

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:** *Evaluation of Electric Vehicle Technologies and Alternative Fuels for Winter Operations*

**OBJECTIVES:** Produce a Clear Roads synthesis report that examines the issues transportation agencies may encounter before converting an existing diesel-fueled winter maintenance fleet to one powered by electric vehicle technologies (EVT) or alternative fuels for winter maintenance programs.

**PERIOD COVERED:** July 1 to September 30, 2022

**PARTICIPATING AGENCIES:** Minnesota Department of Transportation and the Clear Roads Technical Advisory Committee

**PROJECT MANAGER:**  
Hafiz Munir / Tom Peters

**LEAD AGENCY:** MnDOT

**PRINCIPAL INVESTIGATOR:**  
Katherine Vigneau, CAFM  
Director, Matrix Consulting Group

**SP&R PROJECT NO:**  
MnDOT Contract No.  
1047790

Federal Project Number:  
TPF-5(353)

**PROJECT IS:**

☐ Planning  
☒ Research & Development

**ANNUAL BUDGET:** \$74,599

**PROJECT EXPENDITURES TO DATE:** \$ 25,900

**WORK COMPLETED:**

- Task 2 - Initial Interviews & RFI Analysis. Interview Guide created and approved. 13 DOT interviews completed and documented.
- Task 3 - Fuel Management Best Practices Analysis. 13 DOT Best Practices interviews completed and documented.
- Task 4 - Historical Fuel Commodity Use Analysis. Research into historic fuel transitions is completed and draft report is completed.
- Task 5 - Alternative Fuel Use Practices Survey. Several calls for interviews have been sent out without response. Project team is reaching out to personal contacts to research and collect information.
- Task 6 - EV & AFV OEM Suppliers – The Suppliers list of potential participants and the survey questions were approved by the TAC. Reach outs to industry contacts are undergoing.

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

During the next quarter, we will complete the following:

- Task 2 – Draft Winter Roads Maintenance Fleet Profile will be submitted to the TAC.
- Task 3 – Draft Fleet Management Best Practices Report will be submitted to the TAC.
- Task 4 – Draft Historical Fuel Commodity Use Analysis Report will be submitted to the TAC.
- Task 5 - Alternative Fuel Use Practices Survey. Interviews will continue and report will be drafted.
- Task 6 - EV & AFV OEM Suppliers – Complete.
- Task 7 - OEM Interviews. OEM interviews will continue, and report will be drafted.

**STATUS AND COMPLETION DATE:**

Interim deliverable dates were adjusted to give participants time to collect and hand in data. This will not impact the final deliverable date.

Completion date – 31 Mar 2023.