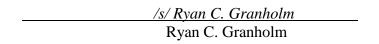
BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:)	
)	
AMENDMENTS TO)	R18-20
35 ILL. ADM. CODE 225.233,)	(Rulemaking – Air)
MULTI-POLLUTANT STANDARDS (MPS))	

NOTICE OF FILING

To: ALL PARTIES ON THE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board the attached **Post Hearing Comments**, copies of which are herewith served upon you.



Dated: June 1, 2018

SCHIFF HARDIN LLP Joshua R. More Amy C. Antoniolli Ryan C. Granholm Caitlin M. Ajax 233 South Wacker Drive, Suite 7100 Chicago, Illinois 60606 (312) 258-5500

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VISTRA'S POST HEARING COMMENTS

The Illinois Environmental Protection Act ("Act") directs the Illinois Pollution Control Board ("Board") to adopt environmental regulations collaboratively, and to ensure that regulations are both economically reasonable and technically feasible. The Multi-Pollutant Standards ("MPS") are a prime example of the environmental and economic benefits associated with Illinois' balanced, collaborative approach. In 2006, Illinois Governor Rod Blagojevich pushed for adoption of the Mercury Rule, an ambitious proposal that contained some of the strictest mercury emissions standards in the nation. These standards, however, proved unworkable for many of the state's coal power plants. After voicing their concerns, some of the affected companies negotiated an alternative with the Illinois Environmental Protection Agency ("IEPA"), the MPS. The Illinois Pollution Control Board ("Board") approved of these efforts and adopted the MPS on December 21, 2006. Under the MPS, the companies agreed to

¹ 415 ILCS 5/27. The Board's mandate is consistent with the Act's recognition that stakeholder input is valuable, and can produce more efficient environmental rules. 415 ILCS 5/52.3-1(a) (noting the "considerable expertise" of regulated parties, the importance of "stakeholder involvement," and the fact that environmental regulations are sometimes "unnecessarily costly and complex for regulated entities").

² R18-20, Testimony of IEPA Director Douglas Scott to the U.S. Senate Committee on Environment and Public Works on July 9, 2009, Ex. A to Prefiled Testimony of Rick Diericx at 4 (Dec. 11, 2017) (Board Ex. 14).

³ *Id*.

⁴ R06-25, Order and Opinion at 2 (December 21, 2006).

substantial reductions in sulfur dioxide (SO_2) and nitrogen oxide (NO_X) emissions, in exchange for additional time to comply with the new mercury rules.⁵

The original emissions reduction goals of the MPS have been exceeded. Since 2009, SO₂ emissions from the units covered by the MPS have decreased by 75%, NO_X emissions have decreased by 41%.⁶ The MPS, however, now requires revisions to reflect major changes in the energy market and other developments, including common ownership of the two MPS groups.

I. Vistra Supports the Proposed Revisions to The MPS.

IEPA's proposed revisions to the MPS will maintain both the spirit and the substance of the rules that have been in place since 2006. As extensive testimony in this proceeding has established, IEPA's proposal would update the MPS to better reflect current market conditions and changes in plant ownership, while maintaining—in fact, enhancing—the environmental benefits provided by the rule. Specifically, IEPA's proposal would combine the two existing MPS groups into a single group to reflect their common ownership, which did not exist when the MPS was originally adopted. The new, combined MPS group would be subject to an annual mass emissions cap, reducing annual allowable SO₂ and NO_X emissions from the levels that are allowed today. IEPA's proposal would also provide a new regulatory mechanism for the transfer of units, reducing the need for future revisions to the MPS, while creating additional unit-specific emissions requirements.

After three hearings and extensive written testimony from IEPA, the Illinois Attorney General's Office ("AGO"), the regulated entities, several environmental groups ("Environmental

⁵ R18-20, Testimony of IEPA Director Douglas Scott to the U.S. Senate Committee on Environment and Public Works on July 9, 2009, Ex. A to Prefiled Testimony of Rick Diericx at 4 (Dec. 11, 2017) (Board Ex. 14).

⁶ R18-20, Hearing 2 Trans. at 130:24–131:3 (Mar. 6, 2018).

⁷ See infra Part VI.

Groups"), and members of the public, the evidence shows that the proposed revisions will benefit the environment and the public, and are both economically reasonable and technically feasible.

As the ultimate parent of all of the plants regulated by the MPS,⁸ Vistra urges the Board to adopt IEPA's original proposal.

II. The Illinois Environmental Protection Act Establishes a Collaborative Process Aimed at Balanced, Economically Reasonable Environmental Regulations.

The Board is charged with adopting environmental regulations through a collaborative process, to create rules that are technically feasible and economically reasonable. The Act's goals are broad and the Board's discretion in pursuing those goals is considerable: "the legislature has instructed the Board to promulgate regulations to protect the general health and welfare. The legislature qualified that power only to the extent that the Board's regulations be reasonable in that they take into account the factors enumerated in Section 27." Specifically, the Board must consider the technical feasibility and economic reasonableness of all regulatory proposals before it. Illinois courts have consistently held that the Act does not establish any "evidentiary hurdles" or impose any "evidentiary burden" on the Board. Rather, the Act merely requires the Board to "consider" or "take into account" the listed factors. No specific finding on these factors is required.

⁸ The entities appearing before the Board in this matter are Dynegy Midwest Generation, LLC; Illinois Power Generating Company; Illinois Power Resources Generating, LLC; and Electric Energy, Inc. Collectively, these entities hold the permits for and operate all of the units subject to the MPS. When this rulemaking began, these entities were wholly-owned subsidiaries of Dynegy, Inc ("Dynegy"). On April 9, 2018, Dynegy merged with Vistra, and the four operating entities are now owned and controlled by Vistra. *See* R18-20, Notice of Merger Closing (Apr. 9, 2018).

⁹ Shell Oil Co. v. IPCB, 346 N.E.2d 212 (III. App. Ct. 1976).⁹

¹⁰ 415 ILCS 5/27(a).

¹¹ Shell Oil Co. v. IPCB, 346 N.E.2d at 219; Granite City v. IPCB, 613 N.E.2d 719, 734 (Ill. 1993).

¹² Granite City, 613 N.E.2d at 734-35.

¹³ *Id.* at 734.

