

KENTUCKY

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP) for FY 2019-2022

ADMINISTRATIVE MODIFICATION #2018.076

I. Proposed Action:

Modify the KYTC's FY 2019-2022 Statewide Transportation Improvement Program (STIP) to include the KYOVA's Administrative Modification #35 to the FY 2018-2021 Transportation Improvement Program (TIP).

Location: Kentucky-Ohio-West Virginia MPO Area

Scope of Activity:

See the attachment for more detail information.

II. Additional Remarks:

This modification to the STIP will become part of the 2018 STIP end of Federal Fiscal Year 2019 "fiscal constraint" recalculations.

III. Administrative Modification Approval:

Modification Recommended for Approval:



Kentucky Transportation Cabinet

Ronald B. Rigney, Director

Division of Program Management

5/22/19

Date

**KYOVA Interstate Planning Commission
Huntington, WV-KY-OH Transportation Management Area (TMA)**

**Administrative Modification #35
May 17, 2019**

**KYOVA 2040 Metropolitan Transportation Plan (MTP) and the
KYOVA 2018-2021 Transportation Improvement Program (TIP)**

On May 17, 2019, KYOVA Interstate Planning Commission issued Administrative Modification #35 to the FY 2018-2021 TIP and the 2040 MTP.

Modification Description/Justification

This action updates the KYOVA 2018-2021 TIP and the KYOVA 2040 MTP to include Bridge and Pavement (PM2) and System Performance (PM3) measures and targets for the KYOVA Planning Area of the Huntington, WV-KY-OH Urbanized Area. KYOVA's Policy Board previously approved Resolution #2019-001 and Resolution #2019-002 both dated September 21, 2018, supporting WVDOH, KYTC, and ODOT statewide Bridge and Pavement and System Performance measures and targets. The MPO is required to incorporate the targets into the TIP and MTP prior to any amendments.

This Administrative Modification does not impact the financial constraints of the TIP as there are no project specific actions.

Therefore, KYOVA Interstate Planning Commission incorporated the attached Bridge and Pavement and System Performance documentation into the 2018-2021 TIP and 2040 MTP outlining the performance measures and targets.

KYOVA Committee members were notified electronically of the inclusion of KYOVA's Bridge and Pavement and System Performance measures and targets on May 17, 2019.

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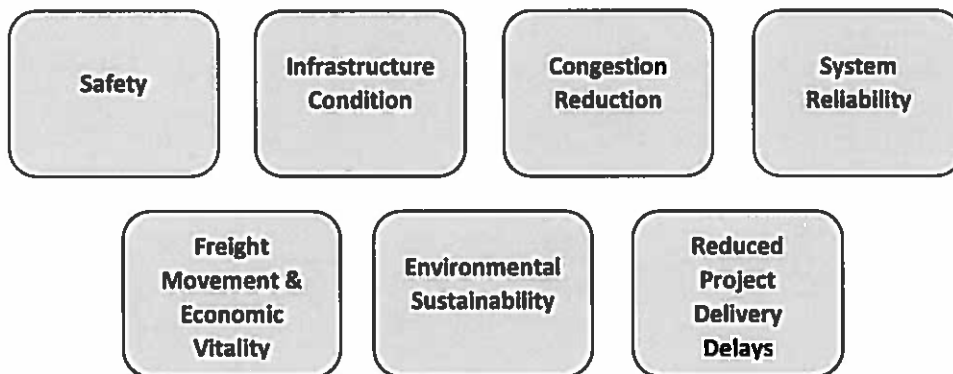
System Performance Report for KYOVA Interstate Planning Commission

May 2019

Introduction

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law in 2012, and the Fixing America's Surface Transportation Act (FAST Act), signed into law in 2015, placed an increased emphasis on performance management within the Federal-aid highway program and transit programs. This requires that all state departments of transportation and metropolitan planning organizations use a performance-based planning and programming approach for transportation decision making.

As part of MAP-21, the objective of the performance-based program is for states to invest resources in projects that will make progress toward the achievement of the national goals. Seven national goals were established for the Federal-aid highway program (23 USC 150(b)):



The performance outcomes were set in place through rulemakings and administered by different agencies within the U.S. Department of Transportation. The Federal Highway Administration established a Transportation Performance Management (TPM) approach to managing outcomes. Transportation Performance Management (TPM) is defined by the Federal Highway Administration (FHWA) as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.

States are required to establish performance targets in support of these national goals and measures. Projects on West Virginia's, Kentucky's, and Ohio's STIP address transportation needs in one or more of these key areas. As a starting point, ODOT, KYTC, and WVDOH uses some of the performance measures that they have been tracking for many years to measure how their transportation system is operating. Monitoring these performance measures has assisted WVDOH, KYTC, and ODOT in setting goals, adjusting priorities, allocating resources, and developing policy.

