## FACT SHEET - Key Changes and Improvements Final Cross-State Air Pollution Rule Update for the 2008 NAAQS:

On September 7, 2016, the EPA finalized an update to the Cross-State Air Pollution Rule (CSAPR) ozone season program by issuing the CSAPR Update. This rule addresses the summertime (May – September) transport of ozone pollution in the eastern United States that crosses state lines to help downwind states and communities meet and maintain the 2008 ozone national ambient air quality standard (NAAQS). Starting in May 2017, this final rule will further reduce ozone season emissions of nitrogen oxides (NO $_{\rm X}$ ) from power plants in 22 states in the eastern United States, providing up to \$880 million in benefits and reducing ground-level ozone exposure for millions of Americans. The final rule helps meet the Agency's obligation under the Clean Air Act to address the interstate transport of ozone air pollution. The CSAPR Update also responds to the July 2015 remand of certain CSAPR budgets by the United States Court of Appeals for the D.C. Circuit.

The final CSAPR Update is informed by more than 15,000 public comments received during the public comment process for the proposal, the July 2015 Notice of Data Availability (NODA), and the public hearing, as well as months of engagement with states, tribes, utilities, environmental groups and other stakeholders. The EPA made a number of changes in the final rule that directly respond to public comments and stakeholder engagement, using updated data and analysis that better reflect power sector emission reduction potential. These changes result in an improved rule that achieves meaningful NO<sub>X</sub> reductions, quickly and affordably.

## **Key Changes to the Final CSAPR Update from Proposal**

<u>CSAPR Update Region</u> – The final rule covers 22 states and includes power sector emission budgets (i.e., tonnage-based, state-level emission limits) and allowance trading programs for implementation.

- North Carolina North Carolina is not included in the final CSAPR Update because modeling for the final rule indicates that the state is not linked to any downwind nonattainment or maintenance receptors.
- Two ozone season NO<sub>X</sub> allowance trading programs The final rule establishes two trading groups and prohibits the use of Group 1 allowances for compliance in Group 2 and vice versa).
  - Group 2 = the 22 CSAPR Update states.
  - o Group 1 = Georgia, which is the only state with an ongoing CSAPR requirement for the 1997 ozone NAAQS that does not also have a CSAPR requirement for the 2008 ozone NAAQS. The CSAPR Update provides an option for Georgia to voluntarily opt into the Group 2 trading program by adopting a revised emission budget via a state implementation plan.

<u>CSAPR Ozone Season  $NO_X$  Statewide Budgets</u> – Power sector emission budgets represent the emission levels that affected sources in those states must meet to address their contribution to ozone air quality issues in downwind states.

- Budget-setting methodology The EPA refined its methodology for establishing emission budgets to better reflect power sector NO<sub>X</sub> reduction potential by using historical data in combination with projections of potential NO<sub>X</sub> emission rate improvements in each state. These refinements resulted in changes to individual state emission budgets and the combined total increased slightly (by less than 5 percent) from the proposed rule.
- SCR technology NO<sub>X</sub> emissions rate The EPA revised its assumption of the reasonably achievable NO<sub>X</sub> rate for units with the emission control selective catalytic reduction (SCR), moving from an emission rate of 0.075 lbs/mmBtu in the proposed rule to 0.10 lbs/mmBtu in the final rule. This assumption informs the calculation of emission budgets.
- See table ("Budgets and Emissions for States in the Final CSAPR Update") at the end of this fact sheet for each affected state's 2015 emissions, proposed 2017 CSAPR Update budgets, and final 2017 CSAPR Update budgets.

<u>CSAPR Allowance Bank</u> – The EPA considered how the relatively large bank of 2015 and 2016 CSAPR  $NO_X$  ozone season allowances could affect emissions in the future in the CSAPR Update states.

