Federal Performance Measure Target Setting

TAC Planning

April 12, 2018

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PM2 Measures

Bridge Condition

- Percent of NHS bridges* classified in good condition
- **Percent of NHS bridges* classified in poor condition**

*Expressed as percent of total deck area

Pavement Condition

- Percent of Interstate system pavement in good condition
- **Percent of Interstate pavement in poor condition**
- Percent of non-Interstate NHS pavement in good condition
- Percent of non-Interstate NHS pavement in poor condition

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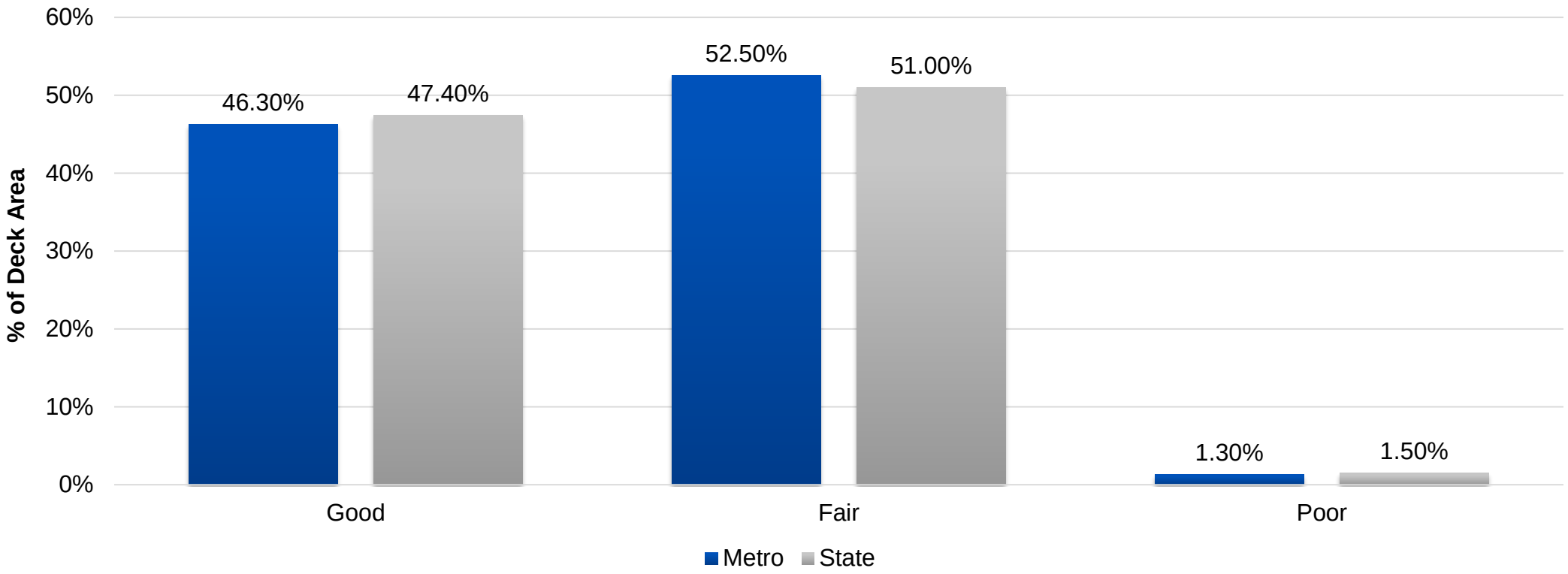
PM2 – Minimum Conditions and Potential Penalties

- Bridge: maintain NHS bridges at less than 10% of deck area as structurally deficient

- If above 10% for 3 consecutive years:
  - Penalty provision would take affect
  - Would amount to 50% of state's FY09 Highway Bridge Program **apportionment** is set aside and **obligated** to the Highway Bridge Program
  - Provision would remain in effect until structural deficiency is less than 10%

Bridge Condition as of March 2018



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PM2 Bridge Condition: Proposed State Targets

Time Frame/Condition	NHS Bridges
Two-year - Percent Good	50%
Two-year - Percent Poor	**4%**
Four-year - Percent Good	50%
Four-year - Percent Poor	**4%**

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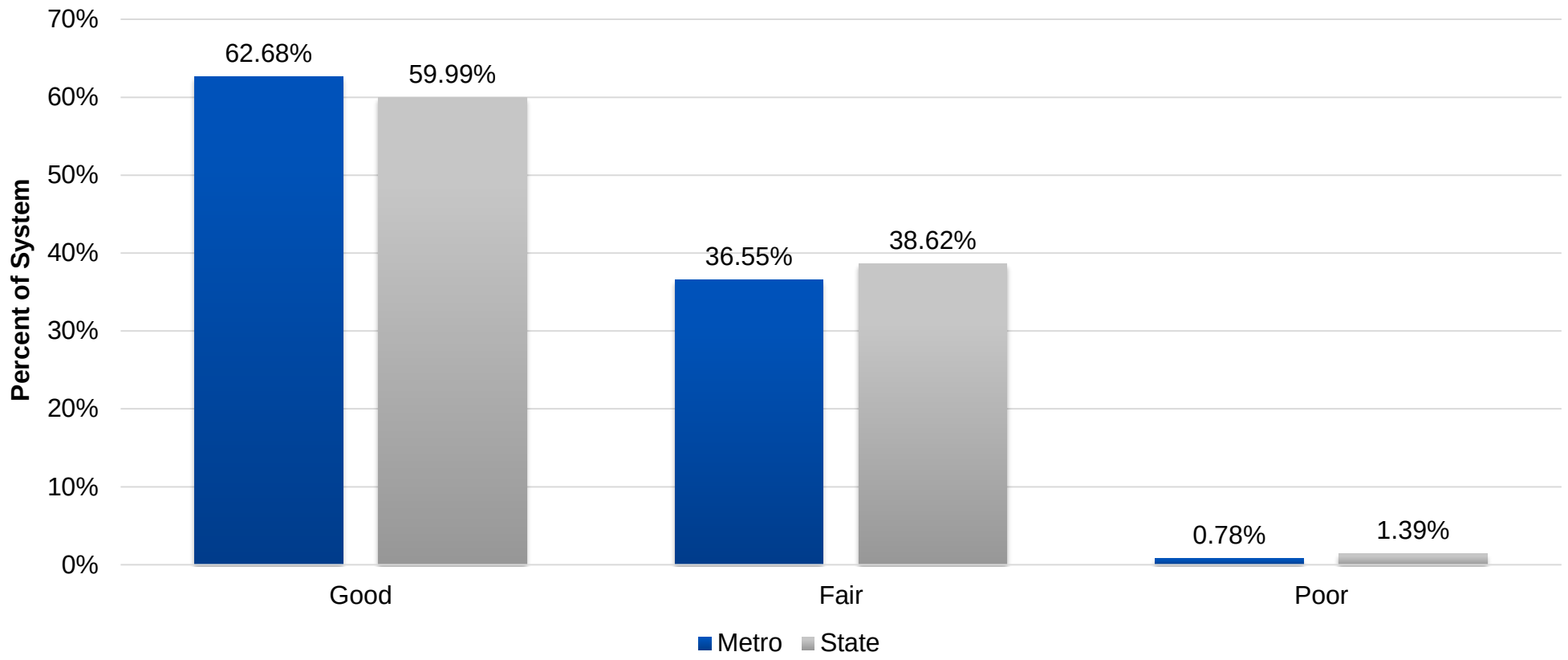
PM2 – Minimum Conditions and Potential Penalties