In addition to the state provisions, MPOs are required to establish targets and provide reports detailing progress towards those targets through planned and programmed projects. MPOs have 180 days from the

states' establishment of targets to either adopt their own or support the state targets for their planning area. For the CMAQ traffic congestion measures, MPOs will establish a single urbanized area target.

Performance Targets in the Metropolitan Transportation Plan

This report was prepared by KYOVA Interstate Planning Commission to satisfy the requirements set forth by 23 CFR 450. This states that the Metropolitan Transportation Plan (MTP) shall include "a system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets" (23 CFR 450.324(4)). The performance report should show what progress has been made toward meeting the performance targets adopted by each state DOT and compare that with previous years, including baseline data.

Performance Targets in the Transportation Improvement Program (TIP)

In accordance with 23 CFR 450, the KYOVA 2018-2021 TIP includes a description of how the investments included in the plan work towards achieving the performance targets established by KYOVA and included in the Metropolitan Transportation Plan (MTP).

KYOVA Dates for Implementation

Deadline	Description	Progress
February 27, 2018	MPOs establish CY2018 Safety Targets (180 days from State DOT)	Complete – Resolution #2018-013 – 2/23/18
May 27, 2018	Updates or Amendments to MTP or TIP must be developed according to Safety performance measure provisions after May 27, 2018	Complete – Modification #21 – 9/21/18
November 16, 2018	MPOs establish 4-year Bridge and Pavement Condition Targets & Interstate and non-Interstate NHS Travel Time Reliability, Freight Reliability (180 days from State DOT) <small>CMAQ Performance Targets only required for the first Performance Period (UZAs with 1 million or more population)</small>	Complete – Resolution #2019-001 & #2019-002 – 9/21/18
February 27, 2019	MPOs must establish CY2019 Safety Targets	Complete – Resolution #2019-006 – 12/6/18
May 20, 2019	Updates or Amendments to the MTP or TIP must be developed according to Bridge and Pavement Condition performance measures & System Performance measures of 23 CFR Part 450	In Progress

Performance Measures & Targets

As part of the final rulemaking process, performance measures were established by FHWA to achieve progress toward the National Goals. Federal Rule 23 CFR 490 requires states and MPOs to establish targets

for the performance measures. KYOVA Interstate Planning Commission has elected to support the state DOTs’ targets for the following performance measures.

PM 1: SAFETY

(previously included in MTP on 9/21/18 – Modification #21)

The Safety PM 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 PM Final Rule establishes five performance measures:

- o Number of fatalities
- o Rate of fatalities per 100 million vehicle miles traveled
- o Number of serious injuries
- o Rate of serious injuries per 100 million vehicle miles traveled
- o Number of non-motorized fatalities and non-motorized serious injuries

In accordance with federal legislation, West Virginia, Kentucky, and Ohio used five-year rolling averages to calculate historic crash trends and identified statewide reduction targets. After reviewing historical crash trends and external factors, WVDOH, KYTC, and ODOT established Statewide Safety Performance Targets for CY 2018. These targets are provided in Tables 1-3.

Table 1: Safety Performance Measure Targets for West Virginia*						
	2017 (Actual)	BASELINE	2018 TARGET	2018 (Actual)	2019 TARGET	2019 (Actual)
		5-Year Average 2013- 2017				
Fatalities	302	288.6	281.6		283	
Serious Injuries	1067	1272.4	1341		977	
Fatality Rate (per 100 million VMT)	1.62	1.518	1.37		1.498	
Serious Injury Rate (per 100 million VMT)	5.7	6.686	6.327		5.37	
Non-Motorized Fatalities & Serious Injuries	84	94.4	94.1		89	

Table 2: Safety Performance Measure Targets for Kentucky*						
	2017 (Actual)	BASELINE	2018 TARGET	2018 (Actual)	2019 TARGET	2019 (Actual)
		5-Year Average 2013-2017				
Fatalities	782	737.4	730		737	
Serious Injuries	3006	3124.8	2800		2991	
Fatality Rate (per 100 million VMT)	1.59	1.522	1.5		1.5	
Serious Injury Rate (per 100 million VMT)	6.1	6.452	5.76		6.07	
Non-Motorized Fatalities & Serious Injuries	307	277.8	293		276	

Table 3: Safety Performance Measure Targets for Ohio*						
	2017 (Actual)	BASELINE	2018 TARGET	2018 (Actual)	2019 TARGET	2019 (Actual)
		5-Year Average 2013-2017				
Fatalities	1180	1083.4	1051		1062	
Serious Injuries	8763	9013	9033		8834	
Fatality Rate (per 100 million VMT)	.99	0.932	0.91		.91	
Serious Injury Rate (per 100 million VMT)	7.35	7.762	8.01		7.6	
Non-Motorized Fatalities & Serious Injuries	890	852.8	840		836	

*Table will be updated to include new data and trends as they become available.