• To facilitate a smooth shift between the original CSAPR ozone season NO<sub>X</sub> trading program and the CSAPR Update ozone season NO<sub>X</sub> trading program, the final rule establishes a one-time allowance conversion that transitions a limited number of banked 2015 and 2016 allowances for compliance use in CSAPR Update states in 2017 and beyond. This allowance conversion limits the number of banked allowances to approximately 99,700 allowances across the CSAPR Update states in order to ensure that implementation of the trading program will result in NO<sub>X</sub> emission reductions sufficient to address states' good neighbor obligations. Importantly, the conversion eases the transition to the CSAPR Update by carrying over some allowances that can be used for compliance.

## Benefits and Costs -

- Changes to the geography of the CSAPR Update region, budget-setting methodology, and consideration of state rules (such as Pennsylvania's RACT) in the benefits analysis resulted in lower costs and fewer total emission reductions and benefits across the region than estimated at proposal. The final rule still achieves meaningful reductions, quickly and affordably, and will make important reductions in exposure to ozone, delivering benefits to millions of Americans.
  - $\circ$  The EPA estimates that this rule and other changes already underway in the power sector will cut ozone season NO<sub>X</sub> emissions from power plants in the eastern United States by 20 percent a reduction of 80,000 tons in 2017 compared to 2015 levels.

- The final CSAPR Update is expected to deliver total benefits of \$880 million (2011\$) per year, including:
  - \$810 million from the prevention of harmful and costly health effects:
    - Over 67,000 asthma attacks,
    - Almost 56,000 days of missed work and school,
    - Over 240 hospital and emergency room visits, and
    - Up to 60 premature deaths.
  - Climate-related co-benefits are estimated at around \$66 million per year, due to reductions in carbon dioxide (CO<sub>2</sub>) emissions.
- Unquantified benefits including improvements to visibility in national and state parks, and increased protection for sensitive ecosystems including Adirondack lakes and Appalachian streams, coastal waters and estuaries, and forests.
- o The benefits of the final rule far outweigh the estimated costs of \$68 million per year. For every dollar invested through the final CSAPR Update, American families would see up to \$13 in health benefits

## **Budgets and Emissions for States in the Final CSAPR Update**

State	2015 Emissions <sup>1</sup>	Final 2017 CSAPR Update Budget <sup>2</sup>	Proposed 2017 CSAPR Update Budget <sup>3</sup>
Alabama	20,369	13,211	9,979
Arkansas	12,560	12,048	6,949
Illinois	15,976	14,601	12,078
Indiana	36,353	23,303	28,284
Iowa	12,178	11,272	8,351
Kansas	8,136	8,027	9,272
Kentucky	27,731	21,115	21,519
Louisiana	19,257	18,639	15,807
Maryland	3,900	3,828	4,026
Michigan	21,530	16,545	19,115
Mississippi	6,438	6,315	5,910
Missouri	18,855	15,780	15,323
New Jersey	2,114	2,062	2,015
New York	5,593	5,135	4,450
Ohio	27,382	19,522	16,660
Oklahoma	13,922	11,641	16,215
Pennsylvania	36,033	17,952	14,387
Tennessee	9,201	7,736	5,481
Texas	55,409	52,301	58,002
Virginia	9,651	9,223	6,818
West Virginia	26,937	17,815	13,390
Wisconsin	9,072	7,915	5,561
Total	398,596	315,986	299,592

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<sup>&</sup>lt;sup>1</sup> Table VI.C-2. Evaluated EGU NO<sub>X</sub> Ozone Season Emission Budgets, Reflecting EGU NO<sub>X</sub> Reductions (Ozone Season NO<sub>X</sub> Tons), page 210 of the final rule preamble.

<sup>&</sup>lt;sup>2</sup> Table VII.E-1. Final EGU NO<sub>X</sub> Ozone Season New unit Set-aside Amounts, Reflecting Final EGU Emission Budgets (tons), page 275 of the final rule preamble

 $<sup>^3</sup>$  TABLE VII.B-2—PROPOSED EGU NO<sub>X</sub> OZONE-SEASON EMISSIONS BUDGETS REFLECTING EGU NO<sub>X</sub> MITIGATION AVAILABLE FOR 2017 AT \$1,300 PER TON, VARIABILITY LIMITS, AND ASSURANCE LEVELS (TONS) with North Carolina manually removed, page 75745 of the proposal preamble