## APPENDIX F IDOT PERFORMANCE MEASURES REPORT March 29, 2019

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#### 1.0 INTRODUCTION

#### 1.1 Purpose of Report

The Moving Ahead for Progress in the 21st Century Act (MAP-21)<sup>1</sup>, enacted in 2012, and the subsequent *Fixing America's Surface Transportation Act* (FAST Act)<sup>2</sup>, enacted in 2015, required state Department of Transportations (DOTs) to establish and use a performance based approach in planning and programming to provide in the transportation planning process and funding transportation investments. The performance based approach must be used to support the seven national goal areas established in MAP-21. The seven national goal areas are: Safety, Infrastructure Condition, Congestion Reduction, System Reliability, Freight Movement and Economic Vitality, Environmental Sustainability, Reduced Project Delivery Delays.

The Illinois Department of Transportation (IDOT) Long Range Transportation Plan (LRTP) plays a fundamental role in system performance. The LRTP looks to the bigger picture while comprehensively considering the scope and impacts of the transportation system. The LRTP provides regular reviews of IDOT policy and projects to ensure optimal system performance. Through the LRTP, IDOT identifies goals and objectives, establishes meaningful strategies and supporting performance measures, and details implementation actions in achieving each goal's objective. As depicted in Table 1, the five IDOT LRTP goals align with the MAP-21 national goals and provide clear performance-based direction to support the effective movement of people and goods. This report indicates how IDOT's LRTP is supporting the achievement of the national goals and Illinois' targets.

<sup>&</sup>lt;sup>1</sup> https://www.fhwa.dot.gov/map21/legislation.cfm

<sup>&</sup>lt;sup>2</sup> https://www.fhwa.dot.gov/fastact/legislation.cfm

## Table 1: Comparison of LRTP Goals to MAP-21 National Goals

|                        |                     |                     | LRTP GOALS        |                     |                     |  |  |  |  |  |
|------------------------|---------------------|---------------------|-------------------|---------------------|---------------------|--|--|--|--|--|
|                        | ECONOMY:            | LIVABILITY:         | MOBILITY:         | RESILIENCY:         | STEWARDSHIP:        |  |  |  |  |  |
|                        | Improve Illinois'   | Enhance the         | Support all modes | Proactively assess, | Safeguard existing  |  |  |  |  |  |
|                        | economy by          | quality of life     | of transportation | plan and invest in  | funding and         |  |  |  |  |  |
|                        | providing           | across the state by | to improve        | the state s         | Increase revenues   |  |  |  |  |  |
| ΜΑΡ-21 ΝΑΤΙΟΝΑΙ        | transportation      | ensuring that       | accessibility and | transportation      | to support system   |  |  |  |  |  |
|                        | infrastructure that | transportation      | safety by         | system to ensure    | maintenance,        |  |  |  |  |  |
| GOALS                  | supports the        | investments         | improving         | that our            | modernization,      |  |  |  |  |  |
|                        | efficient           | advance local       | connections       | infrastructure is   | and strategic       |  |  |  |  |  |
|                        | movement of         | goals, provide      | between all       | prepared to         | growth of Illinois' |  |  |  |  |  |
|                        | people and goods.   | multimodal          | modes of          | sustain and         | transportation      |  |  |  |  |  |
|                        |                     | options, and        | transportation.   | recover from        | system.             |  |  |  |  |  |
|                        |                     | preserve the        |                   | extreme events      |                     |  |  |  |  |  |
|                        |                     | environment.        |                   | and other           |                     |  |  |  |  |  |
| SAFETY: To achieve a   |                     |                     |                   | disruptions.        |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     | $\checkmark$        | $\checkmark$      | $\checkmark$        | $\checkmark$        |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     | _                 | _                   |                     |  |  |  |  |  |
|                        |                     |                     | V                 | V                   | V                   |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     | V                   | V                 | V                   | V                   |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
| (NHS).                 |                     |                     |                   |                     |                     |  |  |  |  |  |
| SYSTEM RELIABILITY: To |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     | $\checkmark$        | $\checkmark$      | $\checkmark$        | $\checkmark$        |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
| system.                |                     |                     |                   |                     |                     |  |  |  |  |  |
| FREIGHT MOVEMENT AND   |                     |                     |                   |                     |                     |  |  |  |  |  |
| ECONOMIC VITALITY: To  |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        | V                   |                     | V                 |                     | V                   |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
| economic development.  |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     | $\checkmark$        | $\checkmark$      | $\checkmark$        | $\checkmark$        |  |  |  |  |  |
|                        |                     |                     |                   |                     | -                   |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
| natural environment.   |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     | V                   |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        |                     |                     |                   |                     |                     |  |  |  |  |  |
|                        | 1                   |                     | 1                 | 1                   |                     |  |  |  |  |  |