- Pavement: pavement on Interstate system must remain less than 5% poor

- If the State's Interstate pavement condition exceeds 5% for the most recent year, MnDOT would be required to obligate a portion of the National Highway Performance Program and transfer a portion of Surface Transportation Program funds to address Interstate pavement condition

Interstate System 2017 Pavement Condition



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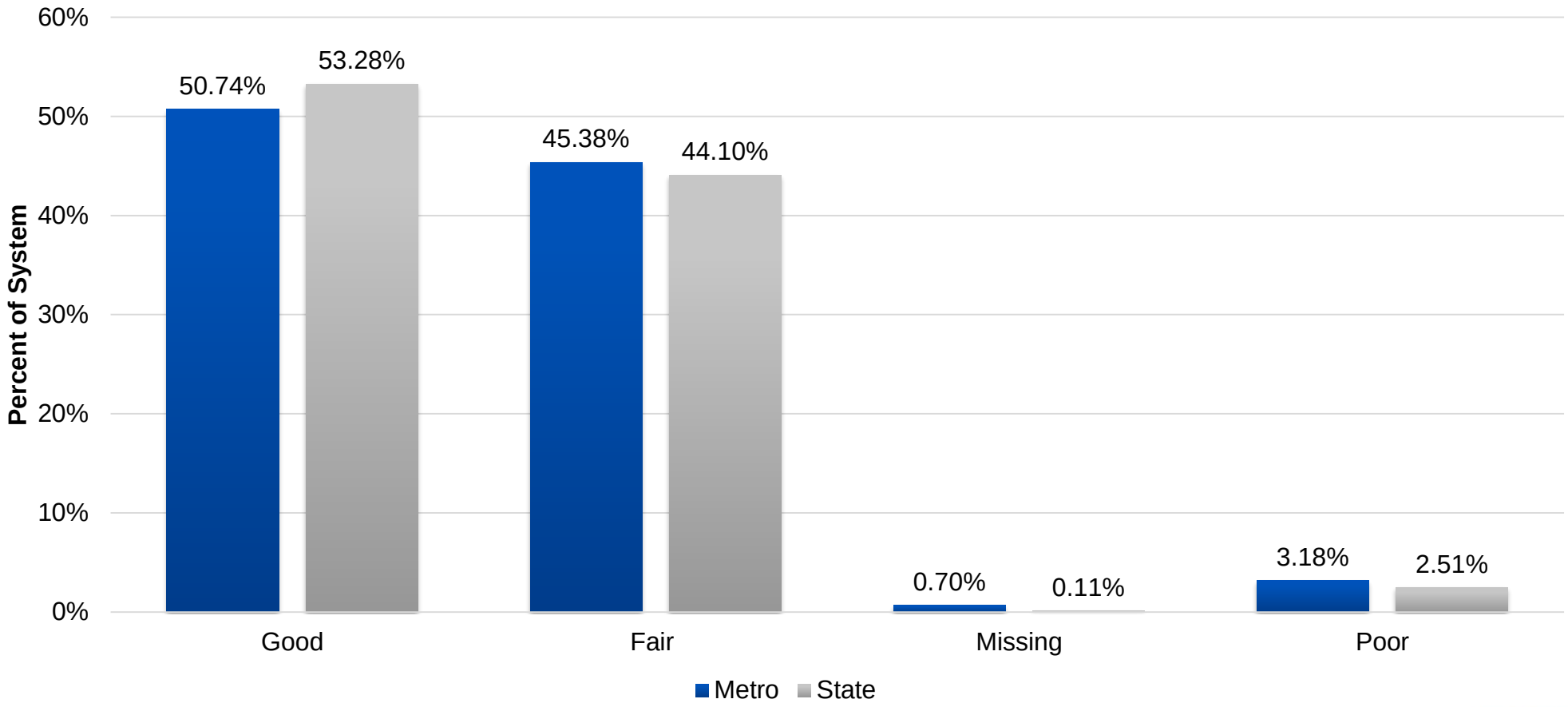
Non-Interstate NHS 2017 Pavement Condition



