

FILED
August 17, 2021
**INDIANA UTILITY
REGULATORY COMMISSION**

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

**IN THE MATTER OF THE VERIFIED PETITION)
OF INDIANAPOLIS POWER & LIGHT COMPANY)
D/B/A AES INDIANA PURSUANT TO IND. CODE §)
8-1-40-16 FOR APPROVAL OF RATE FOR THE)
PROCUREMENT OF EXCESS DISTRIBUTED)
GENERATION BY AES INDIANA)**

CAUSE NO. 45504

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

TESTIMONY OF

ANTHONY A. ALVAREZ – PUBLIC’S EXHIBIT NO. 1

AUGUST 17, 2021

Respectfully submitted,



T. Jason Haas
Attorney No. 34983-29
Deputy Consumer Counselor

TESTIMONY OF OUCC WITNESS ANTHONY A. ALVAREZ
CAUSE NO. 45505
INDIANAPOLIS POWER & LIGHT COMPANY
D/B/A AES INDIANA

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 Indianapolis Power & Light Company d/b/a AES Indiana's
17 ("AES Indiana" or "Petitioner") request for approval of an excess distributed

1 generation (“EDG”) Rider 16 tariff (“EDG Rider”) rate in this Cause.¹ In particular,
2 my testimony: 1) opposes AES Indiana’s application of the term “excess distributed
3 generation” in its proposed EDG Rider tariff, 2) opposes the metering and billing
4 methodologies in AES Indiana’s proposal, and 3) recommends the Commission
5 deny AES Indiana’s proposed EDG Rider tariff.

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

7 A: I reviewed AES Indiana’s petition, direct and supplemental direct testimonies, and
8 exhibits filed in this Cause. I also reviewed the Commission’s Cause No. 45378
9 Order, dated April 7, 2021, regarding Southern Indiana Gas and Electric Company
10 d/b/a Vectren Energy Delivery of Indiana, Inc.’s EDG rider rate request (“45378
11 Order”). The OUCC is appealing this decision, and the appeal is currently pending
12 with the Court of Appeals (Case No. 21A-EX-821).

13 **Q: Please briefly describe the organization of your testimony.**

14 A: First, I address AES Indiana’s calculation of its average marginal price of electricity
15 and the EDG rate for the procurement of EDG as contained in Petitioner’s witness
16 Matthew D. Fields’ Direct Testimony filed March 1, 2021.² Second, I address AES
17 Indiana’s proposed method for determining and calculating EDG as contained in
18 Mr. Fields’ Supplemental Direct Testimony filed May 28, 2021.³ Finally, I discuss
19 my review and recommendation of the case.

20 **Q: To the extent you do not address a specific item in your testimony, should it be**
21 **construed to mean you agree with AES Indiana’s proposal?**

¹ See Petitioner’s Verified Petition (March 1, 2021). See also AES Indiana Supplemental Direct Testimony of Matthew D. Fields, Attachments MDF-1 (Rider 16 tariff sheet), MD-2 (redlined) and MDF-3 (clean copy) – Standard Contract Rider No. 16, revised Tariff Table of Contents, and revised Rate Schedules.

² Verified Direct Testimony of Matthew D. Fields, p. 2, lines 12 – 14 (March 12, 2021).

³ Verified Supplemental Testimony of Matthew D. Fields, p. 1, lines 14 – 15 (May 28, 2021).

1 A: No. Excluding any topics, issues or items AES Indiana proposes does not indicate
2 my approval of those topics, issues, or items. Rather, the scope of my testimony is
3 limited to the specific items addressed herein.

II. EXCESS DISTRIBUTED GENERATION DEFINITION AND APPLICATION

4 **Q: How does Ind. Code ch. 8-1-40 (the “Distributed Generation Statute” or “DG
5 Statute”) address EDG?**

6 A: The definition of EDG is unambiguous as codified in Ind. Code § 8-1-40-5 (“EDG
7 Statute”). Ind. Code § 8-1-40-5 states "excess distributed generation" means the
8 “difference between: (1) the electricity that is supplied by an electricity supplier to
9 a customer that produces distributed generation; and (2) the electricity that is
10 supplied back to the electricity supplier by the customer." As identified in this
11 section, only two components must be present to determine EDG: 1) the electricity
12 that is supplied by an electricity supplier; and 2) the electricity that is supplied back
13 to the electricity supplier. Additionally, this section explicitly defines EDG as the
14 resulting difference between these two components. Therefore, to determine EDG,
15 the utility or electricity supplier must first take the difference between the electricity
16 supplied to the distributed generation (“DG”) customer and the electricity supplied
17 back by the DG customer.

