ORIGINAL

Commissioner	Yes	No	Not Participating
Huston	√		
Freeman	√		
Krevda	√		
Ober	√		
Ziegner	√		

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF NORTHERN INDIANA PUBLIC SERVICE COMPANY LLC FOR APPROVAL OF RIDER 889 – EXCESS DISTRIBUTED GENERATION RIDER FOR THE PROCUREMENT OF EXCESS DISTRIBUTED GENERATION PURSUANT TO IND. CODE CH. 8-1-40.	))))))	**CAUSE NO. 45505** **APPROVED: DEC 15 2021**

ORDER OF THE COMMISSION

Presiding Officers:
David L. Ober, Commissioner
Carol Sparks Drake, Senior Administrative Law Judge

On March 1, 2021, Northern Indiana Public Service Company LLC ("NIPSCO" or "Petitioner") filed a Verified Petition with the Indiana Utility Regulatory Commission ("Commission") seeking approval of a tariff rate ("EDG Rider") for its procurement of excess distributed generation ("EDG") under Ind. Code ch. 8-1-40 (the "Distributed Generation Statutes"). Petitioner concurrently prefiled the direct testimony of Kevin A. Kirkham, NIPSCO's Manager of New Business.

Also on March 1, 2021, Citizens Action Coalition of Indiana, Inc. ("CAC") filed a petition to intervene that was granted on March 12, 2021. Additional intervention petitions were filed on March 8, 2021, by Indiana Distributed Energy Alliance ("Indiana DG") and granted on March 17, 2021, and on March 23, 2021, by Solar United Neighbors ("SUN") and granted on April 1, 2021.

The procedural schedule originally established was vacated on April 23, 2021, in response to an unopposed motion NIPSCO filed on April 22, 2021, advising that after evaluating the Commission's Order approved on April 7, 2021, in Cause No. 45378 (the "45378 Order" or "Vectren Order"), NIPSCO would be amending its petition and filing a revised case-in-chief. In accordance with a docket entry issued on May 4, 2021, NIPSCO on May 10, 2021, prefiled a revised case-in-chief. This included the direct testimony of the following NIPSCO employees:

- Kevin A. Kirkham, Manager of New Business
- Robert C. Sears, Director of Regulatory Policy.

On May 10, 2021, NIPSCO also filed a motion requesting leave under 170 IAC 1-1.1-8(b) to file an amended petition, advising that after reviewing the 45378 Order, NIPSCO revised the EDG Rider for which Commission approval is requested. A docket entry was issued on May 21, 2021, authorizing NIPSCO to file its amended petition, and NIPSCO made this filing that day.

On July 27, 2021, the Indiana Office of Utility Consumer Counselor ("OUCC") prefiled the testimony and attachments of Anthony A. Alvarez, Utility Analyst in the OUCC's Electric Division. That same date, Indiana DG prefiled the testimony and attachments of the following

witnesses:

- Benjamin D. Inskeep, Principal Energy Policy Analyst with EQ Research LLC
- Jim Straeter, President and Owner of Ag Technologies Inc.

On August 9, 2021, NIPSCO prefiled the rebuttal testimony and attachments of its case-in-chief witnesses, Mr. Sears and Mr. Kirkham.

On August 17, 2021, NIPSCO filed an objection and motion to strike portions of Mr. Inskeep's prefiled testimony, with Indiana DG on August 25, 2021, filing a response to this motion.

On August 27, 2021, the OUCC submitted a late filed exhibit, to which NIPSCO did not object, containing Petitioner's responses to an OUCC data request. On August 30, 2021, NIPSCO filed a new exhibit to be offered into evidence by agreement, and subsequently, on August 31, 2021, NIPSCO filed a stipulation of facts "as part of the Parties' efforts to minimize and/or eliminate cross-examination." Petitioner's Stipulation of Facts at p. 1.[1]

The Commission noticed this matter for an evidentiary hearing to commence at 9:30 a.m. on September 1, 2021, in Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. At the hearing, NIPSCO, the OUCC, Indiana DG, CAC, and SUN appeared by counsel. At the outset, NIPSCO withdrew its motion to strike, and Petitioner's testimony and attachments, the new exhibit containing OUCC data responses, and the stipulations were admitted without objection. The testimony and attachments of the OUCC and Indiana DG were also admitted without objection.

Based upon applicable law and the evidence presented, the Commission finds:

1. Notice and Jurisdiction. Notice of the evidentiary hearing was published by the Commission as required by law. NIPSCO is a public utility as defined in Ind. Code § 8-1-2-1(a) and an electricity supplier under Ind. Code § 8-1-40-4(a). Ind. Code § 8-1-40-16 ("Section 16") requires an electricity supplier to file a petition with the Commission requesting a rate for its procurement of EDG from that supplier's customers. Accordingly, the Commission has jurisdiction over Petitioner and the subject matter of this Cause.

2. Petitioner's Organization and Business. NIPSCO is a limited liability company organized under Indiana law with its principal office at 801 East 86th Avenue, Merrillville, Indiana. Petitioner renders electric and gas public utility service within Indiana, and NIPSCO owns, operates, manages, and controls, among other things, plant and equipment used for the generation, transmission, distribution, and furnishing of electric service to approximately 476,000 residential, commercial, industrial, wholesale, and other customers in northern Indiana.

[1] In this proceeding, NIPSCO agreed to a stipulation that contradicted Mr. Sears' rebuttal testimony, and the parties agreed upon admission of a reporting summary notwithstanding much of this document appears to have questionable relevance. This is a contested case with multiple intervenors for which a day was set aside, as requested, for the evidentiary hearing. We encourage parties to timely settle or litigate contested matters that are not routine trackers or similar filings, but to not present the Commission with untoward agreements on the eve of the hearing so all parties will waive cross examination or stipulate upon the admission of new documents that no witness explains, leaving the Commission to ferret out what nuggets of significance each has.

3. Applicable Law. In enacting the Distributed Generation Statutes, Indiana's General Assembly established a new statutory paradigm under which Indiana's electricity suppliers, including NIPSCO, are obligated to receive the electricity their customers with qualifying distributed generation ("DG") resources supply and provide that customer with a credit that offsets the cost of the electricity the utility supplies to the customer. Under the Distributed Generation Statutes, "[n]ot later than March 1, 2021, an electricity supplier shall file with the commission a petition requesting a rate for the procurement of excess distributed generation by the electricity supplier." Section 16. Ind. Code § 8-1-40-10 ("Section 10") further provides:

> Before July 1, 2022, if an electricity supplier reasonably anticipates, at any point in a calendar year, that the aggregate amount of net metering facility nameplate capacity under the electricity supplier's net metering tariff will equal at least one and one-half percent (1.5%) of the most recent summer peak load of the electricity supplier, the electricity supplier shall, in accordance with section 16 [Ind. Code § 8-1-40-16], petition the commission for approval of a rate for the procurement of excess distributed generation.

Section 10.

