

February 28, 2019

Dr. Bradley Borum
Research, Policy and Planning Division
Indiana Utility Regulatory Commission
101 West Washington Street, Suite 1500 East
Indianapolis, IN 46204

Re: Northern Indiana Public Service Company LLC's
2018 Integrated Resource Plan

Dear Dr. Borum:

Peabody COALSALES, LLC ("Peabody") appreciates the opportunity to review and respond to the Integrated Resource Plan ("IRP") that Northern Indiana Public Service Company LLC ("NIPSCO") prepared and submitted to the Indiana Utility Regulatory Commission ("IURC") on October 31, 2018. In response to NIPSCO's IRP, Peabody submits the attached comments from **Michael J. Nasi, a consultant for Peabody and a partner with the law firm of Jackson Walker L.L.P.**, who prepared these comments on behalf of Peabody.

Sincerely,

/s/ Joshua A. Claybourn

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Enclosure

**PEABODY'S COMMENTS ON
NIPSCO'S 2018 INTEGRATED RESOURCE PLAN**

By Michael J. Nasi ¹
on behalf of Peabody COALSALES, LLC

A. Introduction. Peabody COALSALES, LLC (“Peabody”) conducted a review of the Integrated Resource Plan (“IRP”) that Northern Indiana Public Service Company (“NIPSCO”) prepared and submitted to the Indiana Utility Regulatory Commission (“IURC”) on October 31, 2018. In response to NIPSCO’s IRP, Peabody submits the comments below.

B. General Comments. The environmental regulatory assumptions on which NIPSCO so heavily relies in its IRP to plan for the retirement of Michigan City Unit 12 and Schahfer Units 14, 15, 17, and 18 are deeply flawed or, at best, premature for the following reasons:

1. Regulatory Timelines Too Short. NIPSCO made assumptions about which scenarios to run and included in these scenarios regulatory timelines relating to both the Coal Combustion Residual (“CCR”) Rule and the Effluent Limit Guidelines (“ELGs”) that were too short given currently available extension options and EPA-announced plans to significantly reform both of those rules for the express purpose of mitigating their impacts on coal-fired power plants.
2. Cost Assumptions Too High. NIPSCO’s various capital expenditure assumptions, as well as operation and maintenance (“O&M”) cost assumptions, regarding the continued operation of the aforementioned power generating units are either not backed up by specifics or simply too high. In addition to unjustified expenditures assumed to be necessitated by the CCR Rule, the ELG Rule, and updates to the Cross State Air Pollution Rule (“CSAPR”), NIPSCO incorrectly assumes the continued burden of O&M expenses associated with the Mercury and Air Toxics Standards (“MATS”) Rule that could be mitigated moving forward—something that NIPSCO is failing to support despite EPA’s regulatory invitation to do so.

¹ Michael J. Nasi is a partner with the law firm of Jackson Walker L.L.P. He has been practicing before state and federal environmental and energy agencies and appellate courts for more than 25 years. Mr. Nasi’s curriculum vitae is attached to these comments.

3. Costs that will be Incurred Regardless of Retirement Inappropriately Included. By relying upon its IRP, which included several ELG and CCR cost assumptions that will be incurred regardless of whether the units continue to operate, NIPSCO has inflated the cost savings assumptions used in this proceeding to support an early retirement scenario.

For these reasons, which are explained in greater detail below, these flawed assumptions resulted in inflated environmental compliance cost assumptions that in turn skewed NIPSCO's IRP and the analyses relied upon to justify early retirement of the aforementioned power plants.

On the same day it submitted its IRP on October 31, 2018, NIPSCO filed for a new electric rate case in Cause No. 45159. NIPSCO requested that the Commission authorize an increase in retail rates and charges for electric utility service. NIPSCO also requested approval of revised depreciation rates applicable to its electric plant in service; approval of necessary and appropriate accounting relief; approval of a new service structure for industrial rates; and authorization of the company to implement temporary rates.

After NIPSCO's filings on October 31, 2018, NIPSCO engaged in discovery with Peabody which provided additional context and clarity about its IRP assumptions, in some cases indicating that the IRP values were preliminary and, therefore, updated figures were now available. In these IRP comments we endeavor to explain this context and any resulting differences.

As shown in Figure 1 below, NIPSCO assumed over \$1.4 billion in environmental capital costs associated with continued operation of Michigan City Unit 12 and Schahfer 14, 15, 17, and 18 through 2024. NIPSCO only includes these environmental compliance costs in the event the plants are not retired. In other words, the values in Figure 1 are costs NIPSCO assumes it will incur between now and 2024 if it operates the plants post-2023.²

² In NIPSCO's rate case response to Peabody Request 1-001 Attachment A, the IRP included certain costs that are incurred regardless of retirement decisions. These costs, as reflected in Scenario 8, are the CCR costs for Michigan City Unit 12 and Schahfer Units 14/15 from 2018 to 2020, which are \$53,986,301 and \$86,751,828, respectively. Therefore, of the total \$1.42 billion, NIPSCO assumes that approximately \$1.28 billion are costs incurred only because of continued operation of the plants past 2023. As I explain later in my testimony, given the current uncertainty in specific environmental regulations, this number is far from certain and NIPSCO acted too quickly in making retirement decisions based on these changeable values.

Figure 1: NIPSCO's Projected Incremental Environmental Capex by Unit (\$Millions) From 2018 to 2024³

	CCR	ELG	Other Environmental	Total
Michigan City 12	\$53.99	--	--	\$53.99
Schahfer 14/15	\$86.75	\$133.74	--	\$220.49
Schahfer 17/18	\$85.28	\$310.78	\$746.20	\$1,142.26
Total Estimated Environmental Costs for All Units				\$1,416.73

B. Overview and Issues with NIPSCO's Environmental Regulatory Assumptions

1. Effluent Limitation Guidelines ("ELGs")

As shown in Figure 1 above, NIPSCO asserts that there will be over \$444 million in ELG compliance costs if Schahfer Units 14, 15, 17, and 18 continue operating through 2024.⁴ This overestimates costs given the current postponement of certain compliance dates under the ELG and the fact that EPA has announced plans to significantly revise the existing ELG by December 2019, at which time there will be additional regulatory clarity essential to evaluating and selecting retirement or retrofit scenarios.

On November 3, 2015, EPA published a final rule amending the effluent limitation guidelines and standards for the steam electric power generating point source category contained in 40 CFR Part 423. I will refer to this as the "2015 ELG Rule." This rule generally applies to steam electric power plants that use fossil fuels or nuclear energy to heat water in boilers. Six types of wastestreams are regulated: fly ash transport water, bottom ash transport water, flue gas desulfurization ("FGD") wastewater, flue gas mercury control wastewater, gasification wastewater, and combustion residual leachate. For existing sources that discharge directly to surface waters (except for oil-fired generating units and those with nameplate capacity of 50 megawatts or less), the rule establishes effluent limitations

³ NIPSCO Response to Peabody Request 1-001 Attachment A (issued in the rate case). The numbers reflected here are the total projected costs from 2018 through 2024.

⁴ NIPSCO Response in the rate case to Peabody Request 1-001 Attachment A. Peabody notes that these values are different than the figures presented in NIPSCO's IRP Appendix A (Bates No. 247) (\$170 million for Schahfer 14/15 and \$375M for Schahfer 17/18). In its discovery responses, NIPSCO indicated that the IRP values were preliminary and, therefore, Peabody is relying upon the more finalized estimates offered in NIPSCO Response to Peabody Request 1-001 Attachment A.

for the referenced wastestreams based on Best Available Technology Economically Available (“BAT”). Although not relevant to this discussion, the rule also established effluent limitations for existing sources that discharge to Publicly Owned Treatment Works (“POTWs”), new sources that directly discharge to surface waters, as well as new sources that discharge to POTWs. The requirements of this rule, which differs depending on the wastestream in question, apply “as soon as possible” beginning November 1, 2018, but no later than December 31, 2023.

The requirements of ELG have been postponed to November 1, 2020. The EPA received several petitions for review of the 2015 ELG Rule, and they were consolidated in the U.S. Court of Appeals for the Fifth Circuit.⁵ On August 11, 2017, EPA announced its intentions to conduct a rulemaking to potentially revise certain BAT effluent limitations for FGD wastewater and bottom ash transport water. On August 14, 2017, EPA filed a motion to govern further proceedings in the U.S. Court of Appeals for the Fifth Circuit. Subsequently, on September 18, 2017, EPA published a final rule entitled “Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category.” This is commonly referred to as the “Postponement Rule.” In this Postponement Rule, EPA postponed for two years the earliest compliance dates for the new, more stringent, BAT effluent limitations for FGD wastewaters and bottom ash transport wastewaters listed in the 2015 ELG Rule. Therefore, this postponement moves the “as soon as possible date” from November 1, 2018 to November 1, 2020.

EPA had received new information not contained in the record for the 2015 ELG Rule and was generally reconsidering the rule in light of “serious concerns about the availability and affordability of the technology basis for the FGD wastewater and bottom ash transport water requirements.”⁶ EPA made clear that this review and ultimate rulemaking would take some time and recognized that the initial deadline of the 2015 ELG Rule was fast approaching. This postponement was intended as a temporary measure to preserve the status quo for FGD wastewater and bottom ash transport water while it proceeded with completing its review and rulemaking. Significantly, EPA has stated that it intends to address compliance dates in some fashion.⁷ Accordingly, the rulemaking will address the limitations for these wastestreams, as well as the compliance period in its rulemaking.