18 **Q: How does the DG Statute define the “marginal price of electricity”?**

19 A: Ind. Code § 8-1-40-6 states, “As used in this chapter, ‘marginal price of electricity’
20 means the hourly market price for electricity as determined by a regional

1 transmission organization of which the electricity supplier serving a customer is a
2 member.”⁴

3 **Q: How does the DG Statute mandate the rate calculation for the procurement of**
4 **EDG?**

5 A: Ind. Code § 8-1-40-17 states the rate “equals the product of (1) the average marginal
6 price of electricity paid by the electricity supplier during the most recent calendar
7 year; multiplied by (2) one and twenty-five hundredths (1.25).”

III. EDG RATE CALCULATION

8 **Q: Please discuss how AES Indiana calculated its EDG rate for the procurement**
9 **of EDG.**

10 A: AES Indiana first calculated its average marginal price of electricity it paid for the
11 most recent calendar year using its 2020 real-time hourly locational marginal price
12 (LMP) for electricity at its IPL.IPL load node.⁵ Next, it divided the average
13 marginal price it calculated by 8,784 hours – the total hours in 2020 (366 days x 24
14 hours) – resulting in \$22.37 per megawatt-hour (“MWh”).⁶ AES Indiana then
15 multiplied its average marginal price of \$22.37/MWh by 1.25 to arrive at the EDG
16 rate of \$27.96/MWh. The \$27.96/MWh EDG rate was then divided by 1,000 to
17 convert the EDG rate into a per kilowatt-hour (“kWh”) basis of \$0.027960 per
18 kWh.⁷

⁴ AES Indiana is a member of the Midcontinent Independent System Operator (“MISO”).

⁵ Fields Direct, p. 4, lines 19 – 22.

⁶ Fields Direct, p. 4, line 22 to p. 5, line 1.

⁷ Fields Direct, p. 5, lines 3 – 8.

1 **Q: Please briefly discuss your review of AES Indiana's methodology for**
2 **calculating its EDG rate for the procurement of EDG?**

3 A: I reviewed AES Indiana's methodology and I would suggest AES Indiana maintain
4 the consistency of using six (6) decimal places throughout its calculations. Thereby,
5 multiplying the average marginal price of \$22.37/MWh by 1.25 will yield
6 \$27.962500/MWh and converting it to per kWh will result in an EDG rate of
7 \$0.027963 per kWh.

IV. METERING AND BILLING METHODOLOGY

8 **Q: Please briefly discuss AES Indiana's metering for EDG customers.**

9 A: AES Indiana will deploy "bidirectional" utility meters for EDG customers with two
10 channels.⁸ Petitioner's witness Matthew D. Fields describes the two channels as:

11 Meter Channel 1 reads the amount of electricity (in kWh) supplied
12 by AES Indiana to the DG customer. [Meter] Channel 2 reads the
13 amount of electricity (in kWh) supplied back to AES Indiana from
14 the DG customer.⁹

15 He describes the meaning of electric meter's Channel 1 reading:

16 Thus, any instance for which there is a reading on Channel 1, it
17 necessarily means that the electricity AES Indiana supplied the DG
18 customer (the amount read on Channel 1) exceeded the amount of
19 electricity the DG supplied back to AES Indiana (which is zero).¹⁰

20 He also explains the meaning of electric meter's Channel 2 reading:

21 Channel 2 works similarly. It reads each instance in which the DG
22 customer supplies energy back to AES Indiana. In each such
23 instance the DG customer does not receive electricity from AES
24 Indiana. Therefore, whenever there is a reading on Channel 2 the
25 amount of electricity supplied back to AES Indiana by the DG
26 customer (*i.e.* the amount read on Channel 2) necessarily exceeds

⁸ Fields Supplemental Direct, p. 3, lines 11 -14.

⁹ Fields Supplemental Direct, p. 3, lines 20 – 22.

¹⁰ Fields Supplemental Direct, p. 4, lines 5 – 8.

1 the amount of electricity AES Indiana supplied the DG customer
2 (which is zero).¹¹

3 Further, under the Billing section of its Standard Contract Rider No. 16 (“Rider
4 16”), AES Indiana defines the energies measured and recorded by the separate
5 meter Channel 1 and Channel 2:

6 Net inflow means the separate meter channel measurement of
7 energy supplied by Company to Customer as recorded on meter
8 Channel 1. Net outflow means the separate meter channel
9 measurement of energy being produced by Customer Generator in
10 excess of the electricity being used by Customer, and which is
11 supplied back to Company as recorded on meter Channel 2. Net
12 outflow is Excess Distributed Generation.¹²

13 **Q: Do you have concerns regarding AES Indiana’s metering of EDG customers?**

14 A: Yes. Based on Mr. Fields testimony and AES Indiana’s Rider 16 definitions, both
15 Channel 1 and Channel 2 of its electric meter for EDG customers register multiple
16 “net” readings. It appears AES Indiana pre-programed Channel 1 and Channel 2
17 of its electric meter for EDG customers to register net readings of various energy
18 components beyond the statute’s requirements of measuring EDG. However, the
19 “net” measurements are entirely fictitious in this situation, as explained below, and
20 do not provide a sufficient basis to show that AES is following the statute when
21 determining EDG.

22 **Q: Does AES Indiana discuss the information captured by Channel 1 and**
23 **Channel 2 of the electric meter?**

24 Yes. In Q&A 10 of his Supplemental Direct Testimony, Mr. Fields discussed the
25 mechanics of the two channels in AES Indiana’s bidirectional electric meters for
26 EDG customers. He acknowledges that “[a]t any moment, electricity flows through

¹¹ Fields Supplemental Direct, p. 4, lines 8 – 13.

¹² Fields Supplemental Direct, Attachment MDF-1 – Standard Contract Rider No. 16, page 3.

1 AES Indiana's bidirectional meter in only one direction..."¹³ Therefore, one
2 channel will record the flow of electricity one way, or the other channel will record
3 if the flow of electricity is the other way, but Channel 1 and Channel 2 cannot
4 measure readings at the same instant.

5 **Q: Do you agree with Mr. Fields' Q&A 11 regarding what the Channel 1 and**
6 **Channel 2 readings mean? Please explain.**

7 A: No, I do not agree with Mr. Fields' statements in his Q&A 11 of what the Channel
8 1 and Channel 2 readings mean. He qualifies a reading on Channel 1 as an instance
9 wherein "the customer's generation did not meet the DG customer's load for that
10 instant and that the DG customer did not supply any electricity back to AES
11 Indiana..." thereby resulting in AES Indiana supplying a DG customer with
12 electricity.¹⁴ Based on his statement, a reading on Channel 1 is a resultant or "net"
13 reading of various energy components measured and recorded by the meter.

14 Mr. Fields also qualified a reading on Channel 2 wherein he stated, "the
15 amount of electricity supplied back to AES Indiana by the DG
16 customer...necessarily exceeds the amount of electricity AES Indiana supplied the
17 DG customer..."¹⁵ He made it appear that a reading on Channel 2 was similarly a
18 resultant or "net" reading of various energy components the electric meter
19 measured and recorded.

20 I disagree with the characterization that the instantaneous readings in
21 Channel 1 and Channel 2 are "net" of flow in the opposing direction. Electricity

¹³ Fields Supplemental Direct, p. 3, lines 17 -18.

¹⁴ Field Supplemental Direct, p. 4, lines 2 – 5.

¹⁵ Fields Supplemental Direct, p. 4, lines 10 – 13.

1 does not work that way. At any given instant, electricity can only flow one way, a
2 fact acknowledged by Mr. Fields.¹⁶ In a bidirectional electric meter, one channel
3 will record the flow of electricity one way, or another channel will record if the
4 flow of electricity is the other way. On an instantaneous basis, when electricity is
5 flowing in one direction, it is not physically possible for there to be another flow in
6 the opposing direction so, there is nothing to “net” against when measuring
7 directional flow. This is also acknowledged by Mr. Fields, who notes that when
8 there is flow in one direction, flow in the other direction is zero.¹⁷ Mr. Fields
9 appears to consider the meter as a “traffic officer,” directing the flow of electricity
10 on the customer side and the utility side of the meter. However, the meter does not
11 play this role. Rather, it merely measures the flow of electricity but does not change
12 the condition on either side of the meter. The conditions should be the same on both
13 sides of the meter. If electricity is flowing to or from the customer, it is not possible
14 to “net” for there is no “opposing” flow in the opposite direction, and the meter is
15 not directing or “netting” any electricity flow.

16 **Q: Do you agree with AES Indiana’s claim that “each Channel 2 reading reflects**
17 **Excess DG”?**¹⁸ **Please explain.**

18 **A:** No, I do not agree with AES Indiana’s claim. Because energy can only flow in one
19 direction at any given instant, instantaneous measurement would not record the two
20 values required in the statute to calculate the difference to determine “excess
21 distributed generation,” and thus, would not comply with the statutory definition.

¹⁶ Fields Supplemental Direct, p. 3, lines 17-19.

¹⁷ Fields Supplemental Direct, p. 4, lines 1-13.

¹⁸ Fields Supplemental Direct, p. 4, lines 13 – 17.

1 Taking the “net” in Channel 2 of energy provided to AES by the DG customer when
2 the flow in the opposing direction *do not exist* is not netting, it is merely measuring
3 the flow in Channel 2. When there is electricity flow in one direction, there *cannot*
4 *be* opposing flow in the opposite direction. Therefore, when there is electricity
5 flowing in one direction, there is no electricity flowing in the other direction to take
6 the “difference,” as required by Ind. Code § 8-1-40-5 for the determination of
7 “excess distributed generation.” AES Indiana’s request should be denied because it
8 claims each Channel 2 reading captures and measures the inflow and outflow of
9 energy in an instantaneous basis, which is incorrect and does not comply with the
10 statutory requirement and definition of EDG.

11 **Q: Do you agree with Mr. Fields’ statement as to how AES Indiana calculates**
12 **EDG, as illustrated in Table 1, page 6, of his Supplemental Direct Testimony?**
13 **Please explain.**

14 A: No, I do not agree with Mr. Fields illustration, which merely adds the values
15 recorded in Channels 1 and 2. To demonstrate, I will use a particular data point in
16 Mr. Fields’ Table 1 (row (3), 3/1/2021, 8:15:00 AM) because it is the only instance
17 wherein both Channel 1 (0.007800 kWh) and Channel 2 (0.025200 kWh) have
18 readings.¹⁹ The statutory language is clear and unambiguous regarding how to
19 measure EDG. In this example, AES Indiana could take the “difference” between
20 these two readings for each 15-minute interval, and with Channel 2 being the larger
21 reading, the EDG would be the difference between 0.007800 kWh (Channel 1) and
22 0.025200 kWh (Channel 2) to arrive at 0.017400 kWh.²⁰ Therefore, 0.017400 kWh

¹⁹ Fields Supplemental Direct, Table 1, p. 6. The example uses six (6) decimal places in all calculations for consistency throughout the demonstration.

²⁰

1 could be the EDG for this particular 15-minute interval contrary to the (outright)
2 0.025200 kWh reading of Channel 2 in Mr. Fields illustration. I want to note that
3 over an interval, as shown in this illustration, it is not required that electricity be
4 measured in both channels to determine EDG under Ind. Code § 8-1-40-5. This
5 situation is different from an instantaneous measurement, where it is not even
6 possible to measure electricity values in both channels. Rather, over a period of
7 time, it would be possible to measure electricity flows in both channels, even if one
8 of the channels does not record a measurement.

