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July 11, 2019

Honorable Andrew R. Wheeler
Administrator
U.S. Environmental Protection Agency
Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: EPA Response to Clean Air Act Section 126 Petition From New York;
Docket ID No. EPA-HQ-OAR-2018-0170.

Dear Administrator Wheeler:

On March 12, 2018, the State of New York filed a petition pursuant to Section 126 of the federal Clean Air Act (CAA) asserting significant contribution of emissions by some 123 electric generating units (EGUs), 166 "non-electric generating units" and 59 oil and gas sector facilities located in the states of Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia. The petition requests that the Environmental Protection Agency (EPA) make a finding that emissions from a group of hundreds of sources in these states significantly contribute to nonattainment and interfere with maintenance of the 2008 and 2015 ozone national ambient air quality standards (NAAQS) in Chautauqua County and the New York Metropolitan Area (NYMA) in violation of the good neighbor provision of the CAA.

On May 20, 2019, the EPA provided notice of its proposal to deny the New York 126 petition because New York has not met its statutory burden to demonstrate, and the EPA has not independently found, that the group of identified sources emits or would emit in violation of the good neighbor provision for the 2008 or 2015 ozone NAAQS in Chautauqua County and the NYMA. 84 Fed. Reg. 22788, May 20, 2019.

The New York 126 petition directly targets for additional regulation numerous facilities owned and operated by the members of and participants in the Midwest Ozone Group (MOG)[1] and also raises several policy matters of concern to MOG. While MOG will defer to the owners of the individual sources on matters specific to those facilities, these comments are offered to address more general concerns about

[1] The members of and participants in the Midwest Ozone Group include: American Electric Power, American Forest & Paper Association, American Wood Council, Ameren, Alcoa, Appalachian Region Independent Power Producers Association (ARIPPA), ArcelorMittal, Associated Electric Cooperative, Citizens Energy Group, City Water, Light and Power (Springfield IL), Council of Industrial Boiler Owners, Duke Energy, East Kentucky Power Cooperative, ExxonMobil, FirstEnergy, Indiana Energy Association, Indiana Utility Group, LGE / KU, Ohio Utility Group, and Olympus Power.

the legal and technical deficiencies of the New York petition and to support EPA's proposed denial of that petition based upon its lack of technical and legal merit.

MOG's concerns regarding the New York petition are based upon the fundamental premise of CAA §126 – to provide a carefully crafted mechanism by which states can resolve disputes of interstate transport of air pollutants and to determine whether upwind states significantly contribute to nonattainment or interfere with maintenance in downwind states. Section 126 as applied in this case requires that New York first demonstrate that it has an ozone nonattainment or maintenance problem in 2023 after which it can assert a claim against upwind sources. See CAA §§126(b) and 110(a)(2)(D)(ii). In these comments, MOG will offer support for EPA's identification of the many deficiencies of the New York petition. Also, MOG will offer additional data and analyses not yet relied upon by EPA that strengthen the basis for denial of the petition. Indeed, the following three deficiencies inform the fundamental assessment that New York will not have an air quality problem in 2023 that justifies the filing of the petition:

1. EPA's CSAPR Update Rule confirms that in 2023 New York will have no modeled nonattainment or predicted maintenance monitors related to the 2008 (75 ppb) ozone NAAQS.

2. Utilizing EPA approved modeling protocols MOG modeled the ambient air quality impacts of EPA's 2023 emission inventory using 4km-processed emissions and meteorology. This more refined modeling (as compared with EPA's 12km modeling) demonstrates that in 2023 all of New York's monitors will attain the 2015 (70 ppb) ozone NAAQS and that in 2023 there will not be any modeled nonattainment monitors in New York.

3. Application by MOG of EPA's October 2018 alternative maintenance monitor methodology demonstrates that in 2023 there will not be any predicted ozone monitor maintenance concerns in New York.

Accordingly, in the complete absence of any modeled nonattainment or predicted maintenance issues at ozone monitors anywhere in New York in 2023, there is no air quality issue upon which the New York 126 petition can be based. For these reasons, and for the many additional reasons set forth in our more detailed comments, MOG submits the New York CAA §126 petition is fatally flawed on both legal and technical grounds and EPA's final action to deny the petition is founded upon sound legal and technical justifications.

Very truly yours,

David M Flannery

David M. Flannery
Legal Counsel
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cc: Anne Idsal
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Commissioner
New York State Department of Environmental Conservation

COMMENTS OF THE
MIDWEST OZONE GROUP
REGARDING THE ENVIRONMENTAL PROTECTION AGENCY'S PROPOSAL TO DENY THE STATE OF NEW YORK'S CLEAN AIR ACT §126 PETITION

JULY 11, 2019

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Exhibit B:

Air Quality Modeling Technical Support Document for Midwest Ozone Group's Updated 4km Modeling Final Technical Support Document, prepared by: Alpine Geophysics, LLC, December 2018; http://www.midwestozonegroup.com/files/Final_TSD_-_Updated_4km_Ozone_Modeling_Dec_2018_.pdf

Exhibit C:

"Good Neighbor" Modeling Technical Support Document for 8-Hour Ozone State Implementation Plans Using MOG's 4kei Modeling Platform Final Technical Support Document Prepared by: Alpine Geophysics, LLC, March 2019 Revised: June 2019; http://midwestozonegroup.com/files/Final_TSD_-_Ozone_4kei_Modeling_Supporting_GN_SIP_Obligations.pdf

Exhibit D:

"Addressing Maintenance Monitor Flexibilities Using the 2023 Cross-State Air Pollution Rule Closeout Modeling Platform - Revised December 2018," prepared by Alpine Geophysics, LLC, Revised December 2018. http://www.midwestozonegroup.com/files/Maintenance_Monitor_Flexibility_Dec_2018_.pdf.

Exhibit E:

Stationary and Area Sources Committee; OTC / MANE-VU Joint Committees' Meeting September 21, 2018; http://www.midwestozonegroup.com/files/MOG_OTC_SAS_Public_09212018.pdf

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Stationary and Area Sources Committee; OTC / MANE-VU Joint Committees' Meeting, June 11, 2019; http://midwestozonegroup.com/files/OTC_SAS_Presentation_AnnMtg_06112019.pdf

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COMMENTS OF THE MIDWEST OZONE GROUP REGARDING THE ENVIRONMENTAL PROTECTION AGENCY'S PROPOSAL TO DENY THE STATE OF NEW YORK'S CLEAN AIR ACT §126 PETITION

July 11, 2019

I. INTRODUCTION.

On March 12, 2018, the State of New York filed a petition pursuant to Section 126 of the federal Clean Air Act (CAA) targeting some 123 electric generating units (EGUs), 166 "non-electric generating units" and 59 oil and gas sector facilities located in the states of Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia. The petition requests that the Environmental Protection Agency (EPA) make a finding that emissions from these sources significantly contribute to nonattainment and interfere with maintenance of the 2008 and 2015 ozone national ambient air quality standards (NAAQS) in Chautauqua County New York and the New York Metropolitan Area (NYMA) in violation of the good neighbor provision of the CAA.

The petition directly targets for additional regulation numerous facilities owned and operated by the members of and participants in the Midwest Ozone Group (MOG) and also raises several policy matters of concern to MOG. While MOG will defer to the owners of the individual sources on matters specific to those facilities, these comments[1] are offered to address concerns about the legal and technical deficiencies of the petition and to support EPA's proposed denial as a very conservative assessment of the lack of merit in the petition.

On May 20, 2019, the EPA provided notice of its proposal to deny the New York CAA Section126 petition because New York has not met its statutory burden to demonstrate, and the EPA has not independently found, that the group of identified sources emits or would emit in violation of the good neighbor provision for the 2008 or 2015 ozone NAAQS in Chautauqua County and the New York Metropolitan Area (NYMA).

MOG is an affiliation of companies, trade organizations, and associations that draw upon their collective resources to seek solutions to the development of legally and technically sound

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[1] Comments or questions about this document should be directed to David M. Flannery, Kathy G. Beckett, Edward L. Kropp, or Laura M. Goldfarb, Legal Counsel, Midwest Ozone Group, Steptoe & Johnson PLLC, 707 Virginia Street East, Charleston West Virginia 25301; 304-353-8000; dave.flannery@steptoe-johnson.com; kathy.beckett@steptoe-johnson.com;, skipp.kropp@steptoe-johnson.com; and laura.goldfarb@steptoe-johnson.com, respectively. These comments were prepared with the technical assistance of Alpine Geophysics, LLC.

national ambient air quality management programs.[2] MOG's primary efforts are to work with regulators and others in evaluating air quality policies by encouraging the use of sound science. MOG has been actively engaged in a variety of EPA issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules, NAAQS standards, nonattainment designations, petitions under Sections 176A and 126 of the CAA, NAAQS implementation guidance, the development of Good Neighbor state implementation plans and related regional haze issues. MOG members and participants operate a variety of emission sources including more than 75,000 MW of coal-fired and coal-refuse fired electric power generation in more than ten states. They are concerned about the development of legally and technically unsubstantiated interstate air pollution rules and the impacts on their facilities, their employees, their contractors, and the consumers of their products. Significantly, the facilities owned by the Members and Participants in MOG, including those targeted by the New York petition, have been subject to several new emission control regulations in recent years. These regulations in combination with many unit retirements and curtailments, have resulted in a substantial reduction in annual and ozone season nitrogen oxides (NO_x) emissions which have been incurred at very significant cost to those facilities.

MOG's concerns regarding the New York petition are based upon the fundamental premise of CAA §126 – to provide a carefully crafted mechanism by which states can resolve disputes of interstate transport of air pollutants and to determine whether sources in upwind states significantly contribute to nonattainment or interfere with maintenance in downwind states. Section 126 as applied in this case requires New York to first demonstrate that it has an ozone nonattainment or maintenance problem in 2023, after which it can assert a claim against an upwind source. *See* CAA §§126(b) and 110(a)(2)(D)(ii).

In advance of EPA's proposed denial of the New York CAA §126 petition, MOG submitted the following three sets of comments (which are incorporated by reference into these comments) analyzing and explaining the legal and technical deficiencies in the New York petition:

- On May 31, 2018, MOG submitted an initial set of comments to EPA with respect to the New York CAA §126 petition.

- On October 19, 2018, MOG filed a set of supplemental comments which, among other things, provided EPA with the results of MOG's modeling available at that time which used an EPA-approved technique called "flexi-nesting" to

[2] The members of and participants in the Midwest Ozone Group include: American Electric Power, American Forest & Paper Association, American Wood Council, Ameren, Alcoa, Appalachian Region Independent Power Producers Association (ARIPPA), ArcelorMittal, Associated Electric Cooperative, Citizens Energy Group, City Water, Light and Power (Springfield IL), Council of Industrial Boiler Owners, Duke Energy, East Kentucky Power Cooperative, ExxonMobil, FirstEnergy, Indiana Energy Association, Indiana Utility Group, LGE / KU, Ohio Utility Group, and Olympus Power.

apply EPA's 2011/2023en modeling platform at 12km to a more refined 4km grid.

- On December 17, 2018, MOG again filed a set of supplemental comments, which provided EPA with updated and refined 4km modeling using 4km-processed emissions performed at the request of MOG confirming both that: (1) in 2023 all of New York's monitors will attain the 2015 (70 ppb) ozone NAAQS and, (2) application of EPA's alternative maintenance monitor methodology demonstrates there will not be any ozone maintenance monitors in New York in 2023.

While MOG will offer additional data and authorities in support of the denial of the New York CAA §126, MOG supports the proposed decision by EPA to deny the petition based on a very conservative assessment of the petition's lack of merit. As EPA stated in its proposed denial[3]:

> ... EPA is proposing to deny New York's CAA section 126(b) petition. The EPA has described several technical deficiencies with the petition and, therefore, proposes to deny on the basis that New York has not met its burden to demonstrate that the named sources emit or would emit in violation of the good neighbor provision with respect to the 2008 ozone NAAQS or the 2015 ozone NAAQS. For Chautauqua County, the petition does not provide sufficient information to indicate that there will be a downwind air quality problem (either nonattainment or maintenance) with respect to either the 2008 or the 2015 ozone NAAQS. For the NYMA, with respect to the 2008 ozone NAAQS, the petition does not provide sufficient information to indicate that the NYMA should be considered a nonattainment or maintenance receptor pursuant to the good neighbor provision. Furthermore, the EPA's own independent analysis of available information indicates that there is not currently nor is there projected to be an air quality problem with respect to either NAAQS in Chautauqua County, and that there is not projected to be any further air quality problem with respect to the 2008 ozone NAAQS in the NYMA. As an additional independent basis for the proposed denial, even if the EPA assumed that the named upwind states were linked to downwind air quality problems in New York at steps 1 and 2 of its interstate transport framework, material elements in the petition's step 3 analysis are insufficient, such that the EPA cannot conclude that any named source or group of sources in any of the named states will significantly contribute to nonattainment or interfere with maintenance in any area in New York with respect to either NAAQS.

In these comments supporting EPA proposed denial, MOG has identified many deficiencies with the New York petition, including the use of outdated upwind source emissions data.

[3] Response to Clean Air Act Section 126(b) Petition From New York, 84 Fed. Reg. 22,787-01 at 22804, May 20, 2019.

Additionally, there is the likelihood that the petition will be mooted as EPA moves forward to approve Good Neighbor implementation plans submitted by states as part of their effort to satisfy CAA requirements with respect to interstate transport consistent with EPA's recently issued guidance on Good Neighbor SIPs.

MOG identified three major deficiencies informing the fundamental assessment that New York does not have an air quality problem necessary to justify the filing of the petition, as follows:

1. EPA's CSAPR Update Rule confirms that in 2023 New York will have no modeled nonattainment or predicted maintenance monitors[4] related to the 2008 (75 ppb) ozone NAAQS.

2. Utilizing EPA approved modeling protocols MOG modeled the ambient air quality impacts of EPA's 2023 emission inventory using 4km-processed emissions and meteorology. This more refined modeling (as compared with EPA's 12km modeling) demonstrates that in 2023 all of New York's monitors will attain the 2015 (70 ppb) ozone NAAQS and that in 2023 there will not be any modeled nonattainment monitors in New York.

3. Application by MOG of EPA's October 2018 alternative maintenance monitor methodology demonstrates that in 2023 there will not be any predicted ozone monitor maintenance concerns in New York.

Accordingly, in the complete absence of any modeled nonattainment or predicted maintenances monitors located anywhere in the State of New York in 2023, there is no air quality issue upon which the New York CAA §126 petition can be based. For these reasons, and for the many additional reasons set forth in our more detailed comments, MOG submits the New York CAA §126 petition is fundamentally flawed on both legal and technical grounds and EPA's final action to deny the petition is founded upon sound legal and technical justifications.

[4] For ease of discussion, we are adopting the shorthand convention throughout these comments of identifying three types of future year ozone monitors: a) those with 2023 model results showing predicted attainment in 2023 are described as monitors with no "modeled nonattainment "; b) those with 2023 model results showing modeled nonattainment are described as monitors with "modeled nonattainment"; and c) those with predicted 2023 model results that would trigger maintenance requirements, rather than nonattainment, in accordance with EPA's alternative maintenance methodology are described as "maintenance monitors."