## 1.2 Report Organization

This document details the federally required (MAP-21/FAST Act) performance measures for a State DOT, organized around the aforementioned national goals. Each category is discussed in terms of answering the following questions:

- What does this performance measure include?
  - Includes the performance measures that comprise the category, and general background of the category.
- Why is this important?
  - Includes a discussion of the penalty of not making substantial progress of the established targets, if applicable.
- What is the timeline?
  - Provides detailed pre-defined dates for submittal of performance targets to Federal Highway Administration/Federal Transit Administration (FHWA/FTA).
- What are the targets? How are they measured? How is IDOT doing?
  - Presents tables depicting the existing conditions against the planning baseline, targets, and identification if the target has been met, where applicable. The baseline data for each performance measure will vary, but information closest to the Fiscal Year (FY) 2018 was used, where possible.
- What Goals and Objectives are included in the Long Range Transportation Plan to move Illinois toward achieving these targets?
  - Summarizes anticipated implementation actions, as outlined in the LRTP, IDOT and its partners will implement in the years following the identification of the targets. The origin of each implementation action is noted, and follows how it is depicted in the LRTP: Goal/Objective/Recommended Actions or Strategies (i.e. Economy/1/1.1).

### 2.0 FEDERAL PERFORMANCE MEASURES

## 2.2 Safety (PM1)

What does this performance measure include? According to FHWA, "the Safety Performance Management Final Rule supports the Highway Safety Improvement Program (HSIP), as it establishes safety performance measure requirements for the purpose of carrying out the HSIP and to assess fatalities and serious injuries on all public roads. The Safety Performance Management Final Rule, known as "PM1", establishes five performance measures, as follows:

- 1. Number of Fatalities
- 2. Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT)
- 3. Number of Serious Injuries
- 4. Rate of Serious Injuries per 100 million VMT
- 5. Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries"<sup>4</sup>

Over the past decade, Illinois has experienced a general improvement in highway safety. The trend has been a decrease in fatalities and serious injuries, even though individual years have varied for each of the aforementioned measures. Targets for the performance measures pertaining to safety (PM1) are depicted as a rolling 5-year average to mitigate for atypical years, and are applicable to all public roads regardless of functional classification or jurisdiction.

**Why is this important?** IDOT is determined to have met, or made significant progress toward meeting its targets, when targets are met or the outcome is better than the baseline. If IDOT has not met, or made significant progress toward meeting, its safety performance targets for the next fiscal year, the federal guidance has a suggested approach. IDOT must use obligation authority, equal to the HSIP apportionment for the FY prior to the year for which the targets were not met, or significant progress was not made. IDOT will also be required to submit an HSIP Implementation Plan to FHWA that will describe the specific actions or components taken to meet its targets.

#### What is the timeline?

- IDOT first established targets in the August 2017 and again in the August 2018 HSIP Report.
- Annually, IDOT must adopt targets for each safety measure by August 31.
- State Metropolitan Planning Organizations (MPOs) establish targets within 180 days after IDOT.

| What are the targets? How are they measured? How is IDOT doing?         |   |                       |                             |                     |             |           |  |  |  |  |
|---|---|-----------------------|-----------------------------|---------------------|-------------|-----------|--|--|--|--|
| Performance   | Metric/   | Five Yea              | ar Rolling A                | Target              | Better than |           |  |  |  |  |
| Measure   | Methodology   | Baseline<br>2013-2017 | 2018<br>Target <sup>1</sup> | Actual<br>2014-2018 | Achieved    | baseline? |  |  |  |  |
| Number of<br>Fatalities   | Uses traffic fatality data collected<br>through the national Fatality Analysis<br>Reporting System (FARS). The<br>information is not considered final<br>until approximately June of each year<br>as data is reported late or needs<br>verification.umber of<br>on-<br>lotorized<br>atalities and<br>erious<br>juriesNon-motorized refers to pedestrians<br>and pedalcyclists. Serious injuries<br> |                       | 997.4                       | TBD                 | TBD         | TBD       |  |  |  |  |
| Number of<br>Non-<br>Motorized<br>Fatalities and<br>Serious<br>Injuries |   |                       | 1,460.9                     | TBD                 | TBD         | TBD       |  |  |  |  |
| Number of<br>Serious<br>Injuries  |   |                       | 11,966.7                    | TBD                 | TBD         | TBD       |  |  |  |  |
| Rate of<br>Fatalities per<br>100 million<br>VMT                         |   |                       | 0.94                        | TBD                 | TBD         | TBD       |  |  |  |  |
| Rate of<br>Serious<br>Injuries per<br>100 million<br>VMT                |   |                       | 11.27                       | TBD                 | TBD         | TBD       |  |  |  |  |

