

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF NORTHERN INDIANA PUBLIC)
SERVICE COMPANY LLC FOR (1) ISSUANCE OF A)
CERTIFICATE OF PUBLIC CONVENIENCE AND)
NECESSITY ("CPCN") PURSUANT TO IND. CODE CH. 81-)
8.5 TO CONSTRUCT AN APPROXIMATELY 400)
MEGAWATT NATURAL GAS COMBUSTION TURBINE)
("CT") PEAKING PLANT ("CT PROJECT"); (2) APPROVAL)
OF THE CT PROJECT AS A CLEAN ENERGY PROJECT)
AND AUTHORIZATION FOR FINANCIAL INCENTIVES)
INCLUDING TIMELY COST RECOVERY THROUGH)
CONSTRUCTION WORK IN PROGRESS RATEMAKING)
UNDER IND. CODE CH. 8-1-8.8; (3) AUTHORITY TO)
RECOVER COSTS INCURRED IN CONNECTION WITH)
THE CT PROJECT; (4) APPROVAL OF THE BEST)
ESTIMATE OF COSTS OF CONSTRUCTION ASSOCIATED)
WITH THE CT PROJECT; (5) AUTHORITY TO)
IMPLEMENT A GENERATION COST TRACKER)
MECHANISM ("GCT MECHANISM"); (6) APPROVAL OF)
CHANGES TO NIPSCO'S ELECTRIC SERVICE TARIFF)
RELATING TO THE PROPOSED GCT MECHANISM; (7))
APPROVAL OF SPECIFIC RATEMAKING AND)
ACCOUNTING TREATMENT FOR THE CT PROJECT;)
AND (8) ONGOING REVIEW OF THE CT PROJECT, ALL)
PURSUANT TO IND. CODE CH. 8-1-8.5 AND 8-1-8.8, AND)
IND. CODE §§ 8-1-2-0.6 AND 8-1-2-23.)

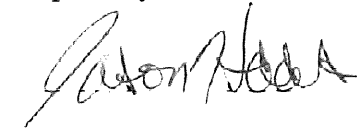
CAUSE NO. 45947

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR
PUBLIC'S EXHIBIT NO. 4
REDACTED TESTIMONY OF
OUCC WITNESS GREGORY L. KRIEGER

IURC
PUBLIC'S 4
EXHIBIT NO. 7-11-24
DATE REPORTER

April 17, 2024

Respectfully submitted,



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OFFICIAL
EXHIBITS

Confidential Information indicated by [REDACTED] highlights

**TESTIMONY OF OUCC WITNESS GREGORY L. KRIEGER
CAUSE NO. 45947
NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC.**

I. INTRODUCTION

1 **Q: Please state your name and business address.**

2 A: My name is Gregory Krieger, and my business address is 115 W. Washington St.,
3 Suite 1500 South, Indianapolis Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am a Utility Analyst in the Indiana Office of Utility Consumer Counselor's
6 ("OUCC") Electric Division. A description of my professional background and
7 experience is included in Appendix A.

8 **Q: Please describe the review and analysis you conducted to prepare your**
9 **testimony.**

10 A: I reviewed specific testimony in Northern Indiana Public Service Company LLC's
11 ("NIPSCO" or "Petitioner") case-in-chief. I drafted data requests ("DRs") on behalf
12 of the OUCC and reviewed NIPSCO's responses. I participated in multiple tech-
13 to-tech calls with NIPSCO personnel to understand various components of its
14 filing, including technical specifications and the proposed ratemaking. I also
15 participated in meetings with other OUCC staff members to discuss issues
16 identified in this Cause.

17 **Q: What is the purpose of your testimony?**

18 A: The purpose of my testimony is to explain why the OUCC recommends denying
19 the requested CPCN from a project management perspective based, in part, on the
20 issues expressed in my testimony. Specifically, I identify risks that exist in
21 NIPSCO's proposal to self-manage the construction of its proposed approximately

Confidential Information indicated by [REDACTED] highlights

1 400-megawatt ("MW") natural gas combustion turbine ("CT") peaking plant on
2 available property at the R.M. Schahfer Generation Station site ("CT Project").
3 NIPSCO has not demonstrated the ability to manage the CT Project's construction,
4 as it lacks the experience and expertise in constructing comparable projects. I also
5 describe errors in NIPSCO's best estimate of the CT Projects in determining the
6 owner's costs, contingency, escalation, and indirect costs that result in an
7 unreasonable best estimate.

8 I discuss project management costs and approximately \$130 million that
9 should be removed from NIPSCO's best estimate, including the impact of removing
10 unnecessary aeroderivative and selective [REDACTED]. If the
11 Commission approves a portion of, or modified form of the CPCN, the OUCC
12 recommends it require provisions to ensure reasonable owner's costs, contingency,
13 indirects, and cost protections. Ratepayers should be provided the same protections
14 against mismanagement and project overruns NIPSCO's shareholders would
15 expect, as if those costs impacted their dividends.

16 **Q: To the extent you do not address a specific item, issue, or adjustment, does this**
17 **mean you agree with those portions of NIPSCO's proposals?**

18 **A:** No. Excluding any specific adjustments, issues, or amounts NIPSCO proposes does
19 not indicate my approval of those adjustments, issues, or amounts. Rather, the scope
20 of my testimony is limited to the specific items addressed herein.

II. PROJECT MANAGEMENT

21 **Q: Please describe NIPSCO's proposed best estimate and project management**
22 **for the CT Project.**

Confidential Information indicated by [REDACTED] highlights

1 A: Petitioner's proposed best estimate to construct the CT Project is \$643.7 million,
2 including financing. NIPSCO proposes to self-manage the project, which requires
3 supervising and coordinating multiple construction companies.

4 **Q: Please explain what is involved with self-managed multi-prime projects.**

5 A: This method requires NIPSCO to independently contract with and coordinate
6 multiple design and construction contractors. Petitioner would first develop and vet
7 several prime contractors. Once this step is complete NIPSCO can then finalize the
8 project's scope and substantially complete construction designs and drawings with
9 each individual contractor and prime construction companies. Certain design
10 elements or characteristics will be critical to interfacing contractors. NIPSCO will
11 coordinate and mediate discussions regarding those critical characteristics while
12 developing work rules, interface processes, and escalation rules amongst the firms.
13 Construction schedules require close integration, and development of a continuous
14 adjustment process to address and control modifications.

15 The self-building method contracts out specific design and construction
16 responsibilities to multiple parties but transfers many coordination duties and tasks
17 important to project quality, schedule attainment and cost to NIPSCO and
18 ultimately ratepayers.

19 OUCC witness Roopali Sanka discusses the CT Project technology
20 NIPSCO proposes and discusses the technology needs and alternative
21 considerations.

Confidential Information indicated by [REDACTED] highlights

1 **Q: Is there an alternative to self-building a project of this type?**

2 A: Yes. A commonly used alternative to self-building is to use an Engineering,
3 Procurement, and Construction (“EPC”) firm. This is a common arrangement
4 because owners are often not in the business of engineering design and
5 construction. Their expertise lies in maintaining and operating the facilities
6 constructed while managing their customers’ needs.

7 **Q: Please discuss the differences between an EPC contract and a self-build**
8 **project.**

9 A: An EPC contract is an arrangement often used in large-scale construction and
10 infrastructure projects. An EPC contract involves a single entity; an EPC contractor
11 is responsible for the entire project lifecycle, from initial design and engineering
12 through the procurement of materials and equipment to the actual construction and
13 final commissioning of the project. EPC contracts often transfer certain risks from
14 the project owner to the contractor. This risk allocation can provide improved cost
15 predictability and stability for the owner, as the EPC contractor is responsible for
16 managing project risks.

17 An EPC approach can mitigate risks associated with cost overruns,
18 construction delays, quality assurance, and single point of responsibility, as these
19 risks are borne by the EPC contractor. Benefits include technology expertise and
20 experience the EPC brings to the relationship.

