

## Shyamala Rajan

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**From:** Ozone Transport  
**Sent:** Thursday, November 14, 2019 1:34 PM  
**To:** Fees, David F. (DNREC)  
**Cc:** Shyamala Rajan; Andy Bodnarik  
**Subject:** FW: Request for Public Hearing

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**From:** Englert, John P. <John.Englert@saul.com>  
**Sent:** Thursday, November 14, 2019 11:26 AM  
**To:** Ozone Transport <Ozone@otcair.org>  
**Cc:** Gary Cline (Gary.Cline@nrg.com) <Gary.Cline@nrg.com>; Terry Black (terry.black@erm.com) <terry.black@erm.com>  
**Subject:** Request for Public Hearing

I write on behalf of Homer City Generation, LP to request a public hearing on the OTC's proposed recommendation developed under Clean Air Act section 184(c). A Homer City Generation representative will present oral testimony at the hearing. Please reserve a time slot for this presenter. Also, please arrange for a power point projector and screen. Thank you for your consideration of these requests.

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"Saul Ewing Arnstein & Lehr LLP (saul.com)" has made the following annotations:

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**COMMENTS OF HOMER CITY GENERATION LP  
ON OZONE TRANSPORT COMMISSION  
PROPOSED RECOMMENDATION FOR ESTABLISHING DAILY LIMITS FOR  
COAL-FIRED EGUs IN PENNSYLVANIA**

**NOVEMBER 21, 2019**

**Introduction**

On May 30, 2019 the Secretary of the Maryland Department of the Environment submitted a petition to the Ozone Transport Commission (“OTC” or “Commission”) pursuant to Section 184(c) of the Clean Air Act (“Petition”). The Petition calls on the Commission to develop and transmit to the Administrator of the U.S. Environmental Protection Agency recommendations for additional control measures to be applied to certain coal-fired power plants in Pennsylvania equipped with post-combustion controls. In response to the Petition the Commission has prepared its *Recommendation for Establishing Daily Limits for Coal-Fired EGUs in Pennsylvania to Ensure that Existing Control Technologies are Optimized to Minimize Nitrogen Oxide [NO<sub>x</sub>]Emissions Each Day of the Summer Ozone Season* (“Recommendation”).

The Recommendation would have EPA require Pennsylvania to revise its State Implementation Plan to establish daily NO<sub>x</sub> emissions limits for all coal-fired EGUs which have already installed Selective Catalytic Reduction (“SCR”) or Selective Noncatalytic Reduction (“SNCR”) controls. The Recommendation would require Pennsylvania’s regulations to be as stringent as the regulations implemented in Maryland, Delaware or New Jersey. Those regulations require the following:

- Delaware imposes a NO<sub>x</sub> emissions limit of 0.125 lbs/MMBtu on a 24-hour rolling average;
- New Jersey imposes a NO<sub>x</sub> emissions limit of 1.5 lbs/MW-hr on a 24-hour period during the period from May 1-September 30 and on a 30 day period from October 1-April 30.
  - This limit excludes startup and shutdown.
  - Combustion tuning before the ozone season is also required.
- Maryland imposes a NO<sub>x</sub> emissions limit of 0.15 lbs/MMBtu on a 30-day systemwide rolling average.
  - Maryland also requires for each operating day during the ozone season the operation and optimization of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers’ specifications, good engineering and maintenance practices and good air pollution control practices, and

- Meet facility-specific 24-hour rolling average NO<sub>x</sub> emissions limits ranging from 0.07-0.34 lbs/MMBtu, excluding startup, shutdown and low load or emergency operations directed by the grid operator.

Homer City Generation's comments are as follows:

**1. The Recommendation is not necessary.**

- EPA has already determined that Pennsylvania sources are not violating the Good Neighbor provisions of the Clean Air Act ("CAA"). Maryland and Delaware each filed petitions with EPA under CAA Section 126 seeking additional restrictions on coal-fired EGUs in other states. EPA has denied these petitions based on the emissions restrictions imposed by the Cross State Air Pollution Rule ("CSPAR") Update. In denying these petitions EPA found that EGUs named in the petitions (including the Homer City Station) do not have further cost effective NO<sub>x</sub> reduction potential beyond the levels finalized in the CSPAR Update emissions budget. 83 Fed. Reg. 50444,50445 (Oct. 5, 2018).
- Pennsylvania already requires stationary sources to operate in accordance with good air pollution control practices and this requirement is included as a condition in each facility's Title V operating permit. 25 Pa. Code § 127.25
- The Recommendation is based on modeling performed by Maryland using emissions data from 2011. Since then Pennsylvania has reduced NO<sub>x</sub> emissions from all EGUs by 77% and from coal-fired EGUs by 80%. Further reductions will be realized as the result of the recently-announced closures of the Bruce Mansfield, Colver Power Project, and Cambria Cogen stations, all in western Pennsylvania. In 2017 and 2018, the combined NO<sub>x</sub> emissions from these three facilities were 3046 tons and 4,550 tons, respectively.

**2. Pennsylvania's regulations already impose stringent NO<sub>x</sub> emissions limits.**

- Pennsylvania requires its coal-fired EGUs equipped with SCRs or SNCRs to operate them year-round, and imposes a NO<sub>x</sub> emissions limit on SCR controlled units of 0.12 lbs/MMBtu on a 30-day rolling average.
- Unlike the Maryland limits, the Pennsylvania limit is on a per unit basis, not a systemwide average.
- Pennsylvania regulates startup, shutdown and low load operations based on the threshold operating temperature for the SCRs (600°F), as defined by the physical and

chemical characteristics of the SCR process, whereas the other States' regulations exclude startup, shutdown and low load operations based on subjective definitions and conditions.

**3. The Recommendation's focus on Pennsylvania coal-fired EGUs with SCR or SNCR controls is misplaced as it ignores greater contributions from uncontrolled and undercontrolled sources, including mobile sources, in and closer to Delaware, Maryland, and New Jersey.**

- The Recommendation specifies additional emission control measures for EGUs with existing NO<sub>x</sub> emission controls, but does not address additional EGU emission reductions that would occur with the installation and operation of emission controls on units that are not presently controlled or not controlled to the levels to which the targeted Pennsylvania facilities are required to meet. These uncontrolled/undercontrolled units include large EGU boilers and high energy demand day turbines and engines many of which are in closer proximity to Maryland's ozone nonattainment areas than the controlled EGUs in Pennsylvania which the Commission seeks to overcontrol.
- These local emissions, primarily from mobile sources and from other combustion sources with low elevation discharges, including high energy demand day units, would have a greater impact on ozone air quality than more remote emissions sources such as the Homer City Station, approximately 200 miles from Baltimore.
- In Homer City's comments submitted to the Commission on August 16, 2019 regarding the Maryland Petition, we provided information regarding non-electric generating unit (EGU) daily emissions for counties in proximity to the Baltimore ozone nonattainment area. These NO<sub>x</sub> emission data are shown in Figure 1.