Since its creation, the Board has regularly conducted cost-benefit analyses of new rules and revised standards, measuring the cost of pollution controls against the projected environmental benefit. ¹⁴ For example, in *Ameren Energy Generating Co. v. IEPA*, the Board approved alternative thermal discharge standards for cooling water from Ameren's Coffeen Power Station. ¹⁵ The Board's analysis in that case weighed the costs associated with further restrictions on thermal discharge from the plant—in the form of curtailed operations and/or installation of additional controls—against the environmental benefit of stricter standards. The Board ultimately granted Ameren's requested relief, finding that installing new controls would provide no "net environmental benefit" to Coffeen Lake, but would cost the company between \$13-18 million. ¹⁶ In conducting cost-benefit analysis, however, the Board has generally refused to consider benefits that are purely speculative in nature. ¹⁷

III. The MPS Has Exceeded its Original Goals, But Now Requires Revision to Reflect Major Changes in the Energy Market and Other Developments.

From its inception, the MPS was a flexible program that relied on the input of the regulated industry to achieve substantial environmental benefits while also providing operational

¹⁴ PCB 70-1, *IEPA v. Lindgren Foundry Co.*, Opinion and Order, (Sept. 25, 1970) ("The statute requires us all to make sacrifices for the common good. It allows relief only when the sacrifice is unreasonable when compared with the benefits it produces."); R76-21, Proposed Opinion of the Board, *In the Matter of: Amendments to Chapter 3: Water Pollution (Effluent Standards)* (Sept. 24, 1981) (containing a "Cost/Benefit Analysis" section for each of the four pollutants at issue in the rulemaking), *Central Illinois Public Serv. Co. v. IPCB*, 116 Ill. 2d 397, 412 (1987) ("[t]he Board . . . is well equipped to determine the degree of danger which a pollutant will cause, and then to balance the public threat against an alleged individual hardship."); R91-20, Order and Opinion, *In the Matter of Potentially Infectious Medical Waste: (PIMW): Treatment, Storage, and Transfer Facilities and Transportation, Packaging, and Labeling* at 19 (Mar. 25, 1993) (Board's decision contains "Cost-Benefit Analysis" section.).

¹⁵ PCB 09-38, Ameren Energy Generating Co. v. IEPA, Opinion and Order at 4-5 (Mar. 18, 2010).

¹⁶ *Id.* at 41.

¹⁷ *IEPA. v. IPCB*, 721 N.E.2d 723, 730 (1999).

and compliance flexibility. ¹⁸ As former IEPA Director Douglas Scott described to the U.S. Senate in 2009, the MPS "represent[ed] the largest reductions in air emissions ever agreed to by individual companies in Illinois under any context, whether through an enforcement action or regulation." ¹⁹ In fact, IEPA's David Bloomberg testified in this proceeding that, since 2009, SO₂ emissions from the units subject to the MPS have decreased by 75% and NO_x emissions have decreased by 41%. ²⁰

Similarly, the MPS has played an important role in achieving the goals of the federal Regional Haze Rule. In 2012, IEPA elected to utilize the SO₂ and NO_X reductions required under the MPS as part of the Illinois State Implementation Plan ("SIP") to comply with that rule.²¹ As IEPA explained during the second hearing, Illinois' SIP includes a glide path, projecting anticipated reductions in SO₂ and NO_X emissions over time.²² Statewide SO₂ emissions were shown to be dramatically below what IEPA projected in its Regional Haze glide path.²³ Therefore, the state is exceeding its Regional Haze requirements, and no further reductions in the originally proposed MPS caps are needed for Regional Haze purposes.

a. The Illinois Energy Market has Changed Significantly Since the MPS Was Adopted.

Following adoption of the MPS, however, there have been substantial changes in the structure and the conditions of the Illinois energy market. Originally, thirty one units were

¹⁸ R06-25, *Post-Hearing Comments of the Illinois Environmental Protection Agency* at 43 (Sept. 20, 2006).

¹⁹ Test. of D. Scott at 2 (Jul. 9, 2009), Ex. A to the Prefiled Testimony of R. Diericx (Dec. 11, 2009) (Board Ex. 14).

²⁰ R18-20, Hearing 2 Trans. at 130:24-131:3 (Mar. 6, 2018).

²¹ R18-20, IEPA, Statement of Reasons at 9-11 (Oct. 10, 2018).

²² R18-20, Hearing 2 Trans. at 9:10-24; 12:7-13 (Mar. 7, 2018).

 $^{^{23}}$ Id. at 15:21-16:5 (noting that actual 2015 SO₂ emissions were 191,000 tons, compared to the glide path's 2015 projection of 269,000 tons).

subject to the MPS—twenty one owned by Ameren Corporation ("Ameren") (through its subsidiaries) and ten owned by Dynegy Midwest Generation ("DMG") (through its subsidiaries).²⁴ Each group was subject to separate, group-wide average emissions limits. Many of those units have since retired. Today, only eighteen MPS units remain in operation, all of which are owned by Vistra (through its subsidiaries).²⁵ However, the units are still divided into two groups, based on their ownership at the time the MPS was adopted. Each group is subject to different, rate-based MPS emissions limits, as shown in Table 1 below. ²⁶

Table 1: Current MPS Limits			
	Ameren MPS Group ²⁷	DMG MPS Group	
Ozone Season	0.11	0.106	
NO _X Limit			
(lb./MMBtu)			
Annual NO _X	0.11	0.099	
Limit			
(lb./MMBtu)			
Annual SO ₂ Limit	0.23	0.19	
(lb./MMBtu)			

A number of factors have contributed to the shrinking size of the MPS fleet, including low natural gas prices, environmental regulations, increasing generation from other sources (in part due to subsidies), and a decline in energy and capacity prices in MISO Zone 4.²⁸ These factors continue to pressure the MPS fleet today.

²⁴ R18-20, Pre-filed Testimony of R. Diericx at 4 (Dec. 11, 2017) (Board Ex. 14).

²⁵ *Id.* at 6. Mr. Diericx described Dynegy's acquisition and ownership of the MPS units. As noted above, Dynegy subsequently merged with Vistra. *See supra* n.8.

²⁶ See id. at 5 (providing tables of applicable limits and citations to the Illinois Administrative Code and previous Board dockets).

²⁷ Also known as the "IPH" group.