⁵ *Southwestern Electric Power Co., et al. v. EPA*, No. 15-60821.

⁶ 82 Fed. Reg. at 43496.

⁷ 82 Fed. Reg. at 43496.

In the Postponement Rule, EPA projected that it will finalize a new rule by Fall 2020 (82 Fed. Reg. 43498), and further stated that if it does not complete a new rulemaking by November 2020, “it plans to further postpone the compliance dates such that the earliest compliance date is not prior to completion of a new rulemaking.”⁸ In its document entitled *Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category* dated Fall 2018, EPA states that a notice of proposed rulemaking is expected to be published in March 2019, and a final rule in December 2019. I understand these to be the most recent official dates provided by EPA in the public record, specifically as reflected in the Fall 2018 Unified Agenda of Regulatory and Deregulatory Actions (EPA, RIN 2040-AF77).

EPA can reopen other portions of the 2015 ELG Rule and conduct rulemaking that would potentially revise the effluent limitations and standards in the 2015 ELG Rule. I will note that, even though EPA, in the Postponement Rule, stated that it did not intend to conduct such rulemaking, it is completely within the agency’s discretion and entirely conceivable that the rule proposal will go beyond the specific issues related to bottom ash transport water and FGD wastewater. This would be even more likely if companies, like NIPSCO, would advocate for a broader scope due to the material impact on their facilities rather than prematurely retire otherwise well-performing critical infrastructure that ratepayers have invested in for decades.

Peabody requested that NIPSCO break down the anticipated ELG compliance costs for each scenario delineated in the IRP. NIPSCO provided a spreadsheet that stated the expected ELG costs for each station, if they were to continue operating, as shown in Figure 2 below:

Figure 2: Estimated ELG Costs

Station Name	Estimated ELG Cost From 2018 to 2024
Michigan City Unit 12	--
Schahfer Units 14 and 15	\$133,735,880
Schahfer Units 17 and 18	\$310,780,980

Given the uncertainty in the ELG regulations and the upcoming final rule in December 2019, it is difficult to pinpoint a numerical estimate as to what ELG compliance costs could be. If these costs are uncertain to the extent that they will be addressed in a later proceeding, it is unreasonable to include them in the IRP calculations to justify retirement

⁸ 82 Fed. Reg. 43498, FN 6.

of certain stations. Further, the basis upon which these compliance costs were calculated is unclear. Accordingly, NIPSCO's estimated ELG costs within its IRP are unreasonable and imprudent.

The ELG Rule is currently under review by the EPA and will not be final until December 2019. Given the several months more of uncertainty, it is unreasonable to make a retirement decision at this time based upon an estimate of ELG compliance costs, which very likely could be overstated.

2. Coal Combustion Residual ("CCR") Regulations

NIPSCO asserts there will be over \$226 million in CCR Rule compliance costs from 2018 to 2024 if Michigan City Unit 12 and Schahfer Units 14, 15, 17, and 18 continue operating. This estimated value is unjustified for numerous independent reasons. First, NIPSCO failed to provide specific evidence justifying the values included in its IRP (or its related rate case discovery responses). Second, the state of the CCR Rule is currently in fluctuation, as the EPA is expected to announce changes in "Phase 2" of the rule in late 2019 or early 2020. Third, NIPSCO has inappropriately included reference to CCR-related costs that will be incurred regardless of the retirement decision, which renders them irrelevant to an evaluation of the prudence of the retirement decision and the resulting request for accelerated depreciation.

On April 17, 2015, EPA finalized national minimum criteria for the disposal of CCR (the "2015 CCR Rule"). The 2015 CCR Rule regulated existing and new CCR landfills, existing and new CCR surface impoundments and all lateral expansions of the CCR units. The CCR Rule is codified in 40 CFR Part 257. The minimum national standards include location restrictions; design and operating criteria; groundwater monitoring and corrective action; closure requirements and post closure care; and recordkeeping, notification and Internet posting requirements. The 2015 CCR Rule, promulgated under Resource Conservation and Recovery Act ("RCRA") 1008(a), 4004(a), and 4005(a), did not require facilities to obtain a federal or state permit, nor did it establish any requirements on states or state programs. Indeed, EPA did not believe that it had the authority under RCRA to require as such. As a result, this was a self-implementing program meaning that owners/operators of facilities regulated under the rule could comply with the federal minimum criteria without the need to interact with a regulatory authority. The requirements of the CCR Rule are enforceable under RCRA's citizen suit authority.