Subject to Ind. Code §§ 8-1-40-13 and -14, NIPSCO's net metering tariff remains available to its customers until the earlier of "January 1 of the first calendar year after the calendar year in which the aggregate amount of net metering facility nameplate capacity under the electricity supplier's net metering tariff equals at least one and one-half percent (1.5%) of the [supplier's] most recent summer peak load" or July 1, 2022. Section 10.

Once an electricity supplier like NIPSCO files a petition under Section 16 for approval of an EDG rate, Ind. Code § 8-1-40-17 ("Section 17") provides:

> The commission shall review a petition filed under section 16 [Ind. Code § 8-1-40-16] of this chapter by an electricity supplier and, after notice and a public hearing, shall approve a rate to be credited to participating customers by the electricity supplier for excess distributed generation if the commission finds that the rate requested by the electricity supplier was accurately calculated and equals the product of:
>
> (1) the average marginal price of electricity[2] paid by the electricity supplier during the most recent calendar year; multiplied by
>
> (2) one and twenty-five hundredths (1.25).

In this proceeding, NIPSCO seeks Commission approval of its initial EDG rate.

Following approval of Rider EDG, Section 16 requires NIPSCO to annually submit, "not later than March 1 of each year, an updated rate for excess distributed generation in accordance with the methodology set forth in section 17 [Ind. Code § 8-1-40-17] of this chapter." Section 16.

[2] Ind. Code § 8-1-40-6 ("Section 6") of the Distributed Generation Statutes defines "marginal price of electricity" as "the hourly market price for electricity as determined by a regional transmission organization of which the electricity supplier serving a customer is a member."

Under Ind. Code § 8-1-40-18 ("Section 18") NIPSCO is required to compensate its customers from whom Petitioner procures EDG through a credit on the customer's monthly bill, with any excess credit carried forward and applied against future charges for as long as the customer receives electric service from NIPSCO at the premises.

Per Ind. Code § 8-1-40-15 ("Section 15"), amounts credited to a customer for EDG "shall be recognized in the electricity supplier's fuel adjustment proceedings under IC 8-1-2-42." Thus, the credit amounts NIPSCO applies to offset what would otherwise be billed for the electricity Petitioner supplied to the EDG customer is recovered from all customers in the same manner as NIPSCO recovers fuel costs for generation resources.

4. Requested Relief. Pursuant to Sections 10 and 16, NIPSCO requests approval of a rate for the procurement of EDG. As discussed below, NIPSCO asks that its EDG rate be effective January 1, 2022, or as soon thereafter as practicable, and remain in effect until replaced in a subsequent filing. Per Section 18, under the proposed EDG Rider, EDG customers will be compensated via a credit on their monthly bill. Petitioner proposes to determine EDG based on instantaneously measuring the net of the electricity supplied to NIPSCO by the customer and the electricity supplied to the customer by Petitioner. NIPSCO also requests authority to update its EDG Rider annually by March 1 via a compliance filing.

5. Petitioner's Case-in-Chief.

A. Robert C. Sears. Mr. Sears explained that under Ind. Code § 8-1-40-5 ("Section 5"), EDG is the difference between the electricity the utility provides the customer and the electricity the customer supplies to the electricity supplier. He noted that in the 45378 Order (at pp. 34-36), the Commission found the instantaneous outflow calculation by Southern Indiana Gas and Electric Company d/b/a Vectren Energy Delivery of Indiana, Inc.'s ("Vectren") meters captures the difference between the electricity the utility is supplying and the electricity the customer is supplying to the utility and, thus, measures EDG as defined under Section 5.[3]

Mr. Sears explained how EDG differs from net metering, advising that in the Distributed Generation Statutes the legislature made two substantial changes with respect to DG resources. First, the legislature set an end date for net metering based upon the installation date of the DG resource (Ind. Code §§ 8-1-40-13 and -14) and the timing of when the utility's aggregate operating net metering capacity reaches the statutory cap (Section 10). He stated it was a critical step to sunset the incentive net metering provides for installing DG resources. Second, in Ind. Code ch. 8-1-40, a process is defined for compensating DG customers for EDG – a separate and distinct process from what had been available for traditional net metering. Thus, the Distributed Generation Statutes changed the applicable rate for customers' excess generation and also modified the way in which excess generation will be calculated. Mr. Sears stated that based on the Distributed Generation Statutes, the new process is not intended to simply echo the language from the net metering tariff requirements set forth in 170 IAC 4-4.2, but rather, deviates to differentiate EDG customers from those eligible for net metering.[4] One of these deviations was defining EDG without

[3] *See, e.g.*, page 35 of the 45378 Order, where the Commission stated: "Essentially, the meter counts what is going through the meter and puts it into either the inflow or the outflow 'bucket,' but to get into the outflow 'bucket,' the meter has computed the difference between the two components under Section 5."

[4] Under Ind. Code § 8-1-40-21 ("Section 21"), subject to subsection (b) of Section 21 and to Sections 10 and 11, the

specifying the measurement period that exists for net metering under 170 IAC 4-4.2-7. He explained that another deviation was to explicitly specify how the EDG rate will be calculated, noting the retail rate for EDG under the Distributed Generation Statutes results in customers receiving the average market price for energy, plus a 25% adder.

Mr. Sears summarized NIPSCO's proposed EDG Rider and explained that the EDG Rider is a transition applicable to customers who are not eligible for Rider 880 – Net Metering (the "Net Metering Rider"). NIPSCO will consider non-reserved customers who submit a complete application prior to October 1, 2021, that is approved by December 31, 2021, eligible under the Net Metering Rider, with residential and biomass customers to be considered eligible under the Net Metering Rider until their respective category threshold is reached or July 1, 2022, whichever is earlier.

Mr. Sears testified that NIPSCO currently has dual channel meters with the capability to measure inflow and outflow monthly or instantaneously. In the future, advanced metering infrastructure ("AMI") and other billing technologies may allow NIPSCO to consider other measurement periods, but at this time, NIPSCO proposes to use its two-channel metering system to instantaneously measure the net difference in all energy consumed by the customer (delivered by the utility) and all energy produced by a customer-owned generator (received by the utility) onto the grid.[5] Mr. Sears stated NIPSCO's metering will measure the net difference of the kilowatt-hour ("kWh") amount.

Per Mr. Sears, the customer's outflow is the net difference, in kWh, between the electricity the customer supplies to the electricity supplier and the electricity supplied by an electricity supplier to a customer. He stated this difference is what the EDG Rider is applied to in accordance with Section 5.

Mr. Sears testified that to the extent the electricity produced by the customer's DG system offsets the energy being used by the customer on an instantaneous basis, the customer will be using the electricity their DG system produces to avoid paying NIPSCO's retail rate that would otherwise be applicable; therefore, DG customers continue to have the opportunity to offset Petitioner's retail rate by using the energy their DG system produces.

