Informational Webinar on the Federal "Good Neighbor Plan" for 2015 Ozone NAAQS

March 28, 2023 and March 30, 2023

Agenda

- Final Rule Overview
- 4-Step Interstate Transport Framework
- Stakeholder Responses to Proposal
- Transport Linkages for 2015 Ozone NAAQS, Receptor Areas and Linked Upwind States
- Final Rule Covered Geography
- FIP Requirements:
  - Power Sector Allowance Trading Program
  - Industrial Source Emissions Limitations
- Benefits Overview
- Questions

Final Rule Overview

- The Good Neighbor Plan ensures that 23 states meet the Clean Air Act's "Good Neighbor" requirements by reducing pollution that significantly contributes to problems attaining and maintaining EPA's health-based air quality standard for ground-level ozone (or "smog"), known as the 2015 Ozone National Ambient Air Quality Standards (NAAQS), in downwind states.

- Beginning in the 2023 ozone season, EPA will include power plants in 22 states in a revised and strengthened Group 3 Cross-State Air Pollution Rule (CSAPR) ozone season trading program. To achieve emissions reductions as soon as possible, EPA is setting the initial control stringency based on the level of reductions achievable through immediately available measures, including consistently operating emissions controls already installed at power plants.

- Beginning in the 2026 ozone season, EPA is setting enforceable NO_X emissions control requirements for existing and new emissions sources in industries in 20 states that are estimated to have significant impacts on downwind air quality and the ability to install cost-effective pollution controls.

The 4-Step Interstate Transport Framework

EPA evaluates SIPs and/or prepares FIPs using the 4-step interstate transport framework to quantify necessary emissions reductions to address interstate ozone pollution (defined as “significant contribution”).

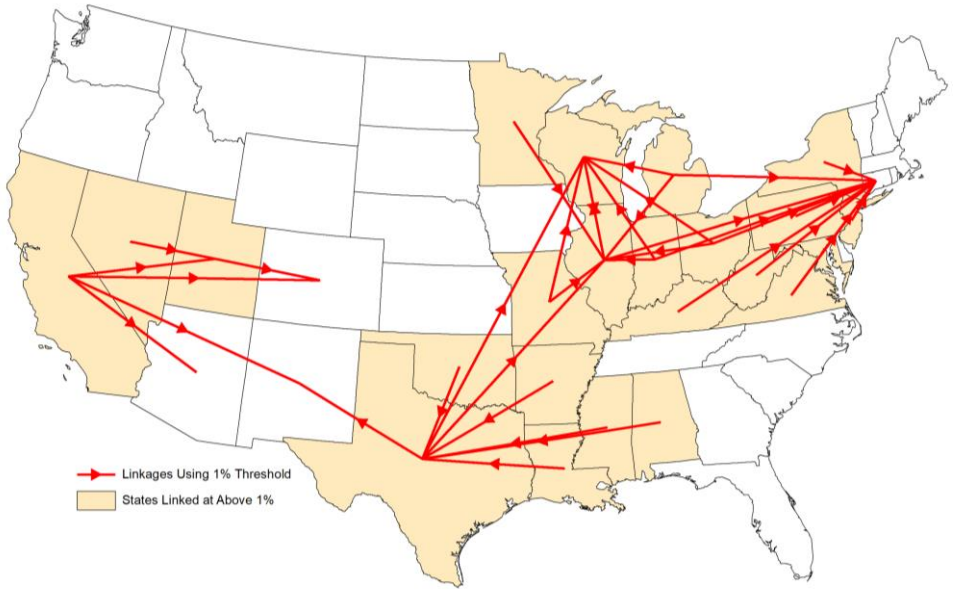
1. Identify downwind receptors expected to have problems attaining or maintaining the NAAQS.
2. Determine which upwind states are ‘‘linked’’ to these downwind air quality problems and thereby warrant further analysis of their emissions.
3. For states linked to downwind air quality problems, identify upwind emissions on a statewide basis that significantly contribute to nonattainment or interfere with maintenance of a standard in any area, considering cost- and air-quality-based factors.
4. For upwind states that are found to have emissions that significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind, implement the necessary emissions reductions within the state.

