



Minnesota Distance-Based Fee Demonstration Technical Advisory Committee

December 9th, 2020

Scott Peterson, MNDOT Deputy Commissioner,
TAC Chair

Agenda

1. Welcome – Scott Peterson
2. Zoom meeting guidelines – Lee Munich, HHH (5 min)
3. Agenda review and project update – Ken Buckeye, MnDOT (5 min)
4. Demonstration update – Mike Warren, WSP (15 min)
5. Review of modal equity discussion and summary of survey results, Frank Douma, HHH (10 minutes)
6. Social equity policy brief discussion – Adeel Lari, HHH (15 min)
7. Open discussion – TAC Members (15 min)
8. Adjourn

Welcome

Scott Peterson
MnDOT

Meeting Guidelines

Lee Munnich, munni001@umn.edu

Humphrey School of Public Affairs

University of Minnesota

Meeting Guidelines

- Mute your audio when you are not speaking. Unmute your audio when you are called on to speak.
- TAC members turn on your video. Project team members should mute your video except when speaking.
- Open the participant box. Use the hand raising icon if you would like to ask a question.
- You may also open the chat box and type in questions or comments at any time during the meeting. If you have a technical issue or comment, you may send a message to the host only.
- The meeting is not being recorded but the chat box comments will be saved.

Agenda Review & Project Update

Ken Buckeye, kenneth.buckeye@state.mn.us

MnDOT

Review of Modal Equity Discussion and Summary of Survey Results

Frank Douma, douma002@umn.edu

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Review of Modal Equity Discussion and Summary of Survey Results

Review of Discussion

- This was the first of several policy memos that will be presented to the TAC
 - Modal Equity
 - Social Equity (Today)
 - Administrative efficiency
 - Privacy
 - Rural / Urban
- Purpose of these discussions
 - Thought Starter – begin the discussion, articulate perspectives
 - Our Charge to the TAC was to “Provide *guidance and advice on policy* and technical issues”
 - Not seeking resolution, nor recommendations of a particular path forward

Review of Modal Equity Discussion and Summary of Survey Results

- **Review of Discussion**

- Discussed factors including vehicle weight, powertrain, shared mobility and other modes
- Presented in context of how a DBF *may* be structured

- **Follow-up Survey Results**

- Damage to roadway system suggested as most important consideration (vehicle weight)
- Followed by congestion and environmental costs
- Majority of respondents felt a DBF should incentivize EV's (i.e. fee should be higher for ICE-powered vehicles)
- Some notes about need to account for social impacts (today's discussion)

Review of Modal Equity Discussion and Summary of Survey Results

Changes in Response to TAC Comments

- Added an explicit definition of user fees: “levied directly for use of the road”
- Added an introduction explaining context:
 - One of several memos
 - Contribute to the discussion on policy considerations and their implications for the Minnesota DBF demonstration.
 - This particular document explores the costs different modes of transportation impose on the transportation system as well as the charges they pay to cover these costs.
- Removed literature on transit as it is out of scope of the current demonstration
- Clarified that "road damage" was more "damages to the roadway system" which includes pavement and bridges.

Social Equity

Adeel Lari, larix001@umn.edu
Humphrey School of Public Affairs
University of Minnesota

Definitions

- Benefits received
- Ability to pay
 - Horizontal
 - Vertical
- Equal or Equitable

- Motor Fuel Tax (Gas Tax)
- Motor Vehicle Sales Tax (MVST)
- Vehicle Registration Fee

- Wheelage Tax
- Local Option Sales Tax
- High Occupancy Travel (HOT) Lanes

- Transportation Network Companies (TNC)
- Distance-Based Fees
 - Income
 - Gender

- Tribal Nations
 - Consultation
- Equity Enhancements
 - Time of day
 - Income Credit
- Costs of Collection

Open Discussion

DBF Demonstration Evaluation

- Please fill the online survey at:
https://umn.qualtrics.com/jfe/form/SV_7ajMrHITXI4tSct
- The survey will take about 10-15 minutes to complete
- Please complete the survey by December 23rd.