Mr. Sears explained that in Cause No. 45378, the Commission was presented with an instantaneous netting proposal by Vectren that was challenged by parties who advocated for monthly netting. In the 45378 Order, the Commission ultimately determined the instantaneous

Commission's rules and standards set forth in 170 IAC 4-4.2 concerning net metering and in 170 IAC 4-4.3 with respect to customer generator interconnection standards continue to apply to net metering under an electricity supplier's net metering tariff and to distributed generation under Chapter 40. We find the application of 170 IAC 4-4.3 to distributed generation is consistent with Ind. Code § 8-1-40-3(a)(4) which recognizes a customer's distributed generation device is to be interconnected and operated in parallel with its electricity supplier's facilities in accordance with the Commission's approved interconnection standards, i.e., per 170 IAC 4-4.3. Section 21 does not, however, direct the referenced Commission rules and standards to be applied to excess distributed generation as defined in Section 5.

[5] Consistent with Ind. Code § 8-1-40-3(b), NIPSCO's definition of EDG does not include electricity produced by (1) an electric generator used exclusively for emergency purposes or (2) a metering facility operating under NIPSCO's net metering tariff.

netting Vectren proposed was a just and reasonable approach to calculating EDG.

Mr. Sears identified key findings, from his perspective, in the 45378 Order and explained how those informed NIPSCO's netting proposal. He explained that in its Vectren Order (at p. 37), the Commission found that instantaneously measuring EDG using the components the General Assembly set forth in Section 5 and calculating the rate per Section 17, yielded rates that are just and reasonable. He noted this finding was supported by the Commission's view that the Distributed Generation Statutes are intended to be a transition from the net metering construct for new DG customers, with the primary value of DG creation in the retail rate context being its offsetting of the customer's demand behind the meter. He stated the Commission also noted that Ind. Code § 8-1-40-19 ("Section 19") provides support that the General Assembly intended to eliminate potential subsidies to EDG customers, which supports approval of instantaneous netting as it reasonably limits using the grid as DG customer storage. Finally, Mr. Sears noted the Commission also called into question the appropriateness of utilizing monthly netting with respect to EDG when it stated, "Accordingly, we cannot conclude it is just and reasonable for Petitioner's other customers to subsidize the payback periods of DG customers by the continuation of monthly netting as opposed to instantaneous netting." 45378 Order at p. 38.

Mr. Sears testified that NIPSCO's metering technology only affords the possibility of using monthly or instantaneous netting. He stated the Distributed Generation Statutes do not specify the frequency with which a utility must calculate EDG, leaving this decision to the Commission to exercise its expertise and discretion to determine the reasonableness of a utility's proposed netting period. Mr. Sears testified that NIPSCO believes its instantaneous netting proposal is just and reasonable and that its proposed EDG measurement and rate comply with the Distributed Generation Statutes. He stated NIPSCO's proposal for instantaneous netting and compensating EDG based upon the Real-Time Locational Marginal Price ("LMP") comply with the Distributed Generation Statutes, including as these were interpreted and applied by the Commission in the 45378 Order, and produce rates that are just and reasonable.

B. <u>Kevin A. Kirkham</u>. Mr. Kirkham testified that in accordance with Section 16, NIPSCO is requesting approval of its EDG Rider to establish a rate for the procurement of EDG. He supported approving the EDG Rider for inclusion in NIPSCO's approved IURC Electric Service Tariff, Original Volume No. 14 ("Electric Tariff"). Mr. Kirkham testified NIPSCO also included, as Attachment 2-C, other changes necessary to its Electric Tariff to incorporate the EDG Rider. He discussed the aggregate amount of net metering capacity remaining under Petitioner's Net Metering Rider as of January 31, 2021. Mr. Kirkham stated NIPSCO has exceeded the overall 1.5% threshold established by Section 10 and the non-reserved amount by 20,529 kW, as well as the total in aggregate by 2,123 kW, but the residential and biomass categories have not exceeded their individual capacity thresholds. While NIPSCO manages its capacity in the aggregate, Mr. Kirkham stated Petitioner will honor the non-reserved amounts for its customers. This benefits non-reserved customers since more projects will be allowed to participate in the Net Metering Rider than would have if NIPSCO managed its capacity by customer categories.

Mr. Kirkham stated NIPSCO maintains a queue for the residential, biomass, and non-reserved categories, and although NIPSCO has received applications in excess of the capacity that is required to be available for the non-reserved category under Petitioner's Net Metering Rider,

NIPSCO has continued to accept these applications. Because NIPSCO has reached the statutory threshold, but not the capacity threshold for residential and/or biomass capacity, he stated Petitioner will continue to accept applications and connect installations for those two categories until January 1 of the first calendar year after the calendar year in which the capacity threshold for residential and/or biomass capacity is reached or July 1, 2022, whichever comes first.

Mr. Kirkham described how the net metering queue is organized for each customer category. He stated that as of January 31, 2021, NIPSCO had 6,421 kW of total capacity for residential customers and no kW of capacity for biomass customers under the Net Metering Rider, leaving 11,635 kW of available capacity for residential customers and 6,771 kW of available capacity for biomass customers. NIPSCO does not anticipate the remaining capacity for residential and biomass customers will be exhausted before July 1, 2022. He stated NIPSCO will continue to accept applications under the Net Metering Rider while the EDG Rider is pending approval and will honor all applications approved by December 31, 2021, consistent with Section 10. To ensure an application can be approved by the December 31, 2021, deadline, NIPSCO is requiring completed applications to be submitted by October 1, 2021. He noted NIPSCO has also continued to approve non-reserved amounts in excess of the minimum threshold.

Mr. Kirkham testified that under the EDG Rider, NIPSCO will measure EDG by capturing the inflow and outflow of energy measured by the utility meter on an instantaneous basis. He explained that the meter for EDG customers will have two channels: (1) a channel labeled inflow that measures the electricity being used by the customer, net of the amount of electricity being produced by the customer during the period recorded by the meter;[6] and (2) a channel labeled outflow that measures the electricity being produced by the customer above the electricity being used by the customer for the same period. He stated the instantaneous calculation the meter performs of the difference between the electricity NIPSCO is supplying and the electricity the customer is supplying to NIPSCO measures EDG as required under Section 5.

Mr. Kirkham testified this measurement method differs from how NIPSCO measures the amount of electricity customers generate under the Net Metering Rider. With EDG, the resulting kWh captured during each cycle a customer's meter measures will be totaled, and the total recorded by the inflow channel used at the end of the monthly billing cycle as the amount of energy in kWh to bill the customer under NIPSCO's standard tariff rate. The resulting total kWh recorded by the outflow channel will, in turn, be used at the end of the monthly billing cycle to calculate the EDG billing credit applied to the customer's monthly bill. Mr. Kirkham testified this measurement of inflow and outflow allows a customer to utilize its DG resource to offset load.