²⁸ R18-20, Prefiled Testimony of D. Ellis at 8-10 (Dec. 11, 2018) (Board Ex. 15).

b. Several Structural Flaws in the Original MPS Have Now Become Clear.

These changing market conditions have revealed several structural flaws in the MPS that now require revision. First, the MPS did not account for the effect of retiring units. Originally, operators of MPS units had the flexibility to pick from a variety of different operating scenarios to ensure that each MPS group could meet its required average SO₂ and NO_x emissions rates in the most efficient and cost effective manner. While some units within each group operate at emissions rates above the MPS' rate limits, others operate at emissions rates well below those rate limits. The flexibility of the MPS derived from the fact that MPS group operators could use units with lower emission rates to balance out the operation of units with higher-emission rates. As the number of units in each MPS group decreased, however, the number of operating scenarios in which the group could meet MPS emissions rates grew fewer and fewer. As a result, compliance flexibility has been substantially reduced and the MPS emissions rate limits have now become quite rigid.

Second, the original MPS failed to account for the transfer of MPS units to another owner. Currently, the MPS permanently locks the units subject to the rule into two groups, based on their ownership at the time the rule was enacted, over ten years ago. Several of the units subject to the MPS have changed hands twice since the rule was adopted: the MPS units previously owned by Ameren were sold to Dynegy in 2014 and, as April 2018, all units subject to the MPS are now owned by Vistra. Yet, despite their common ownership, the two groups remain divided and subject to different emissions rates.

This system is not only complicated, it also further reduces the compliance flexibility available to Vistra by arbitrarily dividing compliance calculations into two groups. The DMG group has maintained a sizable SO₂ compliance margin in recent years, with emissions rates well

below what the MPS requires.²⁹ But the current MPS does not allow the DMG group's low SO₂ emissions rate to balance out comparatively higher emissions from the Ameren group. This arbitrary separation of units into groups based on their historical ownership no longer serves any regulatory purpose.

Furthermore, the MPS' failure to account for ownership transfers also has the potential to act as a restraint on the sale of MPS units. Under the current rule, if a plant is sold to another owner, it remains locked in its current compliance group, where its annual emissions rate must be averaged with all other units in that compliance group, including those owned by other companies. Multiple companies owning units in a single compliance group would only be possible if complex agreements were negotiated between the companies to allow them to coordinate operations of units with higher and lower emission rates to achieve MPS compliance. The practical effect of the MPS' failure to address ownership transfers is that the only realistic way to transfer ownership of a single MPS unit is to transfer ownership of an entire MPS group. This arbitrary restraint on sale has no regulatory basis or associated environmental benefit.

c. The Current MPS Arbitrarily Restricts the Flexibility and Economic Potential of the MPS Fleet.

Together, changes in the energy market and the structural flaws of the original MPS have produced a troubling outcome: in order to comply with MPS SO₂ limits, the lower emitting units often *must* run, regardless of operating costs and market demand. This requires the company to run units, consume fuel, and increase mass emissions, solely for the purpose of meeting average emission rate limits.

²⁹ See, e.g., R18-20, Prefiled Testimony of Andrew Armstrong at Attachments 3-6 (Apr. 3, 2017) (Board Ex. 37) (showing recent annual DMG group average SO₂ emissions of no higher than 0.137 lb./MMBtu, well below the 0.19 lb./MMBtu limit); R18-20, Hearing 1 Trans. at 63:21-23 (Jan. 18, 2018) ("Q: So there is a compliance margin at the DMG group, correct? A: Yes.").

The Board has heard substantial testimony on this topic. In particular, Dean Ellis testified that Dynegy was sometimes forced to bid units with lower emissions rates at the Coffeen and Duck Creek energy centers into the market at "prices that are not sufficient to recover fuel and operating cost[s], solely to ensure that they are selected . . . to operate." In 2017, units with lower emissions rates were bid into the market as "must-run," between 74% and 90% of the time. Over the past three years, "must-run" bidding resulted in these units being run at a loss on a combined total of 211 days. Additionally, in the event that the units with lower emissions rates have not been available to operate as planned, and therefore could not balance out the emissions from higher emitting units, Dynegy was sometimes forced to curtail operations. In this regard, the MPS creates unintended spillover effects, where unforeseen outages at a plant with lower emissions rates, like Coffeen, for example, have required operations at a plant with higher emissions rates, like Joppa, to be curtailed. Allowing Coffeen and Joppa to run together, while not allowing Joppa to run on its own, is an arbitrary restriction that creates no environmental benefit for the state.

Simply put, while the MPS has exceeded its original goals by dramatically reducing SO_2 and NO_X emissions, it no longer affords the operating flexibility it was originally designed to provide and is no longer economically reasonable.

³⁰ R18-20, Prefiled Testimony of D. Ellis at 11 (Dec. 11, 2018) (Bd. Ex. 15).

³¹ R18-20, Dynegy's Response to Questions at Exhibit B (Feb. 16, 2018) (Bd. Ex. 24).

³² *Id*.

³³ R18-20, Hearing 2 Trans. at 33:7-9, 53:5-9, 55:12-20 (Mar. 6, 2018).

IV. The Proposed Revisions Are Common Sense, Economically Reasonable Updates to the MPS.

IEPA recognized the need to update the MPS to better match current market conditions and, for that reason, proposed the revisions currently before the Board.³⁴ IEPA's proposal was the result of discussions with Vistra's predecessor, Dynegy, and was also shared with and commented on by various stakeholders including the AGO, environmental groups, and U.S. EPA Region 5 prior to filing with the Board.³⁵

IEPA's proposal involves three key components: (1) combining the Ameren/IPH and DMG groups, so that MPS compliance is calculated across a single group; (2) replacing existing rate-based SO₂ and NO_x emissions limits with mass emissions caps for each pollutant; and (3) adding a number of specific new emissions rules: a separate mass cap on Joppa SO₂ emissions, seasonal NO_x limits for certain units, and mandatory operation of all existing selective catalytic reduction control systems at all times.³⁶

Together, these revisions will simplify compliance strategies and reporting for the MPS fleet.³⁷ Combining the two compliance groups and replacing the average rate limits with mass emissions limits will also restore much of the operational flexibility that was the hallmark of the original MPS rule. ³⁸ Most importantly, IEPA's proposed revisions will remove the unjustified

³⁴ R18-20, Prefiled Testimony of Rory Davis at 2 (Dec. 11, 2017) (Board Ex. 1) ("The amendments to change fleet-wide rate-based emissions standards to mass-based emission limits is intended to provide Dynegy operational flexibility and regulatory certainty moving forward while also reducing the overall allowable emissions from the MPS group.").