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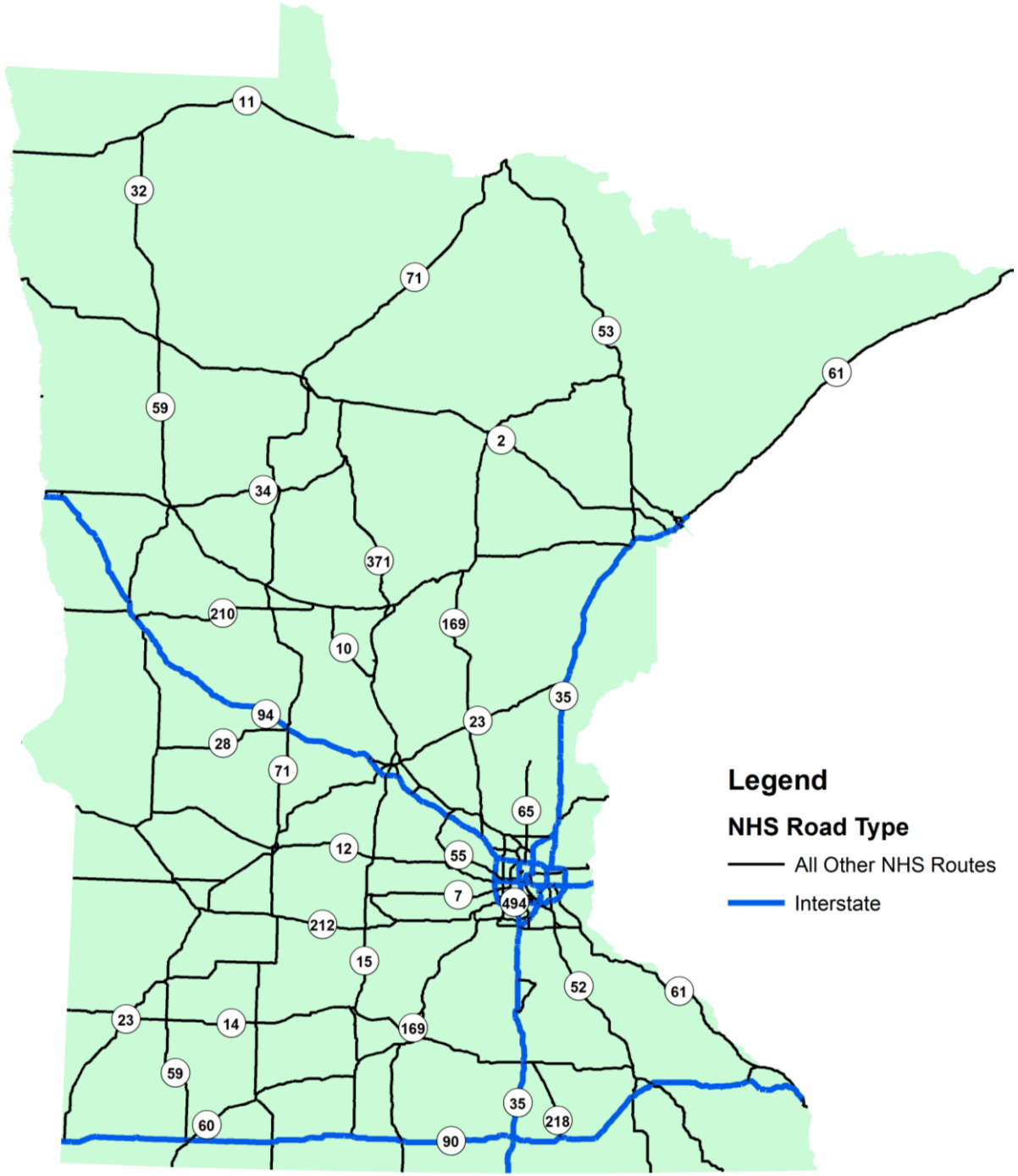
NHS Roadways in the State of Minnesota



PM2 Pavement Condition: Proposed State Targets

Time Frame/Condition	Interstate	Non-Interstate NHS
Two-year - Percent Good	55%	50%
Two-year - Percent Poor	**2%**	4%
Four-year - Percent Good	55%	50%
Four-year - Percent Poor	**2%**	4%

PM3 Measures (non-CMAQ)

