



**Ohio • Kentucky • Indiana**  
*Regional Council of Governments*


# CMAQ and Transportation Performance Measures


## STAQS


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# OKI Prioritization Process

- Ohio
  - Ohio STBG/CMAQ and TA sub-allocated funds
    - Combined OKI STBG/CMAQ Application
    - OKI Prioritization Process
  - High ranking projects that are also CMAQ eligible submitted to Statewide CMAQ process
- Kentucky
  - Kentucky STBG/TA sub-allocated funds. CMAQ not sub-allocated to MPO's.
  - OKI provides regional ranking of projects based on \$/emissions reduced
- Indiana
  - Indiana STBG/CMAQ/HSIP/TA suballocated funds
  - Small \$\$, no formal call for projects
  - If necessary, follow Ohio prioritization process

# Transportation Factors for Roadway Projects

- Safety\*
- Impact on Safety
- Average Daily Traffic (ADT) \*
- Travel Time\* (index or model based)
- Impact on Travel Time
- Freight\* (% trucks)
- IRI \* or Bridge Rating \*
- Complete Streets
- Status of Project

\* Data available from PAA

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# Transportation Factors for Transit Projects

- Project Type (vehicles, fixed facility, support)
- Ridership Impact
- Impact on Safety & Security
- Time to Implementation
- System Impact
- Existing Physical Condition

# Transportation Factors for Bike/Ped

- Safety
- Impact on Safety
- Network Connections
- Feasibility
- Existing Surface Conditions
- Complete Streets
- Project Status





# Transportation Factors for Non-Roadway Freight Projects

- Modal Traffic Flow
- Impact on Roadway Congestion
- Impact on Safety
- Project Status
- Impact on Reliability
- Existing Facility Conditions



# Planning Factors for All Projects

- Technology
- Environmental Justice
- Economic Vitality
- Investment/Employment Bonus
- **Air Quality**
- Intermodal Elements
- Replacement/Expansion
- Strategic Regional Policy Plan
- Local Plans
- Local Share
- History of Project Delivery



# Air Quality

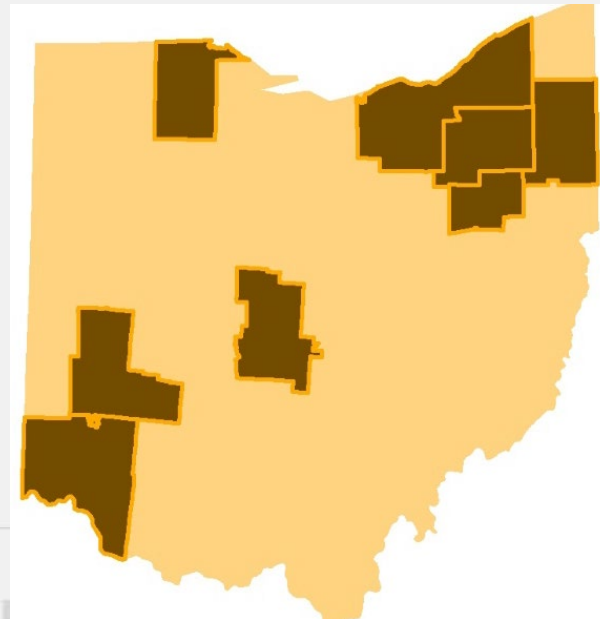
- Reduction in Vehicle Miles Traveled
- Reduction in Vehicle Hours Traveled
- Cleaner vehicle emissions
- 0 to 5 points awarded, qualitative assessment





# Ohio Statewide Urban CMAQ Committee (OSUCC)

- Statewide process for 8 largest MPO's in Ohio
- Developed statewide process and application
- Cost effectiveness in reducing congestion and vehicle emissions is a priority
- Collect applications, review scores, manage process



# OSUCC Scoring (100 points max)

	Criteria	Max Points Available
1	Project Type	10
2	Cost Effectiveness (per emission reduced)	20
3	Other Benefits (safety, fixed route transit, bike/ped, freight EJ)	10
4	Existing Modal Level-of-Service	15
5	Positive Impact on Level-of-Service	15
6	Status of Project	10
7	Non-Federal Match of Requested CMAQ Funds	10
8	History of Project Delivery (0, -5 or -10 point deduction)	0
9	Regional Priority	10

## 2. Cost Effectiveness (20 pts)

Measure	Points
Sliding scale	0-20

- To be completed by OKI Staff
  - Staff will use OSUCC methodology to calculate potential reduction of vehicle emissions.
- Annualized CMAQ requested/emissions reduction.
  - $(\text{CMAQ Request} / \text{Useful Life}) / \text{emissions reduced}$ 
    - Emissions reduced = Yearly reductions of VOC+NO<sub>x</sub>+PM<sub>2.5</sub>
- Most cost-effective receives 15 points, least = 0.
- State process will evaluate cost-effectiveness relative to all statewide projects.