<sup>1</sup> 2% Reduction Annually as Compared to 2013-2017 Baseline. Number of Fatalities, Rate of Fatalities, and Number of Serious Injuries targets must be identical to the targets established for the NHTSA Highway Safety Grants program in the HSP.

- Support new technologies that provide improved operational efficiencies and travel/route planning and safety. (Economy/4/4.5)
- Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation. (Mobility/Goal)
- Evaluate existing and proposed innovative intelligent transportation systems (ITS) technology to improve safety. (Mobility/1/1.5)
- Increase route efficiency and safety for all users by improving infrastructure condition and addressing capacity issues. (Mobility/3)
- Incorporate safety design elements in all new roadway plans and ensure design policies support freight-friendly design elements in roadway plans. (Mobility/3/3.4)
- Promote safety through awareness programs and alerts regarding areas experiencing high crash rates. (Mobility/3/3.5)
- Promote rail and highway safety by identifying and improving hazardous highway at-grade crossings (Mobility/3/3.6)
- Support new technologies that provide improved operational efficiencies and travel/route planning and safety. (Mobility/4/4.3)Improve safety on the Illinois transportation system by reducing the number of injuries/fatalities attributable to extreme events. (Resiliency/1)
- Engage in close coordination with operations stakeholders to reduce injuries and fatalities from extreme events. (Resiliency/1/1.1).

## 2.3 Pavement and Bridges (PM2)

What does this performance measure include? IDOT is responsible for more than 15,918 lane-miles of roadway and 7,835 bridges across the State.<sup>5</sup> IDOT, in coordination with the state's MPOs, will set targets (regardless of jurisdiction) for these assets for the following performance measures, known as "PM2":

- 1. Percentage of pavements<sup>6</sup> of the Interstate System in Good condition
- 2. Percentage of pavements of the Interstate System in Poor condition
- 3. Percentage of pavements of the non-Interstate National Highway System (NHS) in Good condition
- 4. Percentage of pavements of the non-Interstate NHS in Poor condition
- 5. Percentage of NHS bridges<sup>7</sup> classified as in Good condition
- 6. Percentage of NHS bridges classified as in Poor condition

The Condition Rating Survey (CRS) method is used for rating pavement condition in Illinois, and is based on pavement distress, such as International Roughness Index (IRI), rutting, cracking, and deterioration. The CRS is a numerical rating that ranges from 0 to 9, with ratings 7.6 and higher classified as "excellent" condition. The following are FHWA's pavement performance metric thresholds. <sup>8</sup> An overall rating of Good, Fair, or Poor is based on a review of each metric's rating.

| Rating  | Good   | Fair   | Poor                 |
|---|--------|--|----------------------|
| International Roughness Index (IRI) [inches/mile]                                     | < 95   | 95-170                                       | > 170                |
| Present Serviceability Rating (PSR) [only for routes with posted speed limit <40 mph] | ≥ 4.0  | 2.0-4.0                                      | ≤ 2.0                |
| Cracking (%)  | < 5    | CRCP: 5-10<br>Jointed: 5-15<br>Asphalt: 5-20 | > 10<br>> 15<br>> 20 |
| Rutting (inches)*   | < 0.20 | 0.20-0.40                                    | >0.40                |
| Faulting (inches)   | < 0.10 | 0.10-0.15                                    | >0.15                |

\*Prior to 2017, the cracking percent was not calculated using the same automated tools used for IRI, Rutting, and Faulting; FHWA Final Rules amended wheel path width used to calculate cracking percent. Therefore, a comparison of cracking percentages from prior years with the current year is not comparing similar data and impacts the ability to model a trend.