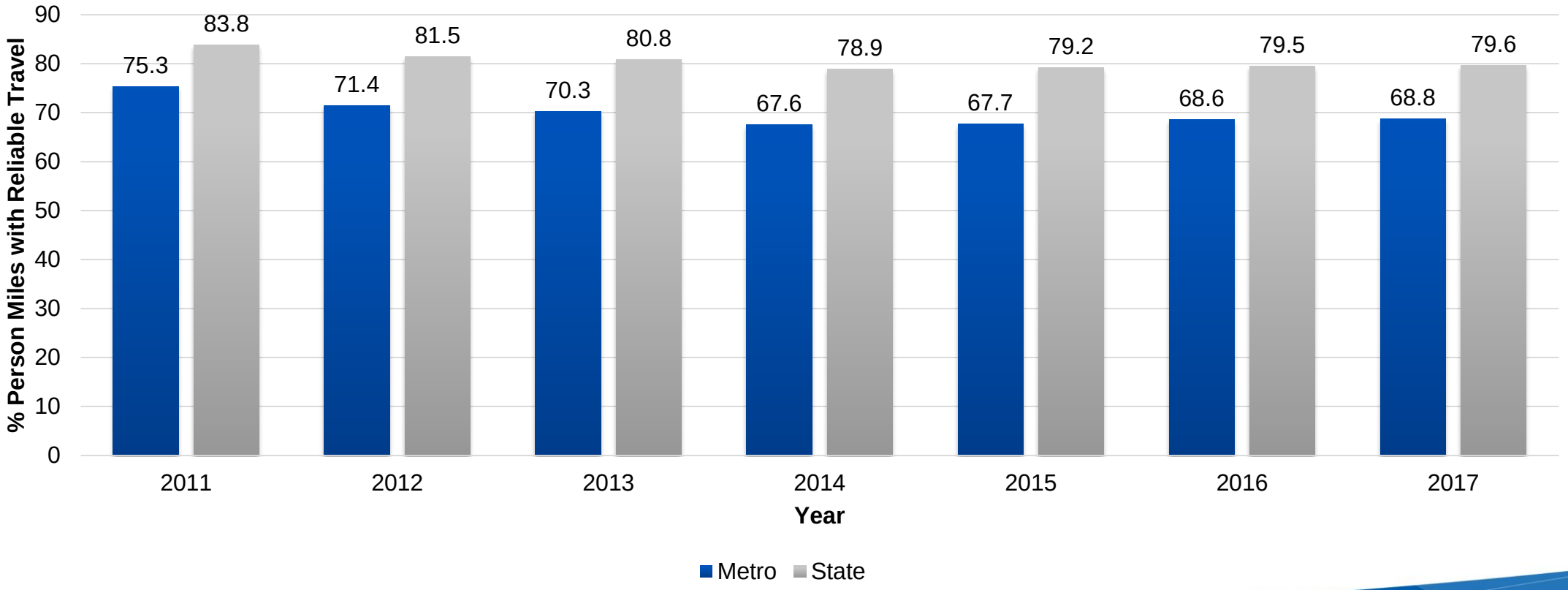
NHS travel time reliability

- Percent of person-miles traveled on the Interstate that are reliable (Interstate Travel Time Reliability Measure)
- Percent of person-miles traveled on the non-Interstate NHS that are reliable (Non-Interstate Travel Time Reliability Measure)
- Defined as the ratio of longer travel times (80th percentile) to normal travel times (50th percentile) between 6 a.m. and 8 p.m.

Interstate freight reliability

- Truck travel time reliability on the Interstate System (Average Truck Reliability Index)
- Generated by dividing 95th percentile time by 50th percentile time in 5 different time periods
- Expressed as a ratio: lower = more reliable

Interstate Travel Time Reliability



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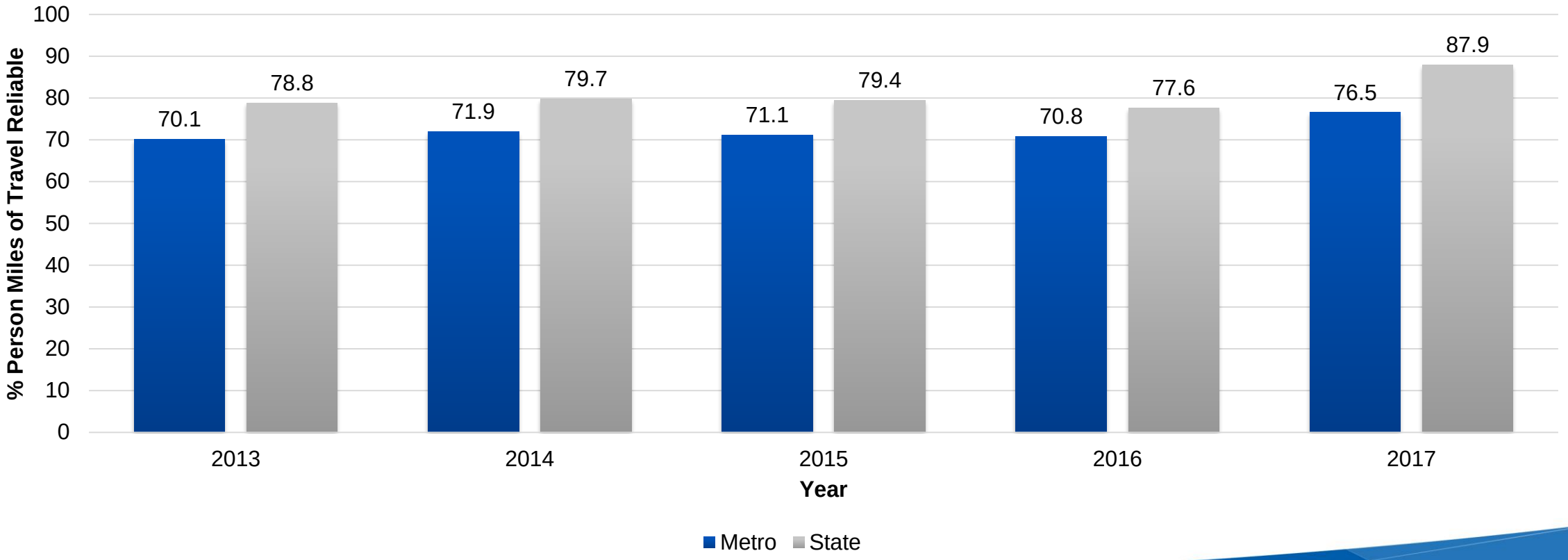
Non-Interstate NHS Travel Time Reliability



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PM3 Travel Time Reliability: Proposed Statewide Targets

System	Two-Year	Four-Year
Interstate Reliability	**80%**	**80%**
Non-Interstate NHS Reliability	N/A	75%