Mr. Kirkham stated the EDG Rider differs from the Net Metering Rider in that first, NIPSCO's proposed instantaneous netting differs from the way net metering is calculated. Second, NIPSCO's proposed EDG Rider differs from the current Net Metering Rider in the way excess generation the DG resource produces is carried forward each month. Under the Net Metering Rider, all generation produced above consumption is credited to the monthly utility bill in energy credits (kWh). These energy credits are then applied to energy consumption (kWh) charged to the

[6] The period being measured by NIPSCO's meter is an interval of less than one second. There can be inflow or outflow for any particular period or the meter can register "0" if the electricity NIPSCO is supplying the customer and the electricity the customer is supplying NIPSCO match.

customer. If the energy credits for the month are greater than the energy consumption charged that month, the difference (in kWh) is carried forward and applied to energy consumption charged in future months. In contrast, under the proposed EDG Rider, each instantaneous measurement has a charge or credit associated with it. Mr. Kirkham explained that at month-end, the amount of kWh accumulated in the outflow channel will be multiplied by the Marginal DG Price to establish the DG Billing Credit applied to the customer's bill. The DG Billing Credit will reduce the amount owed on the monthly bill, potentially to the Minimum Monthly Charge as defined in the customer's applicable rate schedule. He noted that if any DG Billing Credit remains after this reduction, it is carried forward to the next month as a DG Billing Credit balance to reduce the amount owed. If a customer discontinues service at the interconnection address, any unused DG Billing Credit balance will pass to all customers through NIPSCO's fuel cost adjustment ("FAC").

Mr. Kirkham described how the Marginal DG Price is calculated for the EDG Rider. He testified that pursuant to Section 17, the marginal price of electricity for EDG is calculated as the average marginal price of electricity the electricity supplier paid during the most recent calendar year, multiplied by 1.25. He explained that the marginal price of electricity NIPSCO paid for the most recent calendar year was determined by averaging the 2020 Real-Time hourly LMP at NIPSCO's NIPS.NIPS commercial pricing ("CP") node, as reported by Midcontinent Independent System Operator, Inc. ("MISO").[7] He noted this is the CP node at which NIPSCO is charged for energy and advised that for 2020, the average LMP at the NIPS.NIPS CP node was $21.16 per megawatt-hour ("MWh").

Mr. Kirkham testified that to calculate the Marginal DG Price, NIPSCO took the 2020 average Real-Time LMP at the NIPS.NIPS CP node of $21.16 per MWh, multiplied this by 1.25 ($26.45 per MWh), and then converted that to a per kWh basis by dividing $26.45 per MWh by 1,000, resulting in a Marginal DG Price of $0.02645 per kWh. He explained the Real-Time LMP is based upon generation that is utilized but was not forecasted in the Day-Ahead process. The EDG NIPSCO must purchase from its customers is not forecasted; consequently, the Real-Time LMP is the most appropriate basis for calculating the Marginal DG Price. Mr. Kirkham noted that since the Marginal DG Price is calculated using the annual average Real-Time LMP at NIPSCO's NIPS.NIPS CP node for the most recent calendar year, it will change each year. He stated NIPSCO is proposing to annually make a compliance filing in this docket that reflects the updated Marginal DG Price. Because the average marginal price for electricity paid by NIPSCO during the most recent calendar year will not be confirmed until the end of February, NIPSCO proposes to make this annual compliance filing on or before March 1, for implementation on April 1.[8]

Mr. Kirkham testified that because the DG Billing Credits represent a purchase by NIPSCO of excess generation that will serve other customers on its system, these costs will be recovered from NIPSCO's customers as purchased power costs via Petitioner's FAC in accordance with Section 15.

Mr. Kirkham explained how NIPSCO plans to transition eligible customers to the EDG Rider. He stated NIPSCO will continue to offer its Net Metering Rider to customers based on the

[7] MISO is the regional transmission organization in which NIPSCO is a member, as defined in Section 6 of the Distributed Generation Statutes.
[8] Section 16 requires an updated rate for EDG to be submitted annually not later than March 1.

capacity availability of their category except, for non-reserved capacity, NIPSCO will continue accepting applications while the EDG Rider is pending approval and honor applications approved by December 31, 2021. For residential or biomass capacity, the Net Metering Rider will be offered until the threshold for the category is met or July 1, 2022, whichever is earlier. He stated that if NIPSCO has an approved EDG Rider at that time, new qualifying residential and biomass applicants will participate under the EDG Rider, noting that if the threshold is met for either of these categories before NIPSCO has an approved EDG Rider, NIPSCO will treat residential and biomass applicants in a fashion similar to the non-reserved applicants. Per Mr. Kirkham, NIPSCO will continue to update its customers upon the status of residential and biomass capacity, including if it appears the threshold for either category will be met before July 1, 2022, but NIPSCO does not anticipate the remaining capacity for either of these categories will be exhausted before the EDG Rider is implemented.

Mr. Kirkham testified a customer will be transferred from the Net Metering Rider to the EDG Rider but only based on the requirements set forth in Sections 13 and 14. Specifically, for a customer with DG facilities installed on or before December 31, 2017, the Net Metering Rider expires July 1, 2047.[9] For a customer with facilities installed after December 31, 2017, the Net Metering Rider expires July 1, 2032.[10] Thus, based on these statutory deadlines, some customers will move from the Net Metering Rider to the EDG Rider on July 1 of 2032 or 2047. He explained that Sections 13 and 14 also provide that a Net Metering Rider customer that removes or replaces its net metering facility can be removed from the Net Metering Rider. Mr. Kirkham stated that if a customer under the Net Metering Rider increases the size of its facility above the approved capacity and there is no capacity available for that facility category, the customer will be allowed to either reduce the installed capacity to the capacity available under the Net Metering Rider or submit a new application for the total capacity amount that will result in the entire capacity being transferred to the EDG Rider.

6. OUCC and Intervenors' Direct Testimony.

A. OUCC's Direct Testimony.

1. Anthony A. Alvarez. Mr. Alvarez took issue with NIPSCO's proposed application of EDG and recommended the Commission not approve the EDG Rider. He testified that as identified in Section 5, only two components must be present to determine EDG: (1) the electricity that is supplied by an electricity supplier and (2) the electricity supplied to the electricity supplier. He stated Section 5 explicitly defines EDG as the resulting difference between these two components. According to Mr. Alvarez, to determine EDG, the utility or electricity supplier must first take the difference between the electricity supplied to the DG customer and the electricity supplied back by the DG customer. He stated NIPSCO will deploy a utility meter for EDG customers with two channels to capture and measure the inflow and outflow of energy on an instantaneous basis. Mr. Alvarez referred to NIPSCO witness Kirkham's description of the two channels in NIPSCO's meters.[11] He stated the OUCC opposes NIPSCO's proposed metering and

[9] Ind. Code § 8-1-40-14.
[10] Ind. Code § 8-1-40-13.
[11] After describing what the two channels capture, Mr. Kirkham testified the difference the meter instantaneously calculates between the electricity NIPSCO is supplying to the customer and the electricity the customer is supplying to NIPSCO is measuring EDG per Section 5. NIPSCO Exhibit 2 at p. 10.

billing methodologies for EDG customers because they do not conform to the Distributed Generation Statutes' requirements. He acknowledged NIPSCO's proposed EDG Rider defines EDG as it is defined in Section 5 and noted that inflow, outflow, DG Billing Credit, and Marginal DG Price are also defined in the proposed tariff.

