

# Transportation Air Quality Conformity Determination

June 2023 Draft Conformity Determination  
Performed for FY 2024 – 2027 TIP and  
Related Amendments to Connected 2050



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# Purpose of Air Quality Conformity

- Projects must be analyzed to determine that they meet requirements of (conform to) state air quality ozone plans and do not worsen air quality
- All projects must be included in the analysis
- Projects not included in the analysis cannot progress/move ahead toward implementation



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# Who performs Conformity Determination for the St. Louis (MO-IL) Region

- Conducted by the East-West Gateway Council of Governments (EWG), the Metropolitan Planning Organization for the region
  - With assistance of the Inter Agency Consultation Group (IACG), a peer group made up of representatives from EWG and federal, state and local air quality and transportation agencies
- EWG Board of Directors to approve initial determination
- Final conformity determination is made by Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) as OneDOT
  - U.S. Environmental Protection Agency (EPA) provides input on whether the EWG's initial conformity determination and the associated documentation meets requirements of Transportation Conformity Regulations
- Starting with EWG efforts and ending with receipt of OneDOT letter, it is approximately a nine month process



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# Air Quality Conformity Determination Process

- Process from EPA's Transportation Conformity Regulations, 40 CFR Part 93
- Conformity evaluates and documents the impact of proposed transportation activities on the region's air quality
  - Conducted for Transportation Improvement Program (TIP) and metropolitan Long Range Transportation Plan (LRTP)
- Projects included in the TIP/LRTP must pass regional emissions analysis tests for hydrocarbons (or volatile organic compounds - VOC) and oxides of nitrogen ( $\text{NO}_x$ ) for selected future analysis years, including the horizon year for the LRTP
  - VOC and  $\text{NO}_x$  are precursors to the formation of ozone and can be found in vehicle exhaust



# Components of a Regional Emissions Analysis - 1

- Develop forecasts of future mobile source emissions (VOC and NO<sub>x</sub>) for selected future analysis years for projects in TIP/LRTP by:
  - Running travel demand model to develop vehicle miles traveled (VMT) estimates
  - Running latest EPA-approved MOtor Vehicle Emissions Simulation (MOVES) model to generate mobile source emissions factors (Inventory or Emissions mode can be used)
  - If MOVES run in emissions mode, then running EWG-developed post-processing program which uses the VMT estimates and the MOVES input and output files to calculate total emissions



## Components of a Regional Emissions Analysis - 2

- Comparing the EWG-generated mobile source emissions forecasts expected to occur as result of implementation of the TIP/LRTP to Missouri and Illinois VOC and NO<sub>x</sub> motor vehicle emissions budgets set out in their respective State Implementation Plans (SIPs) for air quality
- Demonstrating that for all analysis years each State's motor vehicle emissions budgets will not be exceeded





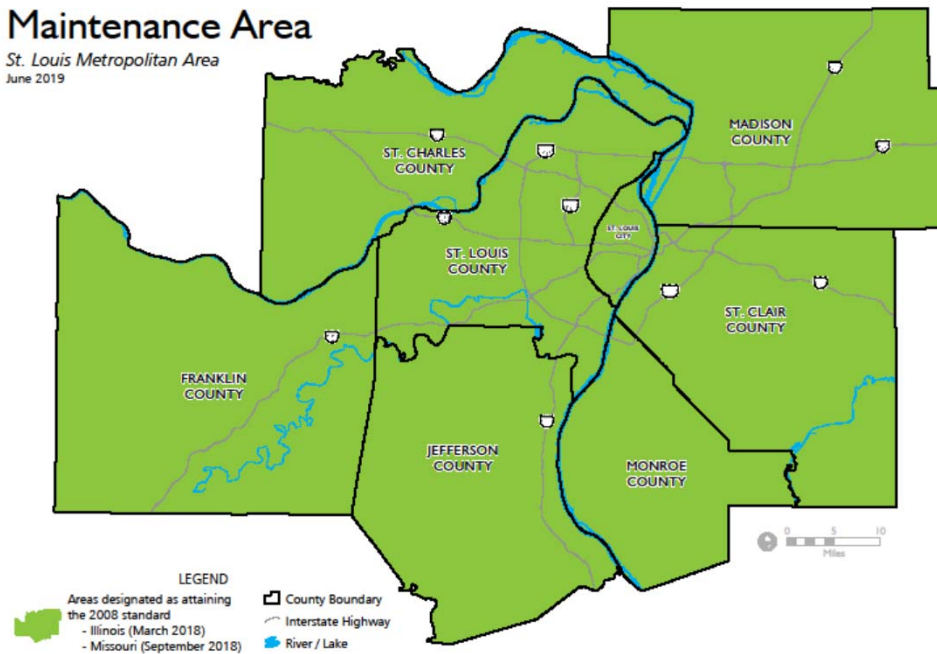
# Results

## Regional Emissions Analysis

Performed to determine Conformity for 2008 Ozone Standard

### 2008 Ozone Standard Maintenance Area

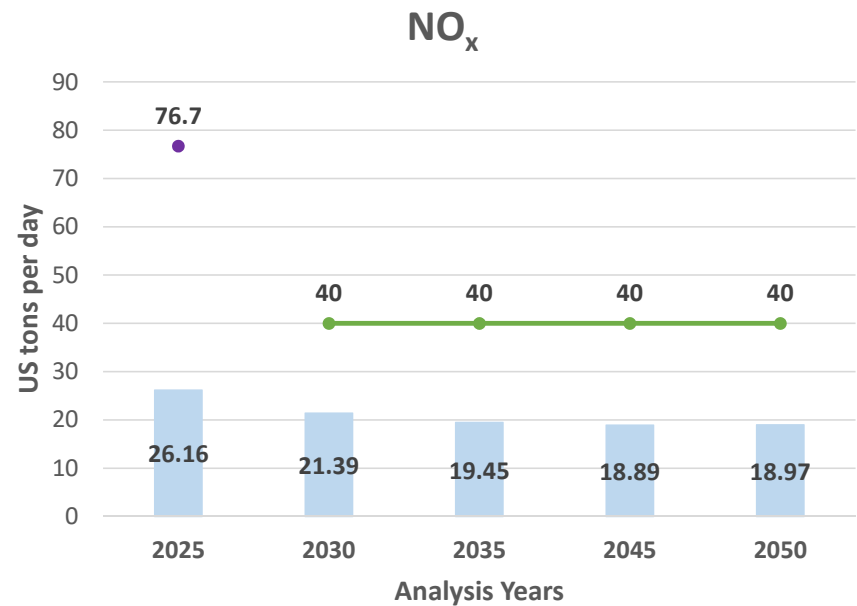
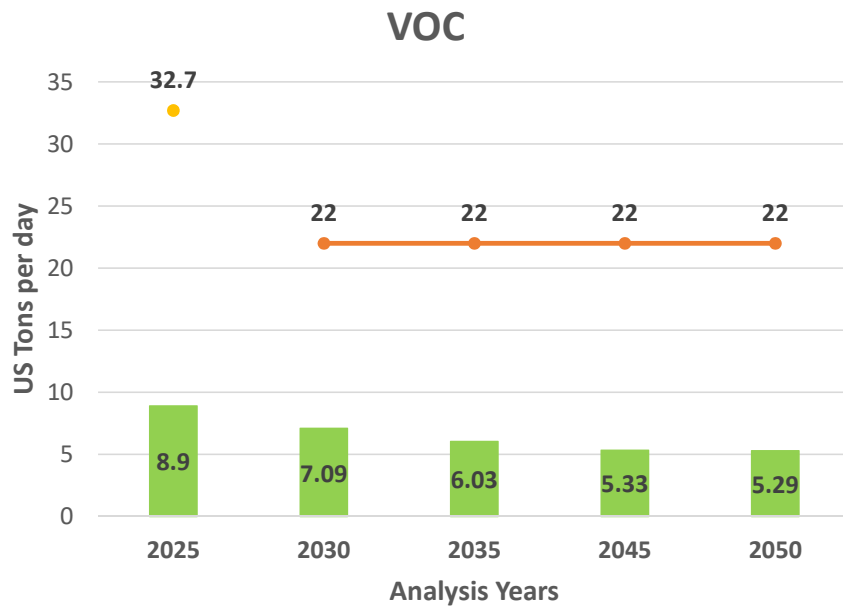
*St. Louis Metropolitan Area*  
June 2019



Source: East-West Gateway Council of Governments



# 2008 Ozone Standard Missouri - 5 County Maintenance Area Regional Emissions Analysis (US tons/day)



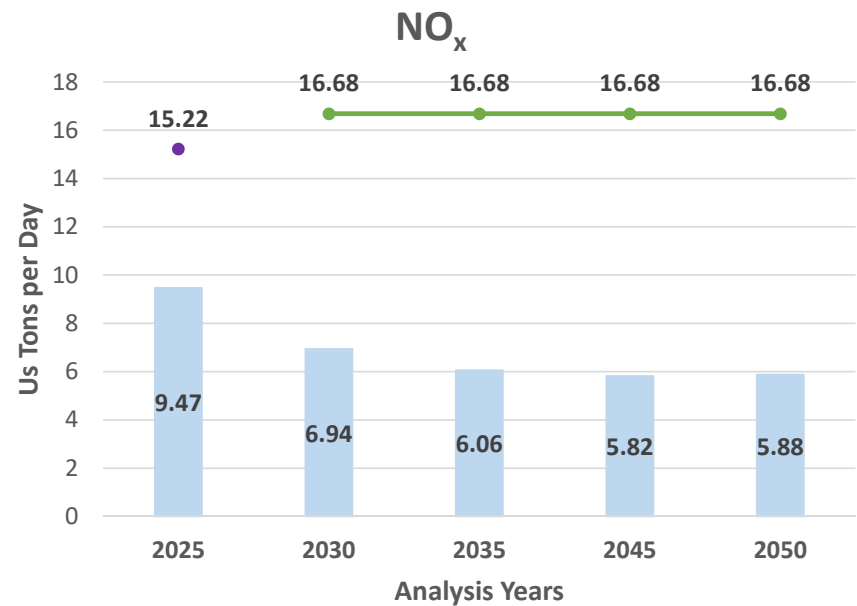
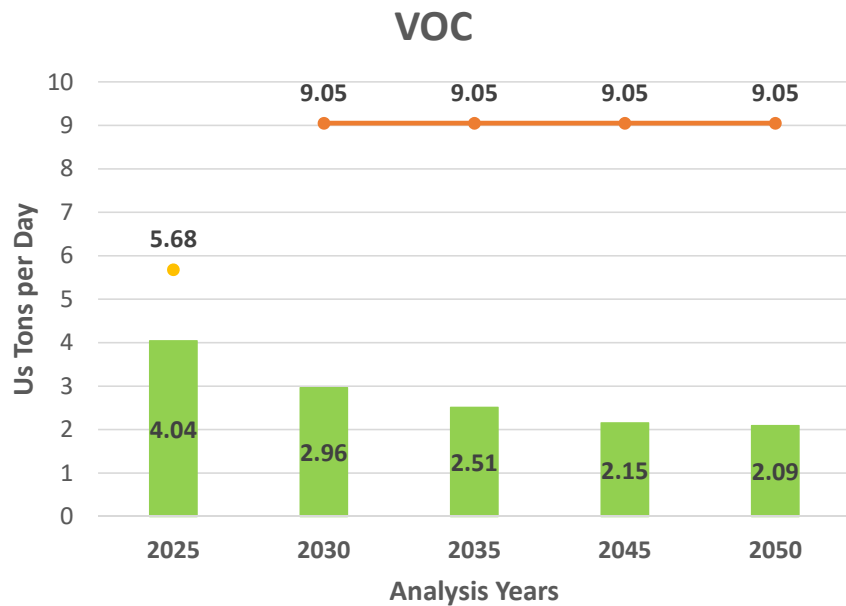
■ Estimated TIP Action Emissions 
 ● 2015 VOC Budget  
—●— 2030 VOC Budget

■ Estimated TIP Action Emissions 
 ● 2015 NO<sub>x</sub> Budget  
—●— 2030 NO<sub>x</sub> Budget

All tests have been passed for all years



# 2008 Ozone Standard Illinois - 3 County Maintenance Area Regional Emissions Analysis (US tons/day)



■ Estimated Action Emissions 
 —●— 2025 VOC Budget  
—●— 2030 VOC Budget

■ Estimated TIP Action Emissions 
 —●— 2025 NO<sub>x</sub> Budget  
—●— 2030 NO<sub>x</sub> Budget

All tests have been passed for all years

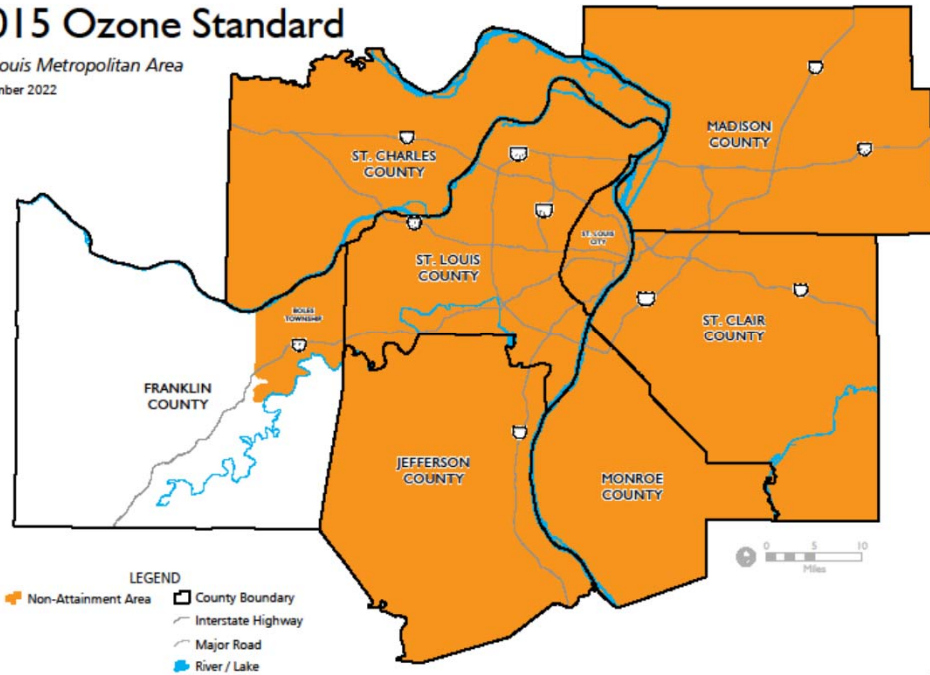
# Results

## Regional Emissions Analysis

Performed to Determine Conformity for 2015 Ozone Standard

### Non-Attainment Area 2015 Ozone Standard

St. Louis Metropolitan Area  
November 2022



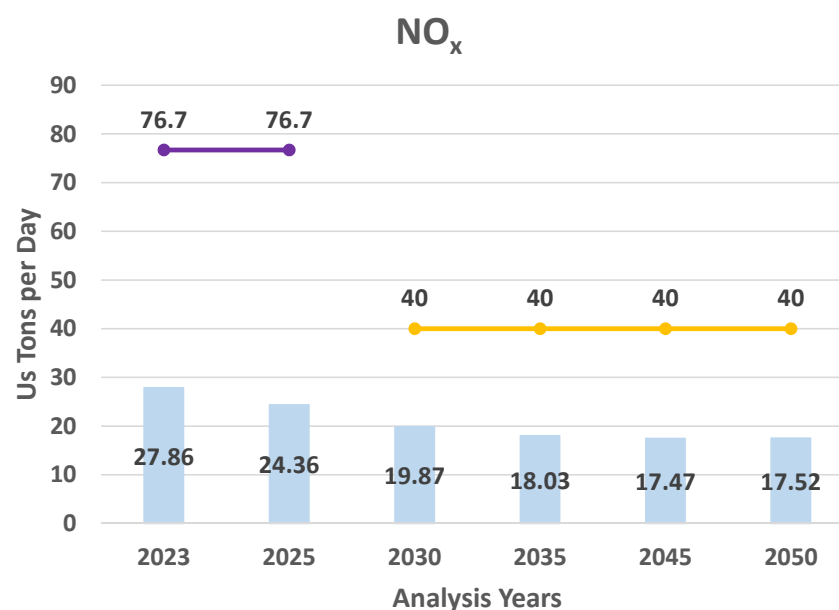
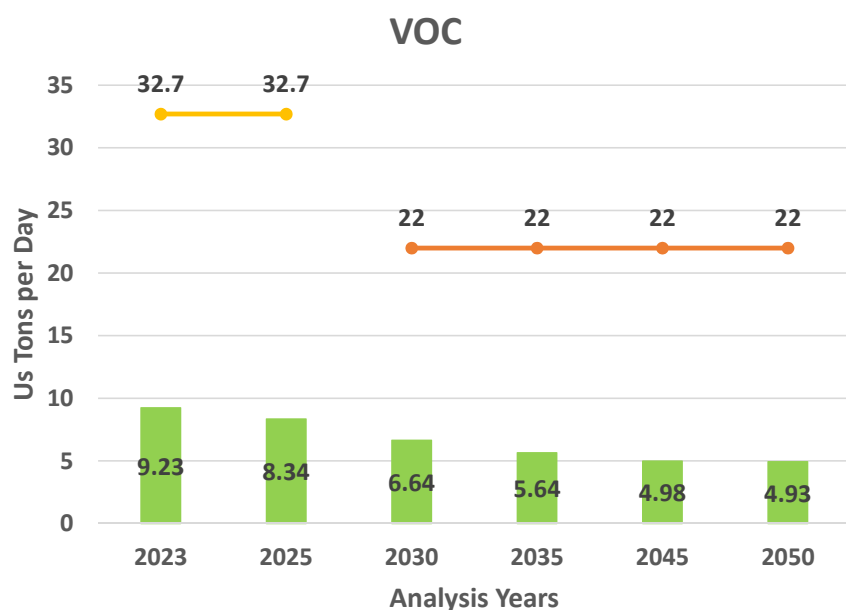
Sources: East-West Gateway Council of Governments