II. RELEVANT STATUTORY AUTHORITY.

The CAA provides within Section 126(b) for the "Petition for finding that major sources emit or would emit prohibited air pollutants." Specifically, CAA §126(b) provides, "Any State . . .may petition the Administrator for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)(i).[5] CAA §110(a)(2)(D)(i)(I) provides each NAAQS implementation plan submitted by a state shall "contain adequate provisions . . . prohibiting . . .any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any [NAAQS]." CAA §126(b) also addresses process for review as follows, "[w]ithin 60 days after receipt of any petition under this subsection and after public hearing, the Administrator shall make a finding or deny the petition." CAA § 307 governing administrative proceedings provides within §307(d)(1)(N), EPA may extend the section 126(b) 60-day deadline for action pursuant to its authority under CAA §307(d)(10), and EPA did so with respect to the New York petition.[6] Finally, CAA §126(c) sets forth the time limits for a source deemed as a significant contributor which covers a range of three months to three years after a finding.

EPA's proposed action on the petition by New York is described as reflective of its recent regional rulemakings to address the requirements of CAA section 110(a)(2)(D)(i)(I) for the various ozone NAAQS to include the Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Qir Quality Standard (the Determination Rule), that finalized a determination that the existing Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS (CSAPR Update) fully addresses certain state's interstate transport obligations under CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS. EPA describes in the proposal the four-step interstate transport framework to evaluate the extent of the ozone transport problem (i.e., the breadth of the downwind ozone problems and the contributions from upwind states), and, ultimately, to find that downwind states' problems attaining and maintaining the ozone NAAQS result from an interconnected system of transported pollution emitted by multiple upwind sources located in different upwind states combined with downwind (i.e., locally generated) ozone. That four-step interstate transport framework is described by EPA as follows:

> (1) Identify downwind receptors that are expected to have problems attaining or maintaining the NAAQS. ...

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[5] The text of section 126(b) refers to CAA section 110(a)(2)(D)(ii), but federal courts of appeals have held that that reference is a scrivener's error and that Congress intended section 126(b) to refer instead to section 110(a)(2)(D)(i). *GenOn Rema, LLC v. EPA*, 722 F.3d 513, 517 n. 3 (3d Cir. 2013); *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1040-44 (D.C. Cir. 2001) (per curiam); *see* 84 Fed. Reg. at 26,790 n.16.

[6] 83 Fed. Reg. at 21,909.

> (2) Determine which upwind states are linked to these identified downwind air quality problems and thus warrant further analysis to determine whether their emissions violate the good neighbor provision. . .
>
> (3) For states linked to downwind air quality problems, identify upwind emissions (if any) on a statewide basis that will significantly contribute to nonattainment or interfere with maintenance of a standard at a receptor in another state. . .
>
> (4) For upwind states that are found to have emissions that will significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind, implement the necessary emissions reductions within the state. . .
>
> The outcome of this assessment varies based on the scope of the air quality problem, the availability and cost of controls at sources in upwind states, and the estimated impact of upwind emissions reductions on downwind ozone concentrations.[7]

Consistent with this framework, EPA reasonably interprets the relevant statutory language as making it appropriate for the agency to consider significant contribution and interference with maintenance when it determines whether to make a finding requested under section 126(b) with respect to that source:

> Accordingly, because the EPA interprets ''contribute significantly to nonattainment'' and ''interfere with maintenance'' to mean the same thing under both sections 110(a)(2)(D)(i) and 126(b), the EPA's decision whether to grant or deny a CAA section 126(b) petition regarding both the 2008 and 2015 ozone NAAQS depends on application of the analysis used to address CAA section 110(a)(2)(D). That is, the EPA assesses whether there is a downwind air quality problem in the petitioning state (i.e., step 1 of the four step interstate transport framework); whether the upwind state where the source subject to the petition is located is linked to the downwind air quality problem (i.e., step 2); and, if such a linkage exists, whether there are cost effective emissions reductions available from sources in the upwind state to support a conclusion that the sources in the state significantly contribute to nonattainment or interfere with maintenance of the NAAQS (i.e., step 3).[8]

Step 4 of EPA's framework – i.e., implementation of emission reduction requirements in an upwind state is only applied after steps 1, 2, and 3 lead to a conclusion of downwind impacts by the upwind state. EPA properly did not reach Step 4 in its analysis of the petition addressed in this Proposed Action and proposed to deny the petition as to all areas and NAAQS at Step 3.[9]

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[7] *Id.* at 22,791.
[8] *Id.* at 22,791.
[9] *Id.* at 22,789.

III. SPECIFIC COMMENTS.

Set forth in the remainder of these comments are MOG's detailed comments in support of EPA's proposed denial of the New York petition.

1. State-of-the science 12km air quality modeling performed by both EPA and MOG demonstrates that in 2023 all monitors located in New York will show attainment with the 2008 (75 ppb) ozone NAAQS.

On October 27, 2017, EPA issued guidance and supporting data describing how states should develop approvable Good Neighbor SIPs related to the 2008 ozone NAAQS.[10] The following is the opening paragraph of that memorandum:

> The purpose of this memorandum is to provide supplemental information to states and the Environmental Protection Agency Regional offices as they develop or review state implementation plans (SIPs) that address section 110(a)(2)(D)(i)(I) of the Clean Air Act (CAA), also called the "good neighbor" provision, as it pertains to the 2008 ozone National Ambient Air Quality Standards (NAAQS) of 75 parts per billion (ppb). Specifically, we are providing future year ozone design values and contribution modeling outputs for monitors in the United States based on updated air quality modeling (for 2023) and monitoring data. The EPA's updated modeling indicates that there are no monitoring sites, outside of California, that are projected to have nonattainment or maintenance problems with respect to the 2008 ozone NAAQS of 75 ppb in 2023.

EPA's modeling data related to the 2008 ozone NAAQS has been confirmed by modeling performed for MOG by Alpine Geophysics which has been incorporated into a report attached to these comments and identified as Exhibit A.[11] The data taken from the EPA 12km grid modeling results are displayed in the following table:

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[10] Memorandum "Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) from Stephen Page, October 27, 2017. https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf.

[11] "Good Neighbor" Modeling for the 2008 8-Hour Ozone State Implementation Plans, Final Modeling Report, prepared by Alpine Geophysics, December 2017 http://midwestozonegroup.com/files/Ozone_Modeling_Results_Supporting_GN_SIP_Obligations_Final_Dec_2017_.pdf

Monitor	State	County	DVb (2011)	DVf (2023) Ave	DVf (2023) Max
360010012	New York	Albany	68.0	55.4	57.0
360050133	New York	Bronx	74.0	68.0	69.9
360150003	New York	Chemung	66.5	54.9	55.3
360270007	New York	Dutchess	72.0	58.6	60.2
360530006	New York	Madison	67.0	55.0	55.0
360610135	New York	New York	73.3	65.3	67.8
360671015	New York	Onondaga	69.3	57.8	60.1
360715001	New York	Orange	67.0	55.3	56.9
360750003	New York	Oswego	68.0	55.7	57.3
360790005	New York	Putnam	70.0	58.4	59.2
360810124	New York	Queens	78.0	70.1	71.9
360850067	New York	Richmond	81.3	71.9	73.4
360870005	New York	Rockland	75.0	62.0	62.8
361030002	New York	Suffolk	83.3	72.5	74.0
361030004	New York	Suffolk	78.0	66.3	68.0
361030009	New York	Suffolk	78.7	68.5	69.7
361111005	New York	Ulster	69.0	57.4	57.4
361192004	New York	Westchester	75.3	68.1	68.8

On July 10, 2018, EPA proposed a rule that determined, based upon EPA's 12km modeling, that New York would not have any nonattainment or maintenance monitors in 2023 with respect to the 2008 ozone NAAQS.[12] On December 21,2018, EPA finalized the determination that the existing Cross-State Air Pollution Rule Update for the 2008 Ozone National Ambient Air Quality Standards (NAAQS) (CSAPR Update) fully addresses certain states' obligations under the good neighbor provision of the CAA regarding interstate pollution transport for the 2008 ozone NAAQS.[13] This determination concluded, based upon EPA's 12km modeling, that New York would not have any nonattainment or maintenance monitors in 2023 with respect to the 2008 ozone NAAQS.

MOG supports that determination, and notes its own independent 12km modeling data (as set forth in Exhibit A) confirms EPA's results that there will be no nonattainment or maintenance monitors in New York in 2023 with respect to the 2008 ozone NAAQS.

[12] 83 Fed. Reg. 31,915 (July 10, 2018).

[13] "Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard," 83 Fed. Reg. 65,878 (December 21, 2018).

It is thus apparent that current emission control programs are more than adequate to satisfy Good Neighbor obligations of states such as New York with respect to the 2008 ozone NAAQS, even without consideration of a more refined grid modeling platform.

2. State-of- the-science 4km air quality modeling performed by the MOG demonstrates that in 2023 all monitors located in New York will also be in attainment with the 2015 (70 ppb) ozone NAAQS.

With respect to the 2015 ozone NAAQS, EPA correctly proposes rejection of the New York petition on the basis of its Step 3 analysis and the fact that New York did not provide justification for the requested relief. In these comments, MOG will offer additional data that demonstrate the New York petition can now be denied at Step 1 inasmuch as it now clear that in 2023 there will not be any 2015 ozone NAAQS nonattainment or maintenance monitors located anywhere in New York.

New York has not met its burden of demonstrating that the named sources emit or would emit in violation of the good neighbor provision with respect to the 2008 ozone NAAQS or the 2015 ozone NAAQS. Alpine Geophysics, at the request of MOG, has modeled EPA's 2011/2023en modeling platform on MOG's 4km domain using 4km-processed emissions. This was done in a further effort to refine modeled ozone concentrations at and near land-water interface receptors. Alpine Geophysics has completed the model performance evaluation on these domains and at key receptors to assure the results were in strict compliance with EPA modeling protocols. This model performance evaluation is attached to these comments and identified as Exhibit B and are also available on the MOG website.[14] Modeling of this type, using a finer grid, is specifically recommended under existing EPA guidance that states:

> The use of grid resolution finer than 12 km would generally be more appropriate for areas with a combination of complex meteorology, strong gradients in emissions sources, and/or land-water interfaces in or near the nonattainment area(s).[15]

Based upon this evaluation by Alpine Geophysics, there is consistent performance with the earlier 4km results and therefore this updated platform demonstrates the scientific credibility for these 4km domains. These results provide confidence in the ability of the modeling platform to provide a reasonable projection of expected future year ozone concentrations and contributions. The results of the updated 4km modeling have been incorporated into an Alpine Geophysics/MOG Technical Support Document (TSD) "Good Neighbor" Modeling Technical Support Document for 8-Hour Ozone State Implementation Plans Using MOG's 4kei Modeling Platform" attached to these comments and identified as Exhibit C.[16]

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[14] http://www.midwestozonegroup.com/files/Final_TSD_-_Updated_4km_Ozone_Modeling_Dec_2018_.pdf

[15] https://www3.epa.gov/ttn/scram/guidance/guide/O3-PM-RH-Modeling_Guidance-2018.pdf

[16] A copy of this TSD can also be found at: http://midwestozonegroup.com/files/Final_TSD_-_Ozone_4kei_Modeling_Supporting_GN_SIP_Obligations.pdf

As is shown in the following chart, when EPA's air quality modeling platform is run with a 4km grid (rather than a 12km grid) predicted ozone concentration at all monitors in New York are in attainment with respect to both the 2008 ozone NAAQS as well as the more stringent 2015 ozone NAAQS.

Monitor	State	County	DVb (2011)	DVf (2023) Ave	DVf (2023) Max
360010012	New York	Albany	68.0	56.8	58.4
360050133	New York	Bronx	74.0	63.8	65.6
360150003	New York	Chemung	66.5	55.3	55.7
360270007	New York	Dutchess	72.0	57.0	58.6
360530006	New York	Madison	67.0	54.4	54.4
360610135	New York	New York	73.3	62.9	65.2
360671015	New York	Onondaga	69.3	57.7	59.9
360715001	New York	Orange	67.0	54.2	55.8
360750003	New York	Oswego	68.0	55.9	57.6
360790005	New York	Putnam	70.0	56.7	57.5
360810124	New York	Queens	78.0	68.5	70.2
360850067	New York	Richmond	81.3	69.6	71.0
360870005	New York	Rockland	75.0	63.7	64.5
361030002	New York	Suffolk	83.3	70.6	72.0
361030004	New York	Suffolk	78.0	63.8	65.4
361030009	New York	Suffolk	78.7	66.5	67.5
361111005	New York	Ulster	69.0	56.3	56.3
361192004	New York	Westchester	75.3	64.6	65.2

Accordingly, when state-of-the-science modeling is used to assess air quality in New York at the appropriate attainment date, all receptors – without exception - are in attainment with the 2015 ozone NAAQS, thereby supporting the definitive denial of the New York petition. EPA's air quality modeling analysis was conducted only at 12km and in doing so it failed to account for the significantly improved air quality that becomes apparent with the more refined modeling as EPA recommends in its own modeling guidance.

These results establish that there are no air quality monitors located in the State of New York predicted to demonstrate nonattainment with the 2015 ozone NAAQS in 2023. This conclusion and the remaining data presented in these comments add additional support to EPA's conclusion that the New York CAA §126 petition lacks merit. We urge EPA to consider this additional information as it finalizes it decision to deny the petition.

3. Application of EPA's alternative maintenance monitor methodology demonstrates there will not be any maintenance monitors located in New York in 2023.

On October 19, 2018, EPA issued guidance in the form of a memorandum entitled "Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards" ("EPA's Memo").[17] That guidance recognized an alternative methodology for making a determination of the monitor's status as a maintenance monitor.

MOG requested Alpine Geophysics to review EPA's Memo and to apply MOG's updated 4km modeling results and observed ozone concentrations, to relevant monitors to determine whether there are any monitors in New York that would qualify as maintenance monitors under EPA's alternative methodology. A report of the results of this review is attached and identified as Exhibit D and is offered as additional support for finalization by EPA of its decision to deny the New York CAA §126 petition.[18]

EPA's Memo provides that to qualify for this new flexibility, a modeled demonstration would first need to show that using an alternative base-year period would lead to a projected future year design value at or below a concentration of 70.9 ppb, which is necessary to demonstrate modeled attainment of the 2015 ozone NAAQS of 70 ppb. If that demonstration is successful, EPA's Memo states the following technical criteria would need to be satisfied:

a. meteorological conditions in the area of the monitoring site were conducive to ozone formation during the period of clean data or during the alternative base period design value used for projections;
b. ozone concentrations have been trending downward at the site since 2011 (and ozone precursor emissions of nitrogen oxide (NOx) and volatile organic compounds (VOC) have also decreased); and
c. emissions are expected to continue to decline in the upwind states out to the attainment date of the receptor.

Based upon the MOG 4km modeling, the Richmond NY and Suffolk NY monitors are the only monitors in New York that are candidates to be considered maintenance monitors with

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[17] "Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards," from Peter Tsirigotis, October 19, 2018, https://www.epa.gov/airmarkets/considerations-identifying-maintenance-receptors-memo

[18] "Addressing Maintenance Monitor Flexibilities Using the 2023 Cross-State Air Pollution Rule Closeout Modeling Platform - Revised December 2018," prepared by Alpine Geophysics, LLC, Burnsville, NC. December 2018. http://www.midwestozonegroup.com/files/Maintenance_Monitor_Flexibility_Dec_2018_.pdf.

maximum 2023 ozone design values exceeding levels of the 2015 NAAQS. As is illustrated below, however, application of all of these criteria to the Richmond NY and Suffolk NY monitors demonstrates they should not be considered maintenance monitors under EPA alternative criteria.

a. Utilization of alternative base period design values results in a projection of clean data for the candidate maintenance monitors in question.

A first step in applying the flexibility guidance set forth in EPA's Memo is to determine whether these monitors (Richmond NY and Suffolk NY) should be properly characterized as maintenance receptors under the alternative methodology. Alpine Geophysics reviewed 2023 ozone design values using alternate base-year concentrations (from the three, three-year time periods between 2009 – 2013) for each of these two monitors. These data, presented in the following table, demonstrate each of the monitors in Richmond and Suffolk has at least one alternate base year period design value resulting in a 2023 projection equal to or lower than the 70.9 ppb threshold, satisfying this condition of EPA's alternative methodology.

Alternate Base Year Projections of 2023 ozone Design Values (ppb) from Alpine 4km Modeling for Key Monitors in the 4km Domains.

				2023 Ozone Design Value (ppb)		
Monitor	**State**	**County**	**DVb (2011)**	**DVf (Ave)**	**DVf (Max)**	**DVf (Max 2011/13)**
360850067	New York	Richmond	81.3	69.6	71.0	66.7
361030002	New York	Suffolk	83.3	70.6	72.0	68.7

b. Meteorological conditions of the candidate maintenance monitors were conducive to ozone formation.

As stated above, one of the criteria established in EPA's Memo for approving an alternative demonstration of a monitor's maintenance status is that the "meteorological conditions in the area of the monitoring site were conducive to ozone formation during the period of clean data or during the alternative base period design value used for projections." Significantly, the alternative demonstrations set forth in this memorandum for the Richmond NY, and Suffolk NY monitors are based upon alternative base-year periods involving the years 2010 through 2013. EPA has recognized, with one limited exception relevant to this analysis (the summer of 2013 in the Upper Midwest), the meteorology in these years was conducive to ozone formation. These two monitors are located in New York and not the Upper Midwest, it is therefore appropriate to conclude the alternative base-period design values stated above for these monitors reflect meteorology in ozone conducive years. By basing model projections for the attainment year of 2023 on alternative base-period design values for ozone conducive years, the Richmond NY, and Suffolk NY monitors meet the meteorological threshold of EPA's Memo.

c. Ozone concentrations are trending downward.

As an additional supporting case to the flexibility in identifying maintenance monitors, EPA guidance suggests a state would need to show that "ozone concentrations have been trending downward at the site since 2011." The first table below presents 4th high ozone concentration data measured at each noted receptor and a calculated slope between 2011 and the most recently EPA-approved 4th high concentrations from 2017.[19] The second table below presents a count of the number of ozone exceedance days per monitor per year relative to the 2015 70 ppb ozone NAAQS.

4th High Ozone Concentrations (ppb) and Slope Calculation for Key Monitors in the 4km Domains.

			4th High Ozone Concentration (ppb)							
Monitor	State	County	2011	2012	2013	2014	2015	2016	2017	Slope (2011-2017) (ppb/yr)
360850067	New York	Richmond	87	78	71	72	79	77	72	-1.39
361030002	New York	Suffolk	89	83	72	66	78	73	77	-1.79

Daily Ozone Exceedance Counts and Slope Calculation for Key Monitors in the 4km Domains.

			Daily Ozone Exceedance Counts							
Monitor	State	County	2011	2012	2013	2014	2015	2016	2017	Slope (2011-2017
360850067	New York	Richmond	17	14	4	6	10	10	7	-1.14
361030002	New York	Suffolk	16	12	5	0	7	4	7	-1.46

In the case of each of the Richmond NY, and Suffolk NY monitors, negative slopes for both 4th high ozone concentrations and daily ozone exceedance counts demonstrate the downward trends in ozone concentrations necessary to satisfy this requirement of EPA's Memo.

d. Emissions of ozone precursors have been trending downward since 2011 and are expected to continue to decline out to the attainment date of the receptor.

NOx and VOC emissions across the CSAPR region have been reduced across all sources in recent years. These emissions reductions will continue as the result of "on-the-books" regulatory programs already required by states for their own sources; "on-the-way" regulatory programs already

[19] Appendix, "Addressing Maintenance Monitor Flexibilities Using the 2023 Cross-State Air Pollution Rule Closeout Modeling Platform - Revised December 2018," prepared by Alpine Geophysics, LLC, Burnsville, NC. December 2018.
http://www.midwestozonegroup.com/files/Maintenance_Monitor_Flexibility_Dec_2018_.pdf.

identified by state regulatory agencies as efforts that they must undertake; as well as from the reductions imposed by a variety of EPA programs including the CSAPR Update Rule.

As presented in the Alpine Geophysics report (Exhibit D to these comments) are tables developed from EPA modeling platform summaries illustrating the estimated total anthropogenic emission reduction emission reduction in the CSAPR States.[20] These tables show that the estimated total annual anthropogenic NOx emissions are predicted to decline by 29% between 2011 and 2017 over the CSAPR domain and by 43% (an additional 1.24 million tons) between 2011 and 2023.

However, it is important to understand that these estimated 2017 emissions used by EPA in its modeling effort are inflated as compared to the actual 2017 CEM-reported EGU emissions. As is shown in EPA's trends found in Exhibit D to these comments, when the CSAPR-modeled 2017 annual EGU emissions are compared to the actual CEM-reported 2017 annual EGU emissions, it becomes apparent there is a significant domain-wide overestimation (129,000 annual tons NO_x) of the predicted emissions for this category. The modeled values from state-to-state vary between over- and under-estimated, domain-wide, CEM-reported annual NO_x ranging from 158% overestimation (2017 actual emissions are 61% of modeled emissions) for Pennsylvania to 54% underestimation (2017 actual emissions are 118% of modeled emissions) for Virginia with a domain-wide overestimation of 18% (129,553 tons) of annual NO_x emissions from EGUs. Exhibit D also shows total annual anthropogenic VOC emissions are predicted to decline by 9% between 2011 and 2017 over the CSAPR domain and by 15% (an additional 1.43 million tons) between 2011 and 2023.

Demonstration that ozone precursors have been trending down and are expected to continue to do so, the Alpine Geophysics report (Exhibit D) that all of the alternative maintenance monitor criteria set forth in EPA's October 19, 2018, guidance memo have been satisfied. When current data are applied to the various criteria identified by EPA, it is clear that neither the Richmond NY nor Suffolk NY monitors should be considered maintenance monitors for purposes related to the 2015 ozone NAAQS. This analysis of maintenance monitors in combination with MOG's 4km modeling, confirm that in 2023 New York will have no nonattainment or maintenance monitors.

4. **Because there will be no nonattainment or maintenance monitors located in New York in 2023 with respect to either the 2008 or 2015 ozone NAAQS, the New York 126 petition can be rejected at Step 1 without evaluating Steps 2, 3, and 4.**

EPA established a four-step interstate transport framework to address the requirements of the good neighbor provision for regional pollutants, such as ozone.

The first step is to determine whether there is a downwind air quality problem in New York in the applicable future analytic year. This requires New York to identify downwind receptors

[20] EPA Air Pollutant Emissions Trends Data available at https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data.

expected to have problems attaining or maintaining the NAAQS. New York erroneously asserts Chautauqua County and the NYMA have air quality problems for the 2008 and the 2015 ozone NAAQS in support of their petition.

MOG very much agrees with EPA's proposal to deny the petition as to Chautauqua County based on the first step of the framework.[21] EPA correctly explains:

> With respect to the 2008 and 2015 ozone NAAQS in Chautauqua County, the EPA is proposing to deny the petition at step 1 of the framework (*i.e.,* whether there will be a downwind air quality problem relative to the relevant NAAQS) based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems. With respect to the 2008 ozone NAAQS in the NYMA, the EPA is similarly proposing to deny the petition based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems. Thus, the EPA is proposing to find as to these areas and NAAQS that the petition has not met its burden at step 1 of the four-step interstate transport framework. Thus, the group of identified sources neither emits nor would emit pollution in violation of the good neighbor provision.[22]

With respect to the New York Metropolitan Area (NYMA) and the 2015 ozone NAAQS, EPA's proposal is based upon conducting analysis at Step 3 before proposing to deny the petition. EPA explained its basis for this portion of the proposed denial as follows:

> The EPA is additionally proposing to deny the petition as to all areas and NAAQS at step 3 of the framework (i.e., whether, considering cost and air-quality factors, emissions from sources in the named state(s) will significantly contribute to nonattainment or interfere with maintenance of a NAAQS at a receptor in another state). The EPA is proposing to find that material elements in the petition's assessment of whether the sources may be further controlled through implementation of cost-effective controls are insufficient and, thus, New York has not met its step 3 burden to demonstrate that the named sources currently emit or would emit in violation of the good neighbor provision with respect to the relevant ozone NAAQS. As to the claims in the petition regarding Chautauqua County (for both NAAQS) and the NYMA (for the 2008 ozone NAAQS), this provides an independent basis for denial in addition to the proposed denial under step 3.[23]

Importantly, the more refined 4km modeling data from Alpine Geophysics demonstrate there will not be downwind air quality problems relating to the 2015 ozone NAAQS in the NMYA. This now provides the basis for EPA to deny the petition at Step 1 without the need to proceed further through the 4 Step process.

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[21] See, EPA Response to Clean Air Act Section 126(b) Petition From New York, 84 Fed. Reg. 22,787-01 at 22789, May 20, 2019 available at https://www.federalregister.gov/d/2019-09928/p-31

[22] *Id.*

[23] *Id.*

5. The New York petition should also be denied because it is based on the assertion that there are nonattainment and maintenance monitors in other states.

The New York petition provides, "Because portions of Connecticut and New Jersey are part of the NYMA nonattainment areas, upwind states' ozone impacts on those states' monitors are also of concern to DEC."[24] The New York petition then states that the nonattainment and maintenance status of the monitors in other states "further support the inclusion of sources from Maryland, Michigan, Ohio, Pennsylvania, and Virginia in this petition." This assertion is not relevant to the CAA §126(b) authorities.

As explained in detail by EPA in its October 5, 2018 denial of the CAA §126 petitions from Delaware and Maryland, "The specific language of the CAA section 126(b) does not say that a state may petition the EPA for a finding that emissions from a source, or group of sources, is impacting downwind receptors in a state other than the petitioning state." 83 Fed. Reg. 50460. EPA further cites to the following statement of legislative history:

> When section 126 was added to the CAA, the Senate's amendment implementing the basic prohibition on interstate pollution stated that: ''Any State or political subdivision may petition the Administrator for a finding that a major stationary source in another state emits pollutants which would adversely affect the air quality in the petitioning State.'' (emphasis added). Clean Air Act Amendments of 1977, H.R. 95–564, 95th Cong. at 526 (1977). The House concurred with the Senate's amendment to CAA section 126, with changes to other portions of the amendment, but did not indicate changes to this sentence. Id. The lack of stated changes to this component of the Senate's original amendment suggest that Congress did not intend for the scope of the petitioning authority to be expanded to parties other than a state or political division in which downwind air quality is adversely affected.[25]

Accordingly, and as a matter of statutory authority, the New York petition may not rely on receptors located in other states.

Notwithstanding, the lack of legal authority for New York's reliance on monitors in other states, none of the monitors in other states cited by New York actually qualify as either nonattainment or maintenance monitors.

As pointed out elsewhere in these comments (and as set forth in Exhibit C), MOG has developed and provided modeled design value projections for the Connecticut and New Jersey monitors cited by New York. As can be seen in the following table based on average design values, there are no monitors in either Connecticut or New Jersey predicted to be in nonattainment with either the 2008 or 2015 ozone NAAQS in the assessment year of 2023.

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[24] "New York State Petition for a Finding Pursuant to the Clean Air Act Section 126(b)," March 2018, p. 14.

[25] 83 Fed. Reg. 50460 at fn. 47.

Monitor	State	County	DVb (2011)	DVf (2023) Ave	DVf (2023) Max
90010017	Connecticut	Fairfield	80.3	66.8	69.0
90011123	Connecticut	Fairfield	81.3	65.2	66.6
90013007	Connecticut	Fairfield	84.3	69.2	73.1
90019003	Connecticut	Fairfield	83.7	68.3	71.0
90070007	Connecticut	Middlesex	79.3	63.8	65.2
90090027	Connecticut	New Haven	74.3	61.8	64.9
90099002	Connecticut	New Haven	85.7	68.9	71.5
340030006	New Jersey	Bergen	77.0	65.5	66.4
340130003	New Jersey	Essex	78.0	63.4	66.7
340170006	New Jersey	Hudson	77.0	65.3	66.2
340190001	New Jersey	Hunterdon	78.0	60.8	62.4
340230011	New Jersey	Middlesex	81.3	64.5	67.4
340250005	New Jersey	Monmouth	80.0	65.4	67.9
340273001	New Jersey	Morris	76.3	62.6	64.0
340315001	New Jersey	Passaic	73.3	59.9	61.3
340410007	New Jersey	Warren	66.0	50.9	50.9

A similar conclusion is reached with respect to maintenance monitors. As set forth in Exhibit D to these comments, when EPA's October 19, 2018 alternative maintenance monitor guidance [26] is applied to these monitors, none qualify as maintenance monitors. EPA's October 19, 2018 Memorandum provides specific guidance on alternative criterion concerning maintenance receptors and identifies two potential flexibilities states may use to identify maintenance receptors with an appropriate technical demonstration. First, EPA provides that states may, in some cases, eliminate a site as a maintenance receptor if the site is currently measuring clean data. Second, EPA provides a state may, in some cases, use a design value from the base period that is not the maximum design value. For either of these alternative methods, to satisfy the D.C. Circuit's instruction to consider areas struggling to meet the NAAQS, EPA would expect states to include with their SIP demonstration technical analyses showing that:

> (1) meteorological conditions in the area of the monitoring site were conducive to ozone formation during the period of clean data or during the alternative base period design value used for projections;

[26] "Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards," from Peter Tsirigotis, October 19, 2018, https://www.epa.gov/airmarkets/considerations-identifying-maintenance-receptors-memo

(2) ozone concentrations have been trending downward at the site since 2011 (and ozone precursor emissions of nitrogen oxide (NOx) and volatile organic compounds (VOC) have also decreased); and
(3) emissions are expected to continue to decline in the upwind and downwind states out to the attainment date of the receptor.[27]

As is set forth in MOG's technical support document described elsewhere in these comments and contained in Exhibit D, application of EPA's alternative guidance demonstrates there will be no remaining maintenance monitors anywhere in the Northeast in 2023.

6. 2023 is the appropriate year for assessing Good Neighbor SIP requirements related to the 2008 and 2015 ozone NAAQS.

MOG supports EPA's selection of a 2023 analytic year as reasonable. EPA appropriately considered the upcoming attainment dates for the 2008 and 2015 ozone NAAQS and the timing and economics of feasible controls when making the determination that the 2023 analytic year is appropriate for assessing the Good Neighbor SIP obligations.

The attainment dates for both the 2008 and 2015 ozone NAAQS were considered when evaluating the appropriate analytic year. The attainment dates for the less restrictive 2008 ozone NAAQS are 2021, for serious nonattainment areas, and July 2027 for severe nonattainment areas. EPA considered and either implemented or rejected additional short-term controls to meet these attainment dates in the CSAPR Update.[28] Based on EPA's modeling for data for the 2023 analytical year, EPA determined that the Good Neighbor SIP obligations would be addressed by the CSAPR Update.