9 **Q: Please provide a sample illustration of how to calculate EDG using the data in**
10 **Mr. Fields' Table 1.**

11 A: For this sample illustration, I will use the Table 1 data from Mr. Fields as a
12 representative of an entire month's electric meter readings of an AES Indiana DG
13 customer (for simplicity). I added a column that takes the difference between the
14 15-minute interval readings of Channel 1 and Channel 2, and then designated a plus
15 (+) sign for EDG kWh and a minus (-) sign for retail rates. The results for the sample
16 month in the simplified illustration showed the DG customer should receive a total
17 EDG of 0.973200 kWh, as shown in Table A below.

1

Table A

15-minute Interval	Channel 1 kWh	Channel 2 kWh	Difference, kWh EDG (+) Retail Rate (-)
(1) 3/1/2021 7:45:00 AM	0.159000	0	- 0.159000
(2) 3/1/2021 8:00:00 AM	0.135000	0	- 0.135000
(3) 3/1/2021 8:15:00 AM	0.007800	0.025200	0.017400
(4) 3/1/2021 8:30:00 AM	0	0.144600	0.144600
(5) 3/1/2021 8:45:00 AM	0	0.133800	0.133800
(6) 3/1/2021 9:00:00 AM	0	0.266400	0.266400
(7) 3/1/2021 9:15:00 AM	0	0.290400	0.290400
(8) 3/1/2021 9:30:00 AM	0	0.414600	0.414600
Total	0.301800	1.275000	0.973200

2

However, in the spirit of fairness, I also provided another sample illustration using

3

the same Table 1 data from Mr. Fields, but this time, I switched the readings

4

between the two channels. The results of this simplified illustration showed the DG

5

customer will not receive any EDG credits for the sample month but billed a total

6

of 0.973200 kWh in retail rates, as shown in Table B below.

7

Table B

15-minute Interval	Channel 1 kWh	Channel 2 kWh	Difference, kWh EDG (+) Retail Rate (-)
(1) 3/1/2021 7:45:00 AM	0	0.159000	0.159000
(2) 3/1/2021 8:00:00 AM	0	0.135000	0.135000
(3) 3/1/2021 8:15:00 AM	0.025200	0.007800	- 0.017460
(4) 3/1/2021 8:30:00 AM	0.144600	0	- 0.144600
(5) 3/1/2021 8:45:00 AM	0.133800	0	- 0.133800
(6) 3/1/2021 9:00:00 AM	0.266400	0	- 0.266400
(7) 3/1/2021 9:15:00 AM	0.290400	0	- 0.290400
(8) 3/1/2021 9:30:00 AM	0.414600	0	- 0.414600
Total	1.275000	0.301800	- 0.973200

1 **Q: Does AES Indiana's proposed EDG Rider tariff correctly define and apply the**
2 **EDG determination?**

3 A: No. Although AES Indiana restated the statutory definition of EDG in its proposed
4 rider, it incorrectly applies the determination of EDG, according to the statutory
5 definition, by not taking the difference between the factors set out in the EDG
6 Statute. AES Indiana acknowledges this condition by confirming that under their
7 proposal, "kWh amounts recorded under Channel 1 are never netted against kWh
8 amounts recorded under Channel 2."²¹

V. CONCLUSIONS AND RECOMMENDATION

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

10 A: I conclude:

- 11 1. AES Indiana's application of EDG does not comply with the EDG Statute.
- 12 2. AES Indiana's definition and application of its "Net inflow" and "Net
13 outflow" to determine EDG does not conform with Ind. Code § 8-1-40-5.
- 14 3. AES Indiana'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. AES Indiana's application of "Net outflow" to measure EDG does not
18 comply with the Distributed Generation Statute's requirements to calculate
19 the marginal price of electricity and determine the appropriate rate to
20 procure EDG.

21 **Q: What do you recommend?**

22 A: Based on my conclusions above, I recommend the Commission deny AES
23 Indiana's proposed EDG Rider tariff.

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

25 A: Yes.

²¹ Attachment AAA-1, AES Response to Data Request Indiana DG DR 1-13(c).

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.

Data Request Indiana DG DR 1 - 13

Please refer to Fields Direct Testimony, p. 6, lines 2-6, stating in pertinent part that “Vectren proposed that EDG be calculated “instantaneously”. The Consumer parties in the Vectren case proposed that EDG be calculated monthly, just like net metering. AES Indiana believes there may be additional methods for calculating EDG that comply with Ind. Code § 8-1-40-5, that do not mimic net metering’s methodology, and that mitigate certain of the adverse incentives net metering creates.”

