

FILED
July 27, 2021
**INDIANA UTILITY
REGULATORY COMMISSION**

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**VERIFIED PETITION OF NORTHERN INDIANA)
PUBLIC SERVICE COMPANY LLC FOR APPROVAL)
RIDER 889 – EXCESS DISTRIBUTED GENERATION)
RIDER FOR THE PROCUREMENT OF EXCESS)
DISTRIBUTED GENERATION PURSUANT TO IND.)
CODE 8-1-40.)**

CAUSE NO. 45505


INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

PUBLIC'S EXHIBIT NO. 1

**TESTIMONY OF OUCC WITNESS
ANTHONY A. ALVAREZ**

July 27, 2021

Respectfully submitted,



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TESTIMONY OF OUCC WITNESS ANTHONY A. ALVAREZ
CAUSE NO. 45505
NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC

I. INTRODUCTION

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

2 A: My name is Anthony A. Alvarez, and my business address is 115 West Washington
3 Street, Suite 1500 South, Indianapolis, Indiana 46204.

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

5 A: I am employed as a Utility Analyst in the Indiana Office of Utility Consumer
6 Counselor's ("OUCC") Electric Division. I describe my educational background in
7 Appendix A to my testimony.

8 **Q: Have you previously testified before the Indiana Utility Regulatory**
9 **Commission ("Commission")?**

10 A: Yes. I have testified in several cases before the Commission, including electric
11 utility base rate cases; environmental and renewable energy Purchase Power
12 Agreement and tracker cases; Transmission, Distribution, and Storage System
13 Improvement Charge cases; and applications for Certificates of Public
14 Convenience and Necessity.

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

16 A: My testimony addresses Northern Indiana Public Service Company LLC's
17 ("NIPSCO" or "Petitioner") request for approval of an excess distributed
18 generation ("EDG") Rider 889 tariff ("EDG Rider") rate in this Cause.¹ In

¹ See Petitioner's Exhibit 1, Attachment 1-A – NIPSCO's Amended Verified Petition (dated May 10, 2021).
See also Petitioner's Exhibit 2, Attachment 2-A – NIPSCO's Rider 889, Excess Distributed Generation.

1 particular, my testimony: 1) opposes NIPSCO's application of the term "excess
2 distributed generation" in its proposed EDG Rider tariff, 2) opposes the metering
3 and billing methodologies in NIPSCO's proposal, and 3) recommends the
4 Commission deny NIPSCO's proposed EDG Rider tariff.

5 **Q: What did you do to prepare your testimony?**

6 A: I reviewed NIPSCO's amended petition, direct testimony, and exhibits filed in this
7 Cause. I attended NIPSCO's EDG pre-filing meeting with OUCC staff and other
8 intervenors on February 9, 2021. I also reviewed the Commission's Cause No.
9 45378 Order, dated April 7, 2021, regarding Southern Indiana Gas and Electric
10 Company d/b/a Vectren Energy Delivery of Indiana, Inc.'s EDG rider rate request
11 ("45378 Order"), which is currently pending with the Court of Appeals (Case No.
12 21A-EX-821).²

13 **Q: To the extent you do not address a specific item in your testimony, should it be**
14 **construed to mean you agree with NIPSCO's proposal?**

15 A: No. Excluding any topics, issues or items NIPSCO proposes does not indicate my
16 approval of those topics, issues or items. Rather, the scope of my testimony is
17 limited to the specific items addressed herein.

II. EXCESS DISTRIBUTED GENERATION **DEFINITION AND APPLICATION**

18 **Q: How does Ind. Code ch. 8-1-40 (the "Excess Distributed Generation Statute"**
19 **or "EDG Statute") address EDG?**

20 A: The definition of EDG is unambiguous as codified in Ind. Code § 8-1-40-5. Ind.
21 Code § 8-1-40-5 states "excess distributed generation" means the "difference
22 between: (1) the electricity that is supplied by an electricity supplier to a customer

² The Appellants' Brief is due August 21, 2021.