Stakeholder Responses to Proposal

- Virtual public hearing conducted on April 21, 2022
- Over 112,000 comments received on proposal
  - More than 700 unique comments posted to the docket
- Response to Comments document posted to 2015 GNP website and included in rulemaking docket

Transport Linkages for 2015 Ozone NAAQS

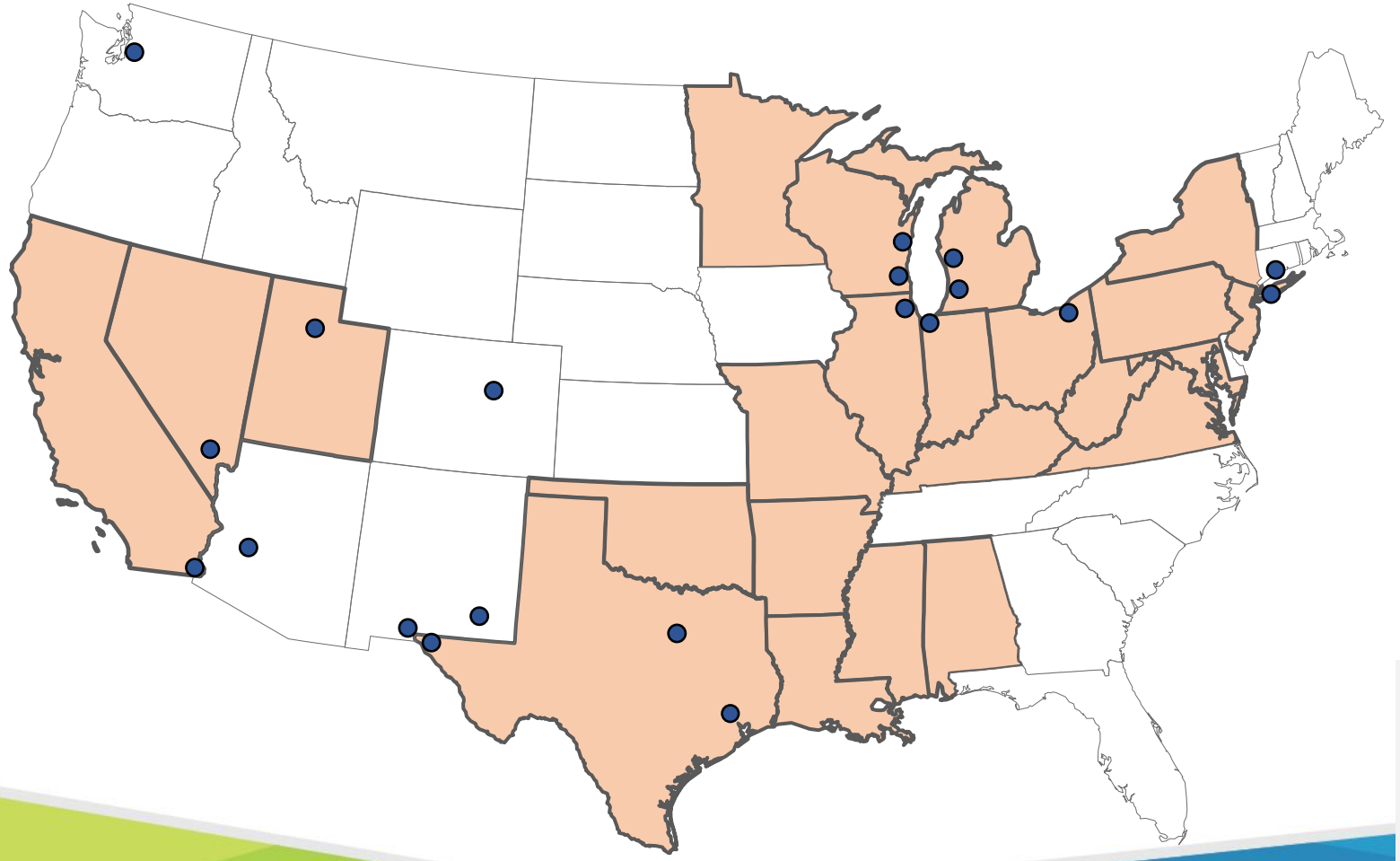
Transport Linkages from Final Rule Modeling



Map illustrates modeling-based linkages; see Slide 7 for receptors and linked upwind states and Slide 8 for the final rule's covered geography.

- Interstate air pollution refers to pollution from upwind emissions sources that impact the air quality in another state.
- These pollutants can travel great distances (i.e., hundreds of miles), affecting air quality and public health both locally and regionally.
- Transport of pollutants across state borders can make it difficult for downwind states to meet the National Ambient Air Quality Standards (NAAQS) for ozone and potentially other pollutants.

Final Rule Modeling-Based Receptor Areas and Upwind States in 2023



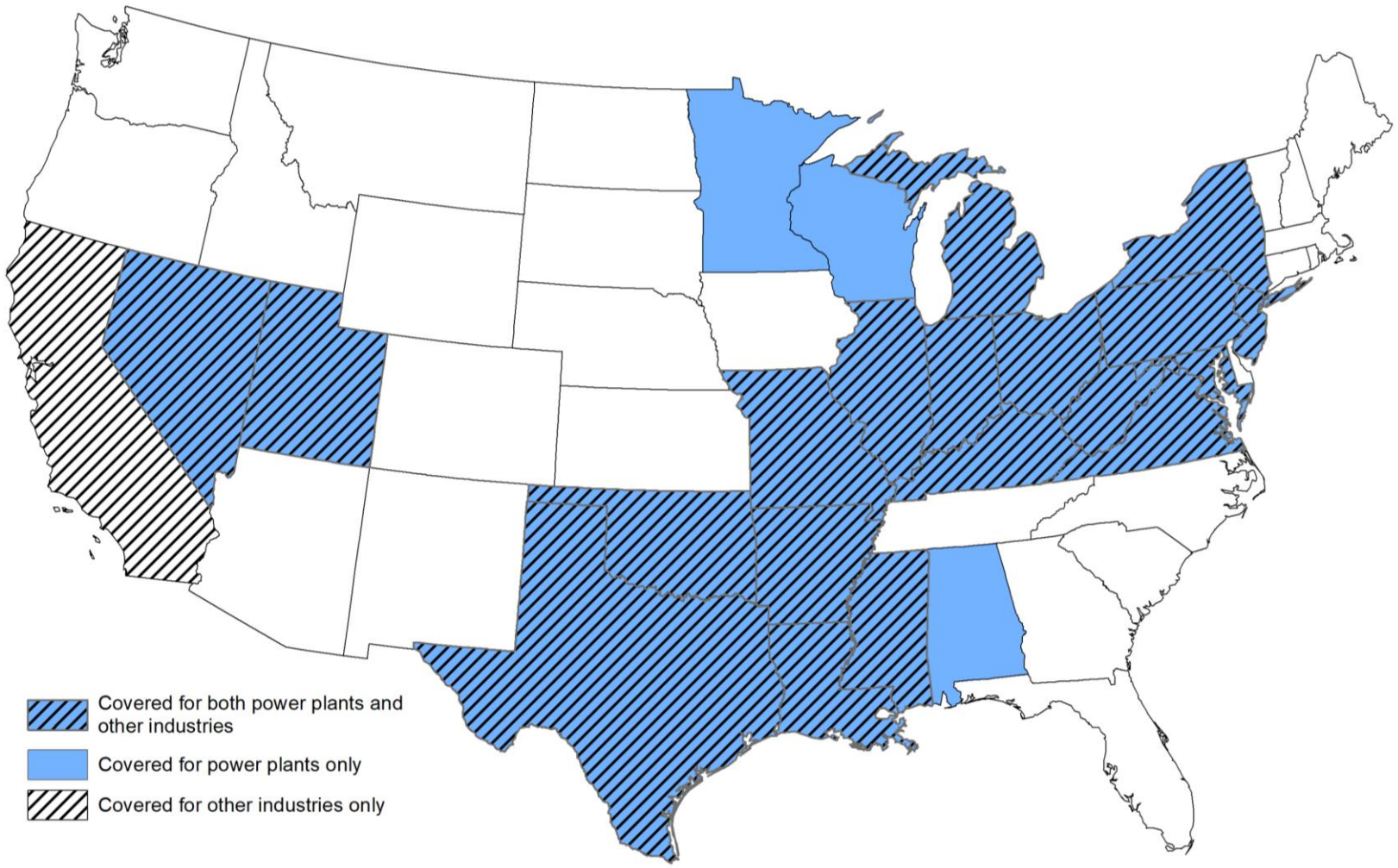
Step 1: EPA identified nonattainment and/or maintenance problems in 2023 in the following areas:
Yuma, AZ; Phoenix, AZ, Denver, CO; **Coastal CT**; **Chicago, IL; Hobbs, NM**; **Las Cruces, NM; Cleveland, OH; Dallas/Ft Worth TX**; **El Paso, TX; Houston/Brazoria/Galveston, TX; Las Vegas, NV; Salt Lake City, UT; and along the shoreline of Lake Michigan.**

Step 2: EPA identified 23 upwind states that are linked above 1% of the NAAQS or 0.70 ppb to downwind air quality problems in 2023: **Alabama; Arkansas; California; Illinois; Indiana; Kentucky; Louisiana; Maryland; Michigan; Minnesota; Mississippi; Missouri; Nevada; New Jersey; New York; Ohio; Oklahoma; Pennsylvania; Texas; Utah; Virginia; West Virginia; and Wisconsin.** (Alabama, Minnesota, and Wisconsin are not linked in 2026)

* Not shown on the map are monitoring sites on the Pechanga and Morongo Tribal Lands in California which are considered as "downwind" receptors for California.