FIGURE 1

NO<sub>x</sub> EMISSIONS BY COUNTY

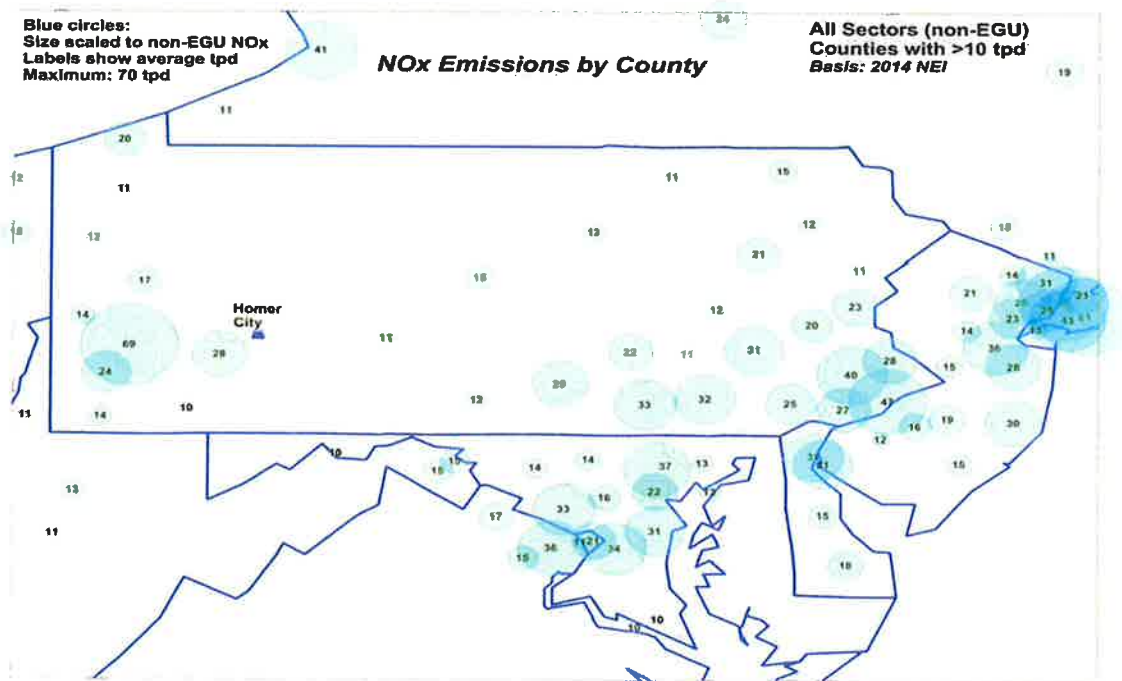
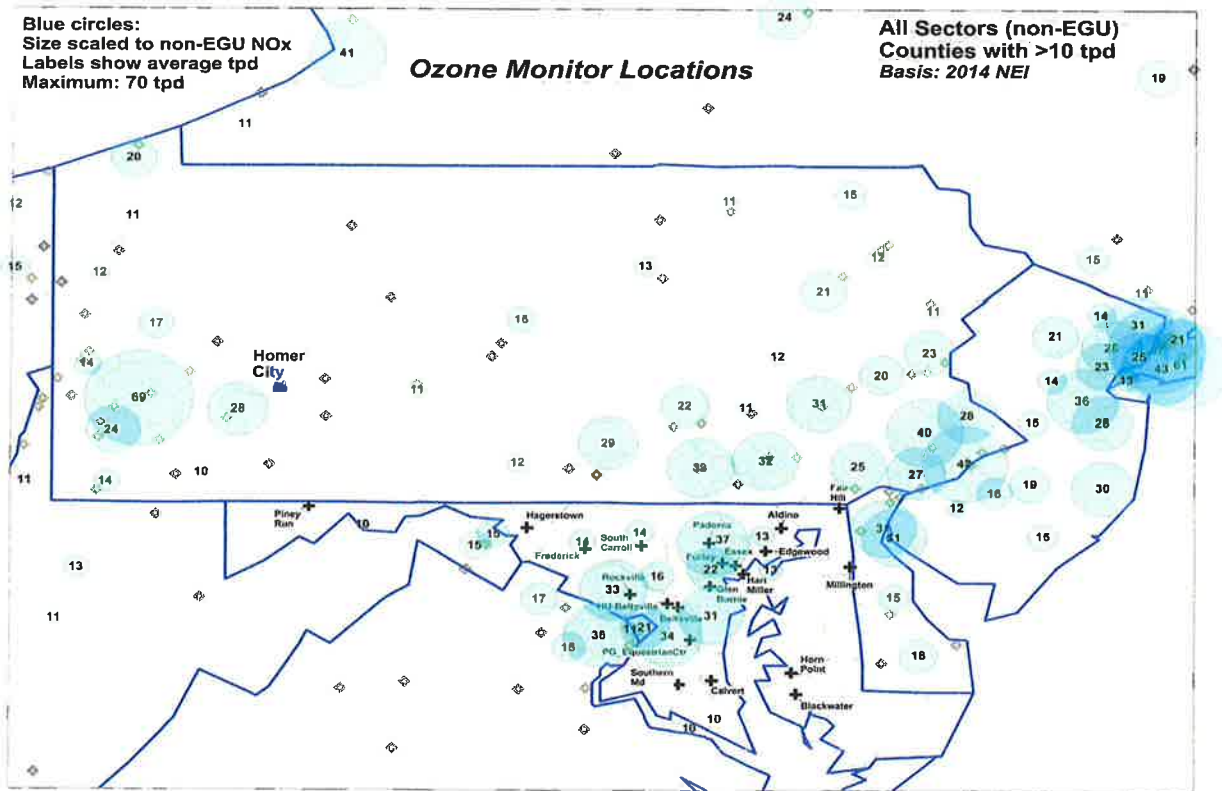


Figure 2 is the same base map as Figure 1, with locations of ozone monitors added to the county NO<sub>x</sub> data. Ozone monitors in Maryland are indicated by a "+" symbol with the name of the monitoring location provided. Other ozone monitoring stations in Pennsylvania, Delaware and New Jersey are depicted with a diamond shape.