# OKI Tasks for Kentucky CMAQ

- Collect Applications
- Calculate Emission Benefits
- Establish Regional Priorities

KYTC Office of Local Programs selects projects to be funded



# KY CMAQ-Methodology for Staff's Initial Prioritization

- Estimate daily emission reduction for smog precursor (VOC and NOx), CO, and fine and course particulate matter emissions (PM2.5, and PM10)
  - ▶ project impact on vehicle miles traveled
  - ▶ vehicle hours traveled
  - ▶ vehicle emissions
- Calculate Annualized Cost (based on “useful life”) and Emissions Benefit.
- Sort by Cost Effectiveness (\$/kg)
- Quantitative process only

# CMAQ Projects in OKI FY20-23 TIP

State	Number	Type	CMAQ Funds
Indiana	1	Turn lanes	\$192,000
Kentucky	1	Intersection realignment	\$1,787,000
Kentucky	2	Turn lanes	\$8,536,130
Kentucky	1	Eliminate bottleneck	\$4,300,000
Ohio	6	Bus replacement/other transit	\$20,264,704
Ohio	8	Bicycle/pedestrian	\$14,205,309
Ohio	6	Roundabouts	\$15,747,817
Ohio	3	Turn lanes	\$6,487,569
Ohio	4	Signal upgrades	\$7,579,065
Ohio	1	Freight	\$1,026,096



# OKI September 2018 Baseline CMAQ Performance Plan

Required as a TMA over 1m with a maintenance area

Baseline report due by 10/2018.

Mid Period Report due by 10/2020.

1. Baseline (2017), two and four-year PHED targets
2. Baseline (2017), two and four-year non-SOV targets
3. Baseline (2014-2017), two and four-year on-road mobile source emissions targets
4. Future CMAQ projects estimated emissions benefits

# CMAQ Performance Plan – Cincinnati Urbanized Area PHED and Non-SOV

Measure	Metric (annual hours per person)
2017 Baseline PHED	8.7
Measure	Metric (non-SOV % of total travel modes)
2017 Baseline	17.6%
2-Year Target	≥ 17.4%
4-Year Target	≥ 17.4%

# CMAQ Performance Plan: On-Road Mobile Source Emissions

Measure	NOx (kg/day)	VOC (kg/day)	PM2.5 (kg/day)
<b>2014-2017 Baseline</b>	Indiana: N/A Kentucky: 33.4 Ohio: 309.24	Indiana: N/A Kentucky: 4.93 Ohio: 61.65	Indiana: N/A Kentucky: 2.91 Ohio: 13.22
<b>2020 2-Year Target</b>	Indiana: 1600 Kentucky: 100 Ohio: 537	Indiana: 1600 Kentucky: 100 Ohio: 69	Indiana: 20 Kentucky: N/A Ohio: 36
<b>2022 4-Year Target</b>	Indiana: 2200 Kentucky: 200 Ohio: 537	Indiana: 2600 Kentucky: 200 Ohio: 69	Indiana: 30 Kentucky: N/A Ohio: 36

# CMAQ Performance Plan-Future Projects

## Estimated Emissions Benefits

- 4-year TIP CMAQ projects –
  - Project ID
  - Facility, Location, Description
  - VOC, NOx, PM2.5 emissions reductions by year
  - Benefit to reducing PHED and Non-SOV (qualitative)



# Statewide Performance Targets

- TIP and Plan narrative
- OKI agrees to plan and program projects so that they contribute toward accomplishment of each state's system performance measure targets. (by Resolution)
- Projects that contribute toward meeting performance targets
  - Summarize # of projects and total cost (not just CMAQ)



# Questions?

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