Mr. Alvarez testified that based on NIPSCO's definitions, the inflow and outflow channels of its meter for EDG customers register multiple net readings. He stated that utilizing a meter for EDG customers with channels pre-programmed to register net readings of various energy components runs counter to the statutory definition of EDG requiring the difference between two components, i.e., the electricity that is supplied by an electricity supplier to a customer and the electricity that is supplied back to the electricity supplier. According to Mr. Alvarez, the statutory language is clear and unambiguous regarding how to measure EDG. He noted Mr. Kirkham described—and Rider 889 explicitly defines—inflow and outflow as the net of electricity used and produced by a DG customer. He testified the electricity that is supplied by an electricity supplier to a customer should not be net of any other components nor should the electricity supplied to the electricity supplier be a net over or above some other components. Mr. Alvarez opined that NIPSCO's request should be denied because the manner in which its meters will measure EDG does not conform with the statutory requirements.

Mr. Alvarez testified that NIPSCO claims its meters for EDG customers perform instantaneous calculations and capture the inflow and outflow of energy, as measured by the meter, on an instantaneous basis. He noted that in the 45378 Order, the Commission acknowledged "…[electricity] can only flow one way…" (45378 Order at p. 36), and he stated that, at any given instant, instantaneous measurement would not record the difference between the two values required in Section 5 to calculate EDG and, thus, not comply with the statutory definition. He stated the statutory language is unambiguous regarding how to measure EDG and does not reference energy produced or consumed by the customer. From his perspective, the manner in which NIPSCO proposes to measure and record EDG is beyond the purview of the statutory language, and NIPSCO's request should be denied. He further testified that it appears NIPSCO's meters for EDG customers are pre-programmed to measure and register the net readings of various energy components as opposed to conforming to the requirements in the Distributed Generation Statutes. Mr. Alvarez, however, also acknowledged the following exchange in Mr. Sears' direct testimony at page 12:

> Q17 Is NIPSCO's metering measuring the net difference of the kWh amount and monetizing the difference?
>
> A17 Yes. The Outflow is the net difference, in kWh, of the 'electricity that is supplied back to the electricity supplier by the customer' and the 'electricity that is supplied by an electricity supplier to the customer.' This net difference amount is what Rider EDG is applied to in accordance with Ind. Code § 8-1-40-5.

Public's Exhibit No. 1 at p. 6. Mr. Alvarez recommended the Commission not approve NIPSCO's proposed EDG Rider.

B. Indiana DG's Direct Testimony.

1. Benjamin D. Inskeep. Mr. Inskeep observed that NIPSCO originally proposed an EDG Rider that would have allowed DG customers to continue monthly netting, with EDG credited at the EDG Rider rate at the end of the billing period, but NIPSCO amended its petition and filed revised testimony modifying this proposal. Mr. Inskeep testified Petitioner is now proposing that customers taking service under the EDG Rider not be able to net electricity they export to NIPSCO with electricity they import from NIPSCO. He stated NIPSCO calls this instantaneous netting, where each instantaneous measurement has an associated charge or credit, but Mr. Inskeep recharacterized NIPSCO's position as a "no netting" proposal. He opined this is a more accurate characterization because the DG customer is either importing electricity from the utility or exporting electricity to it, but not doing both at a given instance. From Mr. Inskeep's perspective, no actual netting is occurring under NIPSCO's proposal in that NIPSCO is not subtracting or taking the difference between imports and exports, either at any instance or over any time period, before Petitioner applies the EDG rate. He testified that instead of applying monthly netting, all the electricity a DG customer does not immediately consume behind the meter that is exported to NIPSCO under the EDG Rider will be credited to the DG customer at a rate of $0.02645/kWh, and that rate will change each year. He stated all electricity a DG customer imports from NIPSCO will be charged at the applicable retail rate. Mr. Inskeep further testified that NIPSCO calculated the average Real-Time LMP for its load zone within MISO for all hours of 2020 at a NIPSCO pricing node and multiplied that by 1.25. The Average LMP in 2020 was $0.02116/kWh, resulting in an EDG rate of $0.02645/kWh. He was critical of NIPSCO's proposed hourly market prices being determined in each of the 24 hours in each day, including nighttime hours when solar is not generating electricity and NIPSCO's electric demand and wholesale energy market prices are typically lower. He stated that in determining the EDG rate, NIPSCO averaged the wholesale electricity price for all hours of the year, but nearly all DG systems are solar facilities that produce electricity and export power during daylight hours.

Mr. Inskeep viewed NIPSCO's calculation using all hours, including nighttime hours, as not aligning with the hours in which a DG system actually generates electricity and, therefore, not accurately reflecting the marginal price. According to Mr. Inskeep, a customer's solar output shaves or eliminates their demand for electricity during higher-priced hours, and their EDG exports help reduce the need for higher-cost market purchases during these hours. Mr. Inskeep recommended calculating the average marginal price for each hour of the previous year and applying a factor that weights the average price in each hour according to the amount of generation a typical DG system is expected to produce that hour. He provided an example and the results of such a calculation. Mr. Inskeep testified that an alternative approach would be to take the hourly LMP price for each of the solar-generating hours and average them, but he stated this approach would not afford fair consideration to the hours solar DG generation produces the most electricity. Mr. Inskeep stated an even less accurate approach is the one NIPSCO takes where 24 hours of LMP are averaged, disregarding when solar DG actually produces electricity.

Mr. Inskeep asserted there is no language in the Distributed Generation Statutes that says monthly netting should stop. According to Mr. Inskeep, per the legislative history of Senate Bill 309 ("SB 309"), SB 309 originally would have changed the netting methodology by expressly removing all netting, replacing net metering with a buy-all, sell-all tariff. He noted SB 309 was subsequently amended four times before becoming Senate Enrolled Act 309 ("SEA 309"). Mr.

Inskeep testified none of the subsequent versions retained the buy-all, sell-all framework or stated a new netting or no netting methodology should be used.

Mr. Inskeep testified that under Section 5, the measurement of EDG requires calculating the "difference between" two values: (1) electricity supplied by the utility (imports of electricity from the DG customer's perspective) and (2) the electricity supplied by the DG customer to the utility (exports of electricity from the DG customer's perspective). He asserted that although the EDG Rider is distinguishable from a buy-all, sell-all tariff in that it allows a DG customer to self-consume electricity generated by the customer's DG equipment behind the meter, by treating each of the two components of EDG in isolation, NIPSCO's proposal resembles the provisions in the initial version of SB 309 that were removed. Mr. Inskeep testified that under NIPSCO's methodology, NIPSCO is not actually taking the "difference between" electricity supplied by NIPSCO and by the customer to NIPSCO. Instead, NIPSCO's interpretation of the Distributed Generation Statutes renders meaningless the first component of the definition of EDG. He contended a utility cannot calculate EDG as defined by the Distributed Generation Statutes without measuring imported and exported electricity from a DG customer over a period of time, and that time period is the monthly billing period. Mr. Inskeep stated there is no indication in the statute that the DG facility should be designed to limit EDG exports on an instantaneous basis. Per Mr. Inskeep, normal metering practice is monthly netting, and the Commission has not established new regulations implementing changes to netting.