It was then necessary to consider whether long term controls, not included in the CSAPR update, would provide additional air quality benefit. EPA concluded that longer term controls, specifically, new catalytic controls should provide air quality benefit but, would not be installed by the 2021 attainment date. However, these catalytic controls could be installed on a regional scale by 2023, in advance of the 2027 2008 NAAQS attainment date.[29] Since, these long-term controls should result in greater emissions reductions and air quality improvements in downwind areas, MOG agrees it was appropriate for EPA to consider the timeframe for installation of these long-term controls when making the selection of 2023, as opposed to 2021, as the analytic year.

When the more restrictive 2015 ozone NAAQS is considered, EPA appropriately selected 2023 as the future analytic year "because it aligns with the anticipated attainment year for the Moderate ozone nonattainment areas".[30] Indeed, 2023 aligns with the last full ozone season before

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[27] *Id.* at 4.
[28] 83 Fed. Reg. at 65,893-94.
[29] 83 Fed. Reg. at 65,905.
[30] See, EPA Response to Clean Air Act Section 126(b) Petition From New York, 84 FR 22787-01 at22799,

the attainment year for Moderate ozone nonattainment areas.

Aligning implementation of emission reductions in upwind states with the applicable attainment dates in downwind areas is an integral part of the directive of the D.C. Circuit. Specifically, the court holding *North Carolina v. EPA*[31] directed EPA to assure alignment of the implementation of the closely related Good Neighbor SIPs with the date by which states are required to demonstrate attainment with the applicable NAAQS. There must be continued recognition that air quality will improve between the due date for Good Neighbor SIPs and the 2023 attainment deadline as a result of additional local controls in nonattainment areas as well as CAA programs including Federal Measures, federally mandated state RACT rules, nonattainment infrastructure SIPs, and Good Neighbor SIPs. While the Federal measures, state RACT rules, nonattainment infrastructure SIPs, and other control programs will all significantly improve air quality in many nonattainment areas, those programs will all be implemented after the Good Neighbor SIPs are due, which means that states will need to carefully consider how best to address those air quality improvements as part of their Good Neighbor SIP submittals. The failure to include the benefits of these programs will result in over-control of upwind states, which is, of course, illegal given the Supreme Court decision in *E.P.A. v. EME Homer City Generation, L.P.,* 572 U.S. 489, (2014).

The Good Neighbor SIP (and the related 126 responsibilities of an upwind state) is a "down payment" on attainment and not a stand-alone attainment program. Numerous control programs will take effect between the 2018 Good Neighbor SIP due date and the 2023 attainment deadline making it essential that EPA account for the impact of these legally mandated controls on air quality to avoid violating the CAA prohibition against over-control.

7. An additional element of technical and legal conservatism in EPA's proposed decision to deny the New York petition is that air quality modeling in 2023 does not account for legally mandated controls on local sources.

When an area is measuring nonattainment of a NAAQS, the CAA requires the effects and benefits of local controls on all source sectors be considered first, prior to pursuing controls of sources in upwind states.

a. Many portions of New York are subject to additional nonattainment area controls.

While New York is predicted to have no nonattainment or maintenance areas in 2023, its current monitoring data causes it to have several significant nonattainment and maintenance areas.

May 20, 2019; see also, *Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I)*, prepared by Peter Tsirigotis, March 27, 2018, p. 3. https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015.

[31] *North Carolina v. EPA,* 531 F.3d 896, 911-12 (D.C. Cir. 2008).

CAA §107(a) states "[e]ach State shall have the primary responsibility for assuring air quality within the entire geographic area comprising such State." In addition, CAA §110(a)(1) requires a state SIP "provides for implementation, maintenance, and enforcement" of the NAAQS "in each air quality control region . . . within such State." Moreover, by operation of law, pursuant to the CAA, additional planning and control requirements are applicable to areas designated to be in nonattainment.

Current ongoing state non-attainment programs are important to assess the merit of the New York petition and to provide upwind states confidence such programs are implemented as they prepare to submit approvable Good Neighbor state implementation plans to address the 2008 and 2015 ozone NAAQS. EPA's current interstate transport modeling platforms, relied upon by both EPA and MOG, fail to incorporate local emission reductions programs required to improve ambient ozone concentration by 2023. Only through a full assessment of these local emissions reductions can a full and complete picture of the status of air quality in 2023 be obtained.

The CAA addresses the affirmative obligations of the states to meet the deadlines for submittal and implementation of SIPs designed to specifically address their degree of nonattainment designation. Review of Section 172(c)(1) of the CAA provides that SIPs for nonattainment areas shall include "reasonably available control measures," including "reasonably available control technology" (RACT), for existing sources of emissions. CAA §182(a)(2)(A) requires that for Marginal Ozone nonattainment areas, states shall revise their SIPs to include RACT. CAA §182(b)(2)(A) requires that for Moderate Ozone nonattainment areas, states must revise their SIPs to include RACT for each category of VOC sources covered by a CTG document issued between November 15, 1990, and the date of attainment. CAA §182(c) through (e) applies this requirement to States with ozone nonattainment areas classified as Serious, Severe and Extreme.

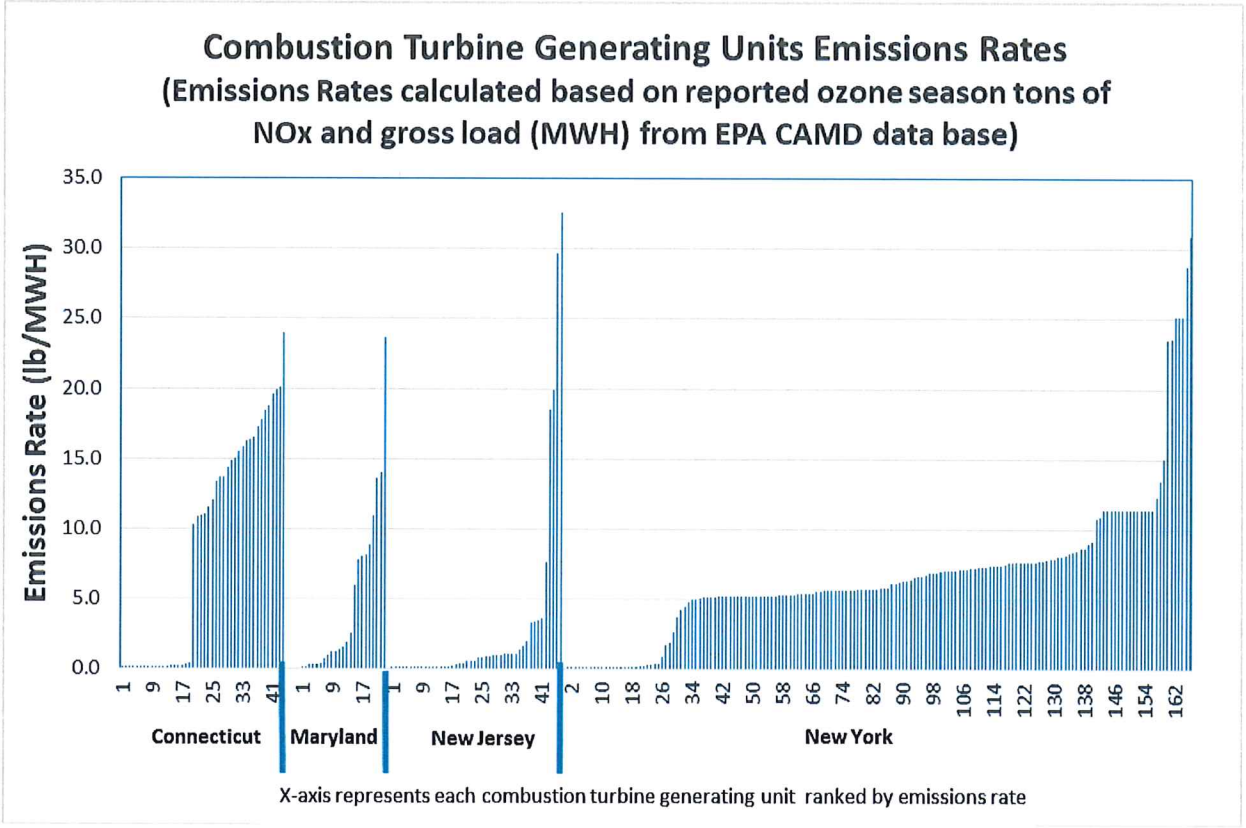
The CAA also imposes the same requirement on States in ozone transport regions (OTR). Specifically, CAA §184(b) provides that a state in the Ozone Transport Region (OTR) must revise its SIP to implement RACT with respect to all sources of VOCs in the state covered by a CTG issues before or after November 15, 1990. CAA §184(a) establishes a single OTR comprised of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and the Consolidated Metropolitan Statistical Area (CMSA) that includes the District of Columbia.

In conclusion, it is essential that New York have an effective non-attainment control program prior to seeking controls from upwind states.

b. Need for additional control on certain older simple cycle combustion turbines.

In addition, on September 21, 2018 a report of OTC Stationary and Area Source Committee identified many emission units of concern in New York which are in need of controls to reduce their

impact on ozone air quality concentrations. This report is attached and identified as Exhibit E.[32] Data from this report are set out in the following chart and demonstrate that states within the OTC and specifically New York, New Jersey, Connecticut and Maryland have a much greater reliance on the use of simple cycle combustion turbines with very high emissions rates. MOG has not had the opportunity to obtain and review the stated basis for the OTC conclusion that control or replacement of "old" units is "cost effective." Such a strategy may be cost-effective within the OTC. Such a strategy would not be cost-effective for other states that do not have the same degree of reliance on high emitting combustion turbines. A comparison between units in these OTC states is illustrated in the following chart:



Significantly, the September 18, 2018 OTC report reached the following conclusion:

- Simple cycle turbines operate on high ozone days.
- Control of NO_x or replacement of old units is cost effective based on ozone day benefit.

[32] The report can also be found at http://www.midwestozonegroup.com/files/MOG_OTC_SAS_Public_09212018.pdf.

- There are 200 simple cycle units in OTR with very high NO_x emissions – approximately 10 times most boiler NO_x rates and greater than 100 times most combined cycle NO_x rates.
- Simple cycle units significantly increase, and can dominate EGU NO_x emissions on high ozone days.
- Approximately 40% of simple cycle units have low NO_x rates, showing that much lower NO_x from simple cycle units is readily achievable and is already occurring.[33]

In a follow-up presentation offered by the OTC Stationary and Area Sources Committee on June 11, 2019 (attached to these comments and identified as Exhibit F) the OTC offered the following statement on slide 3 with respect to cost effectiveness:

> An SCR on a gas or oil fired SC turbine can be ~10X more cost effective than an SCR on a coal fired power plant.[34]

Shortly following the issuance of the OTC report, the New York State Department of Environmental Conservation proposed 6 NYCRR Subpart 227-3, "Ozone Season Oxides of Nitrogen (NO_x) Emission Limits for Simple Cycle and Regenerative Combustion Turbines." The comment period closed on May 20, 2019 and as of July 11, 2019 the rule is yet to be finalized. The emissions limits in this proposed rule would phase in beginning in 2023 with full implementation in 2025. The primary goal of this proposal is to lower allowable NO_x emissions from simple cycle and regenerative combustion turbines during the ozone season. According to the proposal, the lower emissions from these sources will help to address CAA requirements, ozone nonattainment, and protect the health of New York State residents.

The following are some highlights from the Regulatory Impact Statement NY DEC offered in support of its proposed rule:

> Simple cycle and regenerative combustion turbines (SCCTs) sometimes referred to as peaking units, run to meet electric load during periods of peak electricity demand. They typically run on hot summer days when there is a higher demand for air conditioning and when there is a strong likelihood of high ozone readings. Many peaking units in New York have very high NOx emission rates, are inefficient and are approaching 50 years of age. It is difficult to install after-market controls on most of these units because of their age and site limitations. Some sources are located on barges where control equipment would physically not fit.
>
> Older SCCTs have adverse impacts on NYMA air quality and make it difficult, if not

[33] *Id.* at slide 15.

[34] http://midwestozonegroup.com/files/OTC_SAS_Presentation_AnnMtg_06112019.pdf

impossible, for New York to meet air quality goals and CAA requirements. SCCTs are generally located in communities of low to moderate income that are populated predominantly by people of color. The emissions generated by SCCTs can have both regional (ozone) and local nitrogen dioxide impacts. These older sources emit significantly more NOx than new, efficient modern SCCTs. The emissions from these units typically occur during high ozone days and are concentrated in the NYMA which, as described above, does not attain the 2008 or 2015 ozone NAAQS.

This rulemaking proposes to lower allowable emission rates for SCCTs during the ozone season with the intention to lower NOx emissions from these sources, especially on high ozone days. To better understand the impact of SCCTs on the ambient air DEC used the Community Multiscale Air Quality Modeling system (CMAQ) to model one high ozone day. The high ozone day modeled was July 23, 2011 and the results demonstrated that old SCCTs located in New York State contributed 0.0048 ppm to downwind monitors that currently show nonattainment. With a protective ozone NAAQS, set at a level of 0.070 ppm, it is clear that these sources alone have the ability and potential to significantly impact attainment of the ozone NAAQS.[35] (Emphasis added.)

These types of emission reduction programs must be taken into consideration by the State of New York and EPA prior to invoking CAA §126. The failure of New York to previously address these emissions sources is an important reason to deny the New York CAA §126 petition.

c. Mobile sources have the largest impact on New York's monitored air quality.

The New York CAA §126 petition erroneously implies that major stationary sources in other states are causing their ozone air quality concerns. Specifically, the petition offers the following statement:

> *The high concentrations of ozone that are transported to New York State are largely the result of emission from major stationary sources of NOx located out-of-state.*[36]

New York does not work to place local mobile source emissions into the full context of the state emissions inventory. As demonstrated in the ozone source apportionment run of the 2017 EPA CSAPR platform, it is clear that even with considerably overestimated emissions levels for EGUs,

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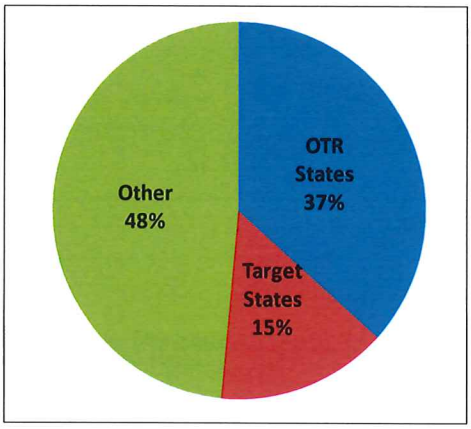
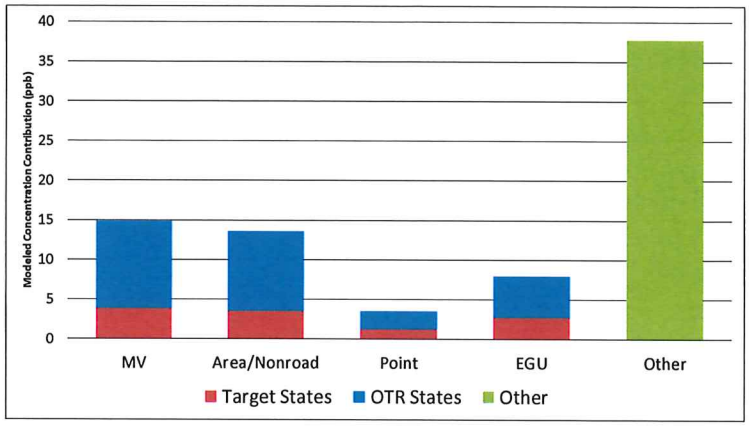
[35] The full proposal and supporting documents can be found at: https://www.dec.ny.gov/regulations/116131.html.