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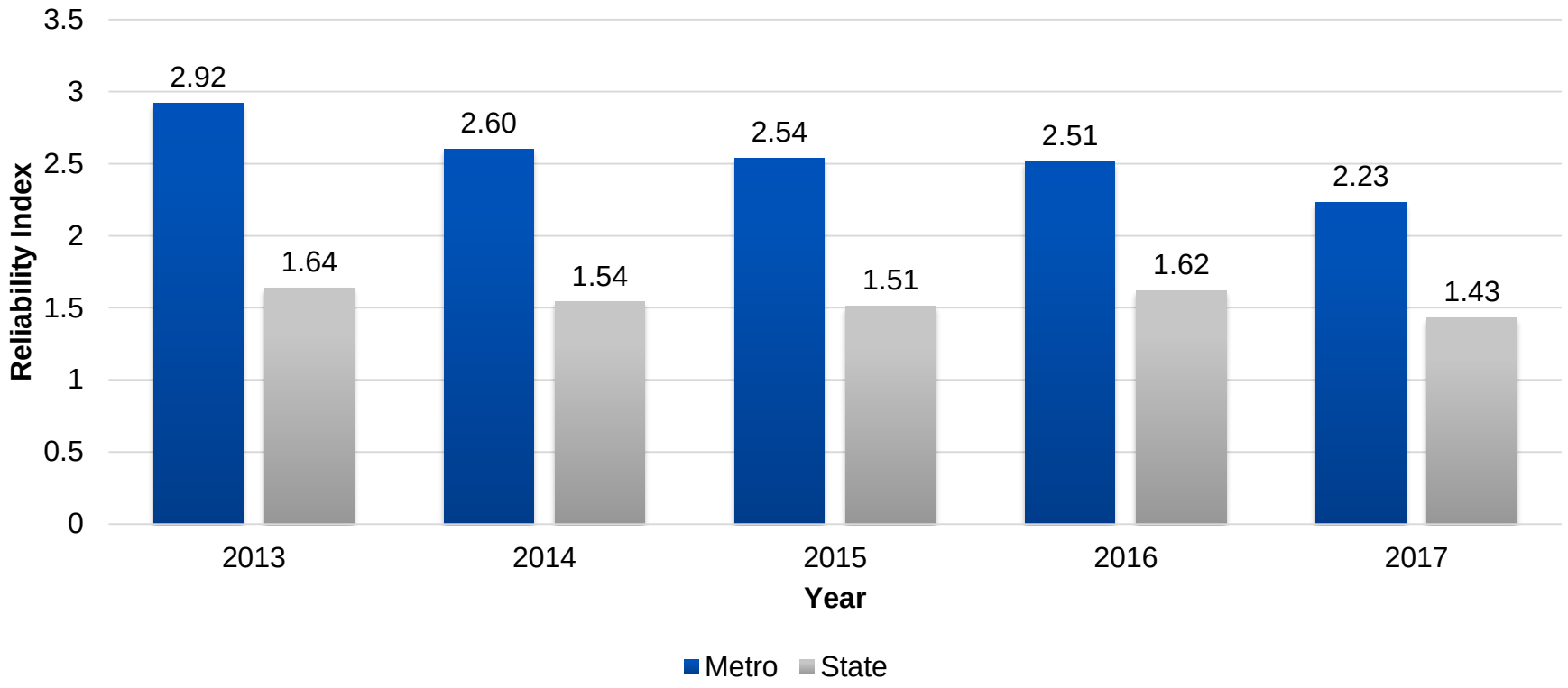
Freight Reliability Trends



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PM3 Freight Reliability: Proposed Statewide Targets

Time Frame	Proposed Target
Two-year	**1.5 TTTR**
Four-year	**1.5 TTTR**

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PM3 CMAQ Measures: Only Applicable to Metro area

Peak Hour Excessive Delay

- Measured as the **annual hours of delay per capita**
- Excessive delay is defined as travel at less than 20 MPH or less than 60% of posted speed during peak hours
- Includes entire NHS
- Peak hours: 6:00 – 10:00 a.m. and 3:00 – 7:00 p.m.

Non-Single Occupancy Vehicle

- Percent of travel in the urbanized area by non-SOV modes
- Includes any mode of travel other than driving alone in an automobile

On-Road Mobile Source Emissions Reduction

- Sum of emissions reductions of pollutants for all projects funded with CMAQ funds
- Measured in kg/day
- Target is CO kg/day reduction
- Based on estimated reduction in emissions from CMAQ projects

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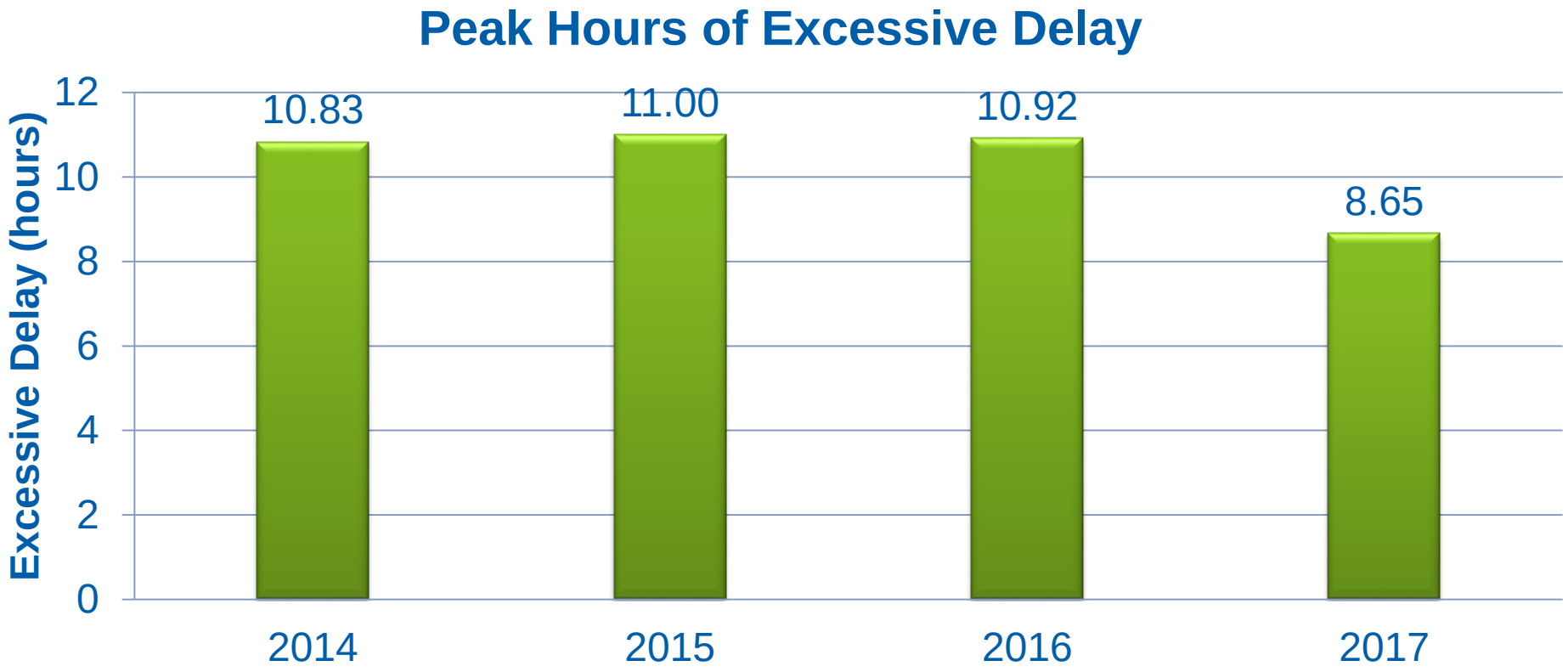
Peak Hour Excessive Delay Trends