³⁵ R18-20, IEPA, Statement of Reasons at 12 (Oct. 2, 2017).

³⁶ *Id.* at 5-7.

³⁷ R18-20, Prefiled Testimony of R. Diericx at 8-9 (Dec. 11, 2017) (Board Ex. 14).

³⁸ R18-20, IEPA, Technical Support Document at 5-6 (Oct. 2, 2017) ("[T]he combination of these MPS Groups under the proposed mass emission limits will allow greater operational flexibility as well as regulatory certainty moving forward as scenarios involving the individual sources may arise.").

regulatory impact of forcing some MPS units to be bid into the market at prices below their marginal costs. By removing the emissions rate averaging requirements, the MPS revisions would allow Vistra to operate its plants as the market demands, based on economic principles, rather than running plants—consuming fuel and creating emissions—purely for compliance reasons.

IEPA's proposed revisions would also account for and allow the transfer of MPS plants to new owners by assigning transfer allocations for each facility.³⁹ These transfer allocations would, for the first, time, allow plants subject to the MPS to be bought and sold individually, while ensuring that all plants remain subject to MPS emissions limits.

Finally, and notably, EPA's initial proposed emissions caps at 55,000 tons of SO_2 and 25,000 tons of NO_X represent a substantial reduction in the emissions the MPS fleet is currently allowed to emit: a cap at 55,000 tons of SO_2 is 17.7% lower than the 66,354 tons currently allowable under the existing MPS rule;⁴⁰ a cap at 25,000 tons of NO_X is 23.9% lower than the 32,841 tons currently allowable.⁴¹

V. IEPA's Original Proposal Will Reduce Allowable Emissions from the MPS Fleet.

Both IEPA and U.S. EPA agree that allowable emissions are the best metric for establishing regulatory emissions thresholds. This is for good reason. Attempts to project future emissions based on actual historical emissions can produce outcomes that vary widely, leading to arbitrary regulations. Therefore, the AGO's attempts to rebut IEPA's proposed caps should be rejected.

³⁹ *Id.* at 7-8.

⁴⁰ R18-20, IEPA, Statement of Reasons at 9 (Oct. 2, 2017).

⁴¹ *Id*.

a. Allowable Emissions are the Appropriate Metric for Measuring Environmental Impact.

IEPA is—both in practice and as a matter of law—the subject matter expert in the state of Illinois on the topic of regulating air pollution. The Illinois Environmental Protection Act grants IEPA the authority to take measures to "carry out the purposes of the Act," including to "make recommendations to the Board for the adoption of regulations." IEPA has testified repeatedly—and consistently—in this rulemaking that allowable emissions are the most appropriate metric for analyzing projected environmental impacts of a proposed rule. IEPA's initial Technical Support Document ("TSD") for the rule analyzed the proposal's impact on allowable emissions. Written testimony from IEPA has continued to echo that initial analysis.

IEPA's oral testimony at the first, second, and third hearings further reinforced its position that allowable emissions are the appropriate metric for establishing emissions limits. In the first hearing, Mr. Bloomberg testified that "the only way to properly evaluate a worst case scenario is by comparing allowable emissions. . . . The proposal puts a specific cap on emissions with certainty that the emissions level cannot be legally exceeded." Similarly, during the second hearing Mr. Bloomberg testified that IEPA also chose to base the rule on allowable emissions because that is the method required by U.S. EPA. Finally, during the third hearing, Mr. Bloomberg further explained that it "doesn't make any sense" to set regulations based on

⁴² 415 ILCS 5/4(a) & (i).

⁴³ R18-20, IEPA, Technical Support Document at 8-11 (Oct. 2, 2017) (calculating the allowable emissions under the MPS).

⁴⁴ R18-20, Prefiled Testimony of Rory Davis at 2 (Dec. 11, 2017) (Board Ex. 1) ("citing the allowable emissions analysis from the TSD").

⁴⁵ R18-20, Hearing 1 Trans. at 26:3-10 (Jan. 17, 2018).

⁴⁶ R18-20, Hearing 2 Trans. at 126:9-13 (Mar. 6, 2018).

past actual emissions, as suggested by the AGO, because "actual emissions fluctuate year-to-year based on a variety of factors as has been demonstrated throughout this rulemaking, including the AGO's own testimony." 47

Statements from the U.S. EPA provide further support that allowable emissions are the appropriate metric for examining environmental impacts. U.S. EPA's statements are persuasive for two reasons. First, U.S. EPA has extensive expertise in crafting air pollution regulation. Second, the Clean Air Act requires that any changes to the MPS be approved by U.S. EPA.

After the MPS was adopted, IEPA elected to rely on the emissions reductions required under the MPS to comply with the requirements of the federal Regional Haze Rule. To that end, the MPS was included as part of the Regional Haze State Implementation Plan (SIP) that IEPA submitted to U.S. EPA. Whenever any revision is made to a SIP, the Clean Air Act requires that U.S. EPA approve the revision. According to Clean Air Act Section 110(1), U.S. EPA, may not approve the SIP revision if it finds that the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirements. So, if any revision to the MPS is adopted by the Board, IEPA must be prepared to demonstrate to U.S. EPA that the revision will meet the requirements of Section 110(1). Prior to submitting its original proposed revisions to the MPS to the Board in October 2017, IEPA shared the proposal with U.S. EPA, and U.S. EPA "indicated that the amendments are indeed approvable as a SIP revision."

⁴⁷ R18-20, Hearing 3 Trans. at 76:19-23 (Apr. 17, 2018).

⁴⁸ R18-20, IEPA, Technical Support Document at 15 (Oct, 2, 2017).

⁴⁹ 42 U.S.C. § 7410(1).

⁵⁰ *Id*.

⁵¹ R18-20, IEPA, Technical Support Document at 2 (Oct, 2, 2017).

During the first hearing Mr. Bloomberg testified that his discussions with U.S. EPA confirmed his understanding that the most appropriate analysis under Section 110(l) is an "allowable-to-allowable comparison." During the third hearing, written correspondence from U.S. EPA was introduced into the record to further prove that Clean Air Act Section 110(l) requires that comparing the environmental benefit between an existing rule and a proposed rule be done on an allowable-to-allowable basis. 53 In that correspondence, representatives of U.S. EPA explained that an "actuals-to-actuals" comparison is "impossible" and for that reason, creating allowable limits is "the best you can do." The U.S. EPA correspondence also explicitly rejects the AGO's characterization of the requirements of Section 110(l) analysis in the AGO's April testimony. 55

IEPA's testimony and U.S. EPA's statements are supported by the basic realities of the power industry. As IEPA has testified, actual emissions often fluctuate for reasons unconnected to environmental rules.⁵⁶ U.S. EPA has also echoed this concern.⁵⁷ In the power industry, emissions are primarily a function of the type of fuel burned, the equipment employed at each

⁵² R18-20, Hearing 1 Trans. at 135:6-14 (Jan. 17, 2018).

⁵³ R18-10, Email fr. D. Aburano, U.S. EPA to D. Bloomberg (Apr. 12, 2018) (Board. Ex. 47).

⁵⁴ *Id.* at Response 5.

⁵⁵ *Id.* at Responses 1-6.

⁵⁶ R18-20, IEPA, Technical Support Document at 8-11 (Oct. 2, 2017) (calculating the allowable emissions under the MPS) (noting that "among the factors that can impact . . . emissions from EGUs are the weather . . ., fuel prices . . ., and the general strength of the economy"); R18-20, Illinois Environmental Protection Agency's Responses to Questions of the Joint Committee on Administrative Rules at Response 1 (Dec. 11, 2017) (noting that considering actual emissions is "problematic" because they may be influenced by many factors); R18-20, Illinois Environmental Protection Agency's Responses and Information Requested from the January Hearings at 2 n.1 (Feb. 16, 2018) ("[T]he methodology used by the Agency to calculate allowable emissions was chosen because it is the method the State is required to use to demonstrate that this SIP revision is approvable by USEPA.")

⁵⁷ See supra n.52 and associated text.

facility, and the amount of time each facility operates.⁵⁸ The amount of time each facility operates is in turn influenced by factors including weather, economic conditions, competition from other sources of electricity, and rules put in place by the regional transmission operator ("RTO").⁵⁹ All of these factors can, and do, fluctuate. It would be inappropriate, therefore, to set future rules based on short-term emissions trends, which could easily reverse if weather or economic conditions change, subsidies for renewable energy expire, or RTO rules are modified.

b. The AGO's Analysis Would Impose Arbitrary Limits on MPS Units.

In contrast to IEPA and U.S. EPA, the AGO has no experience developing new environmental rules:

MR. MORE: Please explain the AG's experience in writing environmental rules. MR. GIGNAC: I have not written an environmental rule. MR. MORE: And does the AG regularly propose environmental regulations to the Board? MR. GIGNAC: We don't propose rules. We participate in rulemakings and in enforcement actions. ⁶⁰

That inexperience is reflected in the multiple, conflicting analyses that the AGO has provided to the Board in this rulemaking. These analyses ignore operational realities in the industry, and serve to demonstrate that setting limits using projections based on historic emissions would be arbitrary and capricious. Further, the AGO has made no serious attempt to contribute suggestions to revise IEPA's proposal or to propose appropriate cap numbers.⁶¹ In fact, the AGO has rejected IEPA's attempt to find a compromise.

⁵⁸ See, e.g., Pre-Filed Testimony of R. Diericx at 9 (Dec. 11, 2017) (Board Ex. 14).

⁵⁹ See Pre-Filed Testimony of D. Ellis at 14 (Dec. 11, 2017) (Board Ex. 15).

⁶⁰ R18-20, Hearing 1 Trans. at 190:20-191:3 (Jan. 17, 2018). The AGO also admitted that it has never performed, or even participated in, a Clean Air Act Section 110(l) analysis. R18-20, Hearing 3 Trans. at 13:16-20, 15:5-11 (Apr. 17, 2018).

^{61 &}quot;Something less than"

i. The AGO's December Analysis.

In its initial testimony, the AGO used maximum heat input and 2016 emissions rates to calculate an annual "actual potential to emit" for the MPS fleet of 49,305 tons of SO₂ and 29,140 tons of NO_x. ⁶² The AGO described its "actual potential to emit" methodology as "a more realistic framework" than IEPA's calculations of allowable emissions. ⁶³ IEPA's David Bloomberg, however, testified that he had "no recollection"—in his 26 years at the agency—"of seeing such a term in either implementation or enforcement of any air regulatory program." ⁶⁴ IEPA rejected the AGO's suggestion that "actual potential to emit" can be used to set emissions limits. ⁶⁵

Based on its "actual potential to emit" analysis, the AGO testified at the second hearing that, if a mass cap is set for SO₂ emissions, it should be no more than 49,305 tons. ⁶⁶ Assuming the same holds true for NO_X, the AGO's December testimony suggests that an emissions cap be no more than 29,140 tons NO_X, which is over 4,000 tons *higher* than IEPA's proposed cap of 25,000 tons.

Importantly, the AGO's analysis utilized actual 2016 emissions rates, *not* the applicable MPS rate limits. Because the AGO's December analysis was based on actual historical emissions rates, from an arbitrarily selected year, it is subject to change if a different year's emissions rates are used. For example, the AGO admitted during the third hearing that the "actual potential to emit" for the MPS fleet using unit level emissions rates from 2017 is 53,083

⁶² R18-20, Prefiled Testimony of J. Gignac at 17-19 (Dec. 11, 2018) (Board Ex. 9).

⁶³ *Id.* at 17.

⁶⁴ R18-20, Hearing 2 Trans. at 19:8-18 (Jan. 17, 2018).

⁶⁵ *Id.* at 26:23-24:1 ("[T]he only way to set a limit is with an allowable.").

⁶⁶ R18-20, Hearing 1 Trans. at 183:19-184:3 (Jan. 17, 2018).

tons of SO_2 and 32,172 tons of NO_X .⁶⁷ This 7.6% *increase* in the AGO's calculation of SO_2 emissions and 10.4% *increase* in the AGO's calculation of NO_X emissions when using 2017 instead of 2016 actual emissions rates, demonstrates that setting a limit based on the AGO's methodology would be arbitrary and capricious because the results vary widely depending on which year's emissions rates are used. Further, the AGO's calculation of "actual potential to emit" using 2017 emissions rates are close to the 55,000 ton SO_2 cap, and well above the 25,000 ton SO_2 cap that IEPA originally proposed.

ii. The AGO's April Analysis.