21 A self-build project scope entails the project’s design, scheduling,
22 coordination of multiple prime contractors, engineering, procurement,
23 construction, construction management, logistics, commissioning, operator

Confidential Information indicated by [REDACTED] highlights

1 training, demonstration, and testing.¹ These are the responsibilities that would be
2 assumed by an EPC contractor and would not need to be managed by the owner.
3 Because an owner may not have significant experience in many of these disciplines
4 needed to complete complex construction projects, it must vet and oversee each
5 multi-prime contractor and their interactions with each other. Because the owner
6 is self-building and using a multi-prime approach, the owner has to be involved
7 enough to coordinate each prime contractor, clarify conditions, coordinate
8 schedules, and mediate any misunderstandings or agreements.

9 **Q: Is NIPSCO proposing the self-build option?**

10 A: Yes, After Petitioner rejected all EPC bids it received through the RFP process,
11 NIPSCO decided to proceed with the self-build option.²

12 **Q: Does the OUCC have concerns regarding NIPSCO's self-build project**
13 **management approach?**

14 A: Yes. An EPC contractor offers a safeguard against potential and substantial
15 escalations in project costs. This is because the EPC contractor is committed to
16 designing the project, procuring essential equipment, and executing construction
17 within predetermined parameters, including a specific cost and completion date. An
18 EPC contractor's experience in managing large scale projects is their primary
19 benefit. Once final specifications are defined, pricing is transparent and the EPC
20 contractor earns a negotiated fee that is typically a percentage of the project costs,
21 as initially designed. Any cost increases falling within the agreed-upon scope,
22 including contingencies, but do not qualify as design changes or force majeure

¹ Petitioner's Exhibit No. 4, Direct Testimony of Steven Warren, p. 15, lines 1-3.

² Warren Direct, p. 6, line 1.

Confidential Information indicated by [REDACTED] highlights

1 events, are generally absorbed by the EPC contractor. By not choosing a
2 comprehensive EPC contract approach, NIPSCO takes on a greater share of the risk
3 associated with potential cost increases. NIPSCO assumes complete responsibility
4 for managing and mitigating financial challenges throughout the project
5 construction lifecycle. While NIPSCO witness Greg Baacke acknowledges “this is
6 the first large gas-fired generation project NIPSCO has overseen,” his only support
7 for the ability of NIPSCO to properly manage the self-build process is to state that
8 NIPSCO has employees with project management skills and subject matter experts
9 in natural gas CT operation, without providing further project details.³ Without
10 further information, the OUCC is concerned about the ability of NIPSCO to
11 properly manage the construction of the CT Project.

12 **Q: Please explain how large-scale project management experience contributes to**
13 **cost control in a project like this one.**

14 **A:** EPC and Design-Build contractors have decades of experience delivering large and
15 complicated projects. Some examples of EPC contracting companies include
16 AECOM, Bechtel, Burns McDonnell, Sargent and Lundy (“S&L”), Fluor, and
17 Kiewit. Many have experience managing projects in multiple industries such as
18 chemical processing, oil and gas, water and sewage, transportation, industrial, and
19 power.

20 The large-scale projects in these industries require an understanding of
21 multiple disciplines but more importantly, years of practiced and refined design

³ Petitioner's Exhibit No. 5, Direct Testimony of Greg Baacke, p. 14, lines 11-16.

Confidential Information indicated by [REDACTED] highlights

1 control, scheduling and logistics routines with multiple contractors and labor
2 providers.

3 Design control, when managed well, minimizes change orders and the
4 ripple effects across contractors and deliveries. Scheduling clearly defines
5 contractor processes and interactions that can run independently and in parallel with
6 each other versus those that are serial and dependent in nature. Logistics ensures
7 materials, equipment, and labor are staged in concert with each other to reduce
8 inefficiencies and excess charges. Changes and delays are inevitable and
9 experience, which includes developed agile reaction processes and routines, can
10 minimize the impact and resulting costs.

11 The largest completed project among NIPSCO's named project managers
12 ("PMs") came in at a cost of just more than [REDACTED]⁴
13 Given NIPSCO has decided to assume the risk of self-build despite its lack of
14 experience, the Commission – if it decides to approve NIPSCO's proposal - should
15 ensure that ratepayers are at no greater risk than if NIPSCO had hired an EPC.

16 **III. DESIGN CONTROL**

17 **Q: Can you further explain how design and design control impact project**
18 **management and project costs?**

19 **A:** Design is the first critical step to project completion and cost management. A design
20 must be able to deliver the critical-to-quality characteristics ("CTQ"⁵) required by

⁴ Attachment GLK-1, NIPSCO's Response to CAC DR 1-003, and Attachment GLK-2, NIPSCO Response to OUCC Request 4-002 Confidential Attachment A.

⁵ "Once a product or service has been broken down into its various elements, the critical-to-quality characteristics (CTQs) become apparent."; Mikel Harry PH.D., and Richard Schroeder, *Six Sigma*, p. 132, 2000.

Confidential Information indicated by [REDACTED] highlights

1 the product's user. In this case, the product is the power generation plant itself. The
2 product's user is the utility operations team responsible for running the power
3 generation plant when it is completed, as well as the utility that owns the asset and
4 expects to earn a return on it.

5 The CTQs are minimum specifications that any product or project must
6 have. In this CT Project those characteristics include:

- 7 • a specified output, 400 MW;
- 8 • scalability of the output (peaker plant);
- 9 • black start capability;
- 10 • An expected ramp rate;
- 11 • Efficiency (heat rate);
- 12 • emissions levels;

13 and many more. However, these are just equipment or hardware characteristics.
14 Other characteristics that may be critical are operating costs, maintenance intervals,
15 excavation specifications, foundation requirements, and the date the power plant
16 goes into operation.

17 A change to any of these characteristics can increase not only equipment
18 costs, but the entire project plan. A change in equipment design can change its lead
19 time. Lead time is generally thought of as the time it takes from when a purchase
20 order is placed for the equipment to the time it is delivered to the project site.

21 To avoid the impact of design changes on equipment delivery a project
22 management team must control the design. There are many ways to exercise design

Confidential Information indicated by [REDACTED] highlights

1 control. For example, a design can be frozen and allow no changes. This is often
2 impractical in large scale construction projects; however, critical characteristics for
3 each prime contractor and subcontractor must be defined and the project team must
4 manage to those requirements. For example, a turbine change affecting the power
5 plant's foundation and enclosure requirements must be finalized with enough lead
6 time to allow the concrete subcontractor and building contractor to deliver their
7 portions of the project on time.

8 Experienced PMs will identify the interdependencies of all the designs in a
9 complex project and be prepared to adjust the plan to accommodate changes with
10 minimal effect.

11 **Q: Who typically has responsibility for design control?**

12 A: The owner or end user typically has final responsibility for what can be changed
13 and when. The decision-making process is normally shared between the general
14 contractor and the owner. This prime contractor and the owner's lead PM will be
15 delegated some specific authority and will manage an escalation process to drive
16 decisions outside of their delegated authority. Two common parameters are cost
17 and schedule impacts.

18 In the case of a multi-prime project, the PM may need to engage multiple
19 contractors to ensure all involved or affected have input to a change order decision.
20 That design change then must be documented in change orders for all involved.
21 Otherwise, hand-offs to work crews and necessary modifications to drawings,
22 blueprints and other specifications may not occur.