Mr. Inskeep testified NIPSCO's proposal departs from Indiana's current DG policy and the best practices established in other states, is not based on sound ratemaking or cost of service principles, and that it is difficult to overstate the negative effect it will have on Indiana's solar market. He projected NIPSCO's proposal will result in a major policy change to how rooftop solar and other DG technologies will be compensated in the future compared to the monthly net metering policy that has been in place. Mr. Inskeep was critical of NIPSCO not supporting its proposal with a cost of service study demonstrating the proposed netting will produce just and reasonable rates. He stated NIPSCO failed to provide any reasonable basis on which the Commission can conclude Petitioner's approach is the right one compared to many alternative policies. He noted NIPSCO also did not show how its proposal will impact future DG growth, solar installation businesses, employment levels, or the related economic impacts in its service territory. In addition, Mr. Inskeep testified that NIPSCO did not demonstrate its proposal will not recover more than NIPSCO's cost to serve DG customers. He stated the EDG Rider rate is calculated through an arbitrary, albeit legislative, 25% adjustment to the average wholesale market locational marginal price, and changing the EDG rate every year will deprive EDG customers of certainty upon the financial viability of purchasing a DG system. He asserted NIPSCO's proposal will also harm non-DG customers by limiting their ability to adopt DG and reduce the benefits non-DG customers can realize from having more clean, local, DG on the grid.

Mr. Inskeep testified the "no netting" component of the EDG Rider will encourage DG customers to increase their consumption during NIPSCO's highest-cost summer on-peak periods. He stated this policy gives the DG customer a strong financial incentive to export as little electricity as possible, and to avoid receiving the low EDG rate, an economically rational DG customer will strive to shift discretionary electricity consumption to hours when their DG system is generating more electricity than the customer is immediately consuming behind the meter.

Mr. Inskeep testified that NIPSCO's "Purchases from Cogeneration Facilities and Small Power Production Facilities" tariff ("Rider 878"), available to eligible DG facilities, provides a higher compensation rate to DG customers than NIPSCO's prospective EDG Rider. He opined that if the EDG Rider is approved, it seems reasonable to assume it will be seldom used by customers with DG facilities who are eligible under Rider 878 because Rider 878 will likely provide a better economic value for DG customers. Mr. Inskeep recommended NIPSCO provide additional information and education to its consumers upon the Rider 878 alternative.

Mr. Inskeep testified that monthly netting continues to be one of the most widespread and important components of DG compensation policies across the United States. Per Mr. Inskeep, most jurisdictions that have moved away from monthly netting have established a higher rate than the EDG credit rate NIPSCO is proposing. He stated that, typically, state utility regulators have overseen investigations into net metering policies that quantify the costs and benefits of net metering or the value of DG resources. Mr. Inskeep testified the increase in rooftop solar, driven by equipment cost declines and states nearing or exceeding the net metering cap, has led to changes in DG policies; however, utility regulators have increased the availability of monthly netting in two states, and all states and their commissions are making policy decisions governed by their unique legal frameworks, policy priorities, and objectives. He testified the Commission should consider other relevant Indiana statutes and ratemaking principles such as gradualism, simplicity, understandability, public acceptability, and feasibility of application. From his perspective, NIPSCO's proposal is inconsistent with these ratemaking principles, and he provided examples where regulators rejected changes to monthly netting.

Mr. Inskeep stated NIPSCO did not provide evidence regarding the cost to serve a DG customer or have the data on its DG customers that is necessary to determine the cost to serve these customers. He acknowledged that, in general, a cost of service study is not needed in an EDG case, but since NIPSCO is proposing major policy changes in this case that are not directed in the statute and significantly depart from existing policies, he testified it is Petitioner's responsibility to demonstrate these changes are just and reasonable. While he acknowledged SEA 309's sponsor stated he did not want complicated, lengthy ratemaking proceedings, Mr. Inskeep implied a ratemaking proceeding is necessary in this instance because NIPSCO is proposing major policy changes beyond those contemplated in the statutes.

Mr. Inskeep testified that NIPSCO's proposal will significantly harm Indiana's residential and commercial sector solar industry, leading to job losses and reduced economic development benefits. In contrast, he stated retaining monthly netting will not harm NIPSCO or non-DG customers, and he cited studies upon the value of solar in other states. Mr. Inskeep opined that the costs of DG are very modest on NIPSCO and its non-DG customers, and he provided calculations regarding the impact of the EDG Rider. Based on Mr. Inskeep's calculations, NIPSCO's proposal will reduce the effective compensation rate for all exported generation by a residential DG customer by 81.2%.

Mr. Inskeep testified the Commission already found in the 45378 Order that it may exercise its discretion in determining the netting methodology, and he sees nothing in the Distributed Generation Statutes that requires a change from monthly netting. In his view, monthly netting is most consistent with the applicable statutes and long-standing ratemaking principles. He provided a comparative analysis of the impact of various netting methodologies and his calculations upon

the impact of NIPSCO's proposal on a customer's payback period.

Mr. Inskeep reiterated that NIPSCO's proposal will have a devastating impact on the adoption rate of DG technologies like solar by preventing most customers from being able to install a DG system based on the economics. He testified batteries are expensive for individual customers to install and should not be *de facto* mandatory for participation. Mr. Inskeep asserted that monthly netting does not require the utility to serve as the EDG customer's battery and is merely a compensation framework that provides fair compensation to a DG customer for the excess generation they provide the utility.

Mr. Inskeep testified the language in the Distributed Generation Statutes does not expressly specify how unused credits should be treated when a customer no longer receives retail electric service from the utility. He stated it is common for states to allow net metering customers to cash out unused net metering credits, such as on an annual basis for credits that accrued over the year or at the end of service. He, therefore, recommended EDG credits be refundable upon service termination or, if the DG customer moves but remains a NIPSCO customer, carried forward to their subsequent NIPSCO bill. He asserted that confiscating unused EDG credits takes the economic value of exported electricity DG customers provided but provides no compensation to the DG customer for that benefit.

He testified that, while NIPSCO requires all EDG customers to install a disconnection device at their expense, it is his understanding external disconnect switches are not necessary for isolating a small, inverter-based DG facility. Mr. Inskeep noted that Vectren's EDG tariff approved in the 45378 Order does not require Level 1 interconnections to install an external disconnect switch and also cited to New York's Standardized Interconnection Requirements, stating these also do not require a disconnect switch for an inverter-based DG system sized 25 kW or less. Mr. Inskeep claimed this provision in the EDG Rider is unnecessary, unfair, and unjustified, and he recommended the Commission direct NIPSCO to clarify in its EDG Rider that disconnect switches are not required for Level 1 interconnections.