IDOT performs bi-yearly safety inspections and condition assessments of bridges. This is the designated frequency in National Bridge Inspection Standards (NBIS). Through these inspections, condition rating data is collected for the deck, super structure, and substructure and an overall rating of Good, Fair, or Poor condition is assigned each bridge metric per calendar year. The following are FHWA's bridge metric condition thresholds.<sup>9</sup> An overall rating of Good, Fair, or Poor for each bridge is based on the review of each metric's rating. The overall performance measures are based on percentage of deck square footage in each category.

| NBI Rating Scale         | Good (9-7) | Fair (6-5) | Poor (4-0) |
|--------------------------|------------|------------|------------|
| Deck (Item 58)           | ≥7         | 5 or 6     | ≤ 4        |
| Superstructure (Item 59) | ≥7         | 5 or 6     | ≤ 4        |
| Substructure (Item 60)   | ≥7         | 5 or 6     | ≤ 4        |
| Culvert (Item 62)        | ≥7         | 5 or 6     | ≤ 4        |

<sup>&</sup>lt;sup>5</sup> IDOT, Draft Transportation System Update, 2017.

<sup>&</sup>lt;sup>6</sup> Includes through travel lanes only; excludes ramps, shoulders, turn lanes, crossovers, and rest areas.

<sup>&</sup>lt;sup>7</sup> Bridges and associated on- and off-ramps connected to the NHS.

<sup>&</sup>lt;sup>8</sup> FHWA, National Performance Management Measures: Pavement and Bridge Condition to Assess the National Highway Performance Program, May 31, 2017.

<sup>&</sup>lt;sup>9</sup> FHWA, National Performance Management Measures: Pavement and Bridge Condition to Assess the National Highway Performance Program, May 31, 2017.

#### Why is this important?

- If greater than 5% of pavements are in poor condition, IDOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Block Grant Program (STBG) to address pavement condition of the NHS.
- No more than 10% of total deck area of NHS bridges can be classified as poor. If, for three consecutive years, the minimum condition level is not met, IDOT must obligate and set aside a portion of NHPP funds for eligible bridge projects on the NHS.

#### What is the timeline?

- January 1, 2018 Initial 4-year performance period begins.
- May 20, 2018 Initial 2- and 4-year targets established.
- October 1, 2018 Baseline Performance Period Report for the first performance period due. IDOT reports baseline, 2-year, and 4-year targets.
- Within 180 days of established IDOT targets MPOs must commit to support IDOT targets or establish separate quantifiable targets.
- October 1, 2020 Mid- Performance Period Progress Report for the first performance period due. IDOT report 2-year condition/performance; progress toward achieving 2-year targets.
- December 31, 2021 Initial 4-year performance period ends.
- October 1, 2022 Full Performance Period Progress Report for first performance period due. IDOT report 4-year condition/performance; progress toward achieving 4-year targets.
- October 1, 2022 Baseline report due for second performance period due. IDOT report 2- and 4year targets; baseline condition.

| Performance<br>Measure <sup>1</sup>                                  | Metric/Methodology   | Baseline <sup>2</sup> | Target<br>2020 <sup>3</sup> | Target<br>2022 <sup>3</sup> | Target<br>Achieved? | Better<br>than<br>baseline? |
|--|--|-----------------------|-----------------------------|-----------------------------|---------------------|-----------------------------|
| Percent of<br>Interstate<br>Pavement in<br>Good Condition            | Percentage of mileage where all scores for<br>international roughness index (IRI), cracking,<br>rutting, and/or faulting (as applicable) are<br>within thresholds established in FHWA<br>rulemaking.                     |                       |                             | 65%                         | TBD                 | TBD                         |
| Percent of<br>Interstate<br>Pavements in<br>Poor Condition           | Percentage of mileage where two or more<br>scores for IRI, cracking, rutting, and/or<br>faulting (as applicable) are within thresholds<br>established in FHWA rulemaking.  |                       |                             | <4.9%                       | TBD                 | TBD                         |
| Percent of Non-<br>Interstate NHS<br>Pavements in<br>Good Condition* | Percentage of mileage where all scores for<br>IRI, cracking, rutting, and/or faulting (as<br>applicable) are within thresholds established<br>in FHWA rulemaking.  | 37.6%                 | 27%                         | 27%                         | TBD                 | TBD                         |
| Percent of Non-<br>Interstate NHS<br>Pavements in<br>Poor Condition* | Percentage of mileage where two or more<br>scores for IRI, cracking, rutting, and/or<br>faulting (as applicable) are within thresholds<br>established in FHWA rulemaking.  | 19.4%                 | 6%                          | 6%                          | TBD                 | TBD                         |
| Percent of NHS<br>Bridges<br>Classified as in<br>Good Condition      | Percentage of bridges on Illinois NHS routes<br>by deck area that have ratings of at least 7<br>out of 9 for the NBI deck, superstructure,<br>AND substructure (and culverts where<br>applicable) rating items.          | 29.41%                | 28%                         | 27%                         | TBD                 | TBD                         |
| Percent of NHS<br>Bridge Classified<br>as in Poor<br>Condition       | Percentage of bridges on Illinois NHS routes<br>by deck area that have ratings of a 4 out of 9<br>or lower for any one of NBI deck,<br>superstructure, and substructure (and<br>culverts where applicable) rating items. | 11.6%                 | 13%                         | 14%                         | TBD                 | TBD                         |