**FIGURE 2  
OZONE MONITOR LOCATIONS**



In our August 16, 2019 comments, we provided data that show the Homer City daily NO<sub>x</sub> emissions (released approximately 200 miles from Baltimore) for each day on which an ozone exceedance was monitored in the Baltimore Maryland area. On no day during the 2017, 2018, and through July of the 2019 ozone seasons on which a monitored exceedance occurred in Maryland did the Homer City NO<sub>x</sub> emissions exceed 30 tons per day. As shown on Figure 2 of the August 16, 2019 comments, there are no fewer than five Maryland counties in the immediate Baltimore area with average daily NO<sub>x</sub> emissions in excess of 30 tons per day which are not subject to the dilution that occurs during transport, if any, of the distant emissions.

**4. Imposing a 24-hour limit would result in greater emissions.**

- In the case of a malfunction (e.g., loss of an ammonia pump in the SCR), a 24-hour limit does not provide the operator sufficient time to diagnose the problem and implement corrective actions before either shutting down the unit or exceeding the emission limit. Shutting down the unit will result in additional time when the SCR is below 600°F and the SCR system is not able to remove NO<sub>x</sub>. This could result in

greater emissions than if the unit were able to continue operations for a sufficient period to correct the malfunction and restore proper operation of the SCR.

- If a larger EGU has to shut down on a peak demand day during the Ozone Season, that generating capacity has to be replaced by the grid operator, which typically involves calling up peaker units, many of which are uncontrolled or undercontrolled, thereby increasing the NO<sub>x</sub> emissions.

**5. The Commission’s Recommendation appears to be based on Maryland’s Petition, and Homer City Generation offers the following comments on the Petition for the Commission consideration in connection with the Recommendation.**

- **Maryland’s Modeling Demonstration is not available to Stakeholders and has not been peer reviewed.**

It has been nearly six months since Maryland submitted its petition to the Ozone Transport Commission. Maryland has not made available to the Ozone Transport Commission members or other stakeholders sufficient information regarding its modeling for peer review. Before the Commission takes steps to develop and transmit to the Administrator of the EPA recommendations for additional control measures to be applied to certain coal-fired power plants in Pennsylvania equipped with post-combustion controls or for any source or class of sources, the modeling should be made available for review and comment by the stakeholders.

- **NO<sub>x</sub> Emissions Data for 2011 are not representative of current emissions.**

It is unclear why Maryland’s modeling effort utilizes 2011 data. Clearly, there have been significant changes in emission patterns since that time. As shown in Table 1, there has been a 74% reduction in NO<sub>x</sub> emissions from the EGU sector throughout the Pennsylvania, Maryland, Delaware and New Jersey area since 2011.

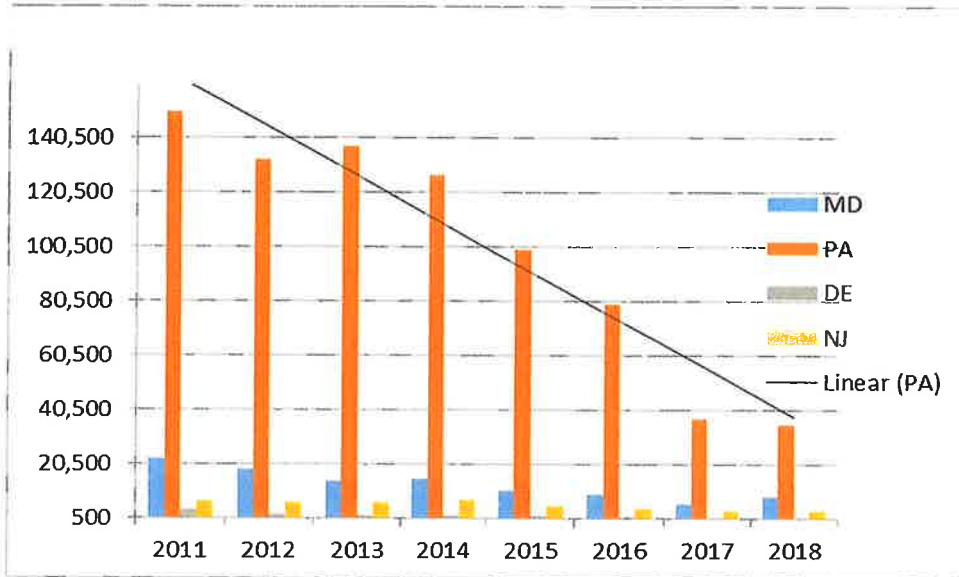
**Table 1. EGU NO<sub>x</sub> Emissions in tons/year (All Fuels)**