2. Jim Straeter. Mr. Straeter testified that without a reasonable investment payback period, there will be very little demand for solar energy systems. He stated NIPSCO's proposals will increase the customer payback period to over 20 years, while currently, residential customer solar investment payback is typically estimated to be 7-10 years. Mr. Straeter testified that lengthening this payback period will make NIPSCO customers reluctant or unwilling to invest in solar, which will be devastating to Indiana's solar industry, resulting in job losses and market contraction. Mr. Straeter stated NIPSCO's proposal could force his company to lay off workers and, possibly, no longer install solar energy systems in NIPSCO's service area. He testified other Indiana solar installation companies will suffer the same financial harm from EDG proposals like NIPSCO's and will, logically, shift their solar business focus and employment opportunities to neighboring states that treat solar customers reasonably and offer substantially higher EDG rates.

Mr. Straeter testified regarding the benefits of DG, stating these include improving the environment, reducing load on the transmission system, reducing demand for electricity in daylight hours, reducing transmission line loss, and avoiding carbon-based fuel use and costs. He stated customer-owned solar generation brings jobs and economic stimulus, with Indiana solar jobs

totaling approximately 3,400 in 2020. Mr. Straeter testified it is unfair for electric utilities to seek regulatory treatments that, effectively, prevent customers from using the sun to illuminate, cool, and heat their homes with their own solar generation. In his view, NIPSCO's EDG proposal prevents customers from installing solar generation, is unjust and unreasonable, and should not be approved.

7. Petitioner's Rebuttal Evidence.

A. Robert C. Sears. On rebuttal, Mr. Sears responded to challenges OUCC witness Alvarez and Indiana DG witness Inskeep raised about the time period over which NIPSCO proposes to net or calculate the difference between the two components identified in Section 5. More specifically, Mr. Alvarez contended NIPSCO's proposed definition of EDG does not comply with the Distributed Generation Statutes because NIPSCO does not: (a) separately calculate or record "the electricity that is supplied by an electricity supplier to a customer that produces distributed generation;" (b) separately calculate and record "the electricity that is supplied back to the electricity supplier by the customer;" and then (c) separately calculate the difference between the values of (a) and (b). He stated that on this basis, Mr. Alvarez alleges NIPSCO's method for calculating EDG does not comply with the Distributed Generation Statutes.

Mr. Sears testified that based on his review of Mr. Inskeep's testimony, Mr. Inskeep does not claim NIPSCO's EDG methodology fails to comply with the Distributed Generation Statutes, as Mr. Alvarez does. Mr. Inskeep believes there is a better method and states that he "proposes a more accurate methodology for crediting EDG."[12] Petitioner's Exhibit No. 1-R at p. 5. Mr. Sears stated that Mr. Inskeep claims "NIPSCO is *not* subtracting, or taking the difference between, imports and exports, either at any instance or over any time period, before it then applies the EDG Rider rate to the resulting net amount or total." Petitioner's Exhibit No. 1- R at p. 5 (original emphasis).

Mr. Sears explained that instead of NIPSCO's instantaneous netting proposal, Mr. Inskeep urges applying a monthly netting methodology. Mr. Sears noted that Mr. Inskeep went into much background about the legislative history of the Distributed Generation Statutes, citing various ratemaking principles and policy arguments as support, and that he characterizes NIPSCO's instantaneous netting proposal under the EDG Rider as "a radical departure from its current policy" under net metering. Petitioner's Exhibit No. 1-R at p. 5. However, according to Mr. Sears, much of Mr. Inskeep's opposition to NIPSCO's EDG proposal seems based on the purported impact it may have on the distributed solar industry. Mr. Sears testified this is likely best evidenced on pages 72-73 of Mr. Inskeep's testimony where he states, "[A]s a result of the large reduction in potential savings for installing DG, NIPSCO's 'no netting' proposal would have a devastating impact on the adoption rate of DG technologies like solar by preventing most customers from being able to install such a DG system based on the economics." Petitioner's Exhibit No. 1-R at p. 6.

Mr. Sears disagreed that NIPSCO's EDG proposal is, in essence, a "no netting" proposal, noting this term is contradicted by Mr. Inskeep's testimony that NIPSCO's "EDG Rider is distinguishable from a buy-all, sell-all tariff in that it does allow a DG customer to self-consume

[12] As noted above, in Petitioner's Stipulations of Fact, NIPSCO stipulated, "Mr. Inskeep does testify that NIPSCO's EDG methodology fails to comply with the DG Statute, I.C. 8-1-40 *et. seq*." (Citing Indiana DG Exhibit No. 1 at p. 16, lines 4-8 and p. 22, lines 14-17).

electricity generated by its own private DG equipment behind the meter[.]" Petitioner's Exhibit No. 1-R at p. 6.

In response to Mr. Alvarez's criticism that NIPSCO is not separately calculating or recording the two statutory components in Section 5, Mr. Sears disputed that NIPSCO's definition of EDG does not comply with the Distributed Generation Statutes, and he pointed out that no language in Section 5 (or another portion of the Distributed Generation Statutes) requires separate recording of the two components. Section 5 requires there be a calculation of "the difference between" these two components—with this difference being the basis for what the customer will receive compensation for. Mr. Sears stated NIPSCO's meters can and will accurately measure the "net" or the difference between these two components through the outflow channel, and the fact that this calculation is efficiently and accurately performed on an instantaneous basis by NIPSCO's meters does not mean NIPSCO's proposal fails to comply with the Distributed Generation Statutes.

Regarding Mr. Inskeep's criticisms, while Mr. Sears disagreed with Mr. Inskeep's use of "no netting" when describing NIPSCO's proposal, he stated Mr. Inskeep seems to acknowledge instantaneous netting is one potential method of calculating the difference of the two components under Section 5. He testified that Mr. Inskeep may believe there is a better methodology for crediting EDG, but his statements about "fairer" or "less punitive" netting methodologies imply NIPSCO's instantaneous proposal is a "netting" methodology—he just prefers others. Petitioner's Exhibit No. 1-R at p. 8.

Mr. Sears testified that although Mr. Inskeep may believe "longer netting periods . . . are fairer to EDG customers," the question before the Commission is whether what NIPSCO is proposing complies with the Distributed Generation Statutes. He opined that it does and stated NIPSCO's current metering technology does not allow Petitioner to consider any netting period other than instantaneous or monthly netting. Thus, other potential netting periods Mr. Inskeep discussed are not relevant. Mr. Sears testified that NIPSCO's proposed instantaneous netting is based upon a reasonable interpretation of the Distributed Generation Statutes and consistent with the 45378 Order. He pointed out that in the 45378 Order, the Commission found instantaneous netting properly measures EDG under Section 5, *see* 45378 Order at p. 34,[13] and further found that "instantaneous netting is permissible under Section 5," and Vectren's proposed instantaneous netting "yields rates that are just and reasonable." 45378 Order at p. 37. Mr. Sears stated that with respect to the criticism Mr. Alvarez raises about NIPSCO's meters performing the netting calculation in a single measurement, this was also addressed in the 45378 Order. He testified NIPSCO's netting proposal and its metering technology are materially identical to the netting methodology and technology approved in the 45378 Order.

