STATE OF INDIANA
INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF NORTHERN INDIANA PUBLIC SERVICE COMPANY FOR (1) APPROVAL OF AND A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR A FEDERALLY MANDATED ENVIRONMENTAL COMPLIANCE PROJECT; (2) AUTHORITY TO RECOVER FEDERALLY MANDATED COSTS INCURRED IN CONNECTION WITH THE ENVIRONMENTAL COMPLIANCE PROJECT; (3) APPROVAL OF THE ESTIMATED FEDERALLY MANDATED COSTS ASSOCIATED WITH THE ENVIRONMENTAL COMPLIANCE PROJECT; (4) AUTHORITY FOR THE TIMELY RECOVERY OF 80% OF THE FEDERALLY MANDATED COSTS THROUGH RIDER 787 – ADJUSTMENT OF FEDERALLY MANDATED COSTS AND APPENDIX I – FEDERALLY MANDATED COST ADJUSTMENT FACTOR; (5) AUTHORITY TO DEFER 20% OF THE FEDERALLY MANDATED COSTS FOR RECOVERY IN NIPSCO'S NEXT GENERAL RATE CASE; (6) APPROVAL OF SPECIFIC RATEMAKING AND ACCOUNTING TREATMENT; (7) APPROVAL TO DEPRECIATE THE ENVIRONMENTAL COMPLIANCE PROJECT ACCORDING TO PREVIOUSLY APPROVED DEPRECIATION RATES; AND (8) APPROVAL OF ONGOING REVIEW OF THE ENVIRONMENTAL COMPLIANCE PROJECT; ALL PURSUANT TO IND. CODE § 8-1-8.4-1 ET SEQ., § 8-1- 2-19, § 8-1-2-23, AND § 8-1-2-42.	)	**CAUSE NO. 44872**

<u>SIERRA CLUB'S POST-HEARING BRIEF</u>

The Commission should deny the request of Northern Indiana Public Service Company ("NIPSCO") for a Certificate of Public Convenience and Necessity ("CPCN") for avoidable Coal Combustion Residuals Rule ("CCR Rule")[1] compliance projects for Schahfer units 14 and 15. The undisputed evidence shows that retiring Schahfer units 14 and 15 in 2023 would save NIPSCO's customers substantial sums of money compared to the alternative of retrofitting those units with an expensive new system for conveying bottom ash. To assess its compliance options

[1] 40 CFR Parts 257 and 261, published in the Federal Register on April 17, 2015.

for the CCR Rule and Effluent Limitations Guidelines ("ELG Rule"),[2] NIPSCO modeled six generation resource portfolios through 15 scenarios and sensitivities. In all 15 scenarios and sensitivities, including those that considered high and very high natural gas prices, the retirement of all four Schahfer coal-burning units (Portfolio 5) was more advantageous from a present value of regulatory requirements ("PVRR") perspective than a portfolio that included NIPSCO's preferred option of retrofitting Schahfer units 14 and 15 to run to the end of their projected useful lives (Portfolio 4).[3] In NIPSCO's base case, retiring Schahfer units 14 and 15 in 2023 saves its customers $281 million.

Against the backdrop of this undisputed economic analysis, NIPSCO asks the Commission to abandon its long-standing practice of assessing a compliance decision through the prism of least-cost planning in favor of NIPSCO's "balanced scorecard" approach. The Commission should decline NIPSCO's suggestion. NIPSCO's novel approach dilutes the importance of cost to customers by substituting a vague, unweighted consideration of qualitative factors over the traditional approach of relying on empirical data. Least-cost planning, informed by production cost modeling, provides customers, interested parties, the Commission, and a reviewing court a more transparent, accountable means to review a utility's compliance planning options.

Commission precedent makes clear that least-cost planning should be the foundation and starting point of compliance planning, after reliability needs are defined. NIPSCO has not identified any reliability impacts from retiring Schahfer units 14 and 15 in 2023, but instead

[2] 40 CFR Parts 423, published in the Federal Register on November 3, 2015.

[3] NIPSCO Exhibit 5, Attachment 5-A. The cost advantage of retiring Schahfer units 14 and 15 is the difference between Portfolio 5 and Portfolio 4 in NIPSCO's analysis.

offers speculation only. The failure to define *and monetize* any such reliability impacts is fatal to NIPSCO's effort to overturn the obvious conclusion of its economic analysis.

In planning for CCR and ELG Rule compliance, NIPSCO performed rigorous production cost modeling, including sensitives that assessed commodity prices, differing regulatory and economic environments, and other risks and uncertainties. The conclusion of that empirical analysis is clear: customers should not pay to retrofit Schahfer units 14 and 15 with costly new equipment. Especially where customer interests may diverge from those of NIPSCO's shareholders, the Commission should uphold least-cost planning decision-making and deny NIPSCO's request for the avoidable CCR Rule projects at its Schahfer plant.

I. Factual Background

For a detailed description of the factual and procedural background in this case, please refer to Sierra Club's Proposed Order at pages 1-40.

II. Legal Standards

NIPSCO seeks a CPCN and other relief via the Federally Mandated Cost Adjustment ("FMCA") statute (Ind. Code Ch. 8-1-8.4). The Commission may grant a CPCN for a compliance project under this statute only after examining six factors. Ind. Code § 8-1-8.4-6(b)(1)(A)-(E), (b)(2). These factors include: "[a] description of the projected federally mandated costs associated with the proposed compliance project," Ind. Code § 8-1-8.4-6(b)(1)(B); "[a]lternative plans that demonstrate that the proposed compliance project is reasonable and necessary," § 8-1-8.4-6(b)(1)(D); "[i]nformation as to whether the proposed compliance project will extend the useful life of an existing energy utility facility and, if so, the value of that extension," § 8-1-8.4-6(b)(1)(E); and "[a]ny other factors the commission considers relevant," § 8-1-8.4-6(b)(2).

In order to merit a CPCN, a compliance project must meet the standards of least-cost planning. *In re Duke Energy Ind. Inc.*, Cause No. 43114, at 30 (I.U.R.C. Nov. 20, 2007) ("[L]east-cost planning is an essential component of our Certificate of Need law." (internal quotation marks omitted)) (quoting *In re Petition of PSI Energy, Inc.*, Cause No. 42145, at p. 4 (I.U.R.C. Dec. 19, 2002); *In re Petition of S. Ind. Gas & Elec. Co.*, Cause No. 38738, at 5 (I.U.R.C. Oct. 25, 1989)). Least-cost planning "find[s] the set of options most likely to provide utility services at the lowest cost once appropriated service and reliability levels are determined." *In re Duke Energy Ind. Inc.*, Cause No. 43114, at 43 (I.U.R.C. Nov. 20, 2007).

"As the party petitioning for relief," NIPSCO bears "the burden of proving compliance with the statute" in this proceeding. *Gen. Motors Corp. v. Indianapolis Power & Light Co.*, 654 N.E.2d 752, 759 (Ind. Ct. App. 1995); *In re Duke Energy Ind. Energy Inc.*, Cause No. 43114, at 30 (I.U.R.C. Nov. 20, 2007). The Commission's determination must be supported "by specific findings of fact and by sufficient evidence." *Citizens Action Coal. of Ind., Inc. v. N. Ind. Pub. Serv. Co.*, 485 N.E.2d 610, 612 (Ind.1985). Although the Commission will typically give a utility "some deference" to its judgment in evaluating alternatives to its preferred projects, the Commission should defer to a utility only if the company "has made a reasonable, good faith effort to evaluate and consider available alternatives." *In re Duke Energy Ind. Inc.*, Cause No.43114, at 15 (I.U.R.C Nov. 20, 2007). The "Commission expects a petitioning utility to present the best evidence available at the outset of its case, in order to provide the Commission and other parties a reasonable opportunity to fully and fairly evaluate the company's proposal." *In re Verified Petition of Indianapolis Power & Light Co.*, Cause No. 44242, at 31 (I.U.R.C. Aug. 14, 2013).

A key element of the Commission's review is ensuring that the utility reasonably and adequately considered and addressed future risks to customers from a utility's preferred course of action. *See, e.g.*, *Verified Petition of Duke Energy Indiana*, Cause No. 43114 IGCC 4S1, 2012 WL 6759528 (I.U.R.C. Dec. 27, 2012) ("The regulatory bargain that is embodied in the [authorizing] statutes provides for a distribution of the company's project risk to its ratepayers in exchange for the company's reasonable management for the planning and provision of service."). As part of a CPCN proceeding, the Commission has the authority to disallow cost recovery and take other measures to penalize a utility for poor management decisions in the presentation of its case and to incentivize better management decisions in the future. *In re Verified Petition of Indianapolis Power & Light Co.*, Cause No. 44242, at 31 (I.U.R.C. Aug. 14, 2013). The "Commission has a unique role in regulating its jurisdictional utilities, which at times requires us to send a clear and direct message to utility management concerning the need for improvement in the provision of its utility service." *In re N. Ind. Pub. Serv. Co.*, Cause No. 43526, at 32 (I.U.R.C. Aug. 25, 2010).

III. Argument

Sierra Club opposes NIPSCO's requests for a CPCN for the Bottom Ash Conveyance projects and related operation and maintenance costs that NIPSCO seeks in this proceeding ("Avoidable CCR Rule Projects").[4] Sierra Club urges the Commission to decide this case based on the least-cost planning analysis that has traditionally guided its consideration of utility CPCN proposals, and to reject NIPSCO's novel "balanced scorecard" approach. Whatever standard it

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[4] Hr. Transcript at A-13 (Mr. Sangster confirming that NIPSCO could avoid the Bottom Ash Conveyance project if Schahfer units 14 and 15 were retired in 2023); *see also* Sierra Club Exhibit 1 at page 9 (observing that these avoidable costs represent around 90% of the costs NIPSCO seeks). For Schahfer units 14 and 15, NIPSCO's current total capital cost estimate of $98,688,086 and annual O&M estimate of $2,382,000 for the Remote Ash Conveyance project constitute the Avoidable CCR Rule Projects costs. *See* NIPSCO Exhibit 4-S, Attachment 4-S-A.

applies, the Commission cannot approve the Avoidable CCR Rule Projects for Schahfer units 14 and 15 on the record before it because there is no evidence that these projects are lowest-cost, cost effective, or otherwise reasonable.

Sierra Club does not oppose the unavoidable CCR project costs—those which NIPSCO must undertake regardless of whether a unit is retrofitted to run to its projected end of life. Nor does Sierra Club oppose the costs NIPSCO seeks to continue to assess compliance with the ELG Rule.

A. The Commission Should Evaluate NIPSCO's CPCN Request Through Least-Cost Planning and Reject NIPSCO's Suggested "Balanced Scorecard" Approach.

Sierra Club urges the Commission to assess the ultimate prudence, reasonableness, and consideration of compliance alternatives (§ 8-1-8.4-6(b)(1)(D)) through least-cost planning, as set out in Commission precedent and confined by the Indiana Code. The Commission should reject NIPSCO's suggested "balanced scorecard" approach both for reasons general to all scorecard justifications and for reasons specific to NIPSCO's development and use of a scorecard in this proceeding. NIPSCO's scorecard approach runs against rigorous empirical analysis, obscures its decision-making, and ultimately renders its analysis opaque and unaccountable. Commission approval of the CPCN for the Avoidable CCR Rule Projects at Schahfer units 14 and 15 would be unreviewable by a court, on this record, because it is unclear, even in NIPSCO's telling, what specific value NIPSCO's customers would receive from retrofitting these units.

1. Least-Cost Planning Is Superior to Scorecard-Based Justifications.

To assess compliance options, utilities have traditionally relied on least-cost planning, informed by production cost modeling of various risk scenarios and possible future economic and regulatory environments. In recent proceedings, the Commission has assessed the overall reasonableness of a CPCN request and the comparison of alternative options through the least-cost standard. *Petition of N. Ind. Pub. Serv. Co.*, Cause No. 44012, 2011 WL 6960155 (I.U.R.C. Dec. 28, 2011); *Verified Petition of Indianapolis Power & Light Co*., Cause No. 44794, 2017 WL 1632316 (I.U.R.C. Apr. 26, 2017). This approach is superior to scorecard-based or other qualitative judgments because it enables an apples-to-apples (*i.e.*, dollars-to-dollars) comparison of differing compliance options in a complex world. As the Commission explained in a recent CPCN, the least-cost analysis approach, informed by production cost modeling, "reasonably frames the potential future outcomes and provides a reasonable foundation for a decision." *Verified Petition of Indianapolis Power & Light Co*., Cause No. 44794, 2017 WL 1632316, at 30 (I.U.R.C. Apr. 26, 2017); *see also id.* at 32 (observing that "production cost modeling . . . is a reasonable decision analysis practice and provides a solid evidentiary foundation upon which the Commission can assess the reasonableness" of a CPCN).

The Commission should urge any CPCN applicant to monetize risks and other considerations wherever possible and to otherwise develop quantified approaches to consider relevant concerns. This is particularly critical with respect to grid reliability impacts that are not included in a utility's production cost modeling. Quantifying these impacts (*e.g.,* the cost of transmission upgrades needed to maintain reliability) allows for apples-to-apples comparison of relevant factors within the least-cost planning framework, and supports transparency, accountability, and judicial review of Commission decisions. As Sierra Club witness Dr. Jeremy Fisher observed, least-cost planning for the benefit of customers should be the foundation of utility resource planning.[5] If a CPCN applicant includes indirect impacts and externalities, its

[5] Sierra Club Exhibit 1, page 44.

analysis should be comprehensive, unbiased, and quantified. Under most circumstances, power supply costs to customers should be the *predominant* measure in resource planning. NIPSCO has offered no compelling reason to depart from this approach.

2. NIPSCO's Use of Its "Balanced Scorecard" Approach Is Biased and Unreasonable.

Even assuming, without conceding, that a properly constructed scorecard might hypothetically form the basis of the Commission's consideration of a CPCN filing, the Commission should reject the use of NIPSCO's scorecard in this proceeding. NIPSCO witness Mr. Daniel Douglas testified that he created a scorecard to assess the difference between portfolios by assessing measures—Cost, Portfolio Diversity, Employees, Environmental Compliance, and Communities & Local Economy—as red, yellow, or green for "worse," "better," and "good," respectively, and selected the preferred portfolio, "Portfolio 4," based on that scorecard. NIPSCO's "balanced scorecard" approach is flawed, unreasonable, suffers from double counting of certain considerations, and is ultimately useless in the Commission's assessment of the CPCN.

First, as Dr. Fisher observed, a scorecard requires an extraordinary amount of care to prevent inadvertent selection bias.[6] Above all, the weight accorded each measure must be explicit and defined before undertaking the analysis because the weight of those measures determines their relative importance. To be used correctly, the selection of evaluation measures and assignment of weights to those measures must be made firm *before* knowing the outcome to avoid selection bias. Here, not only did NIPSCO fail to define the weight of measures

[6] Sierra Club Exhibit 1, pages 41-44.

beforehand, it failed to weight the measures at all.[7] This failure to weight measures renders NIPSCO's "balanced scorecard" fundamentally flawed and useless to the Commission. There is simply no consideration of the *magnitude* of the cost to customers against any value associated with the qualitative measures.

Second, the "Portfolio Diversity" measure obstructs the consideration of reasonable alternative compliance options. While NIPSCO's qualitative assessment placed great importance on it, the concept of "Portfolio Diversity" by itself does not benefit customers and obscures available options. (There is no "Portfolio Diversity" charge or credit on a customer's electric bill.) As Mr. Douglas explained, NIPSCO used this blanket concept to stand in for three separate concepts: commodity price risk, grid reliability, and technology risk.[8] While these are all potentially relevant considerations, each must be considered separately because each impacts a planning decision differently.[9] Considering these issues separately also avoids double counting. The fuel price risk aspect of what NIPSCO refers to as "Portfolio Diversity" can and should be included in the production cost modeling itself and, in fact, NIPSCO *did* include a range of commodity price sensitivities (including natural gas and carbon price sensitivities) in its production cost modeling. By including this commodity price risk aspect within its "Portfolio Diversity" measure, NIPSCO purports to replace a rigorous price risk modeling analysis with a qualitative value judgment, while also double counting this consideration.

[7] Hearing Tr. at A-54 (Mr. Douglas confirming that NIPSCO did not weight any of the measures).

[8] Hearing Tr. at A-40-41 (Mr. Douglas explaining considerations that were included in the "Portfolio Diversity" measure).

[9] To the extent the Commission considers "Portfolio Diversity" as having value distinct from its constituent elements (reliability, price risk, technology risk), NIPSCO's consideration of this concept is unreasonable because it assumed that any retired generation unit would be replaced by a single uniform resource. In reality, NIPSCO would consider a diverse portfolio of resources to replace any retired units.

Grid reliability affects a potential generation retirement decision differently from the other considerations that NIPSCO included within "Portfolio Diversity." In some instances, in response to a proposed deactivation, the grid operator, Midcontinent Independent System Operator, Inc. ("MISO"), might identify significant reliability impacts that require costly transmission upgrades (which costs could be quantified into dollars and included in a least-cost planning analysis, apples-to-apples comparison). In other instances, such as NIPSCO's proposed retirement of the Bailly units in 2018, MISO might find that there are no reliability impacts at all from retiring a generation unit. In any event, to properly consider its compliance alternatives, a CPCN applicant must define and *then monetize* the actual grid reliability impacts, as such impacts are a distinct concern from price risk. Similarly, technological risk, as Dr. Fisher explains, is distinct from the other considerations NIPSCO included in the "Portfolio Diversity" measure, and can be quantified and *monetized*.[10]

Third, NIPSCO's presentation of "other relevant" factors—the Employees and Communities & Local Economy measures—in its "balanced scorecard" approach is biased in favor of its preferred decision to retrofit Schahfer units 14 and 15. *See* § 8-1-8.4-6(b)(2). While NIPSCO considered potential job losses at its generating stations, it did not consider potential jobs created by new sources of generation or jobs that might be lost from higher electric prices (*i.e.*, employment impacts from spending multiplier effects) in NIPSCO's service territory.[11] Similarly, while NIPSCO considered the property taxes it currently pays to Jasper County for the Schahfer facility, it did not consider any property taxes that it or another entity might continue to pay after Schahfer units 14 and 15 are retired. NIPSCO's local impacts analysis failed to

[10] Sierra Club Exhibit 1, page 47.

[11] Hearing Tr. at A-44.

consider public health impacts, which would be reduced if Schahfer units 14 and 15 were retired. These factors therefore were applied to favor a decision to retrofit these Schahfer units.

In sum, NIPSCO's "balanced scorecard" approach does not provide a reasonable basis on which to judge its actual compliance options or the reasonableness of its CPCN request.

B. Retrofitting Schahfer Units 14 and 15 Is Not Low Cost, Cost-Effective, or Otherwise Reasonable.

Regardless of the standard of decision selected, the evidence is undisputed that retrofitting Schahfer units 14 and 15 would cost customers substantially more than the alternative of retiring them by 2023. Mr. Douglas and Dr. Fisher disagree on the magnitude of the cost advantage. Dr. Fisher suggests use of more-current 2016 year dollar figures and use of the MISO capacity price forecast from NIPSCO's 2016 Integrated Resource Plan ("IRP"). But, ultimately, the Commission need not decide which estimates are more reliable because every forecast or estimate offered by any witness in this proceeding predicts that retrofitting Schahfer units 14 and 15 would cost more than any alternative considered.

NIPSCO concedes, as it must, that retrofitting Schahfer units 14 and 15 is not the least-cost option. But NIPSCO has not performed any analysis to show the cost-effectiveness of its preferred approach. While NIPSCO speculates that there could be reliability impacts from retiring Schahfer units in 2023, it has not defined those reliability impacts or determined their costs. Last, the other potentially relevant factors do not change the result that the Commission should deny NIPSCO's request for a CPCN for the Avoidable CCR Rule Projects at Schahfer.

1. NIPSCO's own forecast scenarios unanimously show that retiring Schahfer units 14 and 15 would save customers money.

The evidence is undisputed that NIPSCO's customers would save money if Schahfer units 14 and 15 were retired by December 2023. In all 15 scenarios and sensitivities that

NIPSCO modeled, the retirement of all four Schahfer coal-burning units, including units 14 and 15 (Portfolio 5), had a more advantageous present value of regulatory requirements than a portfolio that included the retrofit of Schahfer units 14 and 15 to run to the end of their projected useful life.[12] The cost advantage of retiring Schahfer units 14 and 15, as stated by NIPSCO, ranges from $178,347,000 to $420,712,000, and is reflected in Table 1.

[12] NIPSCO Exhibit 5, Attachment 5-A; *see also* Sierra Club Exhibit 1, JIF Exhibit-03. These figures represent the difference between Portfolio 4 and Portfolio 5 in NIPSCO's analysis.

Table 1
Present Value Advantage of Retiring Schahfer Units 14 and 15

Risk Scenario and *Sensitivity*	**PVRR Advantage of Portfolio 5 Over Portfolio 4** **Mr. Douglas's Unadjusted 2014$ Figures**
Base	$281,736,000
Base *No CO_2 Price*	$380,022,000
Base *Low Load*	$282,246,000
Base *High Gas Price*	$178,347,000
Base *No Major Industrial Load*	$351,725,000
Base Delayed Carbon	$358,228,000
Aggressive Environmental Regulation	$331,148,000
Aggressive Environmental Regulation *High Renewables & Increasing Load*	$248,171,000
Aggressive Environmental Regulation *High Renewables & Decreasing Load*	$280,722,000

Challenged Economy	$364,679,000
Challenged Economy *No CO_2 Price*	$420,712,000
Challenged Economy *No Major Industrial Load*	$408,795,000
Booming Economy	$180,555,000
Booming Economy *No CO_2 Price*	$383,079,000
Booming Economy *No Major Industrial Load*	$292,767,000

These figures likely understate the cost advantage of retiring Schahfer units 14 and 15 for a few reasons. First, as Dr. Fisher observed[13] and Mr. Douglas confirmed,[14] use of 2016 year dollars provides a more-appropriate, more-current, valuation of these costs. NIPSCO's figures, reflected in Table 1 above, were presented in 2014 year dollars.[15] Second, as Dr. Fisher explains, in its modeling analysis, NIPSCO used an implausibly high MISO capacity price. Dr. Fisher recommends use of the MISO capacity price from NIPSCO's 2016 IRP because that capacity price was developed in conjunction with the other commodity prices developed by NIPSCO's consulting firm and provided in the IRP. As Dr. Fisher explained, the $282/MW-day capacity value used by NIPSCO is above the highest capacity market price currently allowed

[13] Sierra Club Exhibit 1, pages 15-16.

[14] Hearing Tr. at A-68 (Mr. Douglas acknowledging that use of 2016 dollars is more appropriate).

[15] Sierra Club Exhibit 1, page 15.

under MISO's rules, and well above current MISO market prices. MISO has remained flush on capacity, and capacity prices have stayed relatively low.[16] In fact, there have been actual MISO capacity auctions for some of the years included in NIPSCO's analysis, and in every year the actual capacity price is far lower than NIPSCO's assumed price. The actual MISCO capacity price of $1.5/MW-day for 2017/2018, for example, is less than one percent of NIPSCO's assumed $282/MW-day price.[17]

Office of Utility Consumer Counselor ("OUCC") witness Mr. Edward Rutter[18] and the Commission itself in a recent CPCN decision, *Verified Petition of Indianapolis Power & Light Co.*, Cause No. 44794, 2017 WL 1632316, at *30 (Apr. 26, 2017), placed special focus on high natural gas prices as a concern in resource planning. Here, the record is clear that retiring Schahfer units 14 and 15 is the low-cost option under all natural gas sensitivities examined. In the base case scenario, high natural gas sensitivity, retiring Schahfer units 14 and 15 (Portfolio 5) is the lowest-cost option and retrofitting these units (Portfolio 4) is the fourth lowest-cost portfolio.[19] In every scenario in which natural gas price sensitivity was considered,[20] Portfolio 5 was ranked as lower cost than Portfolio 4. NIPSCO's use of these sensitivities is the only evidence in the record on fuel price risk.

Related to the present value findings, the FMCA statute requires the Commission, as it considers a CPCN request, to make findings on the value of the extension of the useful life of a generating unit. Here, the value of this extension is negative because retiring Schahfer units 14

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[16] Hearing Tr. at A-65 (Mr. Douglas confirming that there is more supply of capacity than demand in MISO).

[17] Sierra Club Exhibit 1, page 31.

[18] OUCC Exhibit 1, page 6.

[19] NIPSCO Exhibit 5, Attachment 5-A.

[20] NIPSCO Exhibit 5, page 10 (showing sensitivities in which low, high, and very high natural gas prices were considered).

and 15 would save customers money. *See Verified Petition of Indianapolis Power & Light Co*., Cause No. 44794, 2017 WL 1632316, at *34 (April 26, 2017) (relying on net present value revenue requirement analysis as primary means for determining value of extension of a unit's life).

2. NIPSCO has not demonstrated that grid reliability justifies retrofitting Schahfer units 14 and 15.

The Commission has stated, quite reasonably, that in considering a CPCN it includes reliability impacts as a relevant factor in the context of the least-cost planning analysis. *See In re Duke Energy Ind. Inc.*, Cause No. 43114, at 43 (I.U.R.C. Nov. 20, 2007) (least-cost planning is a "planning approach which will find the set of options most likely to provide utility services at the lowest cost once appropriated service and reliability levels are determined."). Here, NIPSCO has not presented the Commission with complete information concerning future reliability risks, if any, related to retirement of Schahfer units 14 and 15 in December 2023. Reliability concerns do not justify a decision to overturn the large cost advantage of retiring Schahfer units 14 and 15, as NIPSCO has offered nothing more than speculation that retiring these units may harm reliability.

The only definitive evidence addressing grid reliability in this record relates to the Bailly generation station. In response to NIPSCO's deactivation notice, MISO found that there would be no reliability impact from retiring the Bailly units in May 2018.[21] In this proceeding, NIPSCO has not specifically identified any reliability impact from retiring Schahfer units 14 and 15 in 2023. NIPSCO concedes that it did not perform a generation reliability study, and though it states that its IRP analysis identified potential transmission upgrades that might be required if

[21] Hearing Tr. at B-40 (Mr. Caister confirming MISO's finding of no reliability impacts from proposed retirement of Bailly units).

the Schahfer units retire,[22] it has not explained what those upgrades are or, importantly, estimated their cost. Accordingly, the Commission is left to balance speculation about reliability impacts against a substantial cost advantage for retiring these units, leaving the Commission with no valid reason to rely on reliability impacts.

Moreover, while not a reliability impact assessment *per se*, these Schahfer units have had unusually high forced outage rates in recent years (*i.e.*, shutdowns for unplanned reasons), which calls into question their ability to reliably operate in the future.[23] In 2016, for example, Schahfer units 14 and 15 had extremely high forced outage rates of 51% and 15%, respectively, representing a trend of degrading performance at these units. As Dr. Fisher observed, these high and increasing forced outage rates mean that not only are these Schahfer units high cost compared to market prices but they also breakdown at high rates and cannot be counted on to operate even during periods of high prices.[24] If the Commission wishes to assess what the MISO grid would look like without a reliable Schahfer station, it should look to actual grid performance in 2015 and 2016, when these units were unable to reliably operate.

NIPSCO's reliability speculation is further undercut by the possibility that Schahfer units 14 and 15 may be able to operate beyond 2023 without undertaking the Avoidable CCR Rule Projects. NIPSCO witness Mr. Kelly Carmichael testified that the ELG Rule compliance deadline of December 2023 might be extended after U.S. EPA reconsiders the ELG Rule.[25] If such compliance extension were to occur, NIPSCO could select the CCR Rule's delayed closure

[22] Sierra Club Cross Exhibit 4 (NIPSCO's Response to Sierra Club Data Request 2-008).

[23] Sierra Club Cross Exhibit 3 (showing capacity factors and forced outage rates for all NIPSCO generating units, including Schahfer units 14 and 15).

[24] Sierra Club Exhibit 1, pages 20-21.

[25] Hearing Tr. at A-21.

option to allow the Schahfer units to operate potentially as long as October 2028.[26] In other words, now that U.S. EPA has taken action that purports to stay the ELG Rule, there is no reason for NIPSCO to definitively assume that Schahfer units 14 and 15 must retrofit or retire by 2023.[27] This issue is relevant to the reliability concern because even if NIPSCO had quantified the reliability impact of retiring Schahfer units 14 and 15 in 2023—which it has not—NIPSCO may have assessed the incorrect retirement year.

3. NIPSCO has not demonstrated that community impacts, including employment, justify retrofitting Schahfer units 14 and 15.

As a relevant factor, *see* § 8-1-8.4-6(b)(2), NIPSCO offers local community impacts, including employment. As discussed above, NIPSCO's construction of the "Communities & Local Economy" measure in its "balanced scorecard" approach is one-sided and biased in favor of a decision to retrofit the Schahfer units. But even on NIPSCO's terms, these concerns do not justify a decision to retrofit Schahfer units 14 and 15. In assessing these concerns, NIPSCO simply stated that it pays property taxes to Jasper County and listed the number of employees at Schahfer. NIPSCO did not monetize either of these impacts, though doing so would have been relatively straight-forward, and would have allowed a direct, transparent comparison. In addition, NIPSCO did not account for the possibility that Schahfer employees might continue to be employed elsewhere within the company after the units are closed, as NIPSCO has promised

[26] Hearing Tr. at A-26-27 and NIPSCO Exhibit 2, page 11 (Mr. Carmichael describing CCR Rule's delayed closure option and potential applicability to Schahfer); *see also* OUCC Exhibit 2, page 9 (Ms. Armstrong describing CCR Rule's delayed closure option and potential applicability to Schahfer).

[27] Hearing Tr. at A-49 (Mr. Douglas confirming that the ELG Rule deadline is the primary reason that a 2023 deadline was used in NIPSCO's analysis).

with respect to Bailly,[28] or the possibility that some Schahfer employees might reach retirement age before 2023. Nor did NIPSCO account for the possibility that either NIPSCO or some other entity would continue to pay property taxes for the current Schahfer facility, should the coal-burning units be retired.

In order to demonstrate both the impact of NIPSCO's failure to quantify these factors and the magnitude of the cost advantage of retiring Schahfer units 14 and 15, Dr. Fisher performed an analysis that found that NIPSCO could continue to pay—in full—all local taxes and a full compensation package to its existing generation employees (including those no longer required after the plant retirements) and still save ratepayers $327 million by retiring the Schafer units.[29] In fact, Dr. Fisher explained that the discrepancy between customer savings and expected local impacts is so large that NIPSCO could pay every impacted employee an annual pension of $338,000 each year from 2024 to 2039 and still net a benefit to customers by retiring Schahfer units 14 and 15. In sum, there is no justification for the Commission to rely on community impacts, either alone or in combination with any reliability impacts, to overturn the substantial cost advantage of retiring those units.

4. Other relevant considerations confirm that the decision to retrofit Schafer units 14 and 15 is unreasonable and imprudent.

The Commission may consider any other factors that it considers relevant in a CPCN proceeding. *See* § 8-1-8.4-6(b)(2). Sierra Club offers two factors for the Commission's consideration: the possibility of future ELGs costs at Schahfer units 14 and 15 and local public health impacts.

[28] Hearing Tr. at A-73 (Mr. Douglas confirming NIPSCO's intention that all Bailly employees receive other employment opportunities within the company when those units are retired).

[29] Sierra Club Exhibit 1, page 60.

First, while U.S. EPA has taken action that purports to stay the effectiveness of the ELG Rule pending reconsideration, Mr. Carmichael testified that because the ELG Rule is grounded in statute, the company expects some form of the ELG Rule to remain in place after U.S. EPA completes its reconsideration process.[30] As NIPSCO witness Mr. Kurt Sangster stated that, while its review is ongoing, NIPSCO's current analysis indicates that a Zero Liquid Discharge ("ZLD") system may be the most appropriate technology to use at Schahfer to comply with the ELG Rule's flue gas desulfurization wastewater discharge requirements. In his original direct testimony, Mr. Sangster reported a capital cost estimate of $163,875,000 for this ZLD project at Schahfer units 14 and 15. Sierra Club respectfully suggests that the Commission take into account the risk to customers that these costs would be incurred in the future. This risk of further capital spending to continue to maintain Schahfer units 14 and 15 further supports a decision to reject the CPCN for the Schahfer Avoidable CCR Rule Projects.

Second, coal-burning power plants, in general, cause greater local public-health impacts than any other form of generation. As Dr. Fisher explains, these impacts can be monetized and are substantial.[31] These public-health impacts support a decision to reject the CPCN for the Schahfer Avoidable CCR Rule Projects.

C. Retrofitting Michigan City Unit 12 Is Not Low Cost, Cost-Effective, or Otherwise Reasonable.

The evidence is undisputed that retrofitting Michigan City unit 12 would cost customers substantially more than the alternative of retiring that unit by 2023. In NIPSCO's base case scenario, retiring Michigan City unit 12, as well as Schahfer units 14 and 15, in 2023 saves its

[30] Hearing Tr. at A-20.

[31] Sierra Club Exhibit 1, pages 51-52.

customers $282,133,000.[32] NIPSCO has not offered any compelling reliability or other relevant concern that justifies requiring customers to pay a premium to continue to operate Michigan unit 12 beyond 2023. Accordingly, the Commission should deny NIPSCO's request for the Avoidable CCR Rule Projects at Michigan City (*i.e.*, the Bottom Ash Conveyance project and related O&M costs).

IV. Conclusion

For the foregoing reasons, and as supported in Sierra Club's Proposed Order, Sierra Club respectfully asks that the Commission deny NIPSCO's CPCN request for the Avoidable CCR Rule Projects.

* * *

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Respectfully submitted,

/s/ Tony Mendoza

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[32] NIPSCO Exhibit 5, Attachment 5-A.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served by electronic mail this 18th day of September, 2017, to the following:

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