PM 2: Pavement and Bridge Condition

The Pavement and Bridge Condition Final Rule establishes performance measures to assess pavement and bridge condition on the National Highway System (NHS). This rule will assist state DOTs and MPOs in making investment decisions to support highway infrastructure. For the Pavement and Bridge Condition Final Rule, four measures were established to assess pavement condition and two measures were established to assess bridge condition. Note: MPOs are only required to set 4-year targets for each of the measures.

The Pavement and Bridge Condition Final Rule establishes the following measures:

- Percent of interstate pavements in good condition
- Percent of interstate pavements in poor condition
- Percent of non-interstate NHS pavements in good condition
- Percent of non-interstate NHS pavements in poor condition
- Percent of NHS bridges by deck area classified as in good condition
- Percent of NHS bridges by deck area classified as in poor condition

Tables 4-6 show the state DOT performance targets and data that KYOVA supports for the Pavement and Bridge Condition performance measures.

Table 4: PM2 – Pavement & Bridge Condition Targets for West Virginia			
	BASELINE	WVDOT	
	2017	2-Year	4-Year
Non-Interstate NHS Pavement % Good	40.9%	40%	45%
Non-Interstate NHS Pavement % Poor	1.2%	5%	5%
NHS Interstate Pavement % Good	73.4%	NA	75%
NHS Interstate Pavement % Poor	0.1%	NA	4%
	BASELINE		
	2018		
NHS Bridges % Good	13.9%	14%	16%
NHS Bridge % Poor	11.9%	10%	10%

Table 5: PM2 – Pavement & Bridge Condition Targets for Kentucky			
	BASELINE	KYTC	
	2017	2-Year	4-Year
Non-Interstate NHS Pavement % Good	45.0%	35%	35%
Non-Interstate NHS Pavement % Poor	0.6%	6%	6%
NHS Interstate Pavement % Good	66.0%	NA	50%
NHS Interstate Pavement % Poor	0.0%	NA	3%
NHS Bridges % Good	36.1%	35%	35%
NHS Bridge % Poor	2.0%	3.7%	3.2%

Table 6: PM2 – Pavement & Bridge Condition Targets for Ohio			
	BASELINE 2018	ODOT**	
		2-Year	4-Year
Non-Interstate NHS Pavement % Good	59.1%	35%	35%
Non-Interstate NHS Pavement % Poor	13%	3%	3%
NHS Interstate Pavement % Good	NA	NA	NA
NHS Interstate Pavement % Poor	NA	NA	NA
NHS Bridges % Good	59%	50%	50%
NHS Bridge % Poor	1.6%	5%	5%

**Note: The KYOVA Planning Boundary in Ohio does not include any interstate roadways, therefore, KYOVA is not required to set targets for the interstate system within Lawrence County, Ohio.

These tables will be updated to reflect new data as it becomes available.

PM 3: System Performance

The System Reliability/Freight/CMAQ Final Rule establishes performance measures used to report on the performance of the interstate and non-interstate NHS, freight movement on the interstate system, and traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality (CMAQ) program. This final rule establishes two measures to assess reliability, one measure to assess freight movement, two measures to assess CMAQ traffic congestion, and one measure to assess CMAQ on-road mobile source emissions. Note: MPOs are only required to set 4-year targets for each of the measures.

The System Performance Final Rule establishes the following measures:

- Percent of person-miles traveled on the Interstate that are reliable (Travel Time Reliability)
- Percent of person-miles traveled on the non-Interstate NHS that are reliable (Travel Time Reliability)
- Truck Travel-Time Reliability (TTTR) Index (Freight Reliability)
- Annual Hours of Peak Hour Excessive Delay (PHED) per capita
- Percent of non-SOV travel
- Total Emissions Reduction

CMAQ Performance Measures only apply to urbanized areas of more than one million for the first performance period. For the second performance period, which KYOVA falls under, a single unified target is required for the Huntington, WV-KY-OH Urbanized Area. The second performance period begins January 1, 2022. Tables 7-9 represent the System Performance measures and targets for each state DOT that that KYOVA supports.