Mr. Sears testified the Distributed Generation Statutes do not mandate that netting occur over any particular interval when calculating EDG.[14] He explained that Section 5 directs that the difference between the two components be calculated, but it does not specify over what period of time it is to be calculated, as the Commission acknowledged in the 453278 Order. 45378 Order at

[13] The Commission found Vectren's proposed EDG tariff, which utilizes instantaneous netting, defines EDG consistent with Section 5 and that Vectren's meter's measurement of outflow "instantaneously nets both components of EDG under Section 5 at the meter to arrive at EDG." 45378 Order at pp. 34-35.

[14] In Petitioner's Stipulation of Facts, NIPSCO stipulated that "NIPSCO believes that multiple types of EDG netting are lawful under the DG Statute and are potentially reasonable, including instantaneous, monthly, weekly, and daily."

p. 38.

Based on his review, Mr. Sears stated it appears the OUCC and Indiana DG agree the Distributed Generation Statutes do not mandate using a particular time period when calculating EDG. For example, on page 6 of his testimony, Mr. Inskeep states, "To the extent the Commission disagrees with my recommendation to maintain monthly netting under the EDG Rider, I recommend it consider alternative netting methodologies that are less punitive to customers." Indiana DG Exhibit No. 1 at p. 6. Mr. Sears noted that in Sections II.F (Other Netting Periods) and II.G (Analysis of Impacts) of Mr. Inskeep's testimony, he discusses several netting time periods, including instantaneous, hourly, daily, and monthly. In addition, while Mr. Inskeep does not explicitly state the Commission has discretion to determine the appropriate netting period, he acknowledges the Commission has stated it has such discretion.

Mr. Sears testified that it appears Mr. Alvarez also agrees the Distributed Generation Statutes do not mandate using a particular time period. He noted that Mr. Alvarez states, "[T]o determine EDG, the utility or electricity supplier must first take the difference between the electricity supplied to the distributed generation ('DG') customer and the electricity supplied back by the DG customer." Public's Exhibit No. 1 at p. 3. But, he never definitively states over what time period the difference must be measured.

Mr. Sears testified the OUCC did not take issue with NIPSCO's proposed Marginal DG Price, but Mr. Inskeep claims NIPSCO's EDG credit rate (e.g., Marginal DG Price) is not reasonable. He explained that Mr. Inskeep does not claim NIPSCO's formula or methodology for calculating the Marginal DG Price does not comply with the Distributed Generation Statutes. Instead, similar to his criticisms about netting, Mr. Inskeep proposes alternative methods for calculating the compensation rate that he views as better or more reasonable.

Mr. Sears also testified that Section 17 clearly states the Commission "shall approve a rate to be credited to participating customers by the electricity supplier for excess distributed generation" if the rate the electricity supplier proposes (in this case, NIPSCO) "was accurately calculated and equals the product of: (1) the average marginal price of electricity paid by the electricity supplier during the most recent calendar year; multiplied by (2) one and twenty-five hundredths (1.25)." He noted Section 17 does not state a subset of hours should be used or that specific hours are to be given greater weight than others. Rather, Section 17 states NIPSCO is to take "the average marginal price of electricity paid by the electricity supplier during the most recent calendar year." Accordingly, NIPSCO averaged all hours of the most recent calendar year in calculating the Marginal DG Price, as Mr. Inskeep acknowledges. "NIPSCO has averaged the wholesale electricity price for all hours of the year." Indiana DG Exhibit 1 at p. 11.

Mr. Sears reviewed two approaches Mr. Inskeep outlined as potential ways for NIPSCO's Marginal DG Price to be calculated. He testified the result of one of Mr. Inskeep's proposals is a rate that is 12.9% higher than NIPSCO's Marginal DG Price. He stated that Mr. Inskeep does not allege the proposed Marginal DG Price fails to comply with the Distributed Generation Statutes, and while Mr. Inskeep may have proposals he feels will better incentivize DG investment, NIPSCO is required to comply with Section 17—as Petitioner has done. He noted the Distributed Generation Statutes require a mathematical calculation to arrive at a "product," meaning the result of multiplying certain factors, with one of those factors being the average price NIPSCO paid for

energy during the most recent calendar year. He testified that Mr. Inskeep never explains how Section 17 can properly be interpreted to allow NIPSCO to pick-and-choose only parts of the calendar year to use in the calculation. Mr. Sears stated it is also important to note that if a higher Marginal DG Price is paid to customers under the EDG Rider, these higher rates must be recovered from NIPSCO's non-DG customers through the FAC. Consistent with the Distributed Generation Statutes, NIPSCO's Marginal DG Price is based on 125% of the price NIPSCO paid for energy in the wholesale market over the prior calendar year. Thus, Mr. Sears stated NIPSCO's proposed Marginal DG Price complies with Section 17 and should be approved.

In response to Mr. Inskeep's testimony that NIPSCO is proposing to confiscate credits remaining when a customer discontinues service and is unfair to customers because earned EDG credits should be refundable, Mr. Sears cited the language in Section 18 that states, "Any excess credit shall be carried forward and applied against future charges to the customer for as long as the customer receives retail electric service from the electricity supplier at the premises." He noted this language is what is relevant, not what other states may require or allow. Mr. Sears stated that consistent with Section 18, NIPSCO proposes in Section 6 of the EDG Rider that when a customer discontinues service under the EDG Rider and no longer receives retail electric service from NIPSCO at the premises, any unused DG Billing Credit balance will be forfeited and passed back to NIPSCO's customers through the FAC or a successor mechanism. He opined that NIPSCO is not confiscating remaining credits. Consistent with Section 18, under NIPSCO's proposal, when a credit can no longer be carried forward, it will pass to all FAC customers.

Mr. Sears testified that NIPSCO's proposed EDG Rider will continue to provide DG customers the opportunity to offset Petitioner's full retail rate with energy produced by their DG system. To the extent the electricity produced by the customer's DG system offsets the energy being used by that customer on an instantaneous basis, the customer will use the electricity their DG system produces to completely avoid paying NIPSCO's retail rate. He stated future DG customers will need to determine the most appropriate sizing of their system and manage their system and usage to achieve their economic objectives.

In addressing Mr. Inskeep's claim that "NIPSCO seeks to impose the most restrictive EDG paradigm possible, which will result in many customers not being able to install solar and the potential demise of [the] solar installation business in Indiana," (Petitioner's Exhibit No. 1-R at pp. 18-19) and Mr. Straeter's claim that NIPSCO's proposal "treats customer solar as punitively as possible," Mