



April 5, 2017

Administrator Scott Pruitt  
U.S. Environmental Protection Agency  
William Jefferson Clinton Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Subject: Docket ID No. EPA-HQ-OAR-2016-0751; Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard

**Submitted on April 6, 2017 To: *The Federal eRulemaking Portal: <http://www.regulations.gov>***

## **I. Introduction**

These comments are being submitted in response to the Environmental Protection Agency's (EPA's) *Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard (NAAQS)*, (the "NODA"), published in the Federal Register on January 6, 2017 (82 Fed. Reg. 1733). The Kansas Department of Health and Environment (KDHE) appreciates this opportunity to contribute to EPA's efforts in improving the accuracy of its data and the overall effectiveness of its future rulemaking. KDHE would like to reiterate our support for EPA's efforts to reduce the interstate transport of pollutants. However, we are concerned that there are a number of problems with the data incorporated into this modeling platform that, if not properly addressed, could undermine the benefits of the rule by causing substantial negative consequences. KDHE is concerned that we have not been provided sufficient time to examine this modeling and supporting information in detail. With those concerns in mind, KDHE submits the following comments.

## **II. Are Kansas' Major Reductions Captured by EPA's Methods?**

KDHE is concerned that EPA's attempt to model our electric generating unit (EGU) ozone season emissions are failing to capture the resulting NOx reductions that have occurred in the state since the development of the 2011 National Emissions Inventory (NEI). An analysis of the Acid Rain database comparing 2011 to 2016 ozone season data for the state of Kansas shows:

1. Heat input reduced 29.7%
2. Gross load reduced 28.1%
3. NOx tons reduced 67.4%

KDHE respectfully requests that EPA evaluate the outputs generated by the IPM model to ensure that the model is capturing these significant reductions.

### **III. Additional Wind Generation That Should be Included in the Modeling Platform**

Included with these comments is an Excel spreadsheet titled 2015\_InterstateTransportOZONE\_NODA\_comments\_kswind.xlsx which contains Kansas wind generation information for existing and planned wind farms. KDHE respectfully requests that EPA incorporate these additions into the modeling platform.

### **IV. Alternative Projection Methodologies – The Eastern Regional Technical Advisory Committee (ERTAC) Electric Generating Unit (EGU) Forecasting Tool**

KDHE is supportive of EPA's engagement with groups working on alternative projection methodologies. In particular, the Eastern Regional Technical Advisory Committee (ERTAC) Electric Generating Unit (EGU) Forecasting Tool represents a promising alternative to the Integrated Planning Model (IPM), which is used in the modeling platform that is the subject of this NODA. KDHE has been working with the ERTAC group for several years to assist in updating emission factors, configuration data, and operational information associated with Kansas EGUs.

KDHE would like to point out a number of benefits of the ERTAC EGU forecasting tool. It is open-source, low-cost, and can be run by state agency personnel. KDHE supports keeping the option open for each state to allow them to use the ERTAC model for SIP development and other planning work. KDHE also recommends allowing each individual state the opportunity to provide input identifying which modeling approach (ERTAC or IPM) is preferred and we encourage EPA to incorporate each state's preference into the modeling performed to inform the CSAPR 3 rulemaking. KDHE believes that the NODA mechanism (the notice and request for comments) represents a workable approach for soliciting state regulatory input (including a request for either using the IPM or the ERATAC model) prior to any significant rulemaking.

### **V. Request for Adoption of a New Modeling Platform Based on Updated Emissions Inventory and Meteorology Data**

KDHE recommends that EPA replace the 2011 modeling platform for the CSAPR 3 rulemaking. Our reasons for this recommendation is summarized below.

#### **A. The Clean Power Plan**

The NODA states that the updated EGU projections include the effects of the Clean Power Plan (CPP) in the future year modeling analysis used to identify the upwind states which are linked to downwind nonattainment and maintenance areas (82 Fed. Reg. 1736). It now appears unlikely that the CPP will be implemented in time or at all to have a substantial influence on EGU emissions during the time period under consideration. With that in mind, KDHE recommends that EPA abandon the preliminary modeling performed to date and proceed with a new modeling platform based on the 2014 NEI and updated meteorological data.

#### **B. 2011 Meteorological Anomalies**

KDHE would like to share our concerns about the anomalously warm and dry weather experienced in the south-central and central U.S. in 2011. In Kansas, the 2011 ozone season was the 13<sup>th</sup> warmest on record. The five-month period from May to September, 2011, showed a positive temperature departure from the 20<sup>th</sup> century mean of 2.9°F (1.6°C).<sup>1</sup> In addition, our neighbors to the south, Oklahoma and Texas, saw even worse

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<sup>1</sup> See the National Oceanic and Atmospheric Administration (NOAA), National Center for Environmental Information web site, accessed March 29, 2017.

<https://www.ncdc.noaa.gov/temp-and-precip/climatological-rankings/index.php?periods%5B%5D=5&parameter=txmax&state=14&div=0&month=9&year=2011>

meteorological conditions. In Oklahoma, the 2011 ozone season was the single warmest on record. The five-month period from May to September, 2011, showed a positive temperature departure from the 20<sup>th</sup> century mean of 5.3°F (3.0°C). For Texas, this period is also the warmest on record with a positive temperature departure of 5.5°F. Kansas also saw dry conditions for that period with the 24<sup>th</sup> driest period on record.<sup>2</sup> That period was also the driest period on record for Texas and the 3<sup>rd</sup> driest period on record for Oklahoma. KDHE would respectfully request that a more representative meteorological year should be used for this modeling and not a year with extreme heat and drought.

### C. The Superiority of the 2014 National Emissions Inventory

In Kansas, recent reductions in ozone-season NOx emissions from EGUs have elevated the significance of the remaining sources. The following table highlights the various source categories, based on the 2014 NEI.

#### Kansas 2014 NOx Emissions

Source Category	2014 Annual NOx Emissions (tons)	Percent
Mobile On-Road	67,615	20.0%
Oil and Gas E&P + Midstream Sectors	62,103	18.4%
Non-EGU Industrial Boilers	34,165	10.1%
EGUs	26,612	7.9%
Biogenic	53,623	15.9%
Remaining Sources (Fires, Residential Combustion, Etc.)	21,997	6.5%
Mobile (Air, Rail, and Marine)	38,993	11.6%
Mobile Non-Road	32,192	9.6%
<b>Total 2014 Statewide NOx Emissions</b>	<b>337,300</b>	

In 2011, statewide Kansas NOx emissions totaled 398,613 tons. The 2014 total NOx emissions were 1.5% lower. In 2011, ozone-season EGU NOx emissions totaled 19,732 tons – a total which excludes smaller units (less than 25 MW) not included in the Acid Rain Program. In 2016, the equivalent ozone-season EGU emissions dropped to 7,466 tons, a 62.2% decrease in relation to the 2011 emissions. As EGU emissions have decreased, other NOx sources have become relatively more important. In Kansas, the second largest source category (after on-road mobile sources) is the combined oil and gas exploration, production, and midstream sectors. Considering the importance of that broad source category, the 2014 NEI represents a significant improvement for two primary reasons: (1) some states incorporated detailed inventories from permitted wellhead facilities in their states and (2) the National Oil and Gas Emissions Inventory Tool included basin-specific data obtained from the Greenhouse Gas Reporting Program (GHGRP).


<sup>2</sup> See the National Oceanic and Atmospheric Administration (NOAA), National Center for Environmental Information web site, accessed March 29, 2017.

<https://www.ncdc.noaa.gov/temp-and-precip/climatological-rankings/index.php?periods%5B%5D=5&parameter=pcp&state=14&div=0&month=9&year=2011>

As emissions from the EGU sector have decreased, developing more accurate estimates of the emissions from the oil and gas sector has become even more important.<sup>3</sup> The 2014 NEI represents the best available characterization of emissions from that sector nationwide.

Kansas sources have made significant reductions in NO<sub>x</sub> and SO<sub>2</sub> in recent years, reducing the state's contribution to both transport of pollutants and reducing the exposure of Kansas' citizens to these pollutants. KDHE believes that these reductions have likely made a much more significant reduction in transport impacts in downwind nonattainment and maintenance areas than the current 2011 EPA modeling is indicating. Consistent with credits given in other states for controls and regulations in place, KDHE believes these emissions reductions that Kansas facilities have recently made should be accounted for in the EPA modeling, establishing "linkages" between Kansas emissions and downwind nonattainment. KDHE respectfully requests that the emissions modeling inventory be corrected and updated using the latest CAMD data, along with specific KDHE recommendations, and that the CAMx "linkage" modeling be redone by EPA.

Sincerely,



John W. Mitchell *for*  
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Kansas Department of Health and Environment

Cc: Douglas Watson KDHE  
Edward H. Chu EPA R7  
Ec: Becky Weber EPA R7

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<sup>3</sup> See, for example, the U.S. Environmental Protection Agency, Office of Inspector General, "EPA Needs to Improve Air Emissions Data for the Oil and Natural Gas Production Sector," Report No. 13-P-0161, February 20, 2013.