[36] NY Petition at 5.

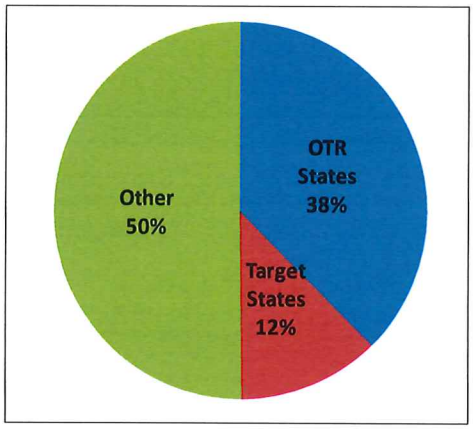
ozone impacts on New York's problem monitors are overwhelmingly from motor vehicles and area and non-road sources.[37] The following charts are from the 2017 EPA CSAPR platform.

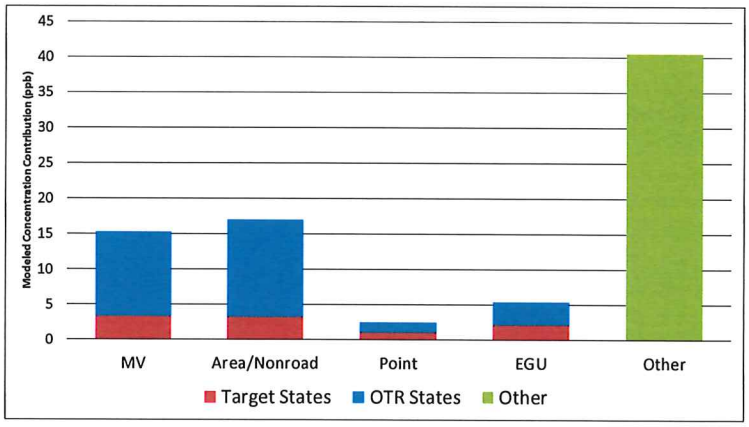
360850067 - Susan Wagner HS - 2017 OSAT Results





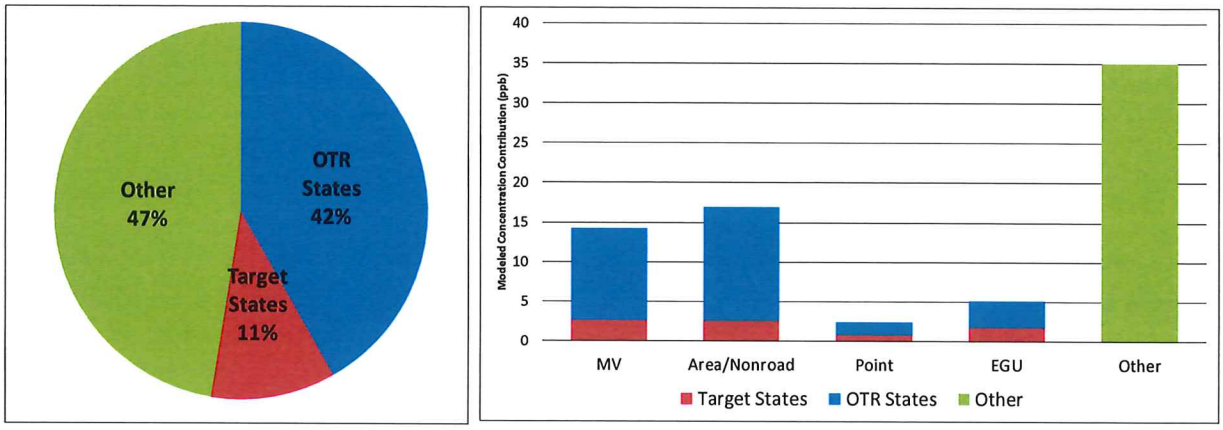
361030002 - Babylon - 2017 OSAT Results





[37] Relative Contribution of Upwind Sources on Key Monitors 176A Petitioning and Petitioned States Using CSAPR 2017eh Modeling Platform, prepared by Alpine Geophysics, LLC, http://www.midwestozonegroup.com/files/Relative_Contribution_of_Upwind_Sources_on_Key_Monitors.pdf

361030004 - Riverhead - 2017 OSAT Results



Regulatory action has been taken by EPA to address mobile sources. On November 13, 2018 EPA announced its Cleaner Truck Initiative.[38] As Administrator Wheeler stated in his January 16, 2019 response to questions from the U.S. Committee on Environment and Public Works:

> EPA expects that heavy-duty trucks will be responsible for one-third of NOx emissions from transportation in 2025. Updating these standards will result in NOx reductions from mobile sources and could be one important way that allows areas across the U.S. to meet National Ambient Air Quality Standards for ozone and particulate matter. Updating the standards will also offer opportunities to reduce regulatory burden through smarter program design.

Accordingly, it is essential that these and other mobile source emission reduction programs be assessed relative to air quality improvement prior to invoking CAA §126.

8. EPA's analysis confirms that any remaining ozone problems in New York are more related to local sources than to sources in upwind states.

EPA addressed the question of whether any remaining air quality concerns in New York and the remainder of the Northeast are related to local sources as opposed to broad regional sources. This study was reflected in a presentation by Norm Possiel of USEPA OAQPS dated May 14, 2018 attached and identified as Exhibit G.[39] Principal among the conclusions reached in the study are the following points:

> From an Eastern US perspective, the current ozone levels appear to be more of a "local" problem (i.e., home state and adjacent neighboring

[38] https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-trucks-initiative

[39] This document can also be found here: http://midwestozonegroup.com/files/2018-05-14_EPA_OAQPS_-_Analysis_of_O3_Trends_in_the_East_in_Relation_to_Interstate_Transport.pdf

states) compared to the larger regional ozone problem for (sic) that was evident back in 2010-2012.

The magnitude of net ozone available for transport into the NE Corridor and the Lake Michigan area from more distant upwind states appears to have declined by 5 to 10 ppb based on 2010-2012 vs 2015-2017 avg ranked ozone values.

Ozone levels have also declined substantially at the traditionally high ozone sites in the southern and central portions of the NE Corridor and at the traditionally high ozone sites along Lake Michigan.[40]

In addressing possible causes for High Ozone at Sites in the Northeast, the EPA study identified various source sectors within the Northeast Corridor including the following:

• The NYC area has higher mobile source emissions than other parts of the OTR, (onroad and non-road sources).

• A unique mix of local (Tri-State area) contributions from other sources such as EGU, non-EGU point, nonpoint, and commercial marine.

• "Behind the meter" generation (diesel generators that are not controlled and not in the emissions inventory that operate on hot summer days).

• Peaking units (HEDD) within the OTR that may operate on mostly on high ozone days.[41]

While several of these hypotheses will be discussed elsewhere in the comments, it is significant that EPA has identified this changing development with its implications for addressing any remaining ozone concerns though controls on local sources rather that upwind sources. MOG submits this study provides an added basis for finalizing the proposed denial of the New York petition.

9. New York's petition should be rejected because it incorrectly characterizes the emissions of targeted states and sources.

The New York petition relies on EPA modeling data that were developed in support of the 2016 CSAPR Update Rule. From these data New York selected 10 states it asserts should be considered today to be "significantly contributing states" in violation of the good neighbor provision of CAA Section 110(a)(2)(D)(i). The 10 states initially identified as "significantly contributing"

[40] *Id.* at slide 4.

include: Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Virginia and West Virginia. Because New Jersey was not named by New York in its petition, it is not being included in this analysis of sources in targeted stated.

The data selected to identify these target states are outdated and not representative of emissions that occurred in 2017 – the year selected by New York for review. The following chart compares the data used by New York to characterize 2017 EGU emissions compared with the actual EGU NO_x emissions in 2017 as measured by Continuous Emission Monitors (CEM) and reported to EPA's CAMD office.

	2017 Ozone Season NOx Tons from All EGUs			
State / Region	**Modeled CSAPR Base; IPM 5.14**	**Actual as Reported to CAMD/CEM**	**CSAPR-CEM Delta**	**Delta from CSAPR (%)**
IL	15,706	14,531	1,175	-7%
IN	43,842	22,419	21,423	-49%
KY	38,968	20,053	18,915	-49%
MD	4,348	2,939	1,409	-32%
MI	32,167	16,958	15,209	-47%
OH	29,599	21,005	8,595	-29%
PA	50,870	14,435	36,435	-72%
VA/DC	10,438	8,069	2,369	-23%
WV	25,582	18,463	7,119	-28%
Sec 126 Subtotal	**251,521**	**138,872**	**112,649**	**-45%**
CT	493	430	63	-13%
DE	362	459	(97)	27%
NJ	4,001	1,684	2,317	-58%
NY	7,396	5,614	1,782	-24%
North East	2,730	1,611	1,119	-41%
WI	8,690	8,103	586	-7%
NC	21,929	16,474	5,456	-25%
TN	6,383	10,135	(3,752)	59%
South	80,999	54,262	26,737	-33%
AR	11,888	12,811	(923)	8%
MO	20,572	15,400	5,172	-25%
OK	24,329	11,043	13,286	-55%
TX	66,585	54,375	12,210	-18%
West	180,994	148,488	32,506	-18%
US Total	**688,872**	**479,761**	**209,111**	**-30%**

[41] *Id.* at slide 17.

The New York petition also states it relied upon 2014 National Emissions Inventory (NEI) data to identify sources which emit 400 tons or more.[42] Even though New York concedes in doing so it included emissions that were overstated, it nevertheless conducts its analysis based upon these incorrect and outdated emissions. In the case of 14 forest products industry sources included in the analysis and listed in Appendix B of the petition, the projected 2017 emissions are overstated by almost 7,500 tons. This error is not only significant in making a determination of 2017 emissions, it results in a much greater error in assessing those sources in 2023 – the attainment year applicable to both the 2008 and 2015 ozone NAAQS. Additionally, the Boiler MACT rule (that was implemented after 2014), caused several large coal-fired industrial boilers in various sectors to shutdown, be replaced with new natural gas boilers; or retrofitted with new natural gas burners that emit less NOx. These lower emissions will be reflected in the actual emissions inventories for 2017 and beyond, but are not reflected in the New York petition.

Reliance on outdated data obfuscates the effect of on-going emission reduction programs. New York's reliance on this narrowly defined information dramatically overstates the impact of these sources on its monitors and provides an additional basis of insufficient information upon which EPA should finalize its decision to deny the New York petition.

In this case, the New York petition's reliance on outdated information fails to provide sufficient technical information or justification to support the requested finding. EPA explains:

> In *New York* v. *EPA,* the D.C. Circuit evaluated the EPA's obligation in acting on a CAA section 126(b) petition, determining both that the 60-day deadline for action meant Congress did not intend for the EPA to undertake a "litany of tasks" in evaluating the petition and that denial was proper where the states failed to substantiate the claims raised in their petitions. *Id.* Accordingly, where a CAA section 126(b) petition does not contain sufficient technical information or justification to support the requested finding without the EPA undertaking an independent analysis, it is reasonable for the EPA to interpret CAA section 126(b) to support a denial of the petition.[43]

EPA recently denied a similar petition from the state of Connecticut based on the conclusion that Connecticut had not demonstrated and the EPA had not determined that the Brunner Island facility emits or would emit pollution in violation of the good neighbor provision with respect to the 2008 ozone NAAQS. EPA concluded: "the state's analysis of Brunner Island's impact on air quality in Connecticut provides insufficient information regarding the source's impact on Connecticut air quality on high ozone days and it does not reflect the facility's current operations."[44] Similarly, EPA

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[42] NY Petition at 10.
[43] 84 Fed. Reg. 22,797.
[44] Response to June 1, 2016 Clean Air Act Section 126(b) Petition From Connecticut, 83 Fed. Reg 16064, 16065. (April 13, 2018). https://www.federalregister.gov/d/2018-07752/p-22.

should deny New York's petition that relies on outdated data that do not reflect current or expected operations or controls.

10. Emission trends for states targeted by the petition have been decreasing for many years and will continue to do so for the foreseeable future.

The New York petition is directed at sources in nine upwind states that have in fact experienced a significant reduction in NO_x emissions over recent years. These reductions not only reflect the good faith of these upwind states in regulating their own sources but also the effectiveness of EPA programs adopted to meet the Good Neighbor provisions of the CAA and to reduce emissions from industrial source categories.

Set forth below is a table developed from EPA modeling platform summaries illustrating total anthropogenic emission reduction and EGU-only emission reduction in the states targeted by the New York petition.[45]

	Annual Anthropogenic NOx Emissions (Tons)			Emissions Delta (2017-2011)		Emissions Delta (2023-2011)	
State	**2011**	**2017**	**2023**	**Tons**	**%**	**Tons**	**%**
Illinois	506,607	354,086	293,450	152,521	-30%	213,156	-42%
Indiana	444,421	317,558	243,954	126,863	-29%	200,467	-45%
Kentucky	327,403	224,098	171,194	103,305	-32%	156,209	-48%
Maryland	165,550	108,186	88,383	57,364	-35%	77,167	-47%
Michigan	443,936	296,009	228,242	147,927	-33%	215,694	-49%
Ohio	546,547	358,107	252,828	188,439	-34%	293,719	-54%
Pennsylvania	562,366	405,312	293,048	157,054	-28%	269,318	-48%
Virginia	313,848	199,696	161,677	114,152	-36%	152,171	-48%
West Virginia	174,219	160,102	136,333	14,117	-8%	37,886	-22%
Sec 126 Total	**3,484,895**	**2,423,153**	**1,869,107**	**1,061,742**	**-30%**	**1,615,788**	**-46%**
New York	388,350	264,653	230,001	123,696	-32%	158,349	-41%

	Annual EGU NOx Emissions (Tons)			Emissions Delta (2017-2011)		Emissions Delta (2023-2011)	
State	**2011**	**2017**	**2023**	**Tons**	**%**	**Tons**	**%**
Illinois	73,689	31,132	30,764	42,557	-58%	42,926	-58%
Indiana	119,388	89,739	63,397	29,649	-25%	55,991	-47%
Kentucky	92,279	57,520	42,236	34,759	-38%	50,043	-54%
Maryland	19,774	6,001	9,720	13,773	-70%	10,054	-51%
Michigan	77,893	52,829	33,708	25,064	-32%	44,186	-57%
Ohio	104,203	68,477	37,573	35,727	-34%	66,630	-64%
Pennsylvania	153,563	95,828	49,131	57,735	-38%	104,432	-68%
Virginia	40,141	7,589	20,150	32,553	-81%	19,992	-50%
West Virginia	56,620	63,485	46,324	(6,865)	12%	10,296	-18%
Sec 126 Total	**737,551**	**472,600**	**333,003**	**264,952**	**-36%**	**404,549**	**-55%**
New York	27,379	10,191	16,256	17,188	-63%	11,123	-41%

[45] https://www.epa.gov/air-emissions-modeling/2011-version-63-platform

As can be seen from this table, the states targeted by the New York petition are projected to reduce their annual anthopogenic NO_x emissions by 30% (1.062 million tons) through 2017 and 46%, from 3.48 million tons to 1.87 million tons, between 2011 and 2023. Comparatively, these targeted states are projected to reduce EGU-only annual NO_x emissions by 36% (264,952 tons) through 2017. The 2017 actual NO_x emissions reductions are even greater than the predicted reductions as shown by the CEM-reported emissions presented in earlier sections of this document as compared to the modeled 2017 EGU emissions. Futhermore, a 55% reduction in annual EGU NO_x emissions from the NY petition targeted states, or 404,549 tons, is projected by EPA between 2011 and 2023. Emission trends for these states have been deceasing for many years and will continue to decrease for the foreseeable future as the result of nothing more than on-the-books controls.

11. The CSAPR Update Rule and the 2008 and 2015 "Good Neighbor" plans resolve (both legally and technically) the issues raised by the New York petition.

While the petition acknowledges the near-term deadlines for action by EPA on the Good Neighbor plans of the targeted states related to the 2008 ozone NAAQS, the petition fails to address the fact that action on these plans addresses exactly the same provision of the CAA as does their petition (CAA §110(a)(2)(D)(i)) and would effectively satisfy their petition as it relates to the 2008 ozone NAAQS.[46] This close relationship was addressed by EPA in its denial of the Connecticut CAA §126 petition involving the Brunner Island Plant when EPA stated:

> Put another way, requiring additional reductions would result in eliminating emissions that do not contribute significantly to nonattainment or interfere with maintenance of the NAAQS, an action beyond the scope of the prohibition in CAA section 110(a)(2)(D)(i)(I) and therefore beyond the scope of EPA's authority to make the requested finding under CAA section 126(b). See EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1604 n.18, 1608-09 (2014) (holding the EPA may not require sources in upwind states to reduce emissions by more than necessary to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS in downwind states under the good neighbor provision).[47]

The petition also fails to acknowledge the October 1, 2018 deadline that is applicable to all target states for the submittal of Good Neighbor plans related to the 2015 ozone NAAQS. These Good Neighbor plans would also address CAA §110(a)(2)(D)(i) and effectively eliminate any need for the relief requested in the petition.

In addition to the 2008 and 2015 ozone NAAQS Good Neighbor State Implementation Plans (SIPs), EPA's CSAPR Update Rule was also adopted to implement and satisfy CAA Section 110(a)(2)(D)(i) obligations. The combination of these actions has already resolved or ultimately will

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[46] NY Petition at 6.

[47] Response to June 1, 2016 Clean Air Act Section 126(b) Petition From Connecticut, 83 Fed Reg. 16064, 16070 (April 13, 2019).

resolve the responsibility of the states and sources named in the New York petition (filed pursuant to CAA Section 126), because both sections of the CAA call for the application of the same legal standard.

CAA §126(b) provides –

> Any state or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emit or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)(ii) … [48]

CAA §110(a)(2)(D)(i) provides –

> Each plan shall … contain adequate provisions … prohibiting … any source … from emitting any air pollutant in amounts which will … contribute significantly to non-attainment in, or interfere with maintenance by, any other state

Thus, resolution of the question of interstate transport under CAA §110(a)(2)(D)(i) effectively and legally resolves any issues that might be the bases for a petition filed under CAA §126(b).

Additional precedential support for denial of the petition based on insufficient technical information or justification to support the requested finding can be found in the Response to Clean Air Act Section 126(b) Petitions From Delaware and Maryland.[49]

EPA denied Delaware's petition based on its findings that air quality modeling of ozone levels in 2017 from the CSAPR Update and more recent air quality modeling of ozone levels in 2023 show no air quality problems in the state with regard to the 2008 and 2015 ozone NAAQS, respectively. The agency denied both the Delaware and the Maryland petitions based on the best information available to it and the fact that an existing rule, the CSAPR Update, already evaluated the ozone transport issues and NO_x control strategies addressed in the petition and it addresses emissions from the subject upwind EGU facilities. The cost-effective control strategies implemented under the CSAPR update, while focused on the 2008 standard, will also address the 2015 ozone NAAQS.[50]

EPA found that Delaware's petition was not sufficient on its own merit to support a CAA §126(b) finding based on several technical deficiencies.[51] Similarly, the New York petition should

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[48] *Appalachian Power Co. v. EPA*, 249 F.3d 1032 (D.C. Cir. 2001) held this to be a scrivener's error and that the reference here was intended to be to section 110(a)(2)(D)(i) rather than to section 110(a)(2)(D)(ii) as written.

[49] Response to Clean Air Act Section 126(b) Petitions From Delaware and Maryland, 83 Fed. Reg. 50,444 (Oct. 5, 2018).

[50] Id. at 50,445.

[51] Id. at 50,456.

fail because New York, like Delaware, failed to demonstrate that the sources named in the petition emit or world emit in violation of the good neighbor provision such that they will significantly contribute to nonattainment or interfere with maintenance of the 2008 or 2015 ozone NAAQS in New York.

In addition, EPA in its proposed denial of the New York petition properly noted this relationship in the following comment:

> Thus, it follows that if a state already has a SIP that the EPA approved as adequate to meet the requirements of CAA section 110(a)(2)(D)(i)(I) for a specific NAAQS, the EPA would not find that a source in that state was emitting in violation of the prohibition of CAA section 110(a)(2)(D)(i)(I) absent new information demonstrating that the SIP is now insufficient to address the prohibition for that NAAQS. Similarly, if the EPA has promulgated a FIP that it has determined fully eliminates emissions that significantly contribute to nonattainment or interfere with maintenance in a downwind state for a specific NAAQS, the EPA has no basis to find that sources in the upwind state are emitting or would emit in violation of the CAA section 110(a)(2)(D)(i)(I) prohibition, absent new information to the contrary for that NAAQS.[52]

EPA clearly has an alternative mechanism to address the issues raised by the New York petition. EPA correctly relied upon that mechanism in addressing the denial of the New York petition.

12. New York's request to have emission control limits set on a daily basis has been previously considered and rejected by EPA and should also be rejected here.

One of the requests advanced in the New York petition is to have emission limits imposed on a daily – rather than ozone season – basis.[53] Such a proposal has previously been considered and rejected by EPA in connection with the CSAPR Update Rule. MOG urges that it be cited now by EPA in support of a final decision to deny the New York CAA §126 petition.

During proceeding on the CSAPR Update rulemaking, EPA carefully considered requests from Northeast states urging that the CSAPR budget be applied on a short-term basis. EPA made the final decision to establish a program for the regulation of NO_X emissions from EGUs on an ozone season average basis rather than on any shorter time frame. EPA concluded in the CSAPR Update

[52] 84 Fed. Reg. at 22,796.
[53] NY Petition at 17.

Rule that "NO_X ozone season trading programs are effective at reducing peak ozone concentrations, and the agency is therefore continuing with a seasonal approach in this final rule."[54]

In fact, much of the success in achieving real and significant reductions in ozone levels across the Eastern U.S. has been attributed to the progressive actions attributed to the regional NO_x budget trading programs that New York references in its 126 petition, beginning with the OTAG effort and the NO_x SIP Call, up through to the CSAPR Update Rule.

EPA's analysis has supported a determination that seasonal budgets achieve both overall reductions in emissions as well as short-term reductions that translate into improved ozone concentrations. NO_x budget programs provide flexibility and opportunity to achieve cost-effective reductions that might not otherwise be justified, for example under a command-and-control regulation that would necessarily be based on a less-stringent unit-by-unit limit. Imposing short-term emissions limits on individual sources would substantially impact the cost of control, and in fact such limits may not be feasible without major impacts on operation of affected sources and significant upgrade or even replacement of existing NO_x control systems.

Many of the SCRs installed on named EGU sources were designed and constructed as retrofit equipment specifically for purposes of achieving overall ozone season reductions under the various NOx budget programs, and the design of many of these SCRs is not compatible with achieving continuous compliance with a short-term emissions rate limit under all operating conditions. Typical retrofit SCRs are designed to achieve vendor guaranteed performance levels in the range of 80 to 90% NO_x removal with the unit operating at full load, steady state conditions consistent with the design criteria. These criteria were established based on projections on how the units would be operating at the time the SCRs were installed. However, there have been significant changes in the electric utility industry over the past 10 years, with the result that many units that were previously operated to meet base-load generation are now subject to cycling operation and significantly more time at minimum load conditions.

As one example of the impacts of these changes in operation, many retrofit units are not able to operate SCRs at minimum load conditions because the flue gas temperature falls below the minimum temperature specified by the vendor. Operating below those temperatures can result in severe fouling of the SCR catalyst and downstream components due to formation of ammonium bisulfate. However, when the units are operating at higher loads that occur during the high electric demand days, ammonia is injected to control NOx emissions. As a consequence, even using an ozone season limit, NOx is most controlled at the times when the control of NOx is most important. EPA appropriately assessed the capabilities of NOx controls in the development of the final version of the CSAPR Update Rule. New York has not assessed the feasibility and cost impact of the

[54] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 Fed. Reg. 74,504-01, 74,523, (October 26, 2016.)

significant upgrades that would be required for EGUs to demonstrate compliance with a short-term limit, nor has it demonstrated that this increased stringency is necessary.

This is not to downplay the performance of these retrofit SCRs, and in fact, the EGUs regulated under CSAPR have demonstrated that the installed controls are very effective at achieving emissions reductions in terms of total tons of NO_x, which is the critical objective to addressing ozone. EPA addressed the issue of short-term limits and SCR performance in its denial of the Maryland and Connecticut CAA §126 petitions, as follows:

> To the extent the petitions have alleged that short-term limits are necessary to prevent units from turning controls off intermittently on days with high ozone, the EPA examined the hourly NOx emissions data reported to the EPA and did not observe many instances of units selectively turning down or turning off their emissions control equipment during hours with high generation. SCR-controlled units generally operated with lower emissions rates on high generation hours, suggesting SCRs generally were in better operating condition—not worse, let alone idling—on those days/hours. In other words, the EPA compared NOx rates on hours with high demand and compared them with seasonal average NOx rates and found very little difference. The data do not support the notion that units are reducing SCR operation on high demand days...The EPA, therefore, concludes that increases in total emissions on days with high generation are a result of additional units coming online and units increasing hourly utilization, rather than units decreasing the functioning of control equipment. The petitions have not presented information that would contradict this conclusion.[55]

Effective management of stringent NO_x budget limitations applicable to each state in the CSAPR program necessitates that EGU sources must provide for optimizing performance of the cost-effective controls that have been installed on the sources. This is apparent from the extent of the actual emissions reductions achieved following implementation of the CSAPR Update Rule. In fact, New York's attempt to force a large portion of the units included in the CSAPR Update Rule to meet short term limits would disrupt the effective market-based process, and could force unintended adverse impacts on how emissions are managed under the CSAPR Update Rule (for example, by driving down the price of allowances).

Ozone is a regional pollutant formed from NO_x and volatile organic compound emissions from a variety of sources that is subject to transport based on the weather.[56] Market-based programs result in emissions reductions because so long as the region experiences a decrease in the emissions

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[55] 83 Fed. Reg. 26,679.

[56] *See* 83 Fed. Reg. at 50,454; 81 Fed. Reg. at 74,513-14. See also, EME Homer City, 572 U.S. at 496-97 (ozone caused not from a single source but from a variety of sources).

of the ozone precursors there will be a decrease in the formation of ozone and the region will experience improved air quality.[57]

13. Consideration of Exceptional Events that occurred in 2016 would bring all New York monitors into attainment with the 2008 Ozone NAAQS. Failure by New York to invoke EPA's exceptional events rule or otherwise to exclude certain Canadian wildfire events from 2016 ambient monitoring data provides an additional basis for denial of the petition.

The Clean Air Act and EPA recognize that Exceptional Events can result in higher design values for many monitors in both the upwind and downwind states. If Exceptional Events are not accounted for, use of the resulting higher design values will not only result in inaccurate nonattainment designations, but also in ultimately higher future year predictions of ozone concentrations and the inaccurate representation that additional control measures are necessary.

The importance of the need to exclude data influenced by Exceptional Events is recognized by Congress in the provisions of Clean Air Act §319(b)(3)(B) which provides as follows:

> Regulations promulgated under this section shall, at a minimum, provide that
>
> (i) the occurrence of an exceptional event must be demonstrated by reliable, accurate data that is promptly produced and provided by Federal, State, or local government agencies;
>
> (ii) a clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location;
>
> (iii) there is a public process for determining whether an event is exceptional; and
>
> (iv) there are criteria and procedures for the Governor of a State to petition the Administrator to exclude air quality monitoring data that is directly due to exceptional events from use in determinations by the Administrator with respect to exceedances or violations of the national ambient air quality standards.

EPA's regulations on Exceptional Events provide the framework for addressing Exceptional Events.[58] The regulations include requirements related to demonstrating (a) that a clear, causal relationship exists between the event and monitored exceedance(s), (b) the event was of human origin and not likely to recur or was natural in origins and (c) the occurrence was not reasonably controllable or preventable.

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[57] *See, e.g.*, 83 Fed. Reg. at 50,454-55.

[58] 40 CFR 50.14 (81 Fed. Reg. 68,216, October 3, 2016).

In addition, EPA also offered guidance related to Exceptional Events that, among other things, requires demonstrations include:

- A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);
- A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation;
- Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;
- A demonstration that the event was both not reasonably controllable and not reasonably preventable;
- A demonstration that the event was caused by human activity that is unlikely to recur at a particular location or was a natural event; and
- Documentation that the submitting air agency followed the public comment process.[59]

A number of states have already made requests to have the air masses caused by the Canadian wildfires that occurred in 2016 be declared Exception Events – thus allowing monitored data influenced by those events to be excluded from the calculation of the design value for the affected monitor. Among the states submitting these requests are several of New York's neighboring states including:

Connecticut - The Connecticut demonstration related to the May 2016 event was submitted on May 23, 2017.[60] In addition to showing that Canadian wildfire caused the event, the demonstration noted that ". . . the exceedances of May 25-26th cannot be attributed to EGUs operating on high electric demand days as is more typically the case later in the ozone season." EPA concurred in that demonstration on July 31, 2017.

New Jersey - The New Jersey demonstration related to the May 2016 was submitted on May 31, 2017.[61] In addition to showing that Canadian wildfire caused the event in New Jersey, the demonstration also noted that the event had had a similar impact on many other states including Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania and New York. EPA concurred in that demonstration on October 24, 2017.

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[59] Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations, Final, EPA, September 2016: https://www.epa.gov/sites/production/files/2016-09/documents/exceptional_events_guidance_9-16-16_final.pdf

[60] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-connecticut

[61] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-new-jersey

Massachusetts - The Massachusetts demonstration related to the May 2016 event was submitted on May 25, 2017.[62] EPA concurred in that demonstration on September 19, 2017.

Maryland – While the Maryland demonstration dated May 26, 2017, nominally addresses July 2016 event, the demonstration report itself includes data which assesses how the design values for Maryland's monitors are affected by both the May and July 2016 events.[63] EPA responded by letter on December 26, 2017, concurring with Maryland on 17 monitor days, deferring action on 16 monitor days, and non-concurring on 10 monitor days.[64]

Pennsylvania – Pennsylvania has also made a demonstration related to the May 2016 event dated November 2017.[65] By letter on March 6, 2018, EPA concurred with Pennsylvania on 8 monitor days, defers action on 41 monitor days, and non-concurs on 78 monitor days.[66]

MOG analyzed the 2016 design values of all the monitors in New York to determine the impact on design values after data collected during these 2016 Exceptional Events are excluded.