# 2015 Ozone Standard

## Missouri - 4 County & 1 Township Nonattainment Area

### Regional Emissions Analysis (US tons/day)

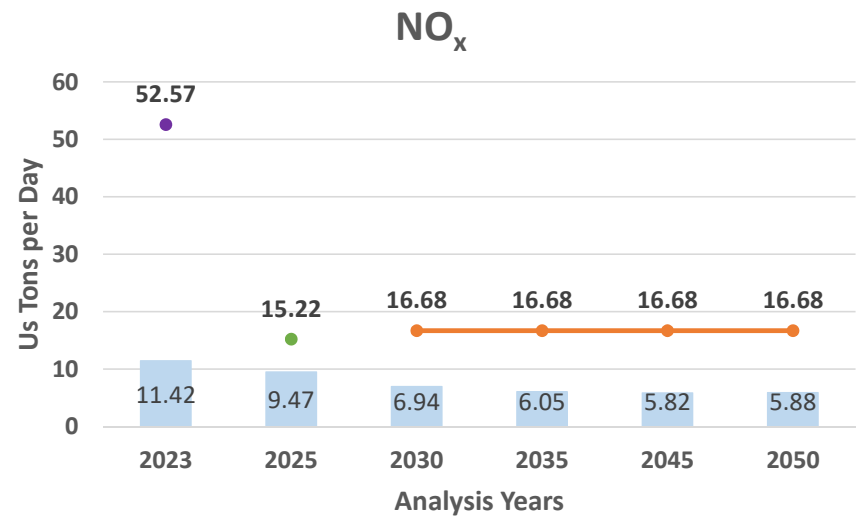
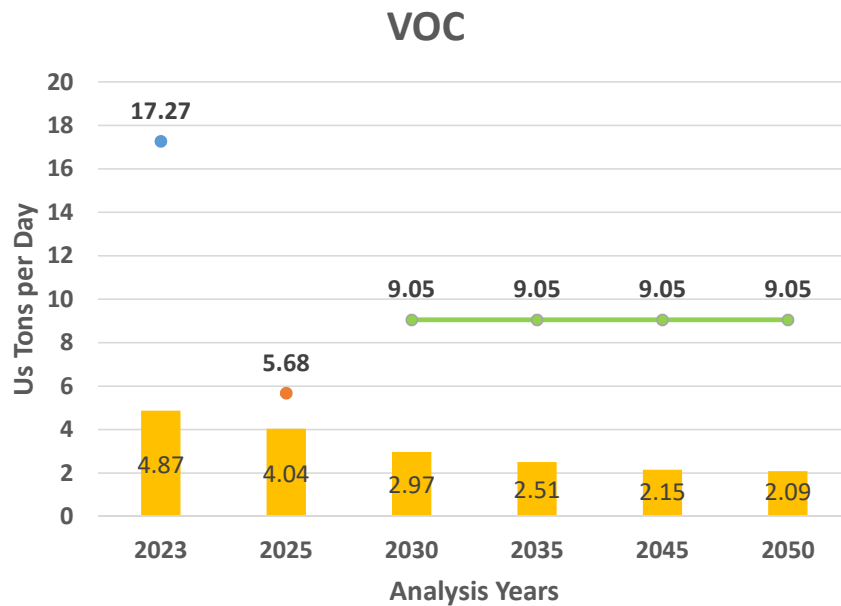


■ Estimated TIP Action Emissions 
 —●— 2015 VOC Budget  
—●— 2030 VOC Budget

■ Estimated TIP Action Emissions 
 —●— 2015 NO<sub>x</sub> Budget  
—●— 2030 NO<sub>x</sub> Budget

All tests have been passed for all years

# 2015 Ozone Standard Illinois - 3 County Nonattainment Area Regional Emissions Analysis (US tons/day)



■ Estimated TIP Action Emissions    —●— 2008 VOC Budget  
—●— 2025 VOC Budget                    —●— 2030 VOC Budget

■ Estimated TIP Actions Emissions  
—●— 2008 NO<sub>x</sub> Budget  
—●— 2025 NO<sub>x</sub> Budget  
—●— 2030 NO<sub>x</sub> Budget

All tests have been passed for all years

# Public Comment Period for Draft Conformity Determination and Draft FY 2024 – 2027 TIP

- June 30, 2023 – August 2, 2023
- Information about the drafts and the five public Open House meetings can be found at –  
<https://www.ewgateway.org/transportation-planning/transportation-improvement-program/fy2024-2027-tip-public-comment/>
- Comments can be: provided at Open House meetings; emailed to [tip@ewgateway.org](mailto:tip@ewgateway.org); or mailed to EWG at Gateway Tower, 1 Memorial Dr., Suite 1600, St. Louis, MO 63102. Include whether TIP or AQCD comment and must be postmarked by August 2. Online comments are due by midnight on August 2.