Note: the substantial drop in 2017 is due to a change in data providers and is not indicative of a significant decrease in PHED . It is anticipated that future years will be follow the same trajectory as 2017.

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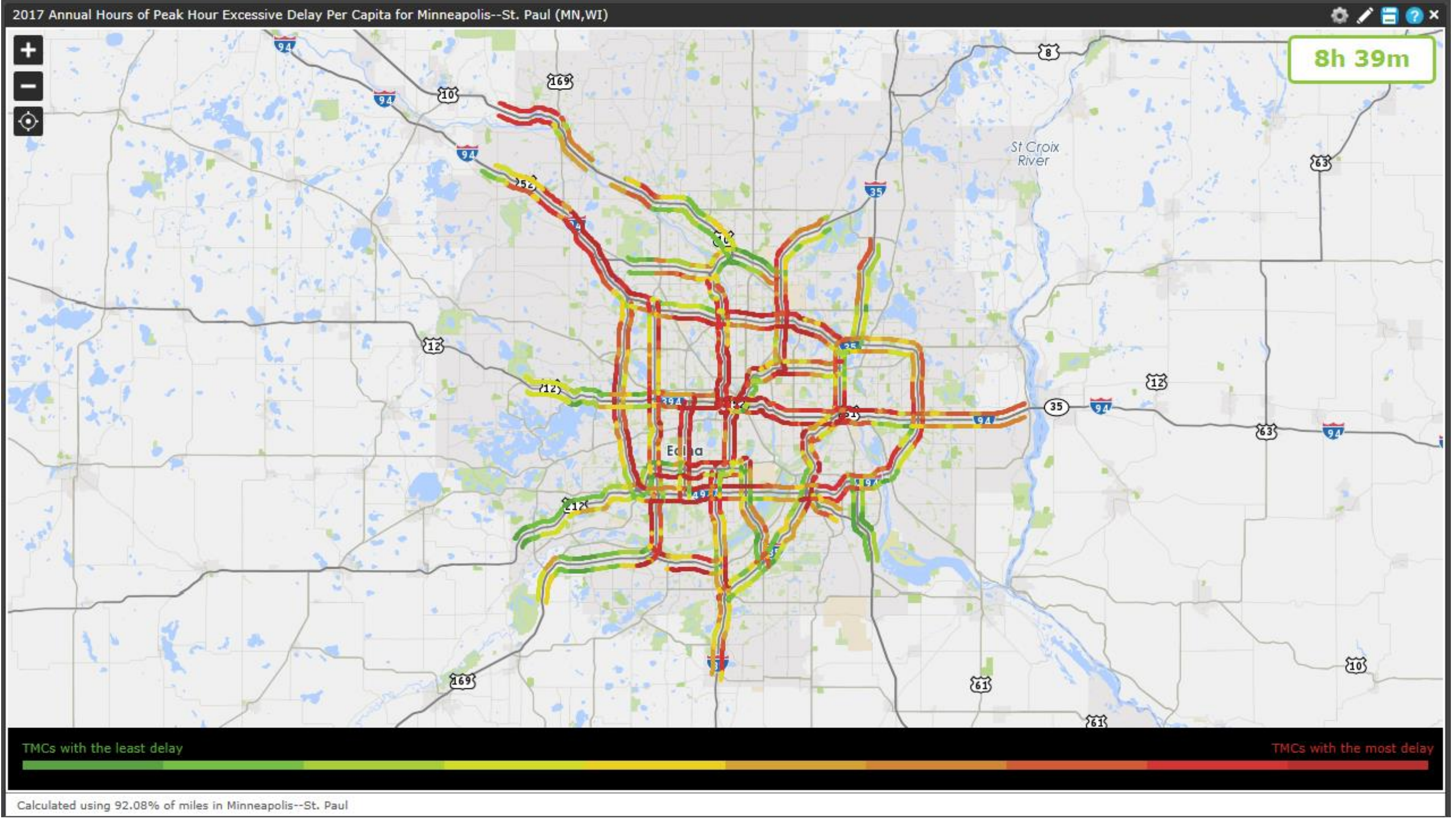
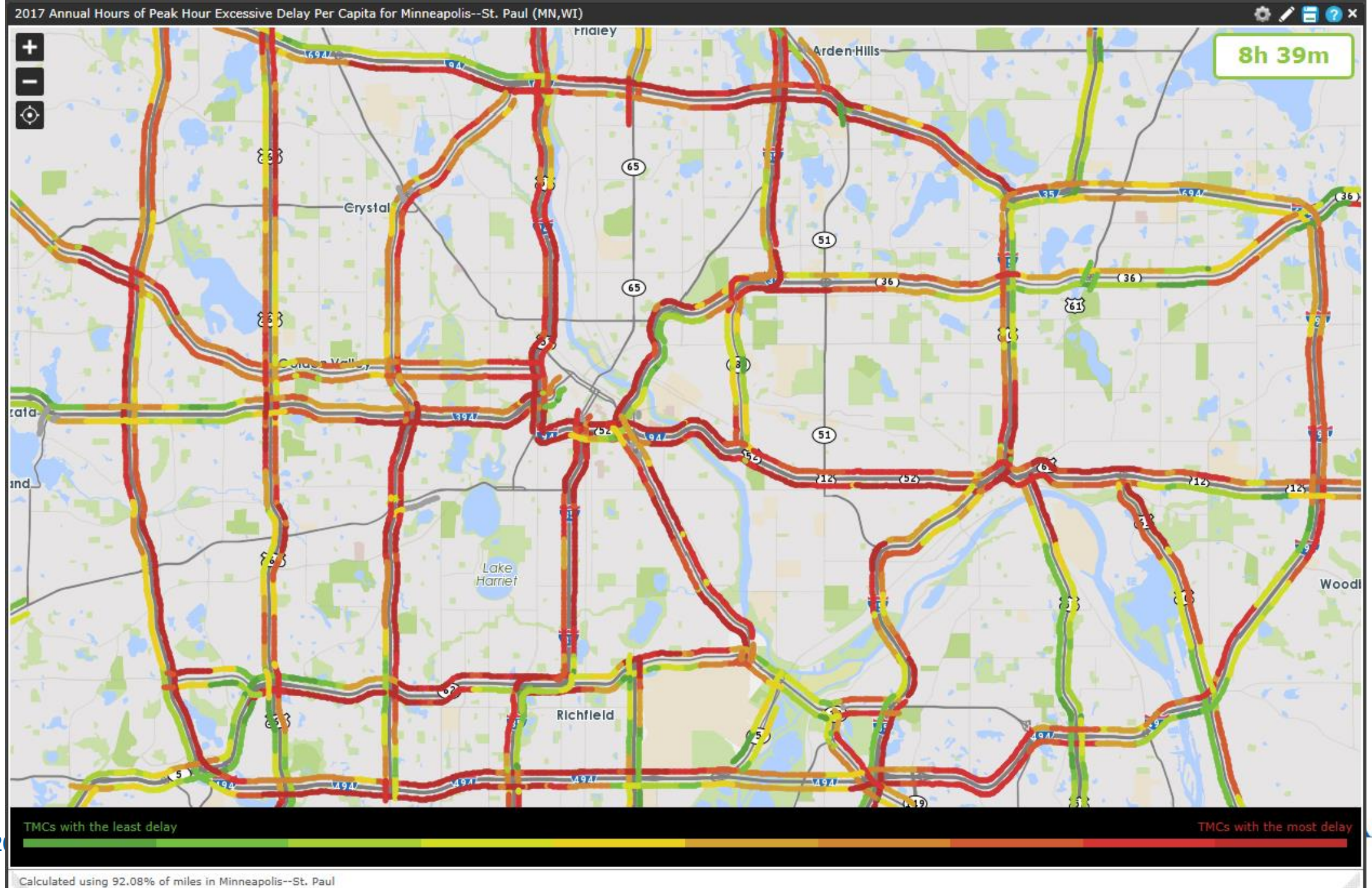