Note that we did not calculate contributions for the receptor in Seattle because the model predictions at this receptor did not meet our criterion for calculating representative average contribution metric values.

Final Rule Covered Geography



NO_X Allowance Trading Program for Fossil Fuel-Fired Power Plants in 22 States

- Beginning in the 2023 ozone season, EPA will include power plants in 22 states in a revised and strengthened Group 3 Cross-State Air Pollution Rule (CSAPR) ozone season trading program.
- To achieve emissions reductions as soon as possible, EPA is setting the initial control stringency based on the level of reductions achievable through immediately available measures, including consistently operating emissions controls already installed at power plants.
- In order to achieve the remaining needed emissions reductions from power plants, the final rule sets emissions budgets that decline over time based on the level of reductions achievable through phased installation of state-of-the-art emissions controls at power plants starting in 2024.
- Building on the long and successful track record of EPA's CSAPR ozone season trading program, this program will secure significant reductions in ozone-forming pollution while providing power plants operational flexibility they need to continue providing reliable and affordable electric service.
- The final rule's 2027 budget for power plants reflects a 50% reduction from 2021 ozone season NO_X emissions levels.

Additional Features of the NO_X Allowance Trading Program

- The final rule includes additional features that promote consistent operation of emissions controls to enhance public health and environmental protection for the affected downwind regions and will also benefit local communities:
  - A backstop daily emissions rate in the form of a 3-for-1 allowance surrender for emissions from large coal-fired units that exceed a protective daily NO_X emissions rate. This backstop would take effect in 2024 for units with existing controls and one year after installation for units installing new controls, but no later than 2030;
  - Annually recalibrating the size of the emissions allowance bank to maintain strong long-term incentives to reduce NO_X pollution;
  - Annually updating emissions budgets starting in 2030 to account for changes in power generation, including new retirements, new units, and changing operation. Updating budgets may start as early as 2026 if the updated budget amount is higher than the state emissions budgets established by the final rule for 2026-2029.