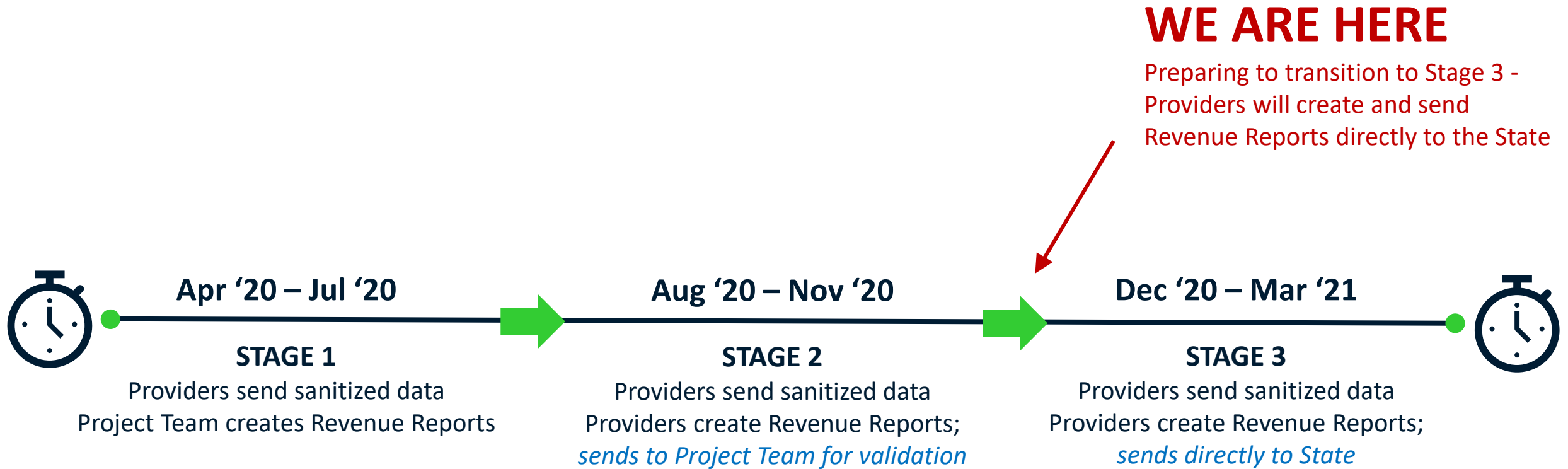
Thank you in advance for your participation! This demonstration and evaluation are a critical part of future transportation funding in Minnesota.

Demonstration Update

Michael Warren, Michael.Warren@wsp.com

WSP

Timeline & Status



By the Numbers

Total Miles Traveled	Total Fuel Gallons Purchased	Average Fuel Economy (miles per gallon)
348,452	11, 047.347	31.54

As of data reported through October 31, 2020

- 2 Shared Mobility Providers
- 61 total vehicles have participated / collected data
- 64 active vehicles as of October 31, 2020
 - *Some vehicles are not utilized every month or have been decommissioned*