1 that produces distributed generation; and (2) the electricity that is supplied back to
2 the electricity supplier by the customer." As identified in this section, only two
3 components must be present to determine EDG: 1) the electricity that is supplied
4 by an electricity supplier; and 2) the electricity that is supplied back to the
5 electricity supplier. Additionally, this section explicitly defines EDG as the
6 resulting difference between these two components. Therefore, to determine EDG,
7 the utility or electricity supplier must first take the difference between the electricity
8 supplied to the distributed generation ("DG") customer and the electricity supplied
9 back by the DG customer.

10 **Q: How does the EDG Statute define the "marginal price of electricity"?**

11 A: Ind. Code § 8-1-40-6 states, "As used in this chapter, 'marginal price of electricity'
12 means the hourly market price for electricity as determined by a regional
13 transmission organization of which the electricity supplier serving a customer is a
14 member."³

III. METERING AND BILLING METHODOLOGY

15 **Q: Please briefly discuss NIPSCO's metering system for EDG customers.**

16 A: NIPSCO will deploy a utility meter for EDG customers with two channels to
17 capture and measure the inflow and outflow of energy on an instantaneous basis.⁴

18 Petitioner's witness Kevin A. Kirkham describes the two channels as:

19 (1) a channel labeled "inflow" that measures the electricity being
20 used by the customer, net of the amount of electricity being
21 produced by the customer during the period recorded by the meter;
22 and (2) a channel labeled "outflow" that measures the electricity

³ NIPSCO is a member of the Midcontinent Independent System Operator ("MISO").

⁴ Petitioner's Exhibit No. 2, Direct Testimony of Kevin A. Kirkham, at p. 9, line 15, to p. 10, line 11.

1 being produced by the customer above the electricity being used by
2 the customer for the same period.⁵

3 At the end of the billing cycle, NIPSCO will utilize the total amount of energy in
4 kWh recorded by the inflow channel to bill the customer at its standard tariff rate.⁶

5 In the same manner, NIPSCO will utilize the total kWh recorded by the outflow
6 channel to calculate “the DG Billing Credit applied to the customer’s monthly
7 utility bill.”⁷ The OUCG opposes NIPSCO’s proposed metering and billing
8 methodologies for its EDG customers because they do not satisfy or conform with
9 the EDG Statute requirements.

10 **Q: What definitions relevant to your analysis does NIPSCO include in its**
11 **proposed EDG Rider tariff?**

12 A: NIPSCO’s proposed EDG Rider tariff includes the definition of the term “excess
13 distributed generation” as it is defined in Ind. Code § 8-1-40-5.⁸ NIPSCO also
14 provides a definition for “Inflow” and “Outflow”:

15 **Inflow** – (kWh) The separate meter channel measurement of the electricity
16 being used by the Customer, net of the electricity being produced by the
17 Customer.⁹

18 **Outflow** – (kWh) The separate meter channel measurement of electricity
19 being produced by Customer above the electricity being used by
20 Customer.¹⁰

21 NIPSCO also defines the “DG Billing Credit”:

⁵ Kirkham Direct, p. 10, lines 2-7.

⁶ Kirkham Direct, p. 11, lines 5 – 9.

⁷ *Id.*, p. 11, lines 9 – 12.

⁸ Petitioner’s Exhibit No. 2, Direct Testimony of Kevin A. Kirkham, “Rider 889 Excess Distributed Generation,” Attachment 2-A, Definitions.

⁹ *Id.*

¹⁰ *Id.*

1 **DG Billing Credit** – In accordance with Ind. Code §§ 8-1-40-17 and 8-1-
2 40-18, the credit determined by multiplying Outflow by the Marginal DG
3 Price. If the Outflow is zero, then the DG Billing Credit is zero.¹¹

4 Finally, NIPSCO defines the “Marginal DG Price” as:

5 **Marginal DG Price** – In accordance with Ind. Code § 8-1-40-17,
6 the average hourly real-time price of energy paid by the Company
7 in the MISO market at the NIPS.NIPS commercial pricing node
8 during the most recent calendar year, multiplied by one and twenty-
9 five hundredths (1.25). The Marginal DG Price shall be updated at
10 least annually and is set out below.¹²

11 **Q: Please discuss your concerns about NIPSCO's utility meter for EDG**
12 **customers.**

13 **A:** Based on NIPSCO's definitions, both the “inflow” and “outflow” channels of its
14 utility meter for EDG customers register multiple “net” readings. By utilizing a
15 utility meter for EDG customers with channels pre-programmed to register net
16 readings of various energy components, it runs counter to the plain language of the
17 statutory definition of “excess distributed generation” requiring the difference
18 between two components: “the electricity that is supplied by an electricity supplier
19 to a customer...” and “the electricity that is supplied back to the electricity
20 supplier...” The statutory language is clear and unambiguous regarding how to
21 measure EDG. Mr. Kirkham explicitly describes, and the Rider 889 explicitly
22 defines, “inflow” and “outflow” as the net of electricity used and produced by a DG
23 customer. The “electricity that is supplied by an electricity supplier to a
24 customer...” should not be a net of any other components, nor should the “the
25 electricity that is supplied back to the electricity supplier...” be a net, over or above

¹¹ *Id.*

¹² *Id.*

1 of some other components. Therefore, NIPSCO's request should be denied because
2 the manner in which its proposed utility meters measure EDG do not conform with
3 the statute's requirements.

4 NIPSCO also claims its utility meters for EDG customers perform
5 instantaneous calculations and capture the inflow and outflow of energy (as
6 measured by the utility meter) on an instantaneous basis. In its 45378 Order, the
7 Commission acknowledged the fact that "...[electricity] can only flow one
8 way...",¹³ therefore, at any given instant, instantaneous measurement would not
9 record the two values required in the statute to calculate the difference to determine
10 "excess distributed generation," and thus, would not comply with the statutory
11 definition. NIPSCO's request should be denied because it proposes to capture and
12 measure the inflow and outflow of energy in an instantaneous basis, which does not
13 conform or comply with the statutory requirement and definition of EDG.

14 **Q: How does NIPSCO propose to measure and record EDG?**

15 A: NIPSCO's witness Robert C. Sears, in Q&A 16 in his direct testimony, states
16 "NIPSCO will measure EDG by recording the instantaneous net difference in the
17 amount of energy produced by the customer owned generation which exceeds the
18 amount of energy that is being consumed at that point in time."¹⁴ His Q&A 17,
19 further states:

20 **Q17. Is NIPSCO's metering measuring the net difference of the**
21 **kWh amount and monetizing the difference?**

22 A17. Yes. The Outflow is the net difference, in kWh, of the
23 "electricity that is supplied back to the electricity supplier by
24 the customer" and the "electricity that is supplied by an

¹³ IURC Cause No. 45378, Order, p. 36 (April 7, 2021).

¹⁴ Petitioner's Exhibit No. 1, Direct Testimony of Robert C. Sears, p. 11, line 17 to p. 12, line 2.

1 electricity supplier to a customer.” This net difference amount
2 is what Rider EDG is applied to in accordance with Ind. Code
3 § 8-1-40-5.¹⁵

4 **Q: Does NIPSCO’s manner of measuring and recording EDG conform with the**
5 **EDG Statute?**

6 A: No. The manner NIPSCO proposes to measure and record EDG does not comply
7 with Ind. Code § 8-1-40-5. The statutory language is plain, clear and unambiguous
8 regarding how to measure EDG. The manner in which NIPSCO proposes to
9 measure and record EDG is beyond the purview of the statutory language. This
10 section does not reference energy produced or consumed by the customer.
11 Therefore, these measurements should not be used to calculate EDG.

