VERIFIED REBUTTAL TESTIMONY OF STEPHEN HOLCOMB

Q1. Please state your name, business address, and title.

A1. My name is Stephen Holcomb. My business address is 801 E. 86th Avenue, Merrillville, Indiana 46410. I am the Director of Environmental Policy & Sustainability for NiSource Corporate Services Company ("NCSC").

Q2. On whose behalf are you submitting this direct testimony?

A2. I am submitting this testimony on behalf of Northern Indiana Public Service Company LLC ("NIPSCO").

Q3. Please describe your educational and employment background.

A3. I received a Bachelor of Science in Chemistry and Meteorology from Valparaiso University in 2007 and a Master of Science in Atmospheric Science from Colorado State University in 2011. In 2012, I joined NCSC and have held several positions with increasing levels of responsibility, focusing primarily on environmental permitting, regulatory analysis, and compliance plan development.

Q4. What are your responsibilities as Director of Environmental Policy & Sustainability?

A4. As Director of Environmental Policy & Sustainability, I have direct responsibility for tracking and analyzing the development of environmental regulations affecting the operating companies within the NiSource corporate organization, including NIPSCO. Additionally, I am responsible for sustainability and development of environmental policy and strategy for NiSource affiliates, including NIPSCO.

Q5. Have you previously submitted testimony before this or any other regulatory commission?

A5. No.

Q6. Are you sponsoring any attachments to your testimony in this Cause?

A6. No.

Q7. What is the purpose of your rebuttal testimony?

A7. The purpose of my rebuttal testimony is to respond to the testimonies filed April 16, 2024, on behalf of the Indiana Office of Utility Consumer Counselor ("OUCC") by Cynthia Armstrong and Roopali Sanka and on behalf of Citizens Action Coalition of Indiana ("CAC") by Anna Sommer.

My response to these testimonies will explain that the Combustion Turbine Project ("CT Project"), as designed, is expected to comply with the United States Environmental Protection Agency's ("EPA's") final New Source Performance Standards for Greenhouse Gas ("GHG") Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units ("GHG Rule"). My rebuttal testimony further establishes that, under the GHG Rule, the aeroderivative units at the CT Project provide NIPSCO with value and flexibility to potentially operate at greater capacity factors than an industrial frame unit, while remaining compliant with the emissions limits established by the GHG Rule. My rebuttal testimony is limited to a discussion of the issues set out below, and the failure to address each and every issue in each piece of testimony does not imply agreement with the positions taken by any party with respect to other issues.

Q8. In discussing the GHG Rule[1], OUCC Witness Armstrong states "[t]he issuance of the final rule will likely not be until after the November 2024 election."[2] When was the rule finalized?

[1] Witness Armstrong refers to the GHG Rule as the Greenhouse Gas New Source Performance Standards ("NSPS"). *See* Public's Ex. 1 at 2, line 16.

[2] Witness Armstrong direct testimony, p. 20.

A8. The final GHG Rule was published in the Federal Register on May 9, 2024. *See* 89 FR 39798. I believe what Witness Armstrong is referring to is the EPA's February 2024 announcement of a delay in the GHG regulation for *existing* gas combustion turbines. The CT Project would be subject to the final GHG Rule for *new* gas combustion turbines published in the Federal Register on May 9, 2024.

Q9. How do you know the CT Project is subject to the final GHG Rule as a *new* gas combustions turbine?

A9. The final GHG Rule specifies standards of performance for any stationary combustion turbine that commences construction or reconstruction after May 23, 2023 (i.e., the date the proposed rule was published in the *Federal Register*) and meets the following two applicability conditions per 40 CFR § 60.5509a:

> Applicability Condition #1: Has a base load rating greater than 250 million British thermal units per hour (MMBtu/hr) of fossil fuel (either alone or in combination with any other fuel); and
>
> Applicability Condition #2: Serves a generator or generators capable of selling greater than 25 megawatts (MW) of electricity to a utility power distribution system.

The CT Project meets these two conditions.

Q10. Will the CT Project, as designed, comply with the GHG Rule?

A10. Yes. For new combustion turbines, the GHG Rule establishes the following three subcategories based on the capacity factor of the units: (1) Base load combustion turbines, (2) Intermediate load combustion turbines, and (3) Low load combustion turbines. The Emissions standards for these categories are summarized in the GHG Rule at 40 CFR Pt. 60, Supt. TTTTa, Tbl. 1. I think it is helpful to start with the lowest load category first.