Table 7: PM3 – System Performance/Freight/CMAQ Targets for West Virginia			
	BASELINE 2017	WVDOT	
		2-Year	4-Year
Level of Travel Time Reliability on Interstate Routes	99.8%	98%	96%
Level of Travel Time Reliability on Non-Interstate NHS	91.9%	NA	87%
Truck Travel Time Reliability on Interstate	1.21	1.25	1.3

Table 8: PM3 – System Performance/Freight/CMAQ Targets for Kentucky			
	BASELINE 2018	KYTC	
		2-Year	4-Year
Level of Travel Time Reliability on Interstate Routes	95.99%	93%	93%
Level of Travel Time Reliability on Non-Interstate NHS	90.26%	NA	82.5%
Truck Travel Time Reliability on Interstate	1.29	1.25	1.25

Table 9: PM3 – System Performance/Freight/CMAQ Targets for Ohio			
	BASELINE 2018	ODOT**	
		2-Year	4-Year
Level of Travel Time Reliability on Interstate Routes	90.8	NA	NA
Level of Travel Time Reliability on Non-Interstate NHS	NA	NA	80%
Truck Travel Time Reliability Index	1.33	1.5	1.5

**Note: The KYOVA Planning Boundary in Ohio does not include any interstate roadways, therefore, KYOVA is not required to set targets for the interstate system within Lawrence County, Ohio.

These tables will be updated to reflect new data as it becomes available.

Transit

(Previously included in the MTP on 9/21/18 – Modification #21)

KYOVA INTERSTATE PLANNING COMMISSION TRANSIT PERFORMANCE MANAGEMENT

FEDERAL REQUIREMENT FOR PERFORMANCE BASED PLANNING AND PROGRAMMING

Under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reinforced in the Fixing America's Surface Transportation (FAST) Act, federal surface transportation regulations require the implementation of performance management requirements through which State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and designated transit providers transition to a performance-based planning and programming approach. On July 26, 2016, the Federal Transit Administration published the final rule on Transit Asset Management (TAM)(49 CFR Part 625). Under the final TAM rule, DOTs, MPOs, and designated transit providers must collect and report data for four performance measures covering rolling stock, equipment, infrastructure, and facility condition. KYOVA Interstate Planning Commission contains no relevant infrastructure as defined under 49 CFR Part 625 and therefore the MPO is only required to set targets for rolling stock, equipment, and facilities. Every agency must develop a transit asset management (TAM) plan if it owns, operates, or manages capital assets used to provide public transportation and receives federal financial assistance under 49 U.S.C. Chapter 53 as a recipient or subrecipient. Additionally, in accordance with 23 CFR 450.326(c-d), 450.326(c) states "the Transportation Improvement Program (TIP) shall be designed such that once implemented, it makes progress toward achieving the performance targets established under 450.306(d)." 450.326(d) states "The TIP shall include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the Metropolitan Transportation Plan, linking investment priorities to those performance targets".

DESIGNATED TRANSIT PROVIDERS

There are three (3) federally recognized public transit providers operating within the KYOVA planning boundaries of the Huntington, WV-KY-OH Urbanized Area. Agency vehicles are accessible to persons with disabilities. Each operate as is a "Tier II" Provider with fewer than 100 revenue vehicles.

- **Tri-State Transit Authority (TTA)**
Tri- State Transit Authority provides both Fixed Route and Paratransit Service throughout Cabell and Wayne counties, West Virginia. Paratransit Services are available to those unable to ride the Fixed Route Service and is a curb to curb ride-sharing service where clients schedule ride times in advance. TTA's 2017 passenger count was 901,878.
- **Ashland Bus System (ABS)**
The Ashland Bus System provides both Fixed Route and Paratransit Service. The Fixed Route operates throughout the City of Ashland and adjoining areas that is no more than ¾ of a mile on either side of any ABS route. Paratransit Services are available to those unable to ride the Fixed Route Service and is a curb to curb ride-sharing service where clients schedule ride times in

advance. ABS provides over 100,000 passenger trips annually.

- **Lawrence County Transit (LCT)**

Lawrence County Transit Provides demand response bus service to Lawrence County, Ohio. Additionally, they provide connections to adjacent counties and to the partner public transit systems. Assets are owned and managed by the LCT. However, service is provided under contract with the Ironton-Lawrence County Community Action Organization (ILCAO). LCT provided 26,399 passenger trips in 2017.

TRANSIT ASSET MANAGEMENT MEASURES

The performance measures assess the condition in which a capital asset can operate at a full level of performance. A capital asset is in a state of good repair (SGR) when that asset (MAP-21 Section 625.41):

1. Can perform its designated function;
2. Does not pose a known unacceptable safety risk; and
3. Its life cycle investments must have been met or recovered.

For age-based assets, the target represents the percentage of assets per class that exceed the Useful Life Benchmark (ULB). KYOVA elected to use the FTA ULB for Rolling Stock and Equipment. For the Facilities, the FTA Transit Economic Requirement Model (TERM) Scores were used.

TAM PLAN

The Transit Asset Management (TAM) Plan serves as a business model that uses the condition of assets to guide the optimal prioritization of funding a transit property to keep the transit network/s in a State of Good Repair (SGR). The FTA website states that "Every agency must develop a Transit Asset Management (TAM) Plan if it owns, operates, or manages capital assets used to provide public transportation and receives federal financial assistance under 49

U.S. C. Chapter 53 as a recipient or subrecipient. Each TAM Plan should:

- Outline how people, processes, and tools come together to address asset management policy and goals;
- Provide accountability and visibility for further understanding of leveraging asset management practices; and
- Support planning, budgeting, and communications to internal and external stakeholders."

