.

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