Confidential Information indicated by [REDACTED] highlights

IV. SCHEDULE

1 **Q: When does NIPSCO need the capacity provided by this CT Project and what**
2 **is its expected commercial operation date (“COD”)?**

3 **A:** NIPSCO filed its petition on September 12, 2023, with the CT assumed to be placed
4 in service in December 2026.⁶ After the original filing, NIPSCO discovered the
5 lead time on a 345 kV breakers and generator step-up transformers had changed
6 significantly.⁷ The availability of these components pushed the expected
7 commercial operation date into 2027 and required NIPSCO to supplement its
8 petition and to adjust to an in-service date of end of year 2027.⁸

9 Since the September 2023 filing, Petitioner’s witnesses testify NIPSCO’s
10 capacity needs have changed, due to updates in the Midcontinent Independent
11 System Operator’s (“MISO”) accreditation for renewable energy.⁹ Although
12 NIPSCO’s accreditation changed, it still requires capacity and potentially energy
13 from a non-intermittent resource such as natural gas generation. OUCC witness
14 John Hanks discusses cost and capacity as compared to various benchmarks, and
15 NIPSCO’s integrated resource plan in his testimony.

16 **Q: Did this change in schedule result in an increase in costs for NIPSCO’s**
17 **ratepayers?**

18 **A:** Yes. NIPSCO’s electric ratepayers will pay over \$14 million more in financing
19 charges due to the schedule change.¹⁰

⁶ Petitioner’s Exhibit No. 8, Direct Testimony of Kevin Blissmer, p. 9, lines 7-8.

⁷ Petitioner’s Exhibit 5-S, Supplemental Direct Testimony of Greg Baacke p. 3, line 14 – p. 4, line 12.

⁸ Baacke Supplemental Direct, p. 4, lines 17-18.

⁹ Petitioner’s Exhibit 7-S, Supplemental Direct Testimony of Patrick Augustine, p. 5 lines 6-7.

¹⁰ Blissmer Supplemental Direct, p. 4 lines 15-18 and p. 5 lines 1-6.

Confidential Information indicated by [REDACTED] highlights

1 A one-year delay means ratepayers will pay the proposed Generation Cost Tracker
2 ("GCT") up to an additional 12 months. This equates to \$92.7 million in ratepayer
3 outlays before the natural gas CTs are used and useful. The refiling also increases
4 the amount of allowance for funds used during construction ("AFUDC") NIPSCO's
5 customers will pay by an additional \$14.9 million, according to Petitioner's witness
6 Kevin Blissmer.¹¹

7 The capital cost estimate for the CT Project did not change, nor did its
8 inflation or escalation allowance of [REDACTED] million. Once construction begins, the
9 costs of delays increase, because of the impacts on the schedules of multiple
10 interdependent tasks. Mr. Hanks addresses the high capital cost. OUCC witness
11 Brittany Baker discusses the cost of financing and the proposed construction work
12 in progress ("CWIP") ratemaking via the GCT and an estimated customer bill
13 impact.

14 **Q: Did NIPSCO have a detailed project schedule in its original filing in**
15 **September 2023?**

16 **A:** No. Petitioner did not have a detailed project schedule. When asked in a data
17 request for a detailed project schedule, NIPSCO responded, "NIPSCO has not yet
18 developed a detailed schedule for the project."¹² Petitioner did provide an expected
19 operation date and, in its supplemental filing in mid-January, it provided a
20 minimally detailed timeline similar to the original filing.¹³ The original high-level
21 schedule was not sufficient to identify constraints and long lead items that caused

¹¹ *Id.*

¹² Attachment GLK-1, NIPSCO's Response to OUCC DR 2-21.

¹³ Petitioner's Exhibit 5-S, Supplemental Direct Testimony of Greg Baacke, Attachment 5-S-C.

Confidential Information indicated by [REDACTED] highlights

1 a 1-year delay. NIPSCO provides minimal additional detail in its supplemental
2 filing.

3 **Q: What drove the project delay?**

4 A: In a December 2023 meeting, NIPSCO informed the OUCC and the Citizens Action
5 Coalition (“CAC”) the project timeline was going to change and a supplemental
6 filing would be made. In that meeting, the schedule change was attributed to 345kV
7 breaker and generator step-up transformer availability.

8 **Q: Were transformer delays well known when NIPSCO initially filed this case?**

9 A: Yes. Transformer availability has been an issue for several years, even before the
10 disruptions of COVID 19 and demand increases related to the Inflation Reduction
11 Act’s incentives.

12 In March of 2017 the United States Department of Energy, in a report to
13 Congress titled Strategic Transformer Reserve, stated in its Executive Summary,
14 “Large power transformers (LPTs) are critical elements of the electric power
15 transmission and distribution grid. LPTs pose unique vulnerabilities because of the
16 long lead time it takes to manufacture and acquire replacements.”¹⁴

17 Transformer shortages are especially well known to utilities. Supply chain
18 challenges were detailed at the American Public Power Association’s Supply Chain
19 & Management Summit, held May 5-6, 2022, where distribution and substation
20 transformers were listed as critical materials impacted by the supply chain crunch.¹⁵

¹⁴ Strategic Transformer Reserve, Department of Energy, March 2017; Executive Summary p. v;
<https://www.energy.gov/ceser/articles/strategic-transformer-reserve-report-congress-march-2017>.

¹⁵ American Public Power Association, “Public Power Utilities Detail Supply Chain Mitigation Strategies”,
found at: <https://www.publicpower.org/periodical/article/public-power-utilities-detail-supply-chain-mitigation-strategies>.

Confidential Information indicated by [REDACTED] highlights

1 It is reasonable to expect engineering and PMs would have been well aware
2 of transformer lead time constraints by September 2023, when NIPSCO's original
3 petition was filed.

4 **Q: What are the common costs of schedule delays?**

5 A: The most common cost is added labor and overtime. Some delays can be recovered
6 by adding more manpower and working longer days or weekends. If the timeline
7 cannot be fully recovered, the start and stop times of subsequent tasks or project
8 segments must be updated. Freight and storage costs can increase. Preferred low-
9 cost carriers may be unavailable to deliver according to the new schedule.
10 Deliveries may be held and incur warehousing, detention, and demurrage charges.
11 Contractors and PMs must update schedules and possibly re-sequence events to
12 avoid more significant changes and costs.

13 Large complex projects have more contractors to manage, workforces to
14 redeploy, and logistics events to coordinate. Costs can quickly escalate when a
15 schedule change occurs.

16 **Q: Does NIPSCO have experience building gas-fired generation projects of this**
17 **scale?**

18 A: No. This is the first large gas-fired generation project NIPSCO intends to oversee.¹⁶
19 Both the engineering PM and the overall PM for the CT Project lack experience in
20 working on the construction of a new power generation facility.¹⁷

21 In response to CAC inquiries to understand NIPSCO's planned project leaders and
22 their project experience, NIPSCO identified a lead manager, and secondary

¹⁶ Baacke Direct, p. 14, lines 11-12.

¹⁷ Attachment GLK-1, Response to DR CAC Request 5-003.

Confidential Information indicated by [REDACTED] highlights

1 supervisor PM. The lead manager reports to NIPSCO's Senior Director of Major
2 Projects – Petitioner's witness Greg Baacke.¹⁸ NIPSCO provided a list of its PMs'
3 "most relevant project experience."¹⁹ Their experience includes 14 projects (10 of
4 which include coal ash management), a coal dust collector, and a hydroelectric lift
5 gate. Two projects were also not yet complete. The largest completed project came
6 in at just more [REDACTED].²⁰ NIPSCO's lack of
7 PM experience for a large project is a significant concern to the OUCC.

8 **Q: Does Mr. Baacke have experience managing projects as complex as NIPSCO's**
9 **proposed CT Project?**

10 **A:** Not according to this case's evidence or responses to discovery. While Mr. Baacke
11 has led or managed more projects than his two subordinates, his project list shows
12 no electrical generation projects.²¹ The most complex project appears to be

13 [REDACTED]

14 [REDACTED].²²

15 A review of Mr. Baacke's project performance to budget, excluding EPC
16 contracted projects or incomplete projects produced the following histogram, Table
17 GLK-01.

<Confidential>Table GLK-01 Project Budget Accuracy <Confidential>

¹⁸ Attachment GLK-1, Response to DR CAC Request 1-003.