In February 2018, IEPA revised its recommended SO₂ emissions cap—in order to assuage concerns raised by the AGO.⁶⁸ IEPA's revised proposed cap of 49,000 tons, was less than the number suggested by the AGO's December testimony. But rather than supporting the IEPA's revised proposal, the AGO proposed an entirely new method to critique IEPA, using what it described as "actual annual emissions." This new analysis, it argued, should form the basis of any mass emissions caps adopted by the Board, rather than the analysis it had provided months earlier. To

Importantly, the AGO admitted that the key information used in its April analysis was available to it at the time its initial testimony was filed in December 2017.⁷¹ The only obvious development that occurred in the interim was that IEPA had proposed to lower the recommended

⁶⁷ R18-20, Hearing 3 Trans. at 25:14-19, 26:6-10 (Apr. 17, 2018).

⁶⁸ R18-20, IEPA's Responses and Information Requested from the January Hearings at 2-3 (Feb. 16, 2018) (Ex. 29); R18-20, Hearing 3 Trans. at 164:7-18 (noting that there was no "specific evidence" that caused IEPA to revise its proposal, rather, the revised proposal was "a concession to try to make the Board's job a little easier")

⁶⁹ R18-20, Pre-Filed Testimony of A. Armstrong at 2 (Apr. 3, 2018) (Board Ex. 37).

⁷⁰ *Id*.

⁷¹ R18-20, Hearing 3 Trans. at 26:11-29:10 (Apr. 17, 2018)

SO₂ cap to 49,000 tons. It is difficult, therefore, to view the AGO's April testimony as anything other than an attempt to move the goalposts after its initial objectives had already been met.

The AGO's April testimony recommended that 2017 emissions rates be used with 2002 heat inputs to calculate "actual annual emissions" of 34,094 tons of SO₂ and 18,920 tons of NO_X. This analysis went further than the AGO's December testimony by arbitrarily selecting both a single year's heat inputs, as well as a single year's unit level emissions rates. Choosing a different year for either of these inputs would result in substantial changes to the "actual annual emissions" projected by the AGO.

Further, the analysis failed to account for the fact that 2002 heat inputs for the current MPS units are not reflective of the current distribution of generation amongst the MPS units, because many of the units operating in 2002 have since retired. The AGO's analysis does not consider or account for the fact that the current MPS units likely would have had higher 2002 heat inputs if they were the only Dynegy/Ameren units operating at that time.⁷³

The AGO's April testimony also offers an entirely different "actual" emissions projection, which was discussed during the third hearing.⁷⁴ That calculation uses actual 2002 heat inputs and the applicable MPS rate limits to provide "projected actual emissions" of 44,920 tons.⁷⁵ That analysis too is arbitrary and, again, suffers from the flaw of relying on a single-year's heat input, which does not account for the units that have retired since 2002.

⁷² R18-20, Pre-Filed Testimony of A. Armstrong at 19 (Apr. 3, 2018) (Board Ex. 37).

⁷³ See, e.g., Prefiled Testimony of Dean Ellis at 14 (Dec. 11, 2017) ("When units retire, generally there is no corresponding change in electricity demand. As such, the remaining units may be called upon by MISO to operate more frequently to replace the lost generation from the retired plants.").

⁷⁴ *Id.* at 12.

⁷⁵ *Id*.

The lesson of these varied "actual" emissions projections is clear: the outcome varies greatly depending on the year or years from which heat inputs and emissions rates are selected. Using different sets of inputs, the AGO has come up with three drastically different projections. These projections effectively undermine each other by offering conflicting and unsupported results. This failed analytical exercise demonstrates that "actual" emissions projections are unreliable, and it would be arbitrary and capricious for the Board to select an emissions limit from the AGO's projected "actual" emissions.

Finally, in addition to the methodological flaws described above, emissions caps cannot be adopted at the levels cited by the AGO because those caps would not be economically reasonable. As the AGO admitted during the third hearing, "[a]n annual SO₂ cap of 34,094 tons corresponds to a hypothetical year in which both current MPS groups ran at a 51.4 percent capacity factor at exactly their MPS emission rate limits." That annual capacity factor is lower than *any* annual average experienced by the MPS fleet in the past 10 years, and could therefore significantly reduce the MPS fleet's operational flexibility and constrain its potential revenues. Furthermore, according to figures provided by the AGO, a 34,094 cap is lower than total annual SO₂ emissions from the MPS fleet in eight of the past ten years. For these reasons, an SO₂ cap of 34,094 tons is not appropriate.

VI. IEPA's Proposed Revisions Would Create an Environmental Benefit.

IEPA's original proposal should be adopted by the Board because all evidence presented in this rulemaking demonstrates that the proposal would be protective of air quality, human health, and the environment in Illinois. While opponents have repeatedly cited environmental

⁷⁶ R18-20, Hearing 3 Trans. at 19:21-20:1 (Apr. 17, 2018).

⁷⁷ R18-20, Pre-filed Testimony of Andrew Armstrong, at Attach. 1 (Apr. 3, 2018) (Board Ex. 37).

⁷⁸ *Id.* at Attach. 2.

concerns, they have presented no evidence to demonstrate any negative environmental impacts associated with IEPA's proposal.

As IEPA—the agency charged with determining the appropriate standards to protect the environment in Illinois—has testified throughout this hearing, all appropriate metrics demonstrate that the proposed revisions will be environmentally beneficial. Broadly, IEPA has described its proposed revisions as "at least as protect[ive]" of air quality in the state as the current MPS.⁷⁹ Because IEPA's original proposal represents a substantial reduction in allowable emissions from the current MPS rule "the worst-case scenario under the modified MPS would have lower emissions than the worst-case scenario under the current MPS."⁸⁰

More specifically, environmental benefit is best judged by analyzing potential impacts on the Regional Haze Rule and the National Ambient Air Quality Standards ("NAAQS"). Through this analysis, it is clear that the proposed revisions would reduce the amount of allowable emissions from MPS units and would be protective of the Regional Haze Rule and NAAQS.

a. The Revisions Would Not Threaten Compliance with the Regional Haze Rule.