2017 Annual Hours of Peak Hour Excessive Delay Per Capita for Minneapolis--St. Paul (MN,WI)
8h 39m
St Croix River
TMCs with the least delay
TMCs with the most delay
Calculated using 92.08% of miles in Minneapolis--St. Paul


2017 Annual Hours of Peak Hour Excessive Delay Per Capita for Minneapolis--St. Paul (MN,WI)
8h 39m
Arden Hills
Crystal
Richfield
Lake Harriet
TMCs with the least delay
TMCs with the most delay
Calculated using 92.08% of miles in Minneapolis--St. Paul

Peak-Hour Excessive Delay: Proposed Targets

Time Frame	PHED Target
Two-year	**8.5** annual hours of excessive delay per capita
Four-year	**8.5** annual hours of excessive delay per capita

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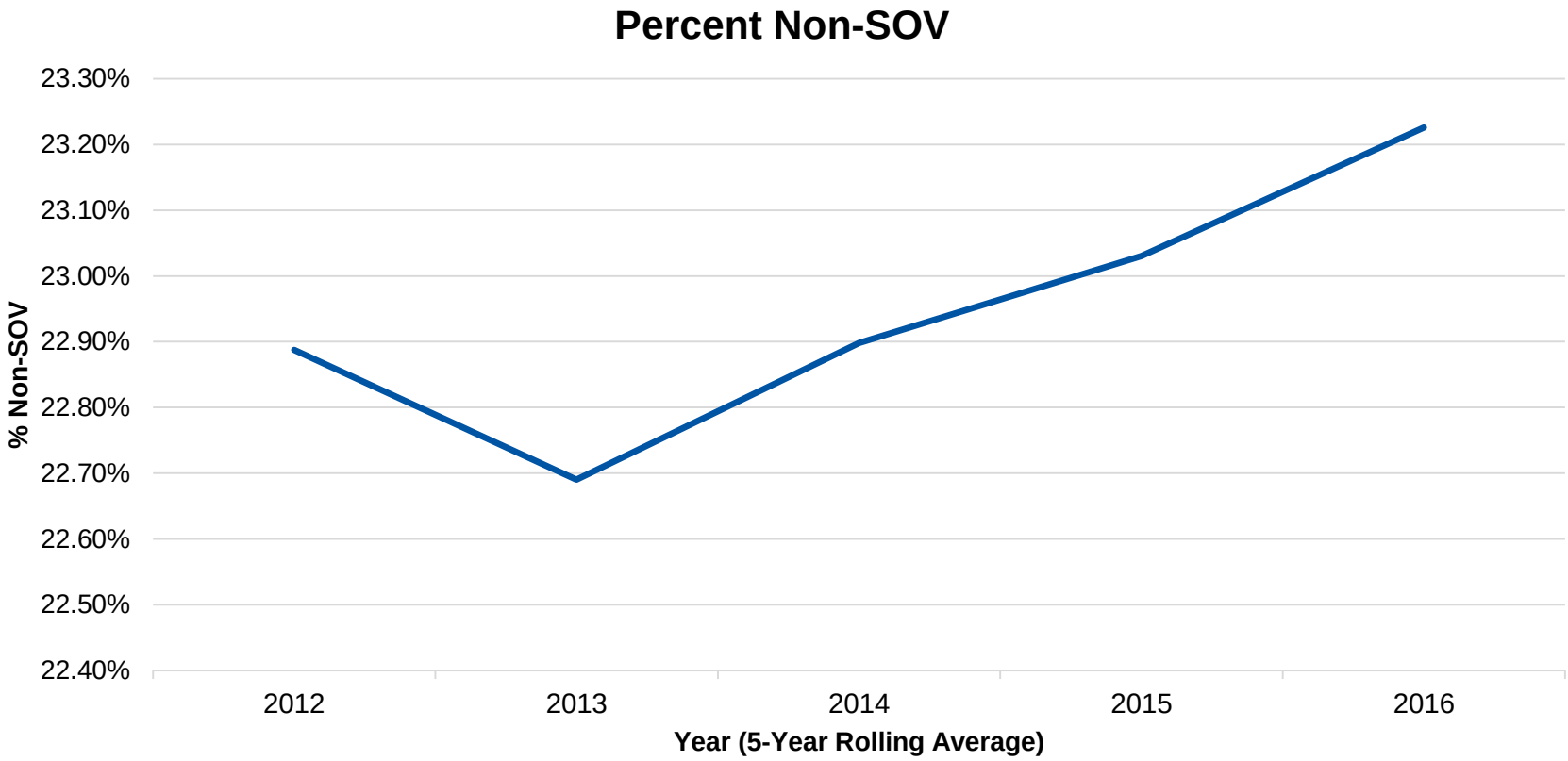
Non-SOV Trends