## What are the targets? How are they measured? How is IDOT doing?

<sup>2</sup> **Pavement**: FHWA PMF report based on 2017 HPMS submittal. Baseline for non-interstate NHS is based solely on IRI when targets are based on all the performance measure criteria.

Bridges: FHWA PMF report based on 2017 NBI submittal.

<sup>3</sup> Per a review of historic data classifying Structurally deficient bridges; IDOT-ISIS and IRIS databases; FHWA-HPMS and NBI databases; and,

CFR.

- Enhance performance-based project selection process and accompanying tools to ensure consideration of land use and transportation connections. (Economy/3/3.3)
- Enhance intermodal connectivity by identifying and implementing improvements needed to truck routes, ports, airports and rail lines that provide access to Illinois intermodal facilities. (Mobility/1/1.1)
- Focus on roadway system preservation by performing needed maintenance before segments/structures are in critical need of repair. (Mobility/3/3.2)
- Focus on bridge repair and replacement by addressing the most critical needs and performing required maintenance. (Mobility/3/3.3)
- Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system. (Stewardship/Goal)
- Invest in improvements for airports, highways/streets, freight, ports, waterways and new traffic and transit technologies. (Stewardship/1)
- Enhance asset management process and accompanying tools. (Stewardship/2/2.2) Identify funding sources and leverage resources wisely to maximize the value of investments. (Stewardship/4)
- Explore increase in state transportation funding, including new revenue sources. (Stewardship/4/4.1)

## 2.4 System Performance (PM3)

What does this performance measure include? This third performance measure category, system performance, also known as "PM3", is a set of performance measures to assess the performance of the Interstate and non-Interstate NHS; to assess freight movement on the Interstate System; and to assess traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. For this performance measure, IDOT established targets for the following:

Two measures to assess reliability of system performance:

- 1. percent of reliable person-miles traveled on the Interstate
- 2. percent of reliable person-miles traveled on the non-Interstate NHS

One measure to assess freight movement on the Interstate System:

3. percent of Interstate system mileage providing for reliable truck travel time (Truck Travel Time Reliability Index - TTTRI)

Three measures to assess traffic congestion under the CMAQ program:

- 4. total emissions reductions
- 5. annual hours of peak hours excessive delay per capita
- 6. percent of non-single occupancy vehicle (SOV) travel

Percent of person-miles traveled on the Interstate that are reliable (#1), percent of person-miles traveled on the non-Interstate NHS that are reliable (#2), TTTRI (#3), Annual Hours of Peak hours Excessive Delay per Capita (#5), all require the use of the National Performance Management Research Data Set (NPMRDS). IDOT has procured The Regional Integrated Transportation Information System (RITIS) to analyze the NPMDRS with an easy to use interface. IDOT will provide access to RITIS for the MPOs within the state to use.

Percent of non- SOV travel (#4), Annual Hours of Peak Hour Excessive Delay Per Capita (#5), and Travel Total Emission Reductions (#6) targets only need to be set in areas that are in non-attainment or maintenance status for attainment of National Ambient Air Quality Standards (NAAQS). Rules state that IDOT should set the targets; however, IDOT has very minimal participation in selecting CMAQ projects, so the MPOs in non-attainment or maintenance status (CMAP and E/W Gateway) spearheaded the target setting process and data analysis with the assistance of IDOT.

**Why is this important?** The measure is met if actual condition/performance level is better than the baseline or equal to or better than the established target. There are no financial penalties if the targets are not met.

#### What is the timeline?

- January 1, 2018 Initial 4-year performance period begins.
- May 20, 2018 Initial 2- and 4-year targets established.
- October 1, 2018 Baseline Performance Period Report Target report deadline for all measures for the first performance period is due. DOTs submit MPO CMAQ Performance Plans (as applicable) as an attachment to the State Baseline Performance Period Report.
- Within 180 days of established IDOT targets and IDOT GHG measures MPOs set 4-year targets.
- October 1, 2020 Mid Performance Period Progress Report due. IDOT reports 2-year progress and adjusted 4-year targets. DOTs submit MPO CMAQ Performance Plans (as applicable) as an attachment to the State Mid Performance Period Progress Report.
- October 1, 2022 Full Performance Period Progress Report due. IDOT reports 4-year progress. DOTs submit MPOs CMAQ Performance Plans (as applicable) as an attachment to the State DOT Full Performance Period Progress Report.

| Octor     and 4   | <i>ber 1, 2022</i> – E<br>4-vear targets:  | Baselin<br>baseli  | ne report due<br>ine conditior | e for second  <br>n. | performance    | e period due        | e. IDOT rep                 |
|---|--|--|--------------------------------|----------------------|----------------|---------------------|-----------------------------|
| What are the  | e targets? How   | <i>w</i> are t   | they measur                    | ed? How is           | DOT doing?     |                     |                             |
| Performance<br>Measure  | Metric/Method  | ology  | Baseline <sup>1</sup>          | Target 2020          | Target<br>2022 | Target<br>Achieved? | Better<br>than<br>baseline? |
| Percent of<br>person-<br>miles<br>traveled on<br>Interstate<br>highways<br>that are<br>reliable         | Travel time reliables<br>measures the ext<br>unexpected delay<br>express that here<br>percent of miles<br>traveled where u<br>do not experience<br>significant unexp<br>delay on the Inte<br>system. A formal<br>definition for trav-<br>time reliability is<br>consistency or<br>dependability in<br>times, as measur<br>from day-to-day<br>across different t<br>of the day. | bility<br>sent of<br>y. We<br>e as the<br>sers<br>e<br>ected<br>rstate<br>vel<br>the<br>travel<br>ed<br>and/or<br>imes         | 80.8%                          | 79%                  | 77%            | TBD                 | TBD                         |
| Percent of<br>person-<br>miles<br>traveled on<br>non-<br>Interstate<br>highways<br>that are<br>reliable | Travel time reliab<br>measures the ext<br>unexpected delay<br>express that here<br>percent of miles<br>traveled where u<br>do not experienc<br>significant unexp<br>delay on non-Inte<br>highways. A form<br>definition for trav<br>time reliability is<br>consistency or<br>dependability in<br>times, as measur<br>from day-to-day<br>across different t<br>of the day       | bility<br>sent of<br>y. We<br>e as the<br>sers<br>e<br>ected<br>erstate<br>hal<br>vel<br>the<br>travel<br>ed<br>and/or<br>imes | 87.3%                          | N/A                  | 83.3%          | TBD                 | TBD                         |
| Truck Travel<br>Time<br>Reliability<br>Index  | The Truck Travel<br>Reliability (TTTR)<br>measures the ext<br>unexpected delay<br>freight movemer<br>expressed as a ra<br>When the ratio is<br>higher, truckers<br>Experience more<br>unexpected delay<br>the roads. When<br>lower (closer to 1<br>roads are more r  | Time<br>Index<br>tent of<br>y for<br>it. It is<br>it.<br>y on<br>it is<br>L), the<br>eliable.                                  | 1.3                            | 1.34                 | 1.37           | TBD                 | TBD                         |
| Annual<br>Hours of<br>Peak hours  | Chicago IL/I<br>Urbanized Ar   | N<br>rea   | 14.9 <sup>1</sup>              | N/A                  | 15.4           | TBD                 | TBD                         |
| Excessive<br>Delay per<br>Capita  | St. Louis MO<br>Urbanized Ar   | /IL<br>rea   | 9.5                            | N/A                  | 9.5            | TBD                 | TBD                         |
| Percent of<br>Non-Single  | CMAP: MP   | A  | 30.6%                          | 32.1%                | 31.9%          | TBD                 | TBD                         |
| vehicle<br>(SOV)<br>Travel <sup>2</sup>   | E/W Gateway: I   | L MPA  | 17.8%                          | 16.7%                | 17.0%          | TBD                 | TBD                         |
|   |  | PM <sub>2.5</sub>  | 47.565                         | 218.988              | 435.076        | TBD                 | TBD                         |

| Total                              | St. Louis-St.<br>Charles –                     | voc        | 395.602            | 128.035           | 251.070           | TBD              | TBD          |              |
|------------------------------------|--|------------|--------------------|-------------------|-------------------|------------------|--------------|--------------|
| Emission<br>Reductions<br>(kg/day) | Farmington<br>MO – IL<br>Nonattainment<br>Area | NOx        | 1273.800           | 3386.959          | 6708.818          | TBD              | TBD          |              |
| <sup>1</sup> Sources: Trend d      | ata from the Regior                            | nal Integr | ated Transportat   | ion Information S | ystem's (RITIS) N | ational Performa | ance Managem | ent Research |
| Data Set (NPRMDS                   | s), and construction                           | n and age  | ncy policies and g | goals.            |                   |                  |              |              |

<sup>2</sup> MPOs combined total daily emissions for the current 5-year CMAQ program (2018-2022) to develop an annual estimate, which was then used to generate the targets.

<sup>3</sup> Included for  $PM_{10}$  emissions, since region is listed in EPA's Green Book. Lyons Township, Cook County is listed as a maintenance area for  $PM_{10}$ . The maintenance area is not the result of mobile source emissions but a point source problem related to quarry activities within the township. Since the emissions are unrelated to transportation and mobile sources, the targets are listed as zero.

- Encourage regional coordination in the identification of solutions to transportation problems to provide for efficient movement of freight, people and services supporting economic growth. (Economy/1)
- Support projects that improve connectivity and coordination of services to enhance continuity and accommodate the efficient movement of people, goods, and services across all modes to address intermodal efficiency. (Economy/2)Collaborate and consult with freight and passenger stakeholders to address regional, statewide and multi-state freight and passenger transportation issues. (Economy/4/4.1)
- Provide investment and technical support to transportation projects that improve freight and transportation connectivity through the integration of multimodal service options. (Economy/4/4.2)
- Support new technologies that provide improved operational efficiencies and travel/route planning and safety. (Economy/4/4.3)
- Enhance the effectiveness of the multimodal transportation system through better traveler information, utilizing technology where possible, to maximize efficiency of existing facilities and services. (Livability/3)
- Reduce emissions by implementing performance-based project selection. (Livability/5/5.3)
- Support reduction in the use of single occupancy vehicles (SOVs). (Livability/5/5.4)
- Realize positive air quality gains and reduced energy consumption with efficient passenger and freight operations. (Livability/5/5.5)
- Work collaboratively with freight stakeholders to identify and address issues related to transporting freight within Illinois. (Mobility/1/1.2)
- Enhance intermodal connectivity by identifying and implementing improvements needed to truck routes, ports, airports and rail lines that provide access to Illinois intermodal facilities. (Mobility/1/1.3)
- Establish procedures to use the National Performance Management Research Data Set (NPMRDS) to calculate performance. (Mobility/1/1.4)
- Explore ITS technologies to foster the most efficient movement of freight. (Mobility/1/1.6)
- Invest in and support multimodal transportation infrastructure improvements and strategic performance-based expansion of services that support the effective movement of passengers. (Mobility/2)
- Increase route efficiency and safety for all users by improving infrastructure condition and addressing capacity issues. (Mobility/3)
- Identify and rank worst bottlenecks and chokepoints to establish an action plan to remediate selected areas. (Mobility/3/3.1)
- Explore various congestion management strategies for implementation within Illinois metropolitan areas. (Mobility/3/3.7)
- Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system. (Stewardship Goal)
- Invest in improvements for airports, highways/streets, freight, ports, waterways and new traffic and transit technologies. (Stewardship/1)
- Complete current ongoing major infrastructure improvements. (Stewardship/1/1.1)
- Identify needed capacity enhancements, capital improvements and new technology implementation. (Stewardship/1/1.2)
- Identify new "mega" projects which will improve the existing transportation system and infrastructure and identify alternative funding opportunities. (Stewardship/1/1.3)

## 2.5 Transit Asset Management

What does this performance measure include? Transit asset management (TAM) is applicable to providers who are recipients or sub-recipients of Federal financial assistance under 49 U.S.C. Chapter 53. Providers are categorized as either Tier I or Tier II. Tier I operates rail or over 100 vehicles in peak revenue service, and are required to set targets. Tier II providers do not operate rail and have 100 or fewer vehicles in peak revenue service, and establish targets in coordination with MPOs, if applicable. IDOT produced a group Tier II Asset Management plan, which Tier II transit providers can opt in to participate. Tier I providers are responsible for creating their own Transit Asset Management Plan and in turn targets.

"State of good repair" is the fundamental theme of TAM. Essentially, TAM is an effort to keep assets and equipment in transit systems in a state of good repair, so the systems contribute to the safety of the system as a whole. This supports the idea that a vehicle in good repair will minimize risk and maximize safety. TAM measures performance for the following asset categories<sup>10</sup>:

- 1. Equipment
- 2. Facilities
- 3. Infrastructure
- 4. Rolling Stock

Why is this important? There is no penalty for missing a target.

#### What is the timeline?

- October 1, 2018 Providers established initial targets.
- Within four (4) months of the end of a provider's FY Submit to National Transit Database (NTD) their Asset Inventory Module (AIM); and performance targets for next FY.
- *No later than October 1, 2018* Complete TAM Plan (covers 4 years; updated at least every 4 years)
- October 1, 2018 IDOT reflect performance measures and subsequent targets in Long Range Transportation Plan (LRTP) and STIP for all providers.
- 180 days later MPOs either accept or develop their own TAM performance targets.

<sup>&</sup>lt;sup>10</sup> https://www.transit.dot.gov/PerformanceManagement#Target%20Setting

| What are the t                              | What are the targets? How are they measured? How is IDOT doing?  |                                 |      |      |       |                    |                       |  |  |  |  |
|---|--|---------------------------------|------|------|-------|--------------------|-----------------------|--|--|--|--|
| Performance<br>Measure                      | Metric   | Baseline <sup>1</sup><br>FY2019 | 2020 | 2022 | Trend | Target<br>Achieved | Better than baseline? |  |  |  |  |
| Equipment –<br>State of Good<br>Repair      | Percentage of non-<br>revenue service vehicles<br>(by type) that exceed the<br>useful life benchmark<br>(ULB) <sup>2</sup> .                         | 50%                             | TBD  | TBD  | TBD   | TBD                | TBD                   |  |  |  |  |
| Facilities –<br>State of Good<br>Repair     | Percentage of facilities (by<br>group) rated less than 3.0<br>on the Transit Economic<br>Requirements Model<br>(TERM) <sup>3</sup> Scale.            | 16%                             | TBD  | TBD  | TBD   | TBD                | TBD                   |  |  |  |  |
| Infrastructure<br>– State of<br>Good Repair | Percentage of track<br>segments (by mode) that<br>have performance<br>restrictions. Track<br>segments are measured to<br>the nearest 0.01 of a mile. |                                 | TBD  | TBD  | TBD   | TBD                | TBD                   |  |  |  |  |
| Rolling Stock<br>– State of<br>Good Repair  | Percentage of revenue<br>vehicles (by type) that<br>exceed the ULB.  | 48%                             | TBD  | TBD  | TBD   | TBD                | TBD                   |  |  |  |  |

<sup>1</sup> Source: IDOT Group TAM Plan for Participating Tier II Agencies, September 2018.<sup>2</sup> ULB: The expected lifecycle of a capital asset for a particular transit provider's operating equipment, or the acceptable period of use in service for a particular transit providers operating equipment.
<sup>2</sup> ULB: The expected lifecycle of a capital asset for a particular transit provider's operating equipment, or the acceptable period of use in service for a particular transit providers operating equipment.

<sup>3</sup> The TERM scale assigns numerical ratings based on a conditional scale of 1.0 (Poor) to 5.0 (Excellent); https://www.transit.dot.gov/PerformanceManagement#Target%20Setting.

- Advocate for the success of Illinois' passenger rail program. (Economy/2/2.4)
- Incorporate and support sustainable technology in operations of current and future IDOT assets, including multimodal transportation services. (Livability/5/5.1)
- Support reduction in the use of single occupancy vehicles (SOVs). (Livability/5/5.4)
- Support all modes of transportation to improve accessibility and safety by improving connections between all modes of transportation. (Mobility/Goal)
- Increase route efficiency and safety for all users by improving infrastructure condition and addressing capacity issues. (Mobility/3)
- Safeguard existing funding and increase revenues to support system maintenance, modernization, and strategic growth of Illinois' transportation system. (Stewardship/Goal)
- Ensure selection and prioritization decisions on projects is transparent and guided by sound data and performance-based decisions. (Stewardship/2)
- Enhance asset management process and accompanying tools. (Stewardship/2/2.2)
- Identify opportunities to support non-highway funding program(s) for all multimodal transportation projects. (Stewardship/4)