By the Numbers

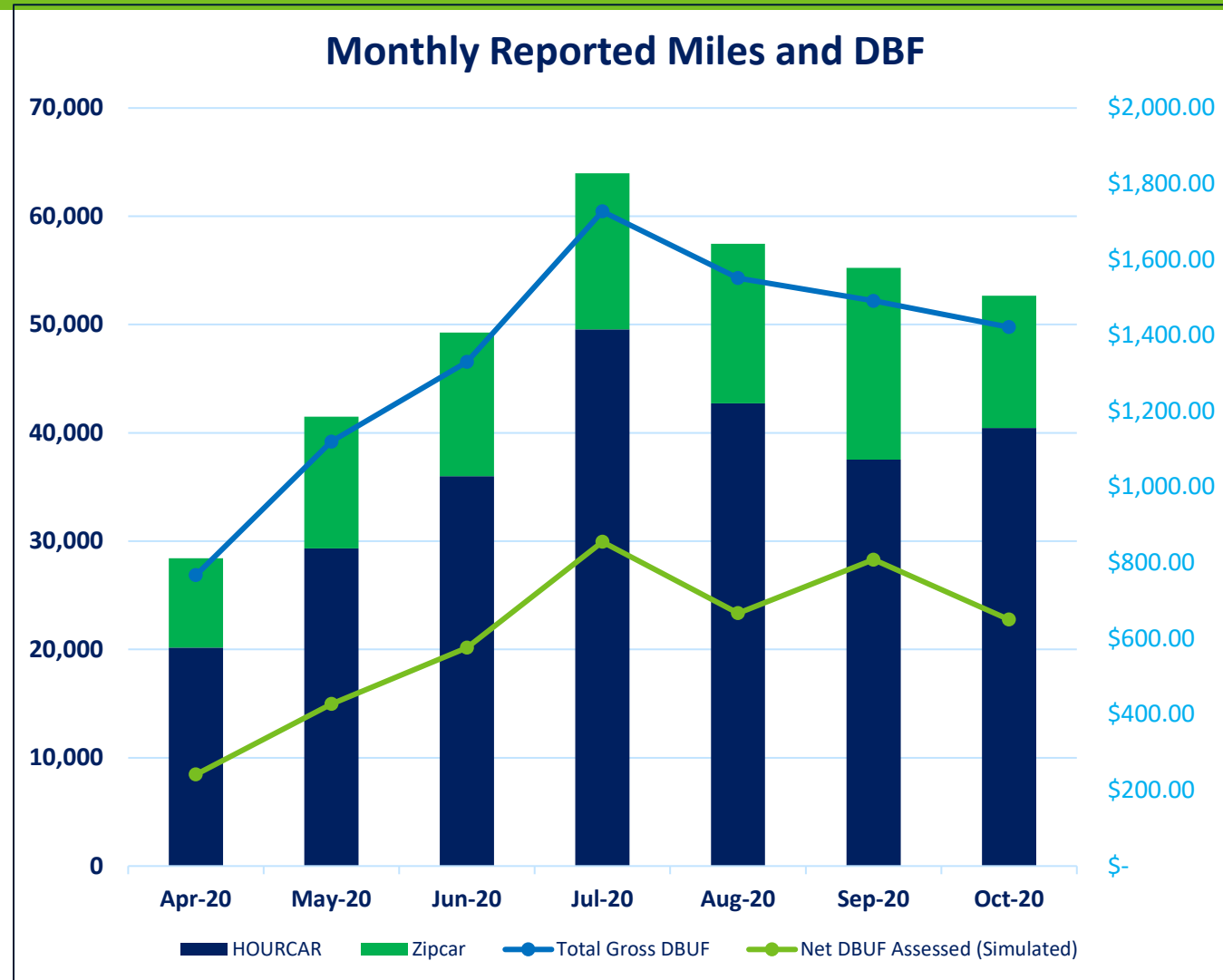
Total Gross Distance Based Fees (DBF) <i>(state and federal)</i>	Total Gross Fuels Tax Credits <i>(state and federal)</i>	Net Total DBF Assessed <i>(Simulated)</i>
\$9,408.21	\$5,181.09	\$4,227.12

As of data reported through October 31, 2020

- Project Monthly Revenue Reports (simulated) generated for April thru October 2020

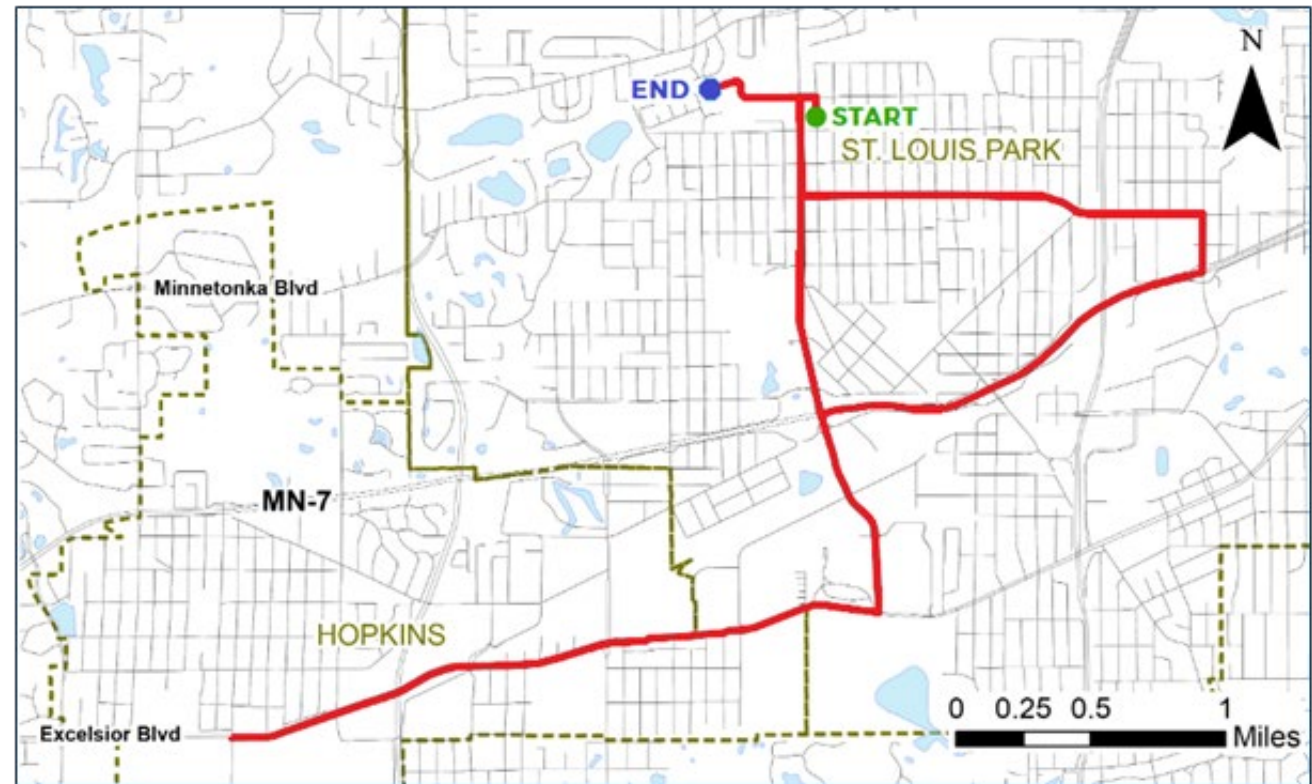
Monthly Averages

- **49,779 Reported Miles**
- **1,578.2 Gallons Purchased**
- **\$1,334.03 Gross DBF**
- **\$603.87 Net DBF (After Fuel Tax Credits)**
 - **\$346.69 State DBF**
 - **\$257.19 Federal DBF**



C/AV Testing

- VSI Labs has successfully demonstrated how to report DBF data from an automated vehicle (*Nov. 5th*)
- HOV lane and Vehicle Occupancy Test to be conducted mid-December



Rate Setting Workshop

- On Nov. 4th, a Rate Setting workshop was held with MnDOT, WSP, and the Humphrey School
- This workshop continued the development of a framework for how a DBF rate could be set
- Discussed the overarching vision, goals, and objectives for a potential DBF program
- Identified how to establish a DBF “base rate”:
- Vetted potential components that could adjust the base rate based on TAC criteria and priorities:

Base Rate Factors

Rate setting objective	Applicable rate factors
Road damage (TAC priority)	<ul style="list-style-type: none"> • Weight • Axle configuration
Environmental (identified by TAC)	<ul style="list-style-type: none"> • Powertrain • Fuel economy • Occupancy
Administrative costs (identified by TAC)	<ul style="list-style-type: none"> • Reporting type • Provision of data

Adjustment Factors

Rate setting objective	Applicable rate factors
Congestion (identified by TAC)	<ul style="list-style-type: none"> • Time-of-day • Occupancy
Quality of life	<ul style="list-style-type: none"> • Noise levels • Safety features (connected vehicles)
Ownership / Type of travel	<ul style="list-style-type: none"> • Personal use • Commercial (TNC, deliveries, other) • Industrial (mining, logging, etc.) • Agricultural / ranching
Socioeconomic considerations	<ul style="list-style-type: none"> • Household income • Availability of alternate modes • Rural / urban travel • Public / private travel
Inflation	<ul style="list-style-type: none"> • Consumer price index • Construction cost indices

Additional Demonstration Activities

Breadcrumb data:

- One of our SM Providers is collecting and transmitting “breadcrumb” data from vehicles November 2020 through March 2021 to support vehicle location measurement and auditing

MnDOT Fleet Telematics data:

- Coordinating with MnDOT Office of Maintenance to evaluate and analyze telematics data from MnDOT fleet vehicles
- Provides a large and diverse set of vehicles –cross-jurisdictional travel, diverse location and time of day travel, vehicle type, fuel economy, etc. to enhance analyses and guide recommendations
- Exploring how this data could help inform demonstration project objectives – ease of collection, opportunities to reduce evasion, and scalability

The screenshot displays the Networkfleet web application interface. At the top, there are navigation tabs: Map, **Vehicle**, Fleet, Reports, Admin, and Support. Below the navigation, there's a 'VEHICLE LIST' section with a search filter and a 'Select a Vehicle' dropdown. The main content area shows the 'Vehicle Snapshot' for vehicle ID 211065. The snapshot includes the following details:

Last Updated:	12/7/20 5:03 PM
Year Make Model:	2011 FORD F-350 SUPER DUTY
VIN:	1FDRF3GT2BEB42200
Engine Hours:	
Approx. Location:	8377 Central Ave NE Minneapolis, MN 55432-1325 US
Nearest Cross Street:	N/A
Lat/Long:	45.119218 / -93.234916
Ignition:	On
Odometer (mi):	213,667.7
Max / Avg Speed (mph):	15 / 6
Current Speed (mph):	1
Has In-Vehicle Display:	No
Driver:	

To the right of the snapshot is a map showing the vehicle's current location (marked with a green pin and ID 211065) near Highway 65 NE and Central Ave NE. Below the map is a 'Last 5 Stops: Time, Duration & Landmarks' section with a table of recent stops:

Time	Duration	Landmark
12/7/20 4:54 PM	4m	1387 85th Ave NE 55434-2391
12/7/20 4:53 PM	1m	8494 Highway 65 NE 55432-2167
12/7/20 4:19 PM	1m	Foley Blvd NW 55433
12/7/20 3:30 PM	1m	125th Ave NE 55434
12/7/20 3:20 PM	1m	Central Ave NE 55434

At the bottom right, there are buttons for 'Track Vehicle' and 'Update Location', and a 'Quick Reports' section with a dropdown menu and a 'Go' button.

- **SM Providers generate Revenue Reports November 2020 through March 2021**
- **Project Team conduct mock audits with both SM Providers early 2021**
 - Validate data accuracy and integrity
 - Simulate real-world revenue audit processes
 - Identify areas of alignment with current fuels tax audit processes; areas for improvement
- **Complete Demonstration on March 31, 2021**
- **Conduct data mining and analytics on MnDOT Fleet Data**
- **Document findings in final demonstration report**
 - Demonstration Observations and Results
 - Alignment with STSFA Grant Program Objectives
 - Opportunities and Challenges
 - Policy Considerations and Recommendations

Adjourn

Thank you for your participation!