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Non-SOV: Proposed Targets

Time Frame	Proposed Target
Two-year	**25% Non-SOV**
Four-year	**25% Non-SOV**

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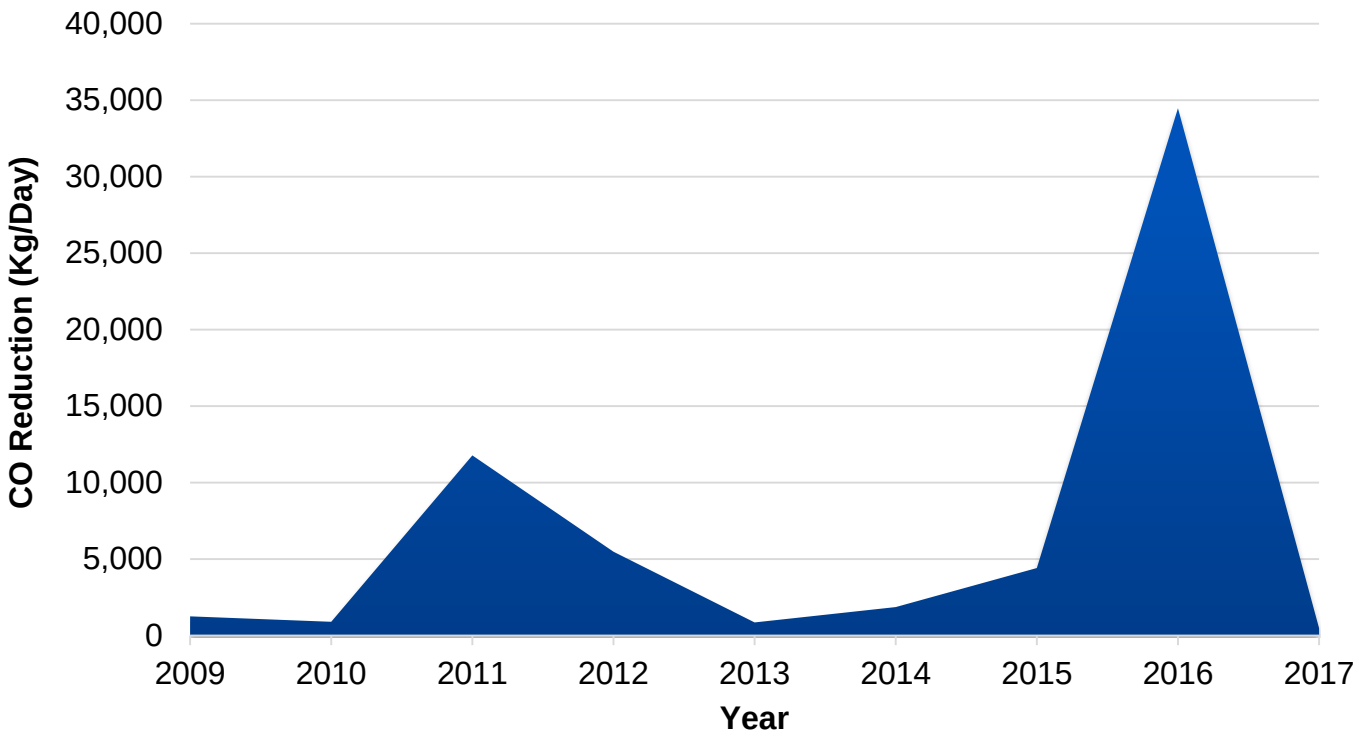
On-Road Mobile Source Emissions Reduction



YEAR	CO (kg/day)
2017	473.62
2016	34,482.80
2015	4,419.54
2014	1,860.23
2013	846.91
2012	5,484.50
2011	11,777.40
2010	897.70
2009	1,255.58
Average	**6,833.14**
Average minus Outlier	3,376.94

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On-Road Mobile Source Emission Reduction: Proposed Targets

Time Frame	Proposed Target
Two-year	**6,833.14 CO (kg/day) annual reduction**
Four-year	**6,833.14 CO (kg/day) annual reduction**

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David Burns
Senior Highway Planner – MTS
651-602-1887
David.Burns@metc.state.mn.us