In December 2016, the Water Infrastructure Improvements for the Nation ("WIIN") Act was enacted, establishing new statutory provisions applicable to CCR units. The WIIN Act authorized states to implement the CCR Rule through an EPA-approved permit

program. It also authorized the EPA to enforce the rule and in certain situations to serve as the permitting authority. Accordingly, states may submit a program to EPA for approval and permits or authorizations issued pursuant to the approved state program operate in lieu of the federal requirements. To be approved, a state program must require each CCR unit to achieve compliance with the federal regulations, or alternative State criteria that EPA has determined are “at least as protective” as the federal regulations

On March 15, 2018, EPA published a proposed rule to amend the CCR Rule. EPA proposed two general categories of changes—the first was associated with a judicial remand in connection with a settlement agreement that resolved four claims brought by two sets of plaintiffs against the 2015 CCR Rule. The second category was a set of revisions that were proposed in response to the WIIN Act. This rule proposal is referred to as “Phase One.” Among other significant proposed changes, EPA proposed several provisions that would allow states or EPA the ability to incorporate flexibilities into their permit programs. On July 30, 2018, EPA published a final rule amending the 2015 CCR Rule by including some of the flexibilities referenced in its rule proposal. This is referred to as the “Phase 1” rule.

In general terms, this final Phase 1 rule did the following: (1) allowed states with approved CCR permit programs under the WIIN Act or EPA where EPA is the permitting authority the ability to use alternate performance standards; (2) revised the groundwater protection standard for constituents that do not have an established drinking water standard; and (3) extended the deadline by which facilities must cease the placement of waste in CCR units for certain circumstances that trigger such an outcome. Specifically, the deadline has been extended by 18 months to October 31, 2020 if the facility has detected a statistically significant increase above a groundwater protection standard from an unlined CCR surface impoundment, and in situations where the requirements of section 257.60(a) related to the uppermost aquifer requirement have not been met. The 2015 CCR Rule allows for extensions of that deadline in certain other circumstances as well, but the impact of the July 2018 CCR Rule amendment was that the initial deadline was extended by rule without a showing of such circumstances.

EPA is considering changes to significant portions of the 2015 CCR Rule. As implied by the reference to the July 2018 changes as the “Phase 1” rule, these changes were anticipated to happen in two phases. The July 2018 changes were the first phase. Beyond changes contemplated in the March 2018 proposal that were not finalized in the July 2018 final rule, EPA is also considering changes in a “Phase 2” rule, which are anticipated to be completed by late 2019/early 2020. Outstanding issues that are expected to be addressed in the Phase Two rule include inclusion of risk-based components in groundwater remediation, and potential changes to the requirement to close unlined units due to the

post-WIIN Act ability of states (and EPA) to exercise for site-specific judgment as part of risk-based corrective action programs.

As noted previously, the WIIN Act authorized states to implement the CCR Rule through an EPA-approved permit program. Many states are currently working on developing a CCR program in an effort to obtain approval from EPA for implementing their state-specific CCR program. As explained, a state program must require each CCR unit to achieve compliance with the federal regulations, or alternative criteria so long as it is determined by EPA that those criteria are “at least as protective” as the federal regulations. Under the latter scenario, states may push to obtain approval from EPA of some of the components envisioned by EPA in future rulemaking, under the theory that the state rule, while not the same as the federal rule, meets the “at least as protective” standard.

In light of the WIIN Act, presumably a state can obtain approval of a CCR program that allows for continued use of these units based on risk-based considerations. There is strong support for this prediction in light of the administrative and judicial record on the CCR Rule. First, the 2015 CCR Rule expressly acknowledges that surface impoundments that are not in compliance with the standards may be able to actually stay open and continue to operate under the direction of an overseeing agency. Specifically, the rule states:

“EPA acknowledges that it may be possible at certain sites to engineer an alternative to closure of the unit that would adequately control the source of the contamination and would otherwise protect human health and the environment. However, the efficacy of those engineering solutions will necessarily be determined by individual site conditions. As previously discussed, the regulatory structure under which this rule is issued effectively limits the Agency’s ability to develop the type of requirements that can be individually tailored to accommodate particular site conditions. Under sections 1008(a) and 4004(a), EPA must establish national criteria that will operate effectively in the absence of any guaranteed regulatory oversight (i.e., a permitting program), to achieve the statutory standard of ‘no reasonable probability of adverse effects on health or the environment’ at all sites subject to the standards. EPA was unable to develop a performance standard that would allow for alternatives to closure, but would also be sufficiently objective and precise to minimize the potential for abuse. There are too many factors that determine whether a particular engineering solution will meet the section 4004(a) standard at a particular site.” 40 C.F.R. 257 at 21371 (emphasis added).

Second, the Circuit Court of Appeals for the D.C. Circuit recently recognized that EPA was empowered by Congress in the WIIN Act to integrate more risk-based compliance measures than were afforded in the 2015 CCR Rule holding that:

“Although the WIIN Act does not affect the validity of the [2015] Rule itself, it does provide the EPA with new tools to pursue its regulatory goals. . . . Although a one-size-fits-all national standard might have been necessary for the self-implementing Final [2015] Rule, **more precise risk-based standards are both feasible and enforceable under the individualized permitting programs and direct monitoring provisions authorized by the WIIN Act** Thus, the regulatory tools authorized by the WIIN Act support EPA’s request to reconsider certain provisions of the [2015] Rule.” *Util. Solid Waste Activities Group v. Env’tl. Prot. Agency*, 901 F.3d 414, 437 (D.C. Cir. 2018) (emphasis added).