GROUP TAM PLAN

Tier II agencies may develop their own plans or participate in a group TAM Plan. Group TAM Plans are usually completed by a group TAM sponsor (generally the State DOT or a direct or designated 5310 or 5307 recipient). West Virginia Division of Public Transit provided this alternative to TTA and they chose to be included in the West Virginia State TAM Plan. The Kentucky Transportation Cabinet's Office of Transportation Delivery chose not to include Tier II providers in their State Plan. Therefore, ABS was required to complete their own. Additionally, Lawrence County Transit completed a TAM Plan as Ohio did not elect to include Tier II providers in their state TAM Plan. After the review of documentation received from the three transit providers, KYOVA elected to set regional transit targets rather than adopting individual targets from each of the three (3) transit agency.

PERFORMANCE MEASURES AND TARGETS

Working collectively, MPOs, DOTs, and designated transit providers are required to establish performance targets for each applicable measure established by federal legislation. A measure is a statement of what is being assessed, and a target is a quantifiable level of performance or what you hope to achieve within an identified time period. The Transit Asset Management final rule requires Tier II provider targets to be set for four (4) performance measures. The four performance measures are:

- **Rolling Stock:** the percentage of revenue vehicles (by type) that exceed the Useful Life Benchmark (ULB)
- **Equipment:** the percentage of non-revenue service vehicles (by type) that exceed the ULB
- **Facilities:** the percentage of facilities (by group) that are rated less than 3.0 on the Transit Economic Requirement Model (TERM) Scale
- **Infrastructure:** the percentage of track segments (by mode) that have performance restrictions. Not applicable to the KYOVA Interstate Planning Commission.

Designated transit providers must adopt targets for the performance of their transit assets annually for the ensuing year. MPOs must establish TAM targets specific to the MPO planning area within 180 days of the transit provider establishing its initial TAM targets. The MPO is required to update its TAM targets every four years.

Table 1 outlines the Regional Baseline Inventory and *Table 2* provides the Regional 2018-2023 Targets for the KYOVA Interstate Planning Commission planning area of the Huntington, WV-KY-OH Urbanized Area. Regional targets were based on data received from the three (3) transit agencies. The FTA Default Useful Life Benchmark (ULB) Cheat Sheet from the 2017 Asset Inventory Module Reporting Manual, page 53 was used to complete the analysis. FTA TERM Rating was used to determine facility condition.

Table 1: Regional Baseline (2018) Inventory and Targets for the KYOVA Planning Area

ASSET CATEGORY	ASSETS	CURRENT CONDITION	KYOVA 2018 BASELINE/TARGET
Rolling Stock (Revenue vehicles)	BU – Buses = 34 (includes 3 Trolley Buses)	2 buses exceed default Useful Life Benchmark (ULB)	No more than 50% of bus fleet exceed ULB
	CU – Cutaway Buses = 15	0 Cutaway buses exceed default ULB	No more than 50% of cutaway bus fleet exceed ULB
	MB – Minibus = 2	1 Minibus exceed default Useful Life Benchmark (ULB)	No more than 50% of minibus fleet exceed ULB
	MV – Minivans = 9	0 minivans exceed default ULB	No more than 50% of minivan fleet exceed ULB
Equipment (Non-revenue vehicles)	Truck = 2	0 trucks exceeds default ULB	No more than 50% of truck fleet exceed ULB
	SUV = 5	3 SUV's exceeds the default ULB	No more than 60% of SUV exceed ULB
Facilities	Administration Buildings = 4	3 rated in Good Condition, but no longer new; 1 rated Marginal; Moderately defective or deteriorated components	No more than 50% rated below a 3.0 on the FTATERM Scale
	Maintenance = 2	1 rated in Good Condition, but no longer new; and 1 rated in Adequate Condition with Moderately defective or deteriorated components	No more than 50% rated below a 3.0 on the FTATERM Scale
	Passenger Facility = 3	3 rated in Excellent Condition; no visible defects, near new condition	No more than 50% rated below a 3.0 on the FTA TERM Scale

Source: Tri-State Transit Authority/Ashland Bus System/Lawrence County Transit

Table 2: 2018-2023 Regional Transit Asset Management Targets for the KYOVA Planning Area

ASSET CATEGORY	PERFORMANCE MEASURE	ASSET	KYOVA 2018-2023 TARGET
Rolling Stock	Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	Buses	No more than 50% exceed ULB
		Cutaways	No more than 50% exceed ULB
		Minivans	No more than 50% exceed ULB
Equipment	Age - % of non-revenue vehicles that have meet or exceeded their Useful Life Benchmark (ULB)	Trucks	No more than 50% exceed ULB
		SUV	No more than 50% exceed ULB
		Cars	No more than 50% exceed ULB
Facilities	Condition - % of facilities with a condition rating below 3.0 on the FTA TERM Scale	Administration	No more than 50% rate below 3.0
		Maintenance	0% (none) rated below 3.0
		Service	0% (none) rated below 3.0
		Passenger	0% (none) rated below 3.0

Section 5310 Program Vehicles

Table 3:

Regional Baseline (2018) Inventory and Targets for Huntington, WV-KY-OH Section 5310 Program

ASSET CATEGORY	ASSETS	CURRENT CONDITION	KYOVA 2018 BASELINE/TARGET
FTA Section 5310 (Revenue Vehicles)	MV – Minivan = 1	0 Minivans exceed the default ULB	No more than 50% of bus fleet exceeds ULB
	CU – Cutaway Buses = 5	0 Cutaway buses exceed default ULB	No more than 50% of cutaway bus fleet exceed ULB

Source: Tri-State Transit Authority

Table 4:
2018-2023 Regional Transit Asset Management Targets for Huntington, WV-KY-OH Section 5310 Program

ASSET CATEGORY	PERFORMANCE MEASURE	ASSET	KYOVA 2018-2023 TARGET
FTA Section 5310 (Revenue Vehicles)	Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	Cutaways	No more than 50%
		Minivans	No more than 50%

Transit Investment Prioritization

The following table outlines the identified needs for transit projects and/or vehicles. Actual investments will be determined based on available funds.

Table 5: Rolling Stock Investment Priority Schedule

Project Year	Asset Category	Project Name	Asset Class	Quantity	Cost-Estimated per vehicle	Total Project Cost	Priority
2018	Revenue Vehicles	Bus Acquisition	BU – Bus	3	\$450,000	\$1,350,000	HIGH
2018 PROJECTED PROJECT TOTALS				3		\$1,350,000	
2019	Revenue Vehicles	Bus Acquisition	BU – Bus	3	\$450,000	\$1,350,000	HIGH
2019	Revenue Vehicles	Bus Acquisition	CU - Cutaway	2	\$98,000	\$196,000	HIGH
2019	Revenue Vehicles	Minivan Acquisition	MV - Minivan	4	\$46,000	\$184,000	MODERATE
2019	Revenue Vehicles	Van Acquisition	VN - Van	2	\$62,000	\$124,000	MODERATE
2019 PROJECTED PROJECT TOTALS				11		\$1,854,000	
2020	Revenue Vehicles	Bus Acquisition	BU – Bus	3	\$450,000	\$1,350,000	HIGH
2020	Revenue Vehicles	Bus Acquisition	CU - Cutaway	1	\$98,000	\$98,000	HIGH
2020	Revenue Vehicles	Minivan Acquisition	MV - Minivan	2	\$46,000	\$92,000	LOW
2020	Revenue Vehicles	Van Acquisition	VN - Van	4	\$62,000	\$248,000	MODERATE
2020 PROJECTED PROJECT TOTALS				10		\$1,788,000	
2021	Revenue Vehicles	Bus Acquisition	BU – Bus	3	\$450,000	\$1,350,000	HIGH
2021	Revenue Vehicles	Bus Acquisition	CU - Cutaway	1	\$98,000	\$98,000	HIGH
2021	Revenue Vehicles	Minivan Acquisition – 1	MV - Minivan	2	\$46,000	\$92,000	LOW
2021	Revenue Vehicles	Van Acquisition	VN - Van	1	\$62,000	\$62,000	MODERATE
2021 PROJECTED PROJECT TOTALS				7		\$1,602,000	
2022	Revenue Vehicles	Bus Acquisition	BU – Bus	4	\$450,000	\$1,800,000	HIGH
2022	Revenue Vehicles	Minivan Acquisition	MV - Minivan	1	\$46,000	\$46,000	MODERATE
2022	Revenue Vehicles	Van Acquisition	VN - Van	1	\$62,000	\$62,000	MODERATE
2022 PROJECTED PROJECT TOTALS				6		\$1,908,000	
2023	Revenue Vehicles	Bus Acquisition	BU – Bus	4	\$450,000	\$1,800,000	HIGH
2023	Revenue Vehicles	Bus Acquisition	CU - Cutaway	2	\$98,000	\$196,000	HIGH
2023	Revenue Vehicles	Minivan Acquisition	MV - Minivan	1	\$46,000	\$46,000	MODERATE
2023	Revenue Vehicles	Van Acquisition	VN - Van	1	\$62,000	\$62,000	LOW
2023 PROJECTED PROJECT TOTALS				8		\$2,104,000	
2018-2023 PROJECTED NEEDS				45		\$10,606,000	