As noted above, since the MPS were adopted, IEPA has included the MPS in Illinois' SIP for the Regional Haze Rule.⁸¹ The state, however, is tens of thousands of tons below IEPA's glide path of projected SO₂ emissions.⁸² IEPA testified during the second hearing that its proposal is actually "superior to the current rule for purposes of Regional Haze" compliance.⁸³

⁷⁹ R18-20, Hearing 2 Trans. at 146:1-5 (Mar. 6, 2018).

⁸⁰ R18-20, IEPA's Responses to Prefiled Questions at 9 (Jan. 12, 2018) (Board Ex. 6).

⁸¹ *See supra* p. 6.

⁸² See supra n.22.

⁸³ R18-20, Hearing 2 Trans. at 163:1-10 (Mar. 6, 2018).

IEPA has also testified that any further reductions from its initial proposed numbers are unnecessary, from a Regional Haze perspective.⁸⁴

b. IEPA's Original Proposal Would Not Threaten Attainment of the NAAQS.

Similarly, IEPA's original proposal—featuring caps at 55,000 tons of SO₂ and 25,000 tons of NO_x—will be protective of relevant NAAQS. As IEPA testified "[t]he NAAQS is how we measure whether or not there are safe levels of a particular pollutant in the air." The AGO agreed that the NAAQS are "set by U.S. EPA . . . to protect human health, welfare, and the environment with an adequate margin of safety." While has explained that the annual standards of the MPS and the proposal are not well-suited to protecting the NAAQS, which are short-term limits, it testified repeatedly that its proposed revisions to the MPS would not threaten attainment of the SO₂ NAAQS. Its proposal includes one specific emissions limit—for the Joppa Power Station—to ensure that the SO₂ NAAQS are maintained. ⁸⁹ IEPA testified that

⁸⁴ R18-20, Hearing 1 Trans. at 123:2-6 (Jan. 17, 2018).

⁸⁵ *Id.* at 109:14-18 (Jan. 17, 2018).

⁸⁶ R18-20, Hearing 2 Trans. at 51:2-7 (Mar. 7, 2018).

⁸⁷ *Id.* at 171:18-21 ("[T]his rule is not the way to control emissions to insure a NAAQS is met. It is an annual average. It is not meant to control for a one-hour NAAQS."); Hearing 1 Trans. at 151:15-20 ("[T]he MPS is not really the proper vehicle for doing anything related to the NAAQS because it is a fleet wide standard. It is an annual standard whereas for different NAAQS, for example, the SO₂ NAAQS is an hourly standard.").

⁸⁸ See, e.g., IEPA, Technical Support Document at 1 (Oct. 2, 2017); R18-20, Hearing 3 Trans. at 104:4-8 ("[W]e are not worried that there will be NAAQS impacts at 49,000. We do not expect any area to violate the NAAQS.").

While it didn't specifically analyze impacts under other NAAQS—and no stakeholder has raised evidence in this rulemaking concerning other NAAQS—IEPA testified that impacts to PM2.5 and Ozone NAAQS from the proposed revisions are "extremely unlikely." R18-20, Hearing 1 Trans. at 138:10-17 (Jan. 17, 2018).

⁸⁹ R18-20, IEPA, Statement of Reasons at 6 (Oct. 2, 2017).

emissions at other facilities would not "approach the levels at which the NAAQS would be threatened," so no further unit specific emissions caps are required. 90

IEPA's testimony regarding the MPS proposal's lack of impact on NAAQS attainment is true both for its current recommended emissions cap of 49,000 tons of SO₂, as well as its original proposal of 55,000 tons of SO₂. IEPA testified at the third hearing that there was no "regulatory requirement" that led it to lower its proposal, ⁹¹ rather, that number was simply an attempt to assuage the concerns presented by the AGO. ⁹²

Finally, Dr. Lucy Fraiser, a toxicologist, provided comment to the Board—supported by testimony under oath during the second hearing—that IEPA's original proposed caps of 55,000 tons of SO_2 and 25,000 tons of NO_X would not interfere with NAAQS attainment, nor would they adversely affect health or welfare, generally. ⁹³ IEPA agreed with the conclusions in Dr. Fraiser's report. ⁹⁴

c. Opponents Have Offered No Credible Evidence Regarding the Threat of Emissions "Hot Spots."

Instead of pointing to adverse impacts under established federal air quality standards—like the Regional Haze Rule or the NAAQS—opponents of IEPA's proposal have focused on vague, speculative arguments regarding alleged potential local impacts of the proposed rule.

Specifically, Brian Urbaszewski testified to the Board regarding the potential for localized "hot

⁹⁰ R18-20, Hearing 1 Trans. at 158:11-17 (Jan. 17, 2018). *See also*, IEPA's Responses to Prefiled Questions at 6 (Jan. 12, 2018) ("Review of [modeling] results showed that most areas had design values well below the level where attainment of the NAAQS would be threatened.").

⁹¹ R18-20, Hearing 3 Trans. at 116:3-5 (Apr. 17, 2018).

⁹² See supra n.68.

⁹³ See generally, Comment of Lucy Fraiser, PhD, Exhibit C to Dynegy's Response to Questions (Feb. 16, 2016) (Board Ex. 24).

⁹⁴ R18-20, Hearing 2 Trans. at 16:14-17 (Mar. 7, 2018).

spots" and emissions "spikes" that allegedly could result from increased emissions at individual MPS plants. Mr. Urbaszewski, however, admitted that his testimony to the Board could not be considered "expert" testimony, has a man "inartful descriptor" and "not a technical term, has arguments regarding potential "hot spots" were not linked to any specific concentrations of SO₂ or NO_X. Rather, Mr. Urbaszewski's testimony is mere speculation, unsupported by the record before the Board, and the weight of scientific findings. In fact, Mr. Urbaszewski conceded that he had not actually evaluated whether any actual short-term spikes in SO₂ have occurred in the areas surrounding the MPS plants at any time in the past ten years. Finally, Mr. Urbaszewski admitted that the current MPS does not preclude the types of emissions "spikes" or "hot spots" that were the subject of his speculation. 100

Conversely, in response to the Board's questioning, IEPA testified that it "sees no adverse environmental [impacts] for any of the communities surrounding the [MPS] plants." Further, IEPA explained that—even if short term emissions increases were expected to be a problem—neither the current MPS nor IEPA's proposed revisions would be well-suited to preventing "spikes" or "hot spots" because both are annual standards. 102

⁹⁵ R18-20, Pre-Filed Testimony of Brian Urbaszewski at 8-9 (Feb. 6, 2018) (Board Ex. 34).

⁹⁶ R18-20, Hearing 2 Trans. at 79:12-18 (Mar. 7, 2018).

⁹⁷ *Id.* at 69:6-19.

⁹⁸ *Id.* at 73:3-8.

⁹⁹ *Id.* at 92:18-22.

¹⁰⁰ *Id.* at 76:3-7.

¹⁰¹ R18-20, Hearing 3 Trans. at 106:11-18 (Apr. 17, 2018).

¹⁰² R18-20, Hearing 2 Trans. at 39:16-40:19 (Mar. 7, 2018).

d. Reductions in Emissions Caps When Plants Retire Are Not Necessary.

Finally, if the Board decides to adopt mass-based emissions caps, the AGO has suggested that IEPA's proposal be modified to require that the emissions caps decrease every time a unit subject to the MPS retires. Vistra continues to believe that reductions in the emissions caps for retired units are inappropriate, for the reasons provided by both IEPA and Dean Ellis. HePA has acknowledged that further reductions are not necessary to protect air quality in Illinois. Nevertheless, in an effort to respond directly to a question posed by Board Member Zalewski during the third hearing, Wistra has conferred with IEPA regarding a methodology for calculating retirement allocations. Vistra believes the methodology IEPA will propose to the Board is appropriate because it provides an opportunity for the remaining units to operate more frequently to replace a portion of the lost generation from the retired units.

¹⁰³ R18-20, Pre-Filed Testimony of the AGO at 24-25 (Dec. 11, 2017) (Bd. Ex. 9).

¹⁰⁴ R18-20, Hearing 2 Trans. at 185:13-22 (Mar. 6, 2018) (noting that if an MPS unit retires, the remaining units could be called on to operate more to replace the lost generation); R18-20, Prefiled Testimony of Dean Ellis at 14 (Dec. 11, 2017) (Board Ex. 15).

¹⁰⁵ R18-20, Hearing 2 Trans. at 188:22-189:4 (Mar. 6, 2018); R18-20, Hearing 3 Trans. at. 161:8-16 (Apr. 17, 2018) ("[H]as the AGO presented any evidence demonstrating to the IEPA that the proposed annual SO₂ emissions cap must decrease when MPS units retire in order for the proposed MPS revisions to be as protective as the current MPS? MR. BLOOMBERG: No.").

¹⁰⁶ R18-20, Hearing 3 Trans. at. 224:1-17 (Apr. 17, 2018)

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VII. Conclusion.

IEPA's proposed MPS revisions are both economically reasonable and technically

feasible. IEPA's original proposal will provide necessary reforms to the MPS, while also

maintaining air quality in Illinois. Vistra therefore urges the Board to adopt IEPA's original

proposed revisions, including annual emissions caps of 55,000 tons for SO₂ and 25,000 tons for

NO_X.

Respectfully submitted,

/s/ Joshua R. More

Attorney for Vistra

Dated: June 1, 2018

SCHIFF HARDIN LLP

Joshua R. More

Amy C. Antoniolli

Ryan C. Granholm

Caitlin M. Ajax

233 South Wacker Drive, Suite 7100

Chicago, Illinois 60606

(312) 258-5500

CERTIFICATE OF SERVICE

I, the undersigned, certify that on this 1st day of June, 2018, I have electronically served the attached **Post Hearing Comments**, upon all parties on the attached service list.

My e-mail address is rgranholm@schiffhardin.com;

The number of pages in the e-mail transmission is 28.

The e-mail transmission took place before 5:00 p.m.

/s/ Ryan C. Granholm Ryan C. Granholm

SCHIFF HARDIN LLP Joshua R. More Amy C. Antoniolli Ryan C. Granholm Caitlin M. Ajax 233 South Wacker Drive, Suite 7100 Chicago, Illinois 60606 (312) 258-5500

SERVICE LIST					
SERVICE LIST					
Don Brown, Assistant Clerk	Antonette Palumbo				
Don.brown@illinois.gov	Antonette.palumbo@illinois.gov				
Mark Powell, Hearing Officer	Dana Vetterhoffer				
Mark.Powell@illinois.gov	Dana.vetterhoffer@illinois.gov				
Marie Tipsord, Hearing Officer	Gina Roccaforte				
Marie.Tipsord@illinois.gov	Gina.roccaforte@illinois.gov				
Illinois Pollution Control Board	Division of Legal Counsel				
James R. Thompson Center	Illinois Environmental Protection Agency				
Suite 11-500	1021 North Grand Avenue, East				
100 West Randolph	P.O. Box 19276				
Chicago, Illinois 60601	Springfield, Illinois 62794-9276				
Eric Lohrenz	Katy Khayat				
Eric.lohrenz@illinois.gov	Katy.Khayyat@illinois.gov				
Office of General Counsel	Department of Commerce and Economic				
Illinois Department of Natural Resources	Opportunity				
One Natural Resources Way	Small Business Office				
Springfield IL 62702-1271	500 East Monroe Street				
	Springfield, IL 62701				
Stephen Sylvester	Greg Wannier, Staff Attorney				
ssylvester@atg.state.il.us	Greg.wannier@sierraclub.org				
69 West Washington Street, Suite 1800	Sierra Club Environmental Law Program				
Chicago, IL 60602	2101 Webster Street, Suite 3100				
	Oakland, CA 94612				
Andrew Armstrong					
aarmstrong@atg.state.il.us					
500 South Second Street					
Springfield, IL 62706					
Jean-Luc Kreitner	Katherine D. Hodge				
jkreitner@elpc.org	HeplerBroom LLC				
Justin Vickers	khodge@heplerbroom.com				
jvickers@elpc.org	4340 Acer Grove Drive				
35 East Wacker Drive, Suite 1600	Springfield, IL 62711				
Chicago, IL 60601					
Faith Bugel					
fbugel@gmail.com					
1004 Mohawk					
Wilmette, IL 60091					