12 **Q: Do you agree with Mr. Sears’ Q&A 17 statement? Please explain.**

13 A: No, I do not agree with his statement. First, this statement contradicts the
14 information provided in the previous “Q&A 16” in his direct testimony. The
15 previous “Q&A 16,” referenced above, describes production and generation on the
16 customer side of the meter, rather than the statutory definition used in his “Q&A
17 17.” NIPSCO does not know the production and use on the customer’s side of the
18 meter. The only measurement NIPSCO knows at the meter is whether there is
19 “inflow” or “outflow.” Second, by Mr. Sears’ description of the “outflow” channel
20 of NIPSCO’s meter, and coupled with his prior statement on page 11, line 17 to
21 page 18, line 2 of his testimony, it appears NIPSCO’s utility meters for EDG

¹⁵ Sears Direct, p. 12, lines 3-9.

1 customers are pre-programmed to measure and register the net readings of various
2 energy components that do not conform with the EDG Statute's requirements.

3 **Q: Does NIPSCO's proposed EDG Rider tariff correctly define and apply the**
4 **EDG determination?**

5 A: No. Although NIPSCO restated the statutory definition of EDG in its proposed
6 rider, it incorrectly applies EDG, according to the definition, by not taking the
7 difference between measurable "Inflow" and "Outflow" amounts as required in the
8 EDG Statute.

IV. CONCLUSIONS AND RECOMMENDATION

9 **Q: What do you conclude based on your review?**

10 A: I conclude:

- 11 1. NIPSCO's application of EDG does not comply with the EDG Statute.
- 12 2. NIPSCO's definition and application of its "Inflow" and "Outflow" to
13 determine EDG does not conform with Ind. Code § 8-1-40-5.
- 14 3. NIPSCO's manner of capturing, measuring, and calculating EDG on an
15 instantaneous basis will not record the two values required in the statute to
16 determine EDG.
- 17 4. NIPSCO's utility meters for EDG customers are pre-programmed to
18 measure and register the net readings of customer production and
19 consumption and are beyond the statutory language's scope.
- 20 5. NIPSCO's application of "Outflow" to measure EDG does not comply with
21 the Distributed Generation Statute's requirements to calculate the marginal
22 price of electricity and determine the appropriate rate to procure EDG.

23 **Q: Please state your recommendation.**

24 A: Based on my conclusions above, I recommend the Commission deny NIPSCO's
25 proposed EDG Rider tariff.

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

27 A: Yes.

APPENDIX A

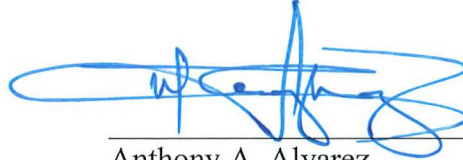
1 **Q: Please describe your educational background and experience.**

2 A: I hold a Master of Business Administration degree from the University of the
3 Philippines (“UP”), in Diliman, Quezon City, Philippines. I also hold a Bachelor of
4 Science degree in Electrical Engineering from the University of Santo Tomas
5 (“UST”), in Manila, Philippines.

6 I joined the OUCC in July 2009 and have completed the regulatory studies
7 program at Michigan State University sponsored by the National Association of
8 Regulatory Utility Commissioners (“NARUC”). I have also participated in other
9 utility and renewable energy resources-related seminars, forums, and conferences.
10 Prior to joining the OUCC, I worked for the Manila Electric Company
11 (“MERALCO”) in the Philippines as a Senior Project Engineer responsible for
12 overall project and account management for large and medium industrial and
13 commercial customers. I evaluated electrical plans, designed overhead and
14 underground primary and secondary distribution lines and facilities, primary and
15 secondary line revamps, extensions and upgrades with voltages up to 34.5 kV. I
16 successfully completed the MERALCO Power Engineering Program, a two-year
17 program designed for engineers in the power and electrical utility industry.

AFFIRMATION

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

A handwritten signature in blue ink, appearing to read 'Anthony A. Alvarez', is written over a horizontal line.

Anthony A. Alvarez
Utility Analyst II

Cause No. 45505
NIPSCO, LLC

Date: July 27, 2021

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Indiana Office of Utility Consumer Counselor Public's Exhibit No. 1 Testimony of OUCC Witness Anthony A. Alvarez* has been served upon the following counsel of record in the captioned proceeding by electronic service on July 27, 2021.

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