These two quotations signal the very real possibility that the EPA will follow-through on its announced plans to adopt a “Phase 2” set of reforms that will empower states (and EPA, in nonparticipating states) to rely upon risk-based considerations in allowing surface impoundments to continue to be utilized for the management of both CCRs and non-CCR wastewater. It is therefore inappropriate and premature for early retirement decisions to be justified by NIPSCO with assumed CCR regulatory drivers to close surface impoundments.

Peabody requested that NIPSCO break down the anticipated CCR compliance costs for each scenario delineated in the IRP and NIPSCO provided a spreadsheet that stated the expected CCR costs for each station, if they were to continue operating, as shown in Figure 3 below:

Figure 3: Estimated CCR Costs

Station Name	Estimated CCR Cost From 2018 to 2024
Michigan City Unit 12	\$53,986,301
Schahfer Units 14 and 15	\$86,751,828
Schahfer Units 17 and 18	\$85,278,338

NIPSCO did not actually explain the rationale behind these CCR compliance costs, as requested in Peabody’s discovery requests. As I explained above, there are uncertain aspects of the CCR rule, particularly changes in a “Phase 2” rule that are anticipated to be completed by late 2019/early 2020. Given the uncertainty of environmental regulations related to the CCR rule, I do not agree that NIPSCO’s estimated CCR costs within its IRP are reasonable and prudent.

In conclusion, the CCR Rule is very likely to be significantly reformed as a result of EPA's announced plans to adopt a set of "Phase 2" changes to significantly mitigate the costs and retirement risks associated with CCR rule compliance. Given the significant changes that could be made, it is unreasonable to include a retirement decision in the IRP at this time based upon overly conservative predictions about the need to close surface impoundments or CCR Rule compliance cost estimates, which very likely could prove to be too high. Moreover, several of the CCR-related costs will be incurred regardless of the retirement decision, so it is inappropriate to consider them in any way when evaluating the prudence of the retirement decision and the resulting request for accelerated depreciation.

3. Mercury and Air Toxics Standards ("MATS")

Although NIPSCO understandably installed MATS compliance equipment initially, it is inappropriate for NIPSCO to continue assuming they will incur long-term MATS O&M costs for these electric power generating units. There is a significant likelihood that EPA will withdraw MATS entirely or drastically alter the rule as to reduce the ongoing O&M cost burden. Therefore, NIPSCO's assumption to build these high O&M costs into its IRP is unreasonable. Additionally, NIPSCO's prudence should be questioned given its lack of support for EPA's current opportunity to withdraw MATS and eliminate the costs that EPA has concluded are unreasonable.

The Mercury and Air Toxics Standard ("MATS") rule was promulgated under Clean Air Act ("CAA") § 112, which governs emissions of substances the EPA has listed as "hazardous air pollutants" ("HAPs"). Section 112 contains a list of HAPs (and a process by which the EPA can designate additional HAPs). Mercury is a listed HAP. Additionally, under § 112, the EPA "lists" sources of HAPs and then issues emission standards for those sources.

EGUs, however, are treated differently from other sources of air pollution. Before the EPA could regulate EGUs under § 112, it was first required to conduct a study and then find that the regulations of HAPs from EGUs was "appropriate and necessary." Previously, the EPA conducted the required study and made such a finding in December 2000.

Next, however, instead of promulgating an emissions standard under § 112, in 2005, the EPA promulgated two rules, known collectively as the Clean Air Mercury Rule ("CAMR"), in which it proposed to "de-list" EGUs under §112 and regulate them under CAA §111 through a "cap and trade" program. However, in a subsequent lawsuit, *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008), the DC Circuit held that sources of HAPs, including EGUs, can only be "de-listed" if the EPA makes certain findings required by CAA §112(c)(9). Since the EPA had not made those findings, the Court set aside CAMR.

Subsequently, in 2011, the EPA promulgated the MATS rule, under which it again proposed to regulate mercury emissions from EGUs under § 112.

A number of legal challenges were raised to the MATS rule. One was that it was not cost effective—the quantifiable benefits of the rule were about four to six million dollars, while compliance would cost an estimated \$9.6 billion. The rule went up to the Supreme Court on this issue in *Michigan v. United States*, 135 S. Ct. 2699 (2015). The EPA took the position that it was statutorily precluded from considering costs in determining whether regulation of EGUs was reasonable and necessary. The Supreme Court rejected this argument, holding that the EPA "must consider cost—including, most importantly, cost of compliance—before deciding whether regulation is appropriate and necessary." The Court sent the rule back to the agency to make this determination.