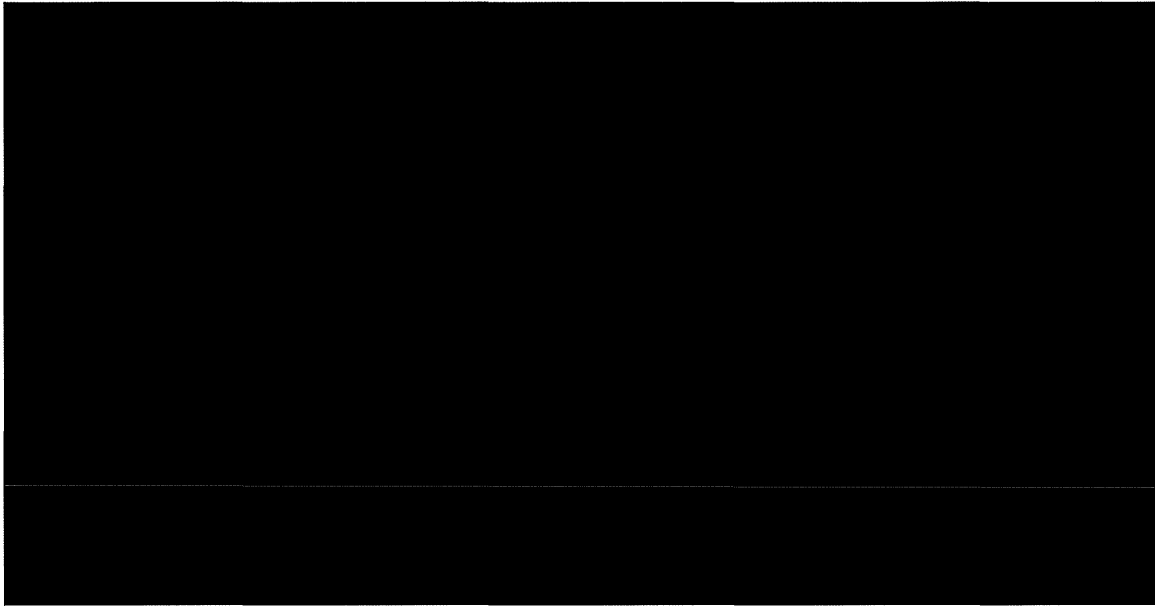
¹⁹ *Id.*

²⁰ Attachment GLK-1, Response to DR CAC Request 1-003.

²¹ Attachment GLK-2, NIPSCO's Response to OUCC DR 4-002, Confidential Attachment A.

²² Attachment GLK-1, NIPSCO's Response to CAC DR 5-003.

Confidential Information indicated by [REDACTED] highlights



1 This histogram²³ demonstrates the level of accuracy as a percentage of budget for
2 each of the projects Mr. Baacke served in a major role. It illustrates the absolute
3 variance between the budget and the actual spending on [REDACTED]

4 [REDACTED]
5 [REDACTED]

6 [REDACTED] Estimate accuracy is critical in unregulated industries
7 because of limited capital that needs to be allocated across projects. It should be of
8 greater concern in utility estimates because of the need for affordability and the
9 long-term cost consequences for consumers, including both current and potential
10 ratepayers. When utility costs are too high, they adversely affect the
11 competitiveness of local economies.

12 **Q: In addition to managing schedule and cost changes, what other costs do**
13 **experienced PMs influence and control?**

²³ Attachment GLK-2. NIPSCO's Response to OUCC DR 4-002, Confidential Attachment A.

Confidential Information indicated by [REDACTED] highlights

1 A: Two important items are owner's costs and contingency. In NIPSCO's proposal,
2 these two cost categories account for more than \$107 million of the CT Project's
3 cost.²⁴ I further discuss these costs below.

V. PROJECT MANAGEMENT COSTS

4 **Q: Can you explain what kind of expenses are considered project management**
5 **costs?**

6 A: The content and amount of costs considered project management costs can vary
7 depending on the complexity of a project and the accounting processes of a given
8 company. The majority of the costs, however, are for manpower or labor for PMs
9 and support personnel. Depending on the project, you will have one or more project
10 managers and project engineers. The project team grows from there.

11 The project management team costs are typically included in an estimate
12 line item called "owner's costs," and NIPSCO uses that term in this Cause.
13 Petitioner requests approval of \$34.6 million in owner's costs.²⁵ Most project
14 management costs would be included within the owner's costs category.

15 Owner's costs include items like project management teams, an owner's
16 engineer, support engineering, environmental and permitting activities, direct legal
17 fees, change order cost allowances, project insurance and utilities during
18 construction. It also may include temporary facilities and materials management
19 costs not included in contractor bids.

²⁴ Baacke Direct, Attachment 5-A.

²⁵ Baacke Direct, Attachment 5-A.

Confidential Information indicated by [REDACTED] highlights

1 **Q: How are owner's costs estimated?**

2 A: The most common methods are the use of a project costs comparison, "rule of
3 thumb" or a zero-based budget.

4 **Q: Please explain the rule of thumb method.**

5 A: The rule of thumb method is typically a simple percentage applied to the overall
6 project cost. For example, a \$10 million dollar project might add 5%, or \$500k for
7 owner's costs. Unfortunately, the rule of thumb method is highly inaccurate for
8 small projects and for expensive or complex projects. A \$1 million yearlong project
9 might require a full-time project manager or superintendent plus a portion of an
10 accounting clerk and a shipping and receiving technician. If you assumed 10% of
11 the clerk's and technician's time was spent on the project, that may equate to a cost
12 of \$20,000 in benefits and wages. Adding another \$130,000 for the project manager
13 makes this project's owner's costs at least 15%.

14 Likewise in a high-cost project, you may require one project engineer to
15 manage and coordinate a turbine generator purchase. This might include the
16 activities of specifying, ordering, and overseeing installation as well as testing the
17 new turbine. The project engineer's \$200,000 cost of salary and benefits is a much
18 smaller percent of a \$50 million dollar turbine than a \$10 million one. In both these
19 cases, a rule of thumb is highly inaccurate.

20 **Q: What is a zero-based budget owner's cost estimation process?**

21 A: Essentially, a project manager starts from zero and builds his costs from there. The
22 PM estimates how many people are required on the project management team, and
23 determines the full-time engineers, project managers, and shipping/receiving

Confidential Information indicated by [REDACTED] highlights

1 technicians needed. The PM also determines how many part-time or portion of full-
2 time equivalent employees ("FTE") are needed. For example, the 10% FTE
3 accounting clerk or a 20% FTE technician for final testing. The PM then applies
4 expected costs for each of the positions and will likely add a factor for related costs
5 like supplies, tools, and travel expense.

6 **Q: What method did NIPSCO use in creating its cost estimate and is the OUCC**
7 **concerned with the results?**

8 A: Yes. The OUCC is concerned where NIPSCO used the "rule of thumb" method by
9 applying 9% to a complex and high-cost project to arrive at its \$34.6 million in
10 owner's costs. Mr. Hanks explains how this is a high-cost project in his testimony.
11 He notes NIPSCO's capital cost for this project is significantly more per kilowatt
12 ("kW") than CenterPoint Energy's recently approved natural gas turbines in Posey
13 County, Indiana, which go into service in Q1 2025.²⁶ NIPSCO's cost is 229% of
14 CenterPoint's cost.²⁷ He also cites the fact that aeroderivative generators' overnight
15 capital costs are \$1,428 per kW, which is 65% higher than industrial frame
16 generators (\$867/kW). NIPSCO has not provided any explanation or basis for this
17 owner's cost amount and has not supported or justified the use of this rule of thumb
18 for a high-cost capital project.

19 **Q: How do experienced general contractors, developers, and EPC contractors**
20 **estimate these costs?**

21 A: These entities have the benefit of years of experience NIPSCO does not have, and
22 they can estimate how many people are required to support, coordinate, and oversee

²⁶ Attachment GLK-1, Cause No. 45564, Petitioner's Exhibit No. 2, p. 35, Table WDG-4.

²⁷ (\$1609 /kWh) divided by (\$702 /kWh) equal 2.29 or 229%; OUCC Exhibit No. 2, Direct Testimony of John Hanks p. 6, l. 10 and p. 7, l. 2.

Confidential Information indicated by [REDACTED] highlights

1 similar projects from this experience. They start with the staffing of a similar or
2 recent project in each major area of construction. As an example, the site prep and
3 civil construction portion of a previous project require a specific amount of
4 manpower. The estimator can approach the new project's estimate from two
5 starting points: zero-based and a comparative analysis to the recent project. This
6 provides a more realistic and accurate estimate than rule of thumb.

7 **Q: Are owner's costs expected to be higher when an EPC contractor is hired to**
8 **manage a project?**

9 A: No. These costs should be significantly less. An EPC contractor assumes most of
10 the project management responsibilities. It hires and manages the project
11 management teams, support engineering, procurement, many permitting activities,
12 materials management, change order cost allowances, project insurance and
13 utilities during construction. As a result, those costs are included in the EPC
14 Contract and are not part of owner's costs.

15 **Q: How much did NIPSCO add for owner's costs in its RFP review and**
16 **subsequent evaluation of an EPC bid for a comparable natural gas power**
17 **generation plant project?**

18 A: NIPSCO added \$[REDACTED] million for owner's costs to the EPC bid.²⁸ This is [REDACTED]
19 [REDACTED] than Petitioner's self-managed owner's cost in the current proposal.
20 This cost and NIPSCO's contingency additions unreasonably disqualified an EPC
21 bid that may have improved the probability of an on-time delivery and reduced the
22 project cost risk for consumers.

23 **Q: What were contingency costs when NIPSCO compared an EPC contractor bid**
24 **versus a self-build option?**

²⁸ Attachment GLK-2, NIPSCO's Response to CAC DR 3-007, Confidential Attachment A.

Confidential Information indicated by [REDACTED] highlights

1 A: It can be difficult to understand contingency in an EPC contractor scenario. Because
2 of EPC contractors' level of experience, they are more aware of industry trends and
3 inherent project risks. An EPC contractor often will calculate contingency at an
4 estimate line-item level. An excavation cost may have one contingency amount, a
5 mechanical contract for process piping another, and an electrical bid even a third
6 contingency requirement. It is one method an EPC can use to stay competitive.

7 In the EPC contractor versus self-build comparative analysis NIPSCO
8 performed, it added \$[REDACTED] million in contingency to the EPC bid. This is [REDACTED]
9 [REDACTED] than the \$72.5 million of contingency in its self-build estimate. However, the
10 \$72.5 million is the estimate provided by NIPSCO, and is different than that
11 provided by NIPSCO's advisor, S&L.²⁹

12 **Q: Please explain who S&L is, its area of expertise, and its role in this Cause.**

13 A: S&L is an independent engineering and consulting company founded in 1891,
14 dedicated to working with clients in the electric power business. Overall, it has
15 engineered 958 power plant units and more than 6,200 circuit miles of power
16 delivery systems.³⁰

17 Petitioner's witness Steven Warren is a senior manager with S&L, and he
18 has over 30 years of experience.³¹ He sponsors the Simple Cycle Gas Turbine
19 Engineering Study which sets forth the AACE International ("AACE") Class 3 cost
20 estimate for NIPSCO's proposed simple cycle gas turbine project.³²

²⁹ Baacke Direct, p. 18, lines 5-7.

³⁰ S&L website; "Company History," found at: <https://sargentlundy.com/about/company-history/> ;.

³¹ Warren Direct, p. 1, lines 8-15.

³² *Id.*, p. 3, lines 6-10.

Confidential Information indicated by [REDACTED] highlights

1 The AACE Class 3 estimate S&L provides includes contingency and some
2 costs referred to as indirects.

3 **Q: Does NIPSCO use S&L's Class 3 estimate for its best estimate?**

4 A: Yes, to a degree. On top of S&L's construction estimate, NIPSCO adds
5 significantly more indirect costs to the project cost and does not use S&L's
6 contingency proposal. Mr. Hanks further discusses indirect costs in his review of
7 the overall project costs. For contingency, S&L used 20% of all cost categories
8 except process equipment. Process equipment included a 10% contingency.³³
9 NIPSCO removed the contingency S&L included prior to adding other cost items
10 to develop the best estimate. The items NIPSCO added to the S&L estimate without
11 support include owner's costs, contingency, and escalation.³⁴ NIPSCO states it
12 "used information from prior projects and its expertise to develop the cost items not
13 included in the S&L estimate."³⁵

14 **Q: How much did NIPSCO's change increase project contingency?**

15 A: Process Equipment contingency increased by [REDACTED] million, which was an increase
16 in the allowance from [REDACTED]. The balance of contingency remained
17 unchanged.³⁶ Best practices rely on the most experienced estimators and detailed
18 estimates, so it seems unusual for NIPSCO to not rely on its engineering design
19 firm (S&L). This is especially unusual given S&L's extensive experience

³³ *Id.*, p. 3, lines 6-10.

³⁴ Baacke Direct, p. 18, lines 4-10.

³⁵ *Id.*

³⁶ [REDACTED] calculated from Baacke Confidential Direct Attachment 5-S-B, [REDACTED],
[REDACTED] with reliance on Warren Direct pgs. 18-19, lines 16-23 and 1-2.

Confidential Information indicated by [REDACTED] highlights

1 constructing large generation projects and NIPSCO's project team lacks power
2 generation process equipment experience.³⁷

3 **Q: In addition to the contingency estimates how do project managers influence or**
4 **control contingency?**

5 A: As in design control, lead project managers will often be delegated some specific
6 authority and will manage an escalation process to drive decisions and approve
7 overspending on a cost line item. Contingency needs are sometimes obvious, such
8 as when a process pipe length was underestimated. In this situation, you cannot
9 connect two runs of pipe if you do not spend some contingency. Other contingency
10 approval requests can be a judgment call. One example is determining whether
11 unbudgeted overtime needs to be spent now or if it is possible to do the work on
12 straight time and not adversely affect a timeline.

13 Project managers often approve contingency spending or obtain approvals
14 if it is outside their delegated authority. Experience helps with the judgment calls
15 and minimizes the use of contingency funds.

16 **Q: What other project management costs are there?**

17 A: One additional cost worthy of review is "indirect" as used in the best estimate and
18 in the S&L Engineering Study.

19 Mr. Hanks discusses possible duplication of indirect costs in his testimony,
20 but first it helps to understand what indirect costs are. NIPSCO did not define

³⁷ [REDACTED] of relevant projects managed by the NIPSCO team were unrelated to power generation process equipment; Attachment GLK-2, NIPSCO response to OUCR DR 4-02 Confidential Attachment A.

Confidential Information indicated by [REDACTED] highlights

1 “indirects” or “indirect costs” in its testimony.³⁸ In my experience, indirect costs
2 are the cost of support at a project site and costs that are not directly attributable to
3 a specific portion of a contract. A few examples include:

- 4 • A job site security service,
- 5 • Scaffolding,
- 6 • A temporary office for use by project managers and construction
- 7 superintendents, and
- 8 • Temporary fencing for safety reasons or to temporarily secure supplies.

9 The security service is a benefit for all portions of the project and cannot be
10 attributed to a single contractor, just as the fencing or office may be used by multiple
11 work groups at various times.

12 The Engineering Study estimates [REDACTED]
13 [REDACTED]
14 [REDACTED]³⁹ Its project

15 indirects include [REDACTED]:
16 [REDACTED],
17 [REDACTED],
18 [REDACTED],
19 [REDACTED],
20 [REDACTED],
21 [REDACTED].