Table 6: Section 5310 2018-2023 Projected Needs

Project Year	Asset Category	Project Name	Asset Class	Quantity	Cost-Estimated per vehicle	Total Project Cost	Priority
2018	FTA Section 5310	Minivan Acquisition	MV - Minivan	2	\$45,000	\$90,000	HIGH
2018	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	2	\$98,000	\$196,000	HIGH
2018 PROJECTED PROJECT TOTALS				4		\$286,000	HIGH
2019	FTA Section 5310	Minivan Acquisition	MV - Minivan	3	\$45,000	\$135,000	HIGH
2019	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	1	\$98,000	\$98,000	HIGH
2019 PROJECTED PROJECT TOTALS				4		\$233,000	HIGH
2020	FTA Section 5310	Minivan Acquisition	MV - Minivan	2	\$45,000	\$90,000	HIGH
2020	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	2	\$98,000	\$196,000	HIGH
2020 PROJECTED PROJECT TOTALS				4		\$286,000	HIGH
2021	FTA Section 5310	Minivan Acquisition	MV - Minivan	3	\$45,000	\$135,000	HIGH
2021	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	1	\$98,000	\$98,000	HIGH
2021 PROJECTED PROJECT TOTALS				4		\$233,000	HIGH
2022	FTA Section 5310	Minivan Acquisition	MV - Minivan	2	\$45,000	\$90,000	HIGH
2022	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	2	\$98,000	\$196,000	HIGH
2022 PROJECTED PROJECT TOTALS				4		\$286,000	HIGH
2023	FTA Section 5310	Minivan Acquisition	MV - Minivan	3	\$45,000	\$135,000	HIGH
2023	FTA Section 5310	Cutaway Bus Acquisition	CU - Cutaway Bus	2	\$98,000	\$196,000	HIGH
2023 PROJECTED PROJECT TOTALS				5		\$331,000	
2018-2023 5310 PROJECTED NEEDS				25		\$1,655,000	

KYOVA is committed to working closely with the local transit providers, Ohio Department of Transportation, Kentucky Transportation Cabinet, West Virginia Department of Highways, and the Federal Transit Administration in achieving established performance targets and measures as well as development of future targets. KYOVA promotes program investments that support the TAM Targets. All projects are subject to fiscal constraint and federal eligibility.

PM 2 & PM 3 Performance Measures

As of May 20, 2019, TIP Amendments must be developed in compliance with the transportation performance measure requirements of the FAST Act for PM 2 & PM 3 measures. KYOVA Interstate Planning Commission's Policy Board approved Resolution #2019-001 & Resolution #2019-002 both dated September 21, 2018 supporting WVDOH, KYTC, and ODOT statewide Pavement & Bridge (PM 2) and System Performance (PM 3) measures and targets for inclusion into the KYOVA 2040 Metropolitan Transportation Plan (MTP) and the KYOVA 2018-2021 Transportation Improvement Program (TIP).

KYOVA's 2018-2021 TIP ensures progress toward the accomplishment of the supported PM 2 & PM 3 targets and performance measures. Coordinated activities between KYOVA, WVDOH, KYTC, ODOT, and local officials take place to plan and program projects so that they can make investments to improve infrastructure and system performance on the nation's highways. The coordination process will continue to ensure that projects are planned and programmed which will make a positive impact toward the accomplishment of the WVDOH, KYTC, and ODOT PM 2 & PM 3 targets for that performance measure.

PM 2 – Pavement and Bridge Condition Performance Measures

The Pavement and Bridge Condition Final Rule establishes performance measures to assess pavement and bridge condition on the National Highway System (NHS). This rule will assist state DOTs and MPOs in making investment decisions to support highway infrastructure. For the Pavement and Bridge Condition Final Rule, four measures were established to assess pavement condition and two measures were established to assess bridge condition. MPOs are only required to set 4-year targets for each of the measures.

The Pavement and Bridge Condition Final Rule establishes the following measures:

1. Percent of interstate pavements in good condition
2. Percent of interstate pavements in poor condition
3. Percent of non-interstate NHS pavements in good condition
4. Percent of non-interstate NHS pavements in poor condition
5. Percent of NHS bridges by deck area classified as in good condition
6. Percent of NHS bridges by deck area classified as in poor condition

Federal Rule 23 CFR 490 requires states and MPOs to establish targets for the six Pavement and Bridge Condition performance measures to assess infrastructure condition on the National Highway System (NHS). These targets are provided in Table 1.