Year	Total	MD	PA	DE	NJ
2011	183,604	22,598	150,218	3,748	7,040
2012	159,826	18,448	132,812	2,266	6,300
2013	160,090	14,454	137,518	1,815	6,303
2014	150,824	15,053	126,866	1,791	7,114
2015	117,171	10,764	99,671	1,453	5,284
2016	94,745	9,422	79,634	1,308	4,382
2017	47,848	6,112	37,353	889	3,494
2018	47,755	8,413	34,949	948	3,445

Source: USEPA Clean Air Markets Division website Accessed November 13, 2019  
<https://www.epa.gov/airmarkets>

Figure 3 graphically depicts the area-wide EGU NO<sub>x</sub> reductions (all fuels) that have occurred since 2011.

**Figure 3. EGU NO<sub>x</sub> Emissions in tons/year (All Fuels)**



Source: USEPA Clean Air Markets Division website Accessed November 13, 2019  
<https://www.epa.gov/airmarkets>

Additionally, as shown in Table 2, NO<sub>x</sub> emissions from Pennsylvania coal-fired EGUs have been reduced nearly 80% since 2011, with further reductions to be realized as the result of the recently-announced closures of the Bruce Mansfield, Colver Power Project, and Cambria Cogen stations, all in western Pennsylvania. In 2017 and 2018, the combined NO<sub>x</sub> emissions from these three facilities were 3046 tons and 4,550 tons, respectively. These reductions are not shown in Tables 1 and 2 or Figures 2 and 3.

**Table 2. EGU NO<sub>x</sub> Emissions in tons/year (Coal Only)**

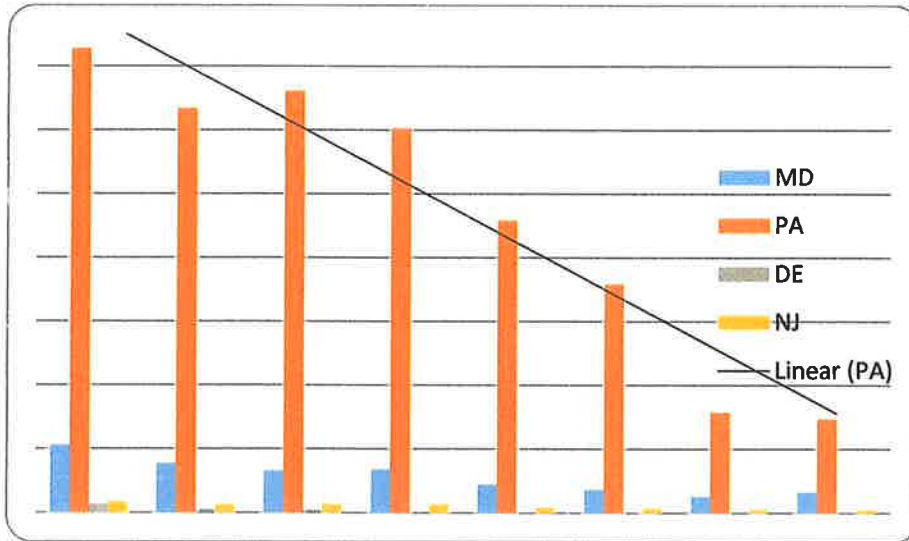
Year	Total	MD	PA	DE	NJ
2,011	172,739	21,277	145,420	2,616	3,427
2,012	145,680	15,476	126,711	932	2,561
2,013	149,117	13,319	132,247	803	2,748
2,014	137,491	13,728	120,642	330	2,791
2,015	102,875	9,016	91,799	255	1,804
2,016	80,816	7,343	71,765	205	1,504
2,017	38,219	5,283	31,629	163	1,144
2,018	37,325	6,577	29,523	132	1,093



Source: USEPA Clean Air Markets Division website Accessed November 13, 2019  
<https://www.epa.gov/airmarkets>

Figure 4 graphically depicts the area-wide EGU NO<sub>x</sub> reductions (coal only) that have occurred since 2011.

**Figure 4. EGU NO<sub>x</sub> Emissions in tons/year (Coal Only)**



Source: USEPA Clean Air Markets Division website Accessed November 13, 2019 <https://www.epa.gov/airmarkets>