To illustrate the process used to assess these monitors, MOG offers the following graphics related to the Suffolk (361030002) and Richmond (360850067) monitors in New York. In the case of each monitor MOG has graphically identified the 10 highest ozone concentrations that occurred in 2016 and have highlighted in red those readings that occurred on dates related to the May 2016 and July 2016 Canadian wildfire events. These graphics demonstrate the significance of the exclusion of those data points affected by the two Exceptional Events identified.

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[62] https://www.epa.gov/air-quality-analysis/exceptional-events-documents-ozone-massachusetts

[63] http://www.mde.state.md.us/programs/Air/AirQualityMonitoring/Documents/MDE_JUL_21_22_2016_EE_demo.pdf

[64] EPA Response Letter to MDE, December 26, 2017, available at https://www.epa.gov/sites/production/files/2018-07/documents/epa_response_mde_exceptional_events_package_12-26-17.pdf

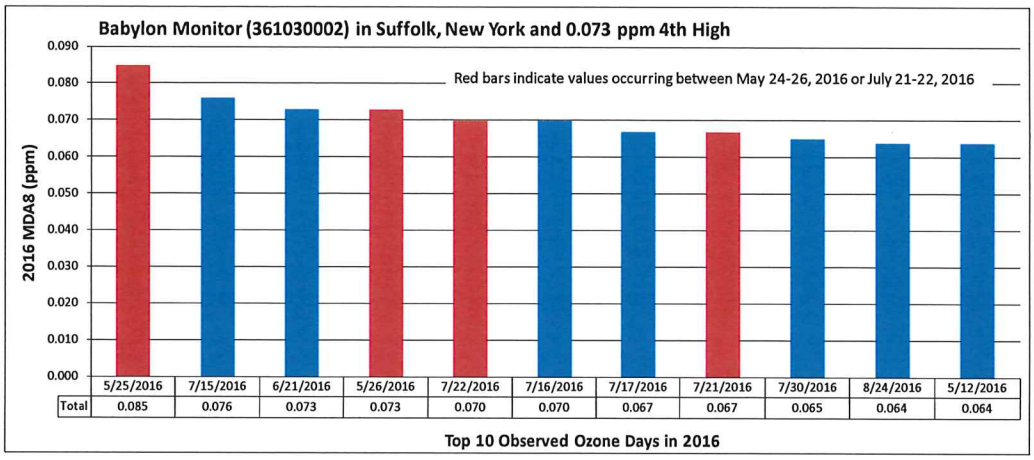
[65] http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-117484/Ozone%20EE%20Analysis%20May%2024-26-2017.pdf

[66] See, EPA PADEP approval letter March 6, 2018 available at https://www.epa.gov/sites/production/files/2018-08/documents/epa_padep_approval_ltr_030618.pdf

Suffolk, New York
AQS_SITE_ID 361030002

Date	MDA8 (ppm)
5/25/2016	0.085
7/15/2016	0.076
6/21/2016	0.073
5/26/2016	0.073
7/22/2016	0.070
7/16/2016	0.070
7/17/2016	0.067
7/21/2016	0.067
7/30/2016	0.065
8/24/2016	0.064
5/12/2016	0.064

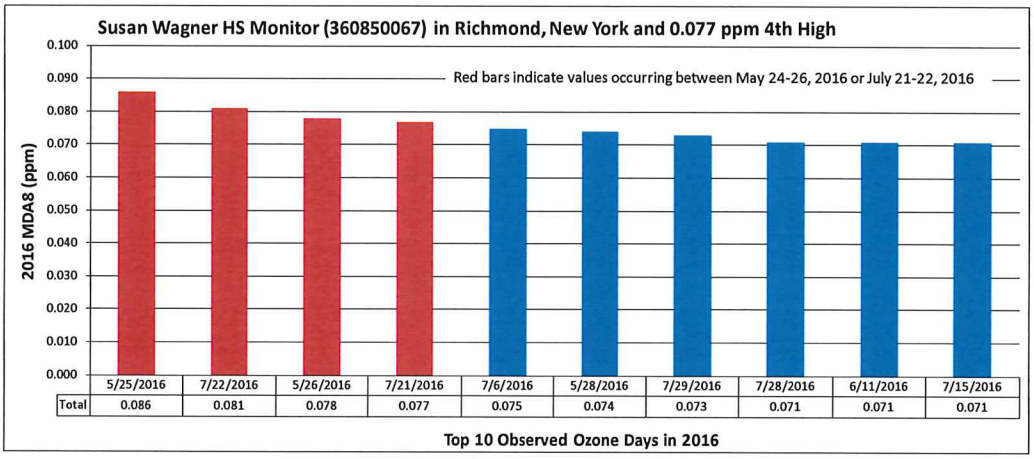
Value	Ozone MDA8 (ppb)
2016 4th (fire)	73
2016 4th (no fire)	67
2014-16 DV (fire)	72
2014-16 DV (no fire)	70



Richmond, New York
AQS_SITE_ID 360850067

Date	MDA8 (ppm)
5/25/2016	0.086
7/22/2016	0.081
5/26/2016	0.078
7/21/2016	0.077
7/6/2016	0.075
5/28/2016	0.074
7/29/2016	0.073
7/28/2016	0.071
6/11/2016	0.071
7/15/2016	0.071

Value	Ozone MDA8 (ppb)
2016 4th (fire)	77
2016 4th (no fire)	71
2014-16 DV (fire)	76
2014-16 DV (no fire)	74



While Connecticut, Massachusetts, New Jersey, Pennsylvania, Maryland and several other states requested consideration of Exceptional Events designation for the 2016 Canadian wildfire event, New York made no such request. However, as can be seen in the following data, if the May and July events been excluded, the design values for 25 of New York's monitors (highlighted in green) would be significantly lower.[67] In the case of each monitor, the measurements collected during on the days in May and July 2016 impacted by the Canadian wildfire for which Exceptional Events analysis should have been filed, resulted in new 4th high values and new 3-year design values for each monitor for comparison to the 2008 and 2015 ozone NAAQS.

[67] New York-Northern New Jersey-Long Island, NY-NJ-CT Nonattainment Area Intended Area Designations for the 2015 Ozone National Ambient Air Quality Standards Technical Support Document (TSD) available at https://www.epa.gov/sites/production/files/2017-12/documents/ny_nj_ct_new_york-northern_new_jersey-long_island_120d_tsd_final.pdf

AQS Site ID	State Name	County Name	2014-2016 Design Value (ppm)	Fire Excluded 2014-2016 Design Value (ppm)
360010012	New York	Albany	0.064	0.063
360050110	New York	Bronx	0.067	0.066
360050133	New York	Bronx	0.070	0.070
360130006	New York	Chautauqua	0.068	0.067
360270007	New York	Dutchess	0.068	0.067
360290002	New York	Erie	0.069	0.068
360310002	New York	Essex	0.062	0.061
360310003	New York	Essex	0.065	0.063
360319991	New York	Essex	0.058	0.058
360337003	New York	Franklin	0.058	0.057
360410005	New York	Hamilton	0.060	0.059
360430005	New York	Herkimer	0.063	0.058
360450002	New York	Jefferson	0.063	0.062
360551007	New York	Monroe	0.063	0.063
360610135	New York	New York	0.069	0.068
360631006	New York	Niagara	0.066	0.065
360671015	New York	Onondaga	0.064	0.062
360715001	New York	Orange	0.066	0.065
360750003	New York	Oswego	0.060	0.060
360790005	New York	Putnam	0.068	0.068
360810124	New York	Queens	0.069	0.067
360850067	New York	Richmond	0.076	0.074
360870005	New York	Rockland	0.072	0.071
360910004	New York	Saratoga	0.063	0.062
361010003	New York	Steuben	0.059	0.059
361030002	New York	Suffolk	0.072	0.070
361030004	New York	Suffolk	0.072	0.070
361030009	New York	Suffolk	0.066	0.065
361099991	New York	Tompkins	0.063	0.061
361173001	New York	Wayne	0.064	0.063
361192004	New York	Westchester	0.074	0.072

With respect to the three monitors highlighted in the New York petition, MOG also recalculated what the preliminary 2017 design value for each monitor would be if the Exceptional Events are considered. Significantly, all three of the New York monitors with preliminary design

values above the 2008 ozone NAAQS, would be below the 2008 standard if only the 2016 Canadian wildfire related exceptional events were addressed.

AQS Site ID	Local Site Name	2017 DV With wildfire	2017 DV Without wildfire
360850067	Susan Wagner HS	76	74
361030002	Babylon	76	74
361030004	Riverhead	76	74

New York's failure to seek relief from these Exceptional Events has been recognized by EPA as a factor to be considered in assessing the obligation of upwind states to downwind areas. EPA's March 27, 2018, Good Neighbor SIP guidance memorandum specifically calls into question whether "downwind areas have considered and/or used available mechanisms for regulatory relief."[68] The fact that New York has not requested relief from the impact of these exceptional events does indeed become an independent basis supporting EPA's final action to deny the New York 126 petition.

14. New York's basis for ignoring the EPA's Good Neighbor SIP modeling data has no merit.

The New York petition complains EPA's CSAPR Update Rule was designed by EPA to be a "partial remedy" to address interstate transport in 2017.[69] The petition, however, dismisses EPA's Good Neighbor SIP data, discussed elsewhere in these comments, that clearly demonstrate the CSAPR Update becomes a full remedy when it is extended to the applicable compliance date determined by EPA to be appropriate for the 2008 ozone NAAQS.[70]

A review of the three reasons offered by New York for dismissing the EPA Good Neighbor SIP data illustrates that New York's rejection of the EPA data has no merit.

1. The initial reason stated by New York for ignoring EPA's most recent Good Neighbor modeling data is New York's belief that enforceable limits are needed before the modeling could be considered. This concern ignores that EPA's projection of emissions in 2023 is based upon "on-the-book" regulations and control requirements that are self-implementing and do not require any further regulatory actions.

2. New York also offers a concern about the ability of EPA's modeling to address monitors located at a land/water interface.[71] EPA's Good Neighbor modeling was, of

[68] EPA Peter Tsirigotis memorandum of March 27, 2018 (https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015 at p. A-2.
[69] NY Petition at 6.
[70] Stephen Page memorandum, October 27, 2017: https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf
[71] As pointed out in EPA's Stephen Page memorandum, October 27, 2017

course, conducted using a 12km modeling grid. EPA's March 27, 2018 Good Neighbor SIP guidance memorandum addressed this very issue by selecting from its 12km modeling data only those values that were modeled over land. This approach showed that all receptors in New York did indeed attain the 2015 ozone NAAQS with the exception of the Suffolk (361030002) monitor which has a 3-year "No Water" 2023en design value of 74.0 ppb. As discussed elsewhere in these comments, updated 4km modeling by MOG demonstrates that all monitors in New York will attain the 2015 ozone NAAQS in 2023.

3. New York also declined to consider the EPA Good Neighbor modeling because it was based on 2023 whereas New York asserts that relief under a 126 petition must be implemented in no more than 3 years, pursuant to Section 126. Given that 2023 is the likely attainment year for the 2015 ozone NAAQS and given the time that would be needed for EPA to approve the New York petition and to apply a three-year compliance schedule to any such determination, EPA's selection of 2023 for its modeling is very reasonable.

Accordingly, we urge that EPA reject New York's concern about EPA's modeling data and to finalize its denial of the New York petition.

15. International emissions must be addressed as an integral part of the consideration of this petition. Failure by New York to Invoke CAA §179B to account for international emissions provides an additional basis for denial of the petition.

International emissions must be considered as an integral part of any assessment of interstate transport such as New York would have EPA consider in acting on its petition.[72]

The CAA addresses international emissions directly in Section 179(B)(a) which states:

(a) Implementation plans and revisions
Notwithstanding any other provision of law, an implementation plan or plan revision required under this chapter shall be approved by the Administrator if—
(1) such plan or revision meets all the requirements applicable to it under the chapter other than a requirement that such plan or revision demonstrate attainment and maintenance of the relevant national ambient air quality standards by

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(https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf) and again in the Peter Tsirigotis memorandum of March 27, 2018 (https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015 at p. B-3), when EPA's methodology to account for the land/water interface was applied to the New York monitors, all of the New York monitors were modeled to be attainment with the 2015 ozone NAAQS except for the Suffolk monitor (361030002) which had a "no water' design value of 74.0 ppb.

[72] Consideration of alternative approaches to address international emissions is also a central theme of EPA's Peter Tsirigotis memorandum dated March 27, 2018, p. A-3. (https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015).

the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, and

(2) the submitting State establishes to the satisfaction of the Administrator that the implementation plan of such State would be adequate to attain and maintain the relevant national ambient air quality standards by the attainment date specified under the applicable provision of this chapter, or in a regulation promulgated under such provision, but for emissions emanating from outside of the United States. (Emphasis added.)

Addressing international emissions in the context of the New York petition is critically important because the petition seeks to implement the Good Neighbor provisions of CAA §110(a)(2)(D). In connection with such matters, the U.S. Supreme Court has ruled that it is essential that Good Neighbor states be required to eliminate only those amounts of pollutants that contribute to the nonattainment of NAAQS in downwind States. Specifically, the Supreme Court stated, "EPA cannot require a State to reduce its output of pollution by more than is necessary to achieve attainment in every downwind State. . ."[73] In addition, the D.C. Circuit has commented that ". . . the good neighbor provision requires upwind States to bear responsibility for their fair share of the mess in downwind States."

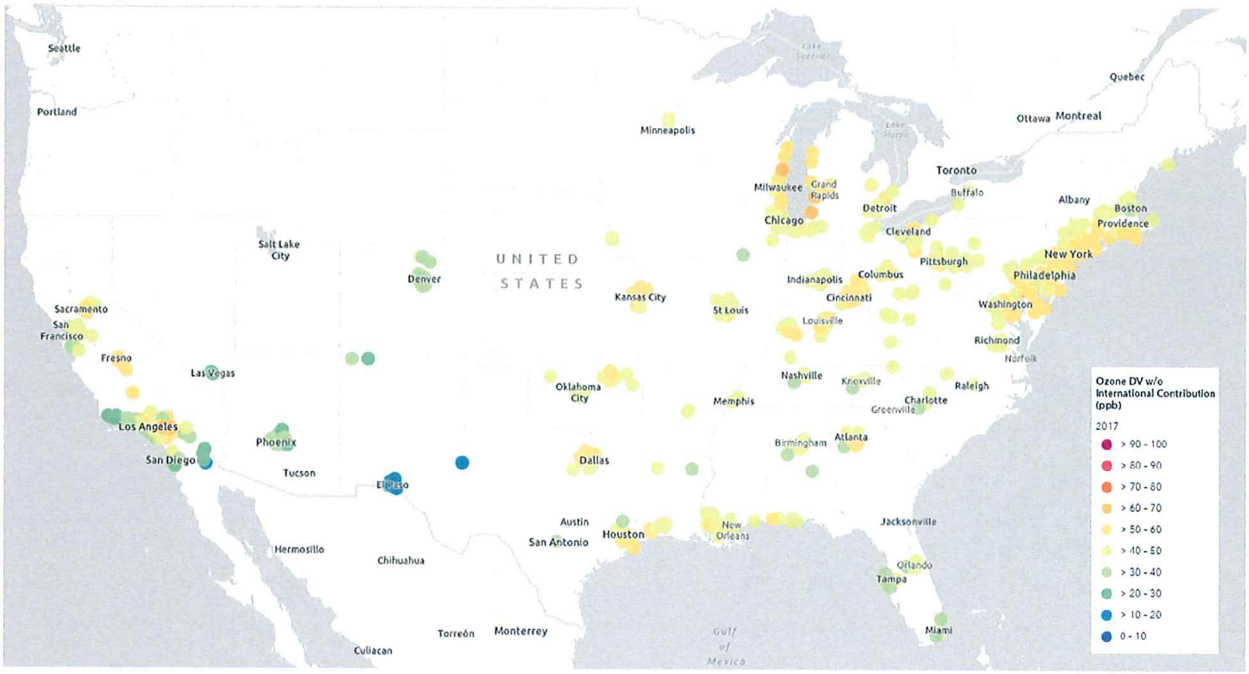
In addressing CAA §110(a)(2)(D)(i)(I) the DC Circuit ruled this section "gives EPA no authority to force an upwind state to share the burden of reducing other upwind states' emissions."[74]

At the request of MOG, Alpine Geophysics employed EPA's modeling data for 2017 and 2023 to prepare the following graphic which depicts the projected 8-hour ozone Design Values across the U.S. excluding boundary condition contributions and the international emissions sector. Note that the 2017 projections show all monitors in the continental US with design values equal to or less than 66 ppb when these categories are excluded and 2023 projections show all monitors in the continental US with design values less than 57 ppb.