Table 1: PM2 - Pavement & Bridge Condition Targets						
	WVDOT		KYTC		ODOT*	
	2-Year	4-Year	2-Year	4-Year	2-Year	4-Year
Non-Interstate NHS Pavement % Good	40%	45%	35%	35%	35%	35%
Non-Interstate NHS Pavement % Poor	5%	5%	6%	6%	3%	3%
NHS Interstate Pavement % Good	NA	75%	NA	50%	NA	NA
NHS Interstate Pavement % Poor	NA	4%	NA	3%	NA	NA
NHS Bridges % Good	14%	16%	35%	35%	50%	50%
NHS Bridge % Poor	10%	10%	3.7%	3.2%	5%	5%

*The KYOVA Planning Boundary in Ohio does not include and any interstate roadways, therefore, KYOVA is not required to set interstate targets in Lawrence County.

Table 2 reflects KYOVA 2018-2021 TIP projects expected to contribute toward accomplishing the state pavement and bridge targets.

Table 2: 2018-2021 TIP - Pavement and Bridge Related Projects						
Primary Project Type	West Virginia		Kentucky		Ohio	
	Number of Projects	Programmed Cost	Number of Projects	Programmed Cost	Number of Projects	Programmed Cost
Interstate Pavement Projects	5	\$317,785,067	1	\$2,750,000	NA	NA
NHS Pavement Projects	6	\$156,147,000	8	\$2,022,782	4	\$21,155,830
Interstate Bridge Projects	4	\$68,179,000	1	\$1,360,000	NA	NA
NHS Bridge Projects	1	\$4,268,000	2	\$6,750,000	0	\$0
Total	16	\$546,379,067	12	\$12,882,782	4	\$21,155,830

PM 3 – System Performance Measures

The System Reliability/Freight/CMAQ Final Rule establishes performance measures used to report on the performance of the interstate and non-interstate NHS, freight movement on the interstate system, and traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality (CMAQ) program. This final rule establishes two measures to assess reliability, one measure to assess freight movement, two measures to assess CMAQ traffic congestion, and one

measure to assess CMAQ on-road mobile source emissions. MPOs are only required to set 4-year targets for each of the measures.

The System Performance Final Rule establishes the following measures:

1. Percent of person-miles traveled on the Interstate that are reliable (Travel Time Reliability)
2. Percent of person-miles traveled on the non-Interstate NHS that are reliable (Travel Time Reliability)
3. Truck Travel-Time Reliability (TTTR) Index (Freight Reliability)
4. Annual Hours of Peak Hour Excessive Delay (PHED) per capita
5. Percent of non-SOV travel
6. Total Emissions Reduction

CMAQ Performance Measures only apply to urbanized areas of more than one million for the first performance period. For the second performance period, which KYOVA falls under, a single unified target is required for the urbanized area. The second performance period begins January 1, 2022. Table 3 represents the System Performance measures and targets for each state DOT that were supported by KYOVA.

Table 3: PM3 - System Performance/Freight/CMAQ						
	WVDOT		KYTC		ODOT**	
	2-Year	4-Year	2-Year	4-Year	2-Year	4-Year
Level of Travel Time Reliability on Interstate Routes	98%	96%	93%	93%	NA	NA
Level of Travel Time Reliability on Non-Interstate NHS	NA	87%	NA	82.5%	NA	80%
Truck Travel Time Reliability (TTTR) Index	1.25	1.3	1.25	1.25	1.5	1.5

**The KYOVA Planning Boundary in Ohio does not include and any interstate roadways, therefore, KYOVA is not required to set interstate targets in Lawrence County.

Table 4 reflects KYOVA 2018-2021 TIP projects expected to contribute toward accomplishing the state system performance targets.

Table 4: 2018-2021 TIP - System Performance Related Projects						
Primary Project Type	West Virginia		Kentucky		Ohio	
	Number of Projects	Programmed Cost	Number of Projects	Programmed Cost	Number of Projects	Programmed Cost
System Reliability on Interstate	7	\$314,277,067	2	\$4,110,000	NA	NA
System Reliability on NHS	2	\$153,350,000	7	\$1,950,782	4	\$21,155,830
Freight	9	\$385,964,067	2	\$4,110,000	0	\$0
Total	18	\$853,591,134	11	\$10,170,782	4	\$21,155,830

In summary, bridge and pavement projects programmed in the KYOVA 2018-2021 TIP include the following: West Virginia – 16 projects totaling \$546,379,067 ; Kentucky – 12 projects totaling \$12,882,782; and Ohio – 4 projects totaling \$21,155,830.

System performance projects programmed in the KYOVA 2018-2021 TIP include the following: West Virginia – 18 projects totaling \$853,591,134 ; Kentucky – 11 projects totaling \$10,170,782; and Ohio – 4 projects totaling \$21,155,830.

KYOVA will continue to plan and program projects so that they contribute toward the accomplishment of WVDOH, KYTC, and ODOT PM 2 & PM 3 targets for that performance measure.