- a. Confirm that AES Indiana’s proposal in this case is for EDG to be calculated “instantaneously.”
- b. Confirm or refute that AES Indiana’s use of 15-minute intervals to calculate excess distributed generation would result in the same monthly bill for DG customers should AES Indiana reprogram its meters to use “instantaneous” intervals (e.g., intervals of 1 second or less). If your answer is anything other than an unqualified confirmation, please explain why this description is not accurate.
- c. Confirm or refute that under AES Indiana’s proposal, kWh amounts recorded under Channel 1 are never netted against kWh amounts recorded under Channel 2.
- d. Confirm or refute that Channel 1 of a DG customer’s meter measures gross kWh, and not net kWh, that AES Indiana supplies a DG customer. If this is inaccurate, please detail the components of the netting calculation that AES Indiana believes is occurring (i.e., identify which values are being used in the netting calculation, including the kWh that are being netted against the gross kWh delivered by AES Indiana, and explain how AES Indiana will measure all of these values).
- e. Confirm or refute that Channel 2 of a DG customer’s meter measures gross kWh, and not net kWh, that is supplied back to the AES Indiana by the DG customer. If this is inaccurate, please detail the components of the netting calculation that AES Indiana believes is occurring (i.e., identify which values are being used in the netting calculation, including the kWh that are being netted against the gross kWh delivered to AES Indiana, and explain how AES Indiana will measure all of these values).
- f. Please list and explain all “additional methods for calculating EDG that comply with Ind. Code § 8-1-40-5” in AES Indiana’s opinion.

Objection:

The term “instantaneous” in the context of determining EDG is undefined and ambiguous. It is not a term AES Indiana has used in describing its methodology for determining EDG. AES Indiana thus cannot answer questions about its meaning or application. AES Indiana’s filed testimony describes its proposed methodology for determining EDG. AES Indiana objects to the Request on the grounds and to the extent the request seeks a compilation, analysis, or study that AES Indiana has not performed and to which AES Indiana objects to performing. Subject to and without waiver of the foregoing objections, AES Indiana responds as follows.

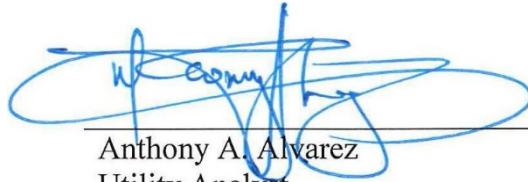
Response:

- a) AES Indiana does not know what is meant by “instantaneous.” AES Indiana’s testimony describes the methodology by which it proposes to determine EDG.

- b) Confirmed.
- c) Confirmed.
- d) Channel 1 on the meter records kWh that AES Indiana supplies a DG customer, as indicated on lines 2 and 3 of p. 5 of Witness Fields's supplemental testimony. There are a few, customer-specific metering arrangements that exist on the AES Indiana system that allow for AES Indiana to measure the total amount of electricity delivered to the customer. Such arrangements were made at the customer's request and cost.
- e) Channel 2 on the meter records kWh that the DG customer supplies back to AES Indiana, as detailed on lines 6 through 8 on p. 5 of Witness Fields's supplemental testimony. There are a few, customer-specific metering arrangements that exist on the AES Indiana system that allow for AES Indiana to measure the total amount of electricity produced by a DG facility. Such arrangements were made at the customer's request and cost.
- f) AES Indiana has not attempted to identify all hypothetical methodologies that might comply with the referenced statute. AES Indiana's testimony merely referred to the fact that the statute is silent on the netting period used to calculate Excess DG, therefore it would be possible to net on 1-minute, 2-minute, 5-minute, 10-minute and other intervals.

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
Indiana Office of Utility Consumer Counselor
Cause No. 45504
AES Indiana
August 17, 2021

Date

CERTIFICATE OF SERVICE

This is to certify that a copy of the Indiana Office of Utility Consumer Counselor's Testimony of Anthony A. Alvarez has been served upon the following parties of record in the captioned proceeding by electronic service on August 17, 2021.

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