22 And project indirect costs such as the following:
23 [REDACTED]

³⁸ NIPSCO uses the terms “indirect costs” and “indirects” in testimony. It is unknown if these terms are referring to the same types of costs. See Baacke Direct, p. 17, line 14 and Attachment 5-A. Mr. Warren states: “Most of the direct construction costs are determined as identified above. There are other direct costs that are determined indirectly by taking a percentage of the direct costs (defined by S&L as “Variable Accounts”).” Warren Direct, p. 17, lines 14-16. These “variable accounts” are described below, but do not appear to be the indirect costs referred to in the cost estimate presented in Mr. Baacke’s testimony.

³⁹ Warren Direct, Attachment 4-A, Engineering Study, section 12.2.3, p. 65.

Confidential Information indicated by [REDACTED] highlights

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[REDACTED]
[REDACTED]
[REDACTED]

A PM may determine the scope of these items and approve their set-up. A PM may ensure items are returned to rental companies when no longer needed. The PM often influences the prudent use of shared services and can help control costs.

Q: How much are indirect costs, as stated in NIPSCO's testimony and in the estimate of costs?

A: The estimate of the NIPSCO self-build project includes \$83.6 million on top of the Class 3 estimate as "indirects."⁴⁰ The Engineering Study, as Mr. Hanks notes in his testimony, already includes [REDACTED] million in [REDACTED]" and [REDACTED] million for [REDACTED] in the Class 3 estimate.⁴¹ NIPSCO added [REDACTED] million in indirects to the EPC contractor cost comparison in addition to what it added for contingency and escalation.⁴²

Q: Does NIPSCO clarify what is included and support or justify the indirect costs it added?

A: No. NIPSCO simply takes its total "directs" and adds 15%⁴³ as indirects; however, Attachment 8-S-A cost estimate tab labels it "capital overheads."⁴⁴ There is no discussion in Mr. Baacke's testimony, or the testimony of other NIPSCO witness, supporting the determination or inclusion of this amount in the estimate.

⁴⁰ Baacke Direct, Attachment 5-A.
⁴¹ Warren Direct, Attachment 4-A, Engineering Study, section 1-5, p. 12
⁴² Attachment GLK-1, NIPSCO's response to CAC DR 3-007.
⁴³ See Baacke Direct, Attachment 5-A. The \$83,638,000 of "Indirects" is 15% of \$557,585,000 of "Directs."
⁴⁴ Blissmer Supplemental Direct, Attachment 8-S-A, Cost Estimate Monthly Tab, cells B15 and C15.

Confidential Information indicated by [REDACTED] highlights

1 **Q: Is this level of indirects reasonable?**

2 A: No. NIPSCO has provided no justification for the \$83,638,000 of "Indirects." There
3 is no discussion of how it was determined or why this amount is needed. With a
4 complete lack of justification or support in NIPSCO's case-in-chief, the inclusion
5 of this amount in the estimate is not reasonable. Additionally, if this amount is
6 found to be reasonable, then there is duplication in the determination of indirects,
7 and they should be reduced by the amount recommended in Mr. Hanks' testimony.

8 When considering the EPC proposal, if it is the application of overheads or
9 indirect administrative costs in support of the capital project, it would be illogical
10 for that cost to be [REDACTED] when applied to the EPC cost comparison. As a
11 comparison to Cause No. 45564, CenterPoint Energy's public "Estimated CT
12 Project Costs" adds 1%, not 15%, for Administrative & General Overheads (A&G)
13 on the EPC contract and Owner's Costs.⁴⁵

14 **VI. CONCLUSION**

15 **Q: What is your conclusion with respect to NIPSCO's Project Management**
16 **approach to this project?**

17 A: The OUCC is not confident that NIPSCO has sufficient project management
18 expertise to properly oversee a project the size of the CT Project. NIPSCO has never
19 built a natural gas turbine project on its own, and it has limited project management
20 experience⁴⁶ NIPSCO has significantly over-stated costs in its "best" estimate. It
21 began the project without a project schedule and then requested a one-year delay

⁴⁵ Attachment GLK-1, Cause No. 45564, Petitioner's Exhibit No. 2, p. 35, Table WDG-4.

⁴⁶ Attachment GLK-1, NIPSCO Response to CAC DR 1-003 and CAC DR 5-003.

Confidential Information indicated by [REDACTED] highlights

1 due to a well-known constraint, breaker, and transformer availability. NIPSCO has
2 not supported it is capable of managing a project of this scale.

3 **Q: How can the Commission address this concern?**

4 A: Because all risks are transferred to ratepayers under NIPSCO's project management
5 plan, the Commission must impose controls to protect consumers. Consumers
6 should not pay a "return on" poorly managed costs, and if costs were preventable,
7 they should be absorbed by the PM, NIPSCO. Ratepayers should pay no more than
8 NIPSCO shareholders would pay if they were not guaranteed a "return on" and
9 "return of" all costs.

10 **Q: What has the OUCC concluded regarding the project management costs?**

11 A: NIPSCO has not provided sufficient support for several components of its "best"
12 estimate, specifically owner's costs, contingency costs, and "indirects." As
13 explained above, these amounts are unreasonable and overstated.

14 **Q: Why are the project management costs unreasonable in the OUCC's view?**

15 A: As my testimony states, there are significant issues with owner's costs,
16 contingency, and indirect costs. Mr. Hanks notes the excessive cost of
17 aeroderivative combustion turbines and Ms. Sanka demonstrates the technology,
18 which drives the cost (\$30 to \$40 million additional), is not needed. OUCC witness
19 Cynthia Armstrong testifies that \$ [REDACTED] million of [REDACTED] cost is unnecessary. This is
20 validated in [REDACTED], which removed [REDACTED] million of [REDACTED] costs based on the
21 S&L design.⁴⁷ When reasonable and affordable changes are made to the inside the

⁴⁷ Attachment GLK-3; Response to CAC DR1-004 Attachment A; [REDACTED]
[REDACTED].

Confidential Information indicated by [REDACTED] highlights

1 fence equipment costs, the rule of thumb project management costs decline
2 dramatically as do the \$66 million in escalation costs.

3 **Q: How much can these adjustments based on the removal of the aeroderivative**
4 **units and [REDACTED] save consumers?**

5 A: These corrections can save consumers \$125 to \$130 million in capital costs and
6 roughly \$300 million over the life of the project. Based on the reduction in project
7 costs by the other OUCC witnesses, this would result in a reduction of \$7 million
8 in owner's costs, \$15 million in contingency, \$13 million in escalation, and \$17
9 million in indirect costs. The removal of unnecessary technology, [REDACTED], and
10 aeroderivative turbines, can save \$75 to \$80 million.

11 Although NIPSCO has not provided support for its determination of
12 "indirects," my estimate uses indirects at the unreasonable 15% rate and does not
13 adjust for potential double counts as referenced in Mr. Hanks' testimony. The
14 excessive escalation rate used, also noted in Mr. Hanks' testimony, is also
15 unchanged.

16 **VII. RECOMMENDATIONS**

17 **Q: What do you recommend to the Commission:**

18 A: The OUCC recommends the Commission deny the CPCN as filed.

19 However, if the Commission chooses to approve a modified form of the
20 CPCN, the OUCC recommends a reduction of NIPSCO's best estimate to
21 reflect reasonable project management costs and address the OUCC's
22 concerns regarding contingency, owner's costs, escalation, and indirects as
23 reflected in the discussion above. The OUCC also recommends acceptance

Confidential Information indicated by [REDACTED] highlights

1 of the adjustment proposed by Mr. Hanks to escalation rates and requiring
2 use of reasonable and appropriate technology as recommended by Ms.
3 Sanka and Ms. Armstrong. The Commission could then provide a
4 corresponding reduction of project management costs to define a recovery
5 limit on increased costs.

6 NIPSCO's proposal puts ratepayers at risk unnecessarily with no
7 protections proposed. NIPSCO chose to self-build despite the risks. If the
8 CPCN is approved and NIPSCO allowed to proceed to self-build, ratepayers
9 should not be exposed to unchecked risks and the Commission should
10 ensure that ratepayers are at no greater risk than if NIPSCO had hired an
11 EPC. In addition, the Commission should require Petitioner to submit
12 quarterly, auditable progress reports providing construction status, and
13 accounting updates including project to date spending and remaining
14 balances of contingency, escalation, owner's costs and indirects. This would
15 incentivize diligent project management and improve affordability.

16 **Q: Does this conclude your testimony?**

17 **A: Yes.**

Confidential Information indicated by [REDACTED] highlights

APPENDIX A

1 **Q: Summarize your professional background and experience.**

2 A: I have a Bachelor of Science in Industrial Engineering from Purdue University.
3 After graduating Purdue, I was a Manufacturing Project Engineer, Manufacturing
4 Quality Manager and Capital Investment Manager while I earned my Masters in
5 Business Administration from IU's Kelley School of Business. I then worked over
6 20 years with Technicolor (f.k.a. Thomson S.A.) in the areas of Operations,
7 Finance, Marketing and Sales. After completing my MBA, I was a start-up Plant
8 Controller then a Project and Program Manager in Finance, Operations and Supply
9 Chain. Ultimately at Technicolor, I was General Manager of Sales, Operations and
10 Finance where I led three successive re-organization Programs: Latin America
11 Sales and Distribution, Audio-Video-Accessories Division Operations and
12 Corporate Finance. Post Technicolor, I worked eight years at Cummins in the areas
13 of Business Development, Sales Functional Excellence, Strategy and Pricing. I
14 have been with the OUCC since October of 2022.

15 **Q: Describe some of your duties and training at the OUCC.**

16 A: I review and analyze utilities' requests and file recommendations on behalf of the
17 OUCC in utility proceedings. My current focus is Engineering Project Management
18 and Engineering Cost Analysis. I have completed Michigan State University's
19 Institute of Public Utilities' Advanced Cost Allocation and Rate Design Course,
20 EUCI's Seminar in Electric Cost of Service, NARUC's Regulatory Training for
21 Fundamentals of Utility Law, and the University of Wisconsin's Regional
22 Transmission Organization Fundamentals. Most recently, I completed NARUC

Confidential Information indicated by [REDACTED] highlights

- 1 Staff Subcommittee on Accounting and Finance Depreciation Training:
- 2 Fundamental Concepts and Current Issues.
- 3 Q: **Have you previously provided testimony to the Commission?**
- 4 A: Yes.

Cause No. 45947
Northern Indiana Public Service Company LLC's
Objections and Responses to
Citizens Action Coalition of Indiana, Inc.'s First Set of Data Requests

CAC Request 1-003:

Re: NIPSCO Exhibit 5 (Direct Testimony of Baacke), page 14 ("Although this is the first large gas-fired generation project NIPSCO has overseen in this fashion, NIPSCO has employees with project management skills and prior experience on large capital projects to execute the CT Project and subject matter experts in natural gas CT operation and maintenance, and electronic control systems used to operate generating units.")

- (a) Which individual employee of NIPSCO or a NiSource company will be the lead manager of the proposed Schahfer peaker plant construction project? If NIPSCO has not yet identified the lead manager, please indicate which employees are candidates.
- (b) Which other employees of NIPSCO or a NiSource company will have secondary supervisory authority over the proposed peaker plant construction project?
- (c) Which external consulting companies does NIPSCO expect to utilize to assist with overall management of the proposed peaker plant construction project?
- (d) For each company listed in your response to part (c), which employee or employees will be principally responsible for overseeing the engagement?
- (e) For each individual person listed in your responses to parts (a), (b), or (d), please list:
 - (i) the major capital construction projects previously overseen by the person, including the location, year completed, technology type, size, total budget, and project owner.
 - (ii) the major capital construction projects that the person previously worked on [if not listed in part (e)(i) above], including the location, date, technology, size, total budget, and project owner, plus the person's role in the project.
- (f) For any project listed in parts (e)(i) or (e)(ii) above, please also state the date of substantial completion of the project's construction, relative to the date agreed to in the relevant construction contract.
- (g) For any project listed in parts (e)(i) or (e)(ii) above, please also state the total actual expenditure to complete the project's construction, relative to the budget at the time construction commenced.

Objections:

Cause No. 45947
Northern Indiana Public Service Company LLC's
Objections and Responses to
Citizens Action Coalition of Indiana, Inc.'s First Set of Data Requests

As to parts (e) – (g), NIPSCO objects to these subparts on the grounds and to the extent that this Request solicits an analysis, calculation, or compilation which has not already been performed and which NIPSCO objects to performing.

As to parts (e) – (g), NIPSCO further objects to these subparts on the separate and independent grounds and to the extent that this Request seeks documents or information that are beyond the scope of this proceeding and are not relevant to the subject matter of this proceeding and are therefore not reasonably calculated to lead to the discovery of admissible evidence.

As to parts (e) – (g), NIPSCO further objects to these subparts on the separate and independent grounds and to the extent that this Request is overly broad and unduly burdensome in that this Request is not limited to a specific time. For example, Mr. Warren and Mr. Hughes have both been with S&L for more than 30 years, and this Request is not limited in to the recent past or any period of time.

As to parts (d), (e), (f), and (g), NIPSCO further objects to these subparts on the separate and independent grounds and to the extent that the Request seeks information that is confidential, proprietary and/or trade secret.

Response:

Subject to and without waiver of the foregoing general and specific objections, NIPSCO is providing the following response:

- (a) Robert Ridge, Manager Project Engineering for Major Projects, is the lead manager for this project. Robert reports directly to Witness Greg Baacke, Senior Director Major Projects.
- (b) Conrad Deedrick is the Project Manager for this project. Conrad Deedrick reports directly to Robert Ridge, Manager Project Engineering for Major Projects.
- (c) NIPSCO expects to utilize Sargent & Lundy (S&L) as the Owner's Engineer for this project. As stated in Mr. Warren's testimony, S&L has extensive experience with similar gas combustion turbine projects.
- (d) Jerome Hughes, Senior Project Manager, is the Project Manager for the project on behalf of S&L. Steven Warren (Witness Steven Warren), Senior Manager, is the Subject Matter Consultant for the project on behalf of S&L. CAC Request 1-003 Confidential Attachment A includes resumes for Jerome Hughes and Steve Warren.

In addition to the Jerome Hughes's resume, Jerome has considerable experience as a Project Manager for multiple fossil-fueled generating stations. Jerome has specific experience in project management for Combustion Turbine facilities, Simple Cycle

Cause No. 45947
Northern Indiana Public Service Company LLC's
Objections and Responses to
Indiana Office of Utility Consumer Counselor's Second Set of Data Requests

<u>OUCC Request 2-021:</u>
Please provide a GANTT chart for the CT project.
<u>Objections:</u>
NIPSCO objects to this Request on the grounds and to the extent that this Request solicits an analysis, calculation or compilation which has not already been performed and which NIPSCO objects to performing.
<u>Response:</u>
Subject to and without waiver of the foregoing general and specific objections, NIPSCO is providing the following response: Since the kickoff of the CT Project in September 2023, NIPSCO has not yet developed a detailed schedule for the Project. While NIPSCO will leverage information provided by Sargent & Lundy to aid in the development of the schedule, the schedule is highly dependent upon the award of certain contracts, most notably the turbine equipment contract, as key milestones such as engineering deliverables and equipment deliveries from those contracts will drive other critical portions of the project schedule. This information is necessary as it impacts the progression of engineering, development, and release of bid events for other equipment and construction contracts, integration of construction activities, and other schedule milestones and activities in order to develop a baselined schedule for the project.

Cause No. 45947
Northern Indiana Public Service Company LLC's
Objections and Responses to
Citizens Action Coalition of Indiana, Inc.'s Fifth Set of Data Requests
[Denotes Confidential Information]

CAC Request 5-003:

Re: NIPSCO response to data request CAC 1.03 and Confidential Attachment B.

(a) Has Mr. Robert Ridge worked on construction of a power generation plant before? If so, please provide the specifications for the project(s) in the format of CAC 1-003 Conf. Att. B.

(b) Please describe all formal training, education, or certification completed by Mr. Robert Ridge that is specifically relevant to construction of a power generation plant.

(c) Has Mr. Conrad Deedrick worked on construction of a power generation plant before? If so, please provide the specifications for the project(s) in the format of CAC 1-003 Conf. Att. B.

(d) Please describe all formal training, education, or certification completed by Mr. Conrad Deedrick that is specifically relevant to construction of a power generation plant.

(e) Please explain the difference in job role between "Manager Project Engineering" and "Project Manager" as shown on the Confidential Attachment B.

Objections:

Response:

(a) Robert Ridge has not worked on construction of a new power generation plant. However as shown in CAC Request 1-003 Confidential Attachment B, Robert Ridge has experience leading large and complex capital projects at NIPSCO's existing generating facilities and substations.

(b) Robert Ridge received a Bachelor of Science degree in Civil Engineering from Purdue University Calumet in 2013. He began his full-time employment with NIPSCO in 2013 as a Project Engineer. Robert Ridge received a Project Management Professional Certification from the Project Management Institute in 2018. His experience includes project engineer and project manager positions in the Generation Major Projects group prior to accepting his current position of Manager Project Engineering in 2019. As Manager Project Engineering for the Generation Major Projects group, Robert Ridge is responsible for the management of capital and major Asset Retirement Obligation projects at

Cause No. 45947

Northern Indiana Public Service Company LLC's
Objections and Responses to
Citizens Action Coalition of Indiana, Inc.'s Fifth Set of Data Requests
[Denotes Confidential Information]

NIPSCO's generating stations and substations. These responsibilities include cost estimating, cost tracking, project controls, scheduling, and project execution of NIPSCO's major projects. His department has teams that manage cost control as well as staff of employees who manage the project controls and scheduling of NIPSCO's major projects. Included in his group are project engineers and project managers that execute these projects under his direction.

- (c) Conrad Deedrick has not worked on construction of a new power generation plant. However as shown in CAC Request 1-003 Confidential Attachment B, Conrad Deedrick has experience leading and supporting large and complex capital projects at NIPSCO's existing generating facilities.
- (d) Conrad Deedrick received a Bachelor of Science degree in Civil Engineering from Purdue University Calumet in 2015. He began his full-time employment with NIPSCO in 2017 as a Project Engineer. Conrad Deedrick received a Project Management Professional Certification from the Project Management Institute in 2021. His experience includes project engineering and current project manager positions in the Generation Major Projects group. As Project Manager for the Generation Major Projects group, Conrad Deedrick is responsible for the managing projects teams assigned to specific capital and major Asset Retirement Obligation projects at NIPSCO's generating stations. These responsibilities include cost estimating, cost tracking, project controls, scheduling, and project execution of NIPSCO's major projects.
- (e) A project manager is responsible for leading a project team including engineering, project controls, scheduling, construction management, and startup and commissioning to support the initiation, planning, execution, monitor and control, and closeout phases of a project. The Manager Project Engineering role is a leadership position where multiple project engineers and project managers report to Robert Ridge within the Generation Major Projects group.

A. CenterPoint Indiana South worked with B&V to identify technical work scope issues that needed to be resolved and assigned a cost estimate to complete this work. CenterPoint Indiana South also worked with PA to identify T&C risk items where Kiewit and Petitioner were far apart and requested PA to provide a potential cost impact to reach a reasonable consensus and resolution. These dollars were added to CenterPoint Indiana Souths Owner's cost. At some point the final cost impact for resolving these issues will either move to the EPC cost or remain in the Owner's Cost estimate.

Q. Please describe the components of the cost estimate.

A. Table WDG-4 lists the primary cost estimates and total cost estimate for the project.

Table WDG-4: Estimated CT Project Costs

Description	Cost	Make-Up of Costs
EPC Estimate	\$188M	Represents the low bid from a competitive bidding process. Includes costs for contractor to engineer, procure and construct 2x0 CT plant using GE 7F.05 CTs. Estimate is inclusive of direct and indirect costs including EPC overhead and profit, escalation, bonding, warranty, and builder's risk insurance.
Owner's Cost	\$70M	Includes allowances for owner's project management teams, owner's engineer, support engineering and training, environmental and other permitting activities, legal fees, construction utilities such as power, fuel, and water, regulation and code changes, price escalation, owner's contingency and unresolved technical work scope and T&C items.
Internal Labor and Loadings	\$10M	Estimated internal labor and loadings to support the CT project from planning through completion.
Owner's Contingencies	Cost included in owners cost until negotiations are complete	Estimate includes cost risks for all project costs; primarily unforeseen expenses during planning and construction that were not accounted for in the EPC bid or Owner's Costs as well as events such as force majeure, natural disasters, major labor strikes, etc. These project contingency costs are included in the Owners Cost category.
Administrative & General Overheads (A&G) and Allowance for Funds Used During	\$35M	A&G (1%) and AFUDC (8%) applied to EPC and Owners costs.

**Construction
(AFUDC)****Spare Parts \$8M**

Purchase of critical and long lead time spare parts for on-site inventory

**Study/Pre-work
Costs \$12M**

Includes generation transition asset allocation for IRP work (2016-2019) and planning/preparation work conducted from 2019 to CPCN filing in 2021. Includes costs to evaluate available gas turbine technology and EPC contractors as well as evaluate the proper siting for the CT's and determine the applicability of reusable equipment.

Total \$323M

Cost are estimates and include projected escalation. CPCN budget estimate does not include costs for construction of new pipeline.

Q. Is this a best cost estimate?

A. Yes. CEI South has gone to great lengths to involve consultants with technical RFP and commercial terms expertise. A competitive bid process was followed, and a fair and comprehensive scoring matrix was developed with several internal and external individuals with various expertise involved in evaluating bids. Regarding items that have not been fully negotiated CEI South has requested and included price estimates provided by external consultants with the appropriate knowledge and experience. Company overhead estimates such as A&G and AFUDC was provided by CEI South Accounting and Finance Departments. B&V assisted with establishing an owner's cost estimate and project contingency.

Q. How does the total cost estimate compare to what was used in IRP modeling?

A. The actual cost estimate of \$323 million is consistent with what was modeled in the 2020 IRP for the two F class CTs and was established through a competitive RFP process.

Q. Please describe the RFP process.

A. The first RFP was sent to all three major Original Equipment Manufacturers ("OEM") of CT equipment: OEM Bidder 1, Non-Bidder 1, and OEM Bidder 2, requesting a full turnkey Engineering, Procurement and Construction ("EPC") bid as well as pricing for the direct purchase of major equipment by CEI South. The RFP was also distributed to four potential ("EPC") firms to include Non-Bidder 2, Lump Sum Turnkey ("LSTK") Bidder 1, Non-Bidder 3, and Kiewit Power. The RFP requested bidders to submit a full turnkey EPC bid as well as invited them to submit alternative proposals. EPC bidders provided equipment pricing

“Excluded from public access per A.R. 9(G).”

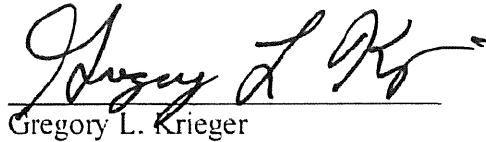
CONFIDENTIAL

OUCC ATTACHMENTS GLK-2 and GLK-3

CAUSE NO. 45947

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

A handwritten signature in black ink, appearing to read "Gregory L. Krieger", written over a horizontal line.

Gregory L. Krieger

Utility Analyst II

Indiana Office of Utility Consumer Counselor

Cause No. 45947

NIPSCO, LLC

Date: April 16, 2024

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Indiana Office of Utility Consumer Counselor Public's Exhibit No. 4 Redacted Testimony of OUCC Witness Gregory L. Krieger* has been served upon the following counsel of record in the captioned proceeding by electronic service on April 17, 2024.

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