Thereafter, in 2016, the EPA published a cost-benefit analysis in which it claimed that the benefits of the rule were greater than the costs, 82 Fed. Reg. 24420, but almost all of the benefits identified were "co-benefits" or benefits from reductions in emissions of pollutants other than the one the rule was designed to regulate (primarily SO₂ and PM). Reliance on co-benefits like these is controversial because the EPA is already and separately required to regulate emissions of SO₂ and PM under CAA § 110 at a level that will protect public health, without consideration of costs.

On August 29, 2018, the EPA announced that it would reconsider the MATS rule. According to the agency, it would initiate a review of a draft proposal to determine whether the rule is "appropriate and necessary" and to "evaluate overall standards."

On December 28, 2018, the EPA issued a proposed revised supplemental cost finding, in which it concluded that the regulation of power plants (electric generating units or EGUs) was not "appropriate and necessary" under § 112 of the CAA. 84 Fed. Reg. 2670. Notwithstanding this finding, however, the EPA proposed that all of the standards in the MATS rule for EGUs will remain in place.

In its supplemental cost finding, the EPA proposed to enter a finding that its prior 2016 cost benefit analysis erred in its consideration of costs. The proposed finding does not reject the existence of the previously found co-benefits, nor does it completely disavow the idea that co-benefits are considered as part of a cost-benefit analysis or that co-benefits can be used to justify a rule. Instead, in this particular instance, the EPA concluded that the regulation of HAPs emissions from EGUs is not appropriate and necessary because:

- The primary purpose of § 112 and the MATS rule is to reduce the emissions of HAPs;
- SO₂ and PM are not HAPs and are regulated via other sections of the CAA;
- With respect to PM, most of the co-benefits have not been actually measured in studies but are extrapolations below the lowest emissions measured (based on a controversial model that assumes negative health benefits from any emissions of PM, even minute amounts);
- The large difference between the cost and the quantifiable benefits in reduced HAPs emissions.

The EPA addressed the *New Jersey* decision by concluding that the emissions requirements of the MATS rule will remain in place because the EPA has not made the necessary findings under CAA §112(c)(9) to delist EGUs as sources of HAPs. The EPA has, however, asked for comments on whether these standards should remain in place.

The EPA's current proposal regarding the MATS rule could be subject to legal challenge and force it to go through the de-listing process in § 112(c)(9). Some parties may argue that § 112 requires an "appropriate and necessary" finding before EGUs can be regulated. As a result, withdrawing the "appropriate and necessary" finding but leaving the MATS requirements in place could be found to violate the plain language of the statute, and the EPA may therefore lack the authority or the discretion to proceed with the rule as proposed.

NIPSCO is relying in part on the costs of compliance with MATS as a reason for shuttering some of its EGUs. These costs of compliance are the costs found by the EPA to be unreasonable and unnecessary. Furthermore, these costs include both the cost of installing controls and ongoing operation and maintenance costs. Even where controls have been installed because of the MATS rule, these operation and maintenance costs could be avoided if, as seems likely, the EPA abandons the MATS requirements for EGUs, either in the final version of the 2018 Supplemental Finding or as a result of an adverse court decision.

Given the EPA's willingness to reconsider the MATS rule and the precarious legal position of the proposed Supplemental Finding, NIPSCO can and should be working to mitigate the costs of MATS compliance. Instead, it is simply assuming that all compliance costs will inevitably continue. In fact, NIPSCO is assuming and advocating that the MATS compliance costs will not change in order to justify their premature retirement decisions.

While I do not question NIPSCO's decision to install MATS compliance equipment in the first instance, it is not reasonable for NIPSCO to continue to assume long-term MATS

O&M Costs (or savings from their early retirement) for any of these plants given the very real possibility that EPA will withdraw MATS entirely, or at least significantly reform the rule to reduce its ongoing O&M cost burden given the lack of benefits documented in the administrative record and discussed at length by EPA in its recent withdrawal of its “appropriate and necessary” finding. In order to understand the magnitude of these assumed costs, Peabody requested additional information on NIPSCO’s considerations regarding compliance with MATS through the discovery process. Specifically, Peabody asked NIPSCO to explain the ongoing O&M costs associated with MATS compliance. In response, NIPSCO stated only that “NIPSCO has made no changes in its MATS compliance plans. It continues to control its units to meet the limits set by the regulations.” These responses do not provide any specific detail about the estimates used for MATS compliance. This number, likely on the magnitude of several million dollars a year for years to come, is quite significant when evaluating the cost-effectiveness of early retirement of these systems. It is essential that those potential cost savings be fully understood before any conclusions can be drawn about the prudence of assuming O&M cost savings from early retirement of any of these units.