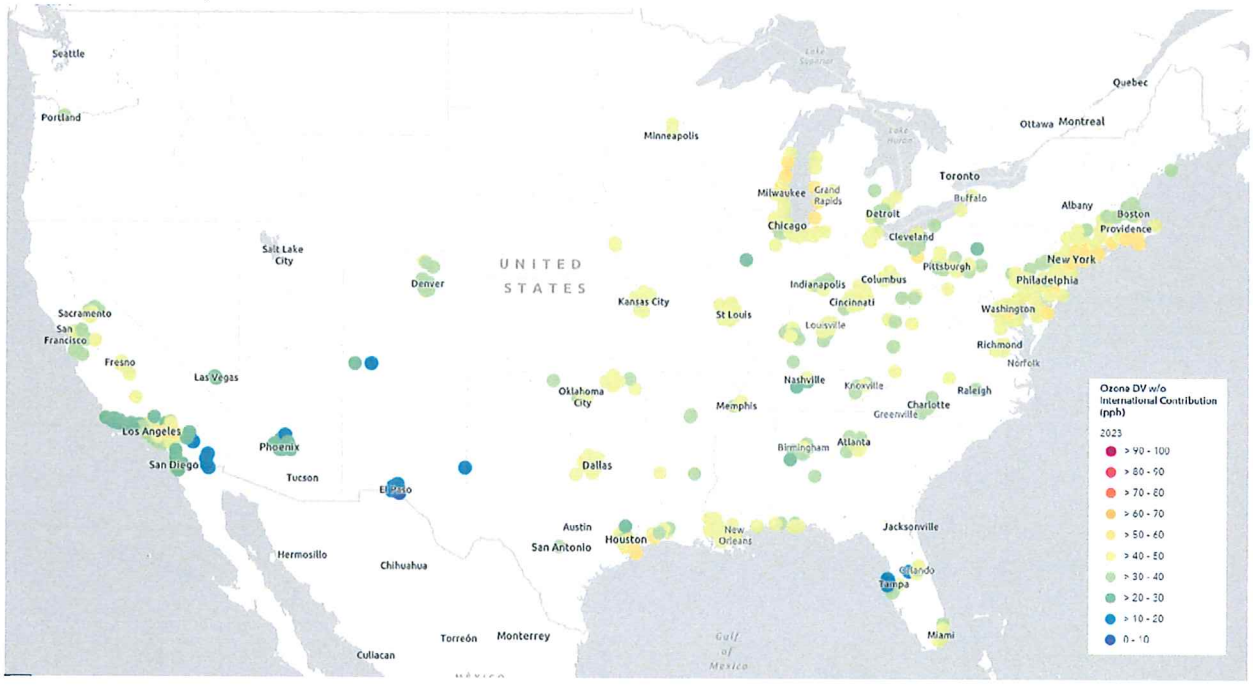
[73] *EPA v. EME Homer City Generation*, 134 S. Ct. 1584, 1608 (2014).

[74] *North Carolina v. E.P.A.*, 531 F 3d 896, 921 (D.C. Cir. 2008), on reh'g in part, 550 F. 3d 1176 (D.C. Cir. 2008).

Projected 2017 ozone design values (ppb) excluding the contribution from boundary condition, initial condition, Canadian and Mexican emission sources.



Projected 2023 ozone design values (ppb) excluding the contribution from boundary condition, initial condition, Canadian and Mexican emission sources.



Focusing only on the three worst monitors in New York and applying EPA modeling data for 2017[75] and 2023[76], the following chart shows that accounting for boundary conditions and

[75] https://www.epa.gov/sites/production/files/2017-05/final_csapr_update_ozone_design_values_contributions_all_sites.xlsx

Canada/Mexico emissions brings the worst of the New York monitors to a level of 52.55 ppb. If only the Canada/Mexico portion of international transport were considered, EPA's 2023 modeling shows that all of New York's monitors would attain both the 2008 and 2015 ozone NAAQS in 2023.

			2017 Average MDA8 Ozone Design Value (ppb)				
Monitor ID	Local Site Name	2009-2013 Average Design Value	2017 Average Base Case	Canada & Mexico Contribution	2017 Base Case w/o Can/Mex	Initial & Boundary Condition Contribution	2017 Base Case w/o BC and Can/Mex
360850067	Susan Wagner HS	81.3	75.8	1.40	74.40	17.14	57.26
361030002	Babylon	83.3	76.8	1.25	75.55	15.67	59.88
361030004	Riverhead	78.0	70.6	0.99	69.61	12.69	56.92

			2023 Average MDA8 Ozone Design Value (ppb)				
Monitor ID	Local Site Name	2009-2013 Average Design Value	2023 Average Base Case	Canada & Mexico Contribution	2023 Base Case w/o Can/Mex	Initial & Boundary Condition Contribution	2023 Base Case w/o BC and Can/Mex
360850067	Susan Wagner HS	81.3	71.2	1.82	69.38	16.83	52.55
361030002	Babylon	83.3	71.3	1.78	69.52	17.17	52.35
361030004	Riverhead	78.0	64.9	0.97	63.93	12.56	51.37

These data demonstrate that but for Canadian and Mexican international emissions, all of New York's monitors would be in attainment with the 2008 and 2015 ozone NAAQS. These facts are made all the more important because New York has made no attempt to avail itself of this available mechanism for regulatory relief – a clear factor to be considered in evaluating a request of this kind.[77] We also note that in its response to comments associated with its April 30, 2018 final rule establishing initial air quality designations for the 2015 ozone NAAQS, EPA offers the following comment on international transport:

> The EPA encourages affected air agencies to coordinate with their EPA Regional office to identify approaches to evaluate the potential impacts of international transport and to determine the most appropriate information and analytical methods for each area's unique situation. The EPA will also work with states that are developing attainment plans for which section 179B is relevant, and ensure the states have the benefit of the EPA's understanding of international transport of ozone and ozone precursors. To assist in this effort, EPA is currently developing or has developed guidance on stratospheric ozone intrusion exceptional events

[76] https://www.epa.gov/sites/production/files/2016-12/2015_o3_naaqs_preliminary_transport_assessment_design_values_contributions.xlsx

[77] EPA Peter Tsirigotis memorandum of March 27, 2018 (https://www.epa.gov/sites/production/files/2018-03/documents/transport_memo_03_27_18_1.pdf).

implementation, and technical guidance on preparing approvable demonstrations under CAA section 179B.[78]

New York's failure to seek relief from international transport pursuant to CAA §179(B) has been recognized by EPA as a factor to be considered in assessing the obligation of upwind states to downwind areas. EPA's March 27, 2018, Good Neighbor SIP guidance memorandum specifically calls into question whether "downwind areas have considered and/or used available mechanisms for regulatory relief." [79] The fact that New York has not requested relief from the impact of these international emissions does indeed become an independent basis for EPA to finalize its denial of the New York CAA §126 petition.

16. New York's reliance on the Dunkirk Monitor is inappropriate because that monitor attains both the 2008 and 2015 Ozone NAAQS.

The Dunkirk monitor (360130006) is cited in the petition as a monitor that has "the potential to exceed the NAAQS – particularly, the updated 2015 standards – due to transported ozone pollution."[80] Putting aside the question of the origination of the ozone measured at that monitor, it is obvious that the petition is incorrect in this conclusion inasmuch as this monitor has consistently measured design values below the 2015 ozone NAAQS and would experience even lower levels if measurements related to the 2016 Canadian wildfire exceptional events are excluded – all as shown in the following table:

AQS Site ID	State	County	Local Site Name	
360130006	New York	Chautauqua	Dunkirk	
4th High Daily Max Design Value (ppb)				
2014	**2015**	**2016**	**2016 (Excl Fire Dates)**	**2017***
66	71	69	66	66
3-yr MDA8 Design Value (ppb)				
2014-2016	**2014-2016 (Excl 2016 Fire Dates)**	**2015-2017***	**2015-2017 (Excl 2016 Fire Dates)***	
68	67	68	67	
* Preliminary based on 21 March 2018 download from https://www.epa.gov/outdoor-air-quality-data/monitor-values-report				

[78] https://www.epa.gov/sites/production/files/2018-04/documents/placeholder_2.pdf

[79] EPA Peter Tsirigotis memorandum of March 27, 2018 (https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015 at p. A-2.

[80] NY Petition at 12.

17. New York's failure to provide any data addressing the cost effectiveness of the controls that it has proposed provides an additional basis for denial of the petition.

The New York petition fails to offer any assessment of the potential costs and air quality benefits of the control strategy that it is urging. Neither does the petition offer any cost/benefit assessment of its request that the CSAPR Update emission limits be applied on a daily rather than ozone season basis. Failure to do so creates an additional fatal flaw in its petition. This very point was addressed directly by EPA in its denial of the Connecticut petition against Brunner Island. In its final determination, EPA offered the following comment:

> As discussed in further detail in section III, the state's analysis of Brunner Island's impact on air quality in Connecticut provides insufficient information regarding the source's impact on Connecticut air quality on high ozone days and it does not reflect the facility's current operations. Moreover, the petition does not evaluate the potential costs and air quality benefits that would inform the EPA's evaluation of whether additional emission reductions are cost effective, consistent with the EPA's interpretation of the good neighbor provision.... Accordingly, the EPA denies Connecticut's CAA section 126(b) petition.[81]

As stated in these comments, the New York petition should be denied on the basis of Step 1 analyses since there will be no nonattainment or maintenance monitors anywhere in New York in 2023. Even if it were necessary to move to Step 3 of the analysis, the petition would also need to be denied because New York failed to provide data assessing potential costs and air quality benefits.

EPA addressed the cost-effectiveness of controls for EGUs in its CSAPR Update rulemaking. EPA appropriately concluded, following public notice and comment, that a threshold of $1,400 per ton of NOx was cost-effective for EGU's and would not result in unallowable over-control of the affected EGUs.[82] EPA's analysis supporting the $1,400 per ton threshold considered what was feasible to achieve on average during the ozone season for existing units that have previously installed SCR and SNCR. New York has not provided any similar technical analysis or integrated generation and air quality modeling to demonstrate that New York's proposed control requirements would be cost-effective and would not result in over-control for the named group of sources.

18. New York admits that some targeted sources are already achieving its requested control levels.

The New York petition concedes that some sources already achieve the emission rate it requests, a clear admission that these sources are not the cause of the problem being complained of

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[81] https://www.gpo.gov/fdsys/pkg/FR-2018-04-13/pdf/2018-07752.pdf

[82] 81 Fed. Reg. 74,508.

by New York and that the relief being requested is moot.[83] We urge that EPA include this among the reason for the final denial of the New York petition.

19. The zero-out modeling performed by New York is not valid for source contribution calculations.

To assess the impact of the 400-ton sources, the petition states that New York "zeroed out" all such sources. Such an approach is considered inappropriate for this purpose as "zero out" modeling perturbs the emissions in the air quality model, highlighting the nonlinearity in the system and failing to account for the sum of contributions from every category in predicted ozone concentrations. Where zero out modeling is adequate for source sensitivity analyses, the petition does not seek to eliminate the 400-ton sources but rather to impose an incremental level of control on them. Beyond the obvious overstatement of the emission change involved, the scenario modeled by New York is so radical as to alter the ability of the computer model to accurately predict ozone concentrations, let alone determine the relative contribution of the identified sources.

20. New York fails to offer any analysis of air quality or interstate transport for any time period after 2017, even though 2023 is the critical assessment date.

Although the attainment data for the 2015 ozone NAAQS is 2023 or later, and although EPA has selected 2023 as the compliance date for Good Neighbor plans related to the 2008 ozone NAAQS, the New York petition offers no data or analyses of air quality after 2017. The petition therefore, fails to address the substantive technical issue involved and cannot be used to demonstrate the need for additional controls on sources in the target states. This provides an added basis for final denial of the petition.

21. New York did not apply an EPA approved modeling technique to perform its analysis.

New York concedes that it did not apply EPA approved modeling techniques to its analysis.[84] Specifically, New York has identified two changes that it made in EPA's methodology.

Significantly, one such change made by New York was to base its modeling on days when the model predicted concentrations as low as 60 ppb – far below even the 2015 (70 ppb) ozone NAAQS. By permitting a maximum impact value to be calculated on modeled low concentration days, New York has potentially overstated the impact of identified sources on days when nonattainment or maintenance concentrations are observed. For example, on low concentration days (when the model demonstrates attainment), the transport patterns may come from the identified upwind states region. Comparatively, on high concentration days (when the model demonstrates nonattainment), the transport patterns may be stagnant or indicate flow from regions within the state that are directionally

[83] NY Petition at 17.
[84] *Id.* at 11.

different from low concentration days. Because the modeling data supporting the analysis is not readily available (see issue 14 above), thorough review of New York's method cannot be conducted. This "adjustment" inappropriately includes emission and meteorological conditions that are potentially unrelated to the issues to be addressed in a 126 petition.

New York also notes one of the "adjustments" to EPA's approved modeling was to examine only a portion of the ozone season rather than the entire season.[85] This was done because of "resource constraints"; however, in performing its analysis on this limited basis, New York failed to determine if other factors could be influencing its monitors during the remainder of the ozone season.

This conclusion further support rejection of the petition for failure to provide data in support of the relief requested.

IV. CONCLUSION

The actions requested by New York in its CAA §126 petition are not justified on either legal or technical bases. Ozone precursor emissions have been and will continue to be reduced absent the New York petition due to the CSAPR Update Rule, PA RACT 2, and other on-the-books controls, including controls in New York. In addition, the Good Neighbor SIP plans currently being developed by upwind states, in conjunction with EPA, will be addressing whether the requirements of CAA §110(a)(2)(D) are being satisfied. Additionally, appropriately accounting for Exceptional Events, international emissions, and local controls also serve to demonstrate compliance with CAA requirements.

Accordingly, the Midwest Ozone Group urges EPA issue a final decision to deny the CAA §126 petition filed by New York on March 12, 2018.

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[85] *Id.*