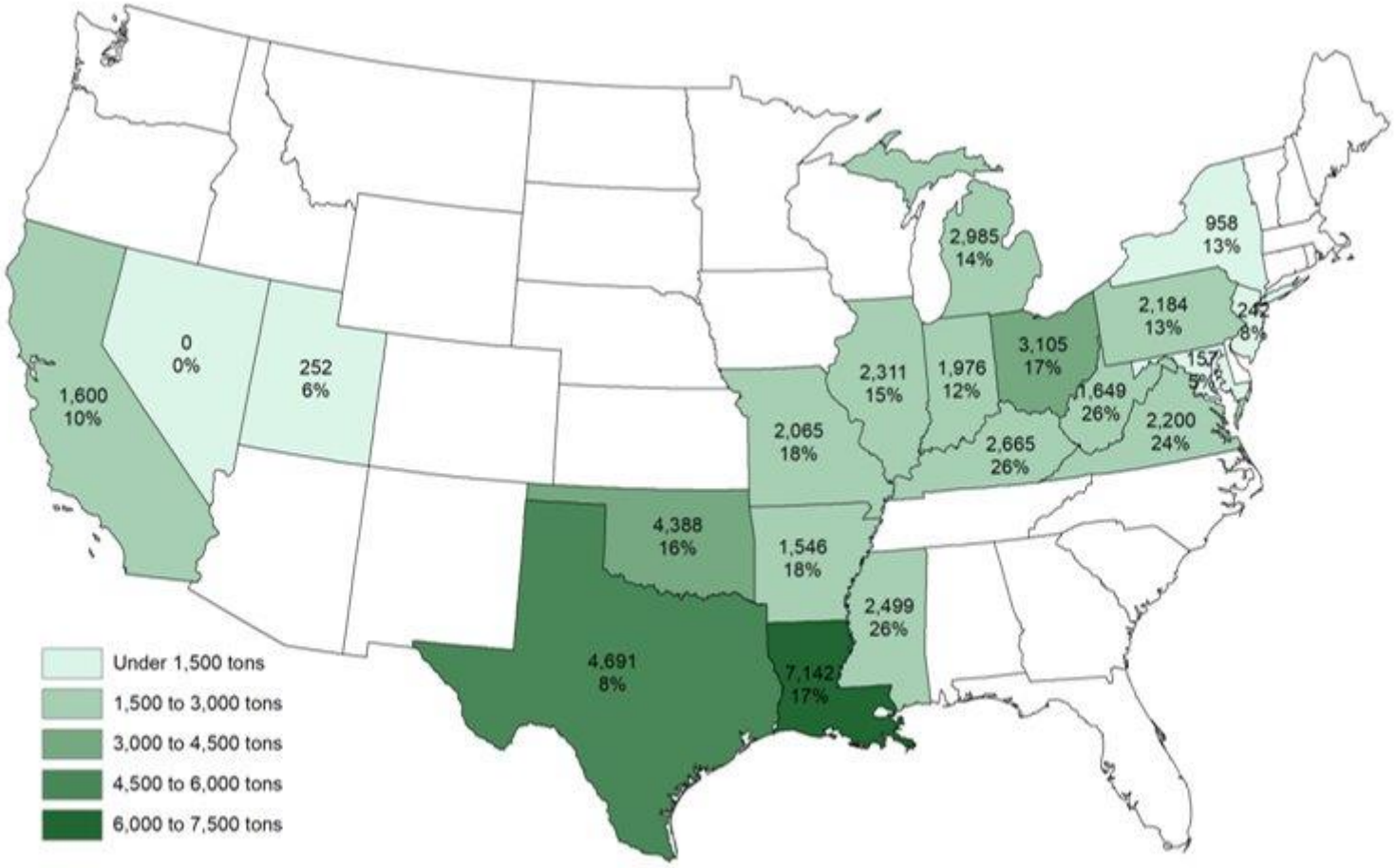
Industrial Source NOx Emissions Limits

- Beginning in the 2026 ozone season, EPA is setting enforceable NO_x emissions control requirements for existing and new emissions sources in industries that are estimated to have significant impacts on downwind air quality and the ability to install cost-effective pollution controls. These standards would collectively achieve an approximately 15% reduction in NOx emissions from 2019 ozone season, point source emissions. The reduction in NOx emissions comes from the following types of emissions sources:

    - reciprocating internal combustion engines in **Pipeline Transportation of Natural Gas**;
    - kilns in **Cement and Cement Product Manufacturing**;
    - reheat furnaces in **Iron and Steel Mills and Ferroalloy Manufacturing**;
    - furnaces in **Glass and Glass Product Manufacturing**;
    - boilers in **Iron and Steel Mills and Ferroalloy Manufacturing**, **Metal Ore Mining**, **Basic Chemical Manufacturing**, **Petroleum and Coal Products Manufacturing**, and **Pulp, Paper, and Paperboard Mills**; and
    - combustors and incinerators in **Solid Waste Combustors or Incinerators**.

- With EPA's approval, individual facilities may be eligible for a one year compliance extension. If specific additional criteria are met, EPA may grant additional compliance extensions of up to two more years.

Industrial Source Ozone Season Emissions Reductions in 2026 Relative to 2019 Ozone Season Emissions



Costs and Benefits Overview

- EPA estimates in 2026 the compliance costs will be $570 million (2016$), and the benefits in 2026 will be $4.3 billion and could be as much as $15 billion (2016$, 3 percent discount rate).

- In 2026, the net benefits of this final rule – after accounting for the costs of compliance – are estimated to be $3.7 billion and could be as much as $14 billion (2016$, 3 percent discount rate). EPA estimates that the net present value of this rule over the period from 2023 to 2042, after taking into account compliance costs, is $200 billion (2016$, 3 percent discount rate).

- In the year 2026, the final Good Neighbor Plan will prevent up to 1,300 premature deaths, reduce hospital and emergency room visits for thousands of people with asthma and other respiratory problems, help keep hundreds of thousands of children and adults from missing school and work due to respiratory illness, and decrease asthma symptoms for millions of Americans.

Questions?

Thank you!

• For general questions about the rule, please contact Liz Selbst, Office of Air Quality Planning and Standards, at Selbst.elizabeth@epa.gov.

• For questions about regulatory requirements for power sector sources, please contact Beth Murray, Office of Atmospheric Protection, at Murray.beth@epa.gov.

• For questions about regulatory requirements for industrial sources, please contact Dylan Mataway-Novak, Office of Air Quality Planning and Standards, at Mataway-novak.dylan@epa.gov.