An additional basis upon which to question the prudence of NIPSCO’s actions generally is the fact that they have not encouraged EPA to mitigate the O&M Costs associated with MATS given the Supreme Court’s decision in Michigan and frail legal basis for EPA maintaining the MATS compliance obligations. It is imprudent for NIPSCO to stay silent in the wake of the Supplemental Finding as it ought to be encouraging EPA to repeal MATS in light of their request for comment on that issue and their finding that MATS costs are unreasonable. NIPSCO allows its federal lobbying organization, the Edison Electric Institute (“EEI”), to advocate to EPA that the MATS rule stay in place, resulting in extensive MATS O&M costs being incurred (or assumed to be incurred to support a decision to retire).

It is my understanding that there have discussions among the members of an informal trades group, which includes the EEI, and also includes investor-owned utilities, labor groups, environmental groups and others about lobbying the EPA to keep the MATS rule in place and effective—notwithstanding the EPA’s finding that the regulation of power plants under § 112 is not reasonable and necessary. One of the bases for this request appears to be that many utilities have already invested in controls to comply with the MATS rule and have passed those costs on to their customers. There is a concern that, if the MATS rule is withdrawn, some of these utilities are subject to ongoing rate review and may not be able to recover these costs. In other words, the real basis of this concern is the financial self-interest of these utilities.

It is inappropriate for regulated utilities to engage in this type of advocacy while seeking to justify retirement decisions based on costs they could avoid but for that advocacy. Given that many utilities pass these EEI dues on to ratepayers, it is inappropriate for EEI to advocate to keep MATS costs in place, which will either expose ratepayers to those costs or be used to justify exposing ratepayers to accelerated depreciation. These costs include not just the costs of the controls themselves but also the ongoing operation and maintenance costs discussed above that are also being passed on to ratepayers and that would be avoided if the MATS rule were withdrawn. At minimum, NIPSCO should not be able to rely on MATS compliance costs to justify these retirement decisions without a thorough analysis of the effect of the proposed 2018 Supplemental Finding and the final version of this rule, once it is promulgated, which will likely be some time in 2019.

4. Cross-State Air Pollution Rule (“CSAPR”)

NIPSCO claims that it is required to spend \$448 million in SCR technology for Schahfer 17/18 to comply with existing CSAPR regulations, another cost that was built in to its IRP. NIPSCO failed to provide adequate justification for selecting SCR technology over the much less costly alternative SNCR technology. There is no basis in the record to justify NIPSCO’s assumption that SCR technology was required.

CSAPR was promulgated by the EPA in 2011 as a replacement for the Clean Air Interstate Rule (“CAIR”), which had been invalidated by the United States Court of Appeals for the District of Columbia Circuit. Although the DC Circuit invalidated the CAIR, it left the rule in place pending the enactment of a replacement rule. The purpose of CSAPR was to address states’ “good neighbor” obligations under Clean Air Act section 110(a)(2)(D)(i) for the 1997 ozone and PM2.5 National Ambient Air Quality Standards (“NAAQS”) and the 2006 PM2.5 NAAQS. Concurrently, having already disapproved the relevant portions of the effected states’ State Implementation Plans (“SIPs”), the EPA promulgated a Federal Implementation Plan (“FIP”) setting emissions budgets for NOX and/or SO2 emissions (precursors for ozone and PM2.5) in 22 states, including Indiana. The rule created trading programs for NOX and SO2 for effected states. Indiana was included in both programs.

The D.C. Circuit set aside CSAPR in its entirety in 2012. In 2014, the Supreme Court reversed and remanded the case to the D.C. Circuit to consider additional issues it did not rule on in the first instance—principally the “as-applied” challenges of several states that CSAPR over-controlled their emissions. In 2015, the D.C. Circuit agreed with several of these as-applied challenges. The court remanded the rule to the EPA to calculate new emissions budgets, but left the original rule in place during the interim.

In the original 2011 CSAPR rulemaking, EPA determined that air pollution transported from Indiana would unlawfully affect other states' ability to attain or maintain the 1997 PM_{2.5} NAAQS, the 2006 24-hour PM_{2.5} NAAQS, and the 1997 ozone NAAQS and therefore included the State's EGUs in the CSAPR Federal trading programs for SO₂ and annual NO_x (to address the State's obligations regarding transported PM_{2.5} pollution) and the original CSAPR Federal trading program for ozone season NO_x (to address the State's obligations regarding transported ozone pollution). The EPA found that the EGUs' participation in the SO₂ and annual NO_x Federal trading programs fully addressed Indiana's good neighbor obligations with respect to attainment and maintenance of the 1997 PM_{2.5} NAAQS and the 2006 PM_{2.5} NAAQS.

On October 26, 2016, the EPA published the final CSAPR Update Rule. The EPA determined that air pollution transported from Indiana would unlawfully affect other states' ability to attain or maintain the 2008 ozone NAAQS, established a more stringent ozone season NO_x budget for the State's EGUs, and coordinated requirements by allowing compliance with the new budget to address the State's obligations regarding transported pollution with respect to both the 1997 ozone NAAQS and the 2008 ozone NAAQS. Under the Update, Indiana's EGUs meeting the CSAPR applicability criteria were subject to CSAPR FIP requirements to participate in the CSAPR SO₂ Group 1 Trading Program, the CSAPR NO_x Annual Trading Program, and the CSAPR NO_x Ozone Season Group 2 Trading Program. The EPA found that the EGUs' participation in the ozone season NO_x Federal trading program fully addresses Indiana's good neighbor obligations with respect to attainment and maintenance of the 1997 ozone NAAQS and partially, but not necessarily fully, addresses the State's good neighbor obligation with respect to attainment and maintenance of the 2008 ozone NAAQS.

On July 10, 2018, the EPA proposed a rule under compliance with the ozone season NO_x budgets established in the CSAPR Update. It represents a full, rather than partial, remedy for the good neighbor obligations of 20 states, including Indiana, with respect to attainment and maintenance of the 2008 ozone NAAQS.

On November 27, 2017, Indiana submitted a proposed revision to the Indiana SIP to include CSAPR state trading programs for annual emissions of NO_x and SO₂ and ozone season emissions of NO_x. These state programs were to replace the federal trading programs of which Indiana was a part. The EPA approved this SIP revision effective December 17, 2018.

Finally, in 2015, the EPA lowered the ozone standard from 0.075 ppm, which was the 2008 standard, to 0.070 ppm. In its recent updates to CSAPR, the EPA has noted that this new ozone standard will also require that CSAPR be revisited. At this time, however, there

have been no reports, either formal or informal, suggesting that EPA has formulated any specific plans for revisiting CSAPR in light of the 2015 standard. On May 1, 2018, the EPA designated those areas of the country that are not in attainment with the new standard.

CSAPR's emissions budgets, especially the annual SO₂ and NO_x programs, imposed compliance burdens on EGU operators. EPA's FIPs outlined EGU-specific emissions allocations, meaning that each EGU had a budget it was required to meet. Therefore, subject to the annual SO₂, annual NO_x, and ozone season NO_x limits, each EGU would have an annual emissions budget for each requirement.

Peabody asked NIPSCO for its regulatory assumptions built into the SCR cost estimate and a breakdown of the calculations used to obtain the \$448 million value. NIPSCO stated in its response that the SCR technology would allow for greater NO_x reduction rates, which results in better operational flexibility than the alternative, Selective Non-Catalytic Reduction ("SNCR").

This vague regulatory analysis is hardly sufficient to justify including the huge expense of SCR technology, as opposed to SNCR. Further, SNCR is a much less costly alternative, and NIPSCO has provided no numerical proof or additional studies for selecting the much more expensive option to include in its IRP. There is also no basis in the record to explain, let alone justify, NIPSCO's assumption that additional NO_x reductions will be required by what it refers to as "updates to CSAPR and ozone regulations." I assume what NIPSCO intends to reference by "updates" is the requirement in the Clean Air Act for EPA to ensure ongoing compliance with "good neighbor" provisions by updating CSAPR requirements in the wake of changed conditions ranging from increased ambient ozone levels, to updated contribution modeling, to the lowering of the Ozone NAAQS. Of course, because no specifics are provided by NIPSCO, it is impossible to understand, let alone scrutinize, the assumed "updates" on which it bases the massive SCR costs as part of its early retirement rationale. I am aware of no update plans, announced or internal to EPA, that could reasonably support such a drastic assumption.

I advise clients that have carefully considered the possibility of having to install additional NO_x controls in the future and, in so doing, I have closely scrutinized the potential environmental and regulatory conditions precedent that would need to be satisfied to justify assumed additional NO_x controls. It is my opinion based on that analysis that there is no reasonable set of assumptions that could justify NIPSCO's assumed SCR expenditure. Given the magnitude of the assumed SCR costs, NIPSCO's unfounded speculation here materially undermines the economic analysis upon which it relies to justify early retirement of any of these power plants and the request to increase rates related to those plans.

C. Conclusion

Given the magnitude of costs involved and the fact that ongoing regulatory reforms could significantly reduce those costs, it is premature for NIPSCO to model the retirement of the units and related increase of rates as planned in its IRP (and also proposed in its rate case) at this time. By waiting until ongoing regulatory reforms are better understood, NIPSCO, the Commission, and all stakeholders will have a better understanding of the regulatory costs faced by NIPSCO and, therefore, the advisability of their current proposal. Moreover, even if NIPSCO's regulatory assumptions could be justified, their inclusion of costs they would incur whether or not these power plants are retired provides an additional basis to reject the current request to gain approval of the accelerated depreciation resulting from early retirement.