Low load turbines are defined as units that are generating at less than or equal to a 20% capacity factor. These turbines are subject to a standard of 120 to 160 lb. CO2/MMBtu. Both the aeroderivative units and frame unit will comply with this low load standard by combusting natural gas, which produces an emission rate of approximately 117 lb. CO2/MMBtu.

Intermediate load turbines are defined as units that are generating at a capacity factor greater than 20% but less than or equal to a 40% capacity factor. Intermediate load gas-fired turbines are subject to a standard of 1,170 lb. CO2/MWh-gross. At an ambient temperature of 50.5°F and full load, the aeroderivative units together are expected to emit approximately 1,093 lb. CO2/MWh-gross and meet the intermediate load standard. By

comparison, at an ambient temperature of 50.5°F and full load, the frame unit is expected to emit approximately 1,177 lb. CO2/MWh-gross and not meet the intermediate load standard.[3]

Base load turbines are defined as units that are generating at greater than a 40% capacity factor. The CT Project units are not designed to operate as base load turbines under the GHG Rule. As discussed throughout NIPSCO's case in chief testimony, NIPSCO intends to operate the CT Project as peaking units. Witness Armstrong acknowledges this in her direct testimony (at 20).

Q11. OUCC Witness Sanka does not agree with NIPSCO's preferred configuration containing one industrial frame and three aeroderivative turbines based on her belief that the aeroderivative turbines are not justified.[4] CAC Witness Sommer similarly recommends denial of NIPSCO's request based on the cost of the aeroderivative turbines.[5] Given the newly final GHG Rule, does the potential for the

[3] For both the aeroderivative units and the frame unit, the CO2 emission rates of the units increase as ambient temperatures increase and loads decrease.

[4] Witness Sanka direct testimony, pp. 6-8.

[5] Witness Sommer direct testimony, pp. 6-7, 10.

aeroderivative turbines to operate at a greater capacity factor than the frame offer value and flexibility?

A11. Yes. At full load, the aeroderivative units are expected to meet the intermediate load emission standard in the GHG Rule and be allowed to operate at capacity factors up to 40%, as needed. By comparison, the frame unit is not expected to meet the intermediate load emission standard and would, therefore, be limited to a 20% capacity factor.[6]

Q12. OUCC Witness Armstrong states that "the determination of whether natural gas generation is environmentally sustainable is subjective."[7] How do you respond?

A12. NIPSCO's direct testimony described how the CT Project is consistent with the five pillars of Indiana's policy related to electric utility service, including reliability, affordability, resiliency, stability, and environmental sustainability codified in Ind. Code § 8-1-2-0.6. As it relates to environmental sustainability, Section 0.6 states that the "impact of

[6] NIPSCO does not currently have specific plans to blend hydrogen for the CT Project, but hydrogen could potentially be blended with natural gas in either the aeroderivative units or the frame unit to decrease their CO2 emission rates. Hydrogen blending may allow the frame unit to meet the intermediate load emission standard and operate at a capacity factor of up to 40%.

[7] Witness Armstrong direct testimony, p. 10.

environmental regulations on the cost of providing electric utility service, and demand from consumers for environmentally sustainable sources of electric generation" must be considered.

My testimony confirms that the CT Project will comply with the final GHG Rule. I also agree with OUCC Witness Armstrong's opinion (at p. 17) that NIPSCO will comply with EPA's Good Neighbor Rule. The CT Project also supports increasing levels of renewable energy in the electric system and replaces capacity from NIPSCO's coal units that are planned to retire by 2025 and 2028.[8] The retirement of coal generation and replacement with zero-emission generation and low/intermediate-load gas generation—such as the CT Project—keeps NIPSCO and NiSource on-track to achieve their target of a 90% reduction in Scope 1 GHG emissions by 2030, compared to 2005 levels. Furthermore, the potential future combustion of hydrogen[9] and renewable natural gas (RNG) provide pathways for the CT Project to help

[8] Schahfer Units 14 and 15 in 2025, and Michigan City Unit 12 in 2028.

[9] NIPSCO does not currently have specific plans to blend hydrogen for the CT Project. The CTs being considered are capable of operating on natural gas fuel blended with between 15% and 35% hydrogen. However, specific hydrogen capabilities are dependent on the results of the CT original equipment manufacturer ("OEM") bid event. OEMs are working towards goals of 100% hydrogen capability with further modifications in the future.

achieve our goal of net zero Scope 1 and 2 GHG emissions by 2040.

Q13. Does this conclude your prefiled rebuttal testimony?

A13. Yes.

VERIFICATION

I, Stephen Holcomb, Director of Environmental Policy & Sustainability for NiSource Corporate Services Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

___/s/ *Stephen Holcomb*_____
Stephen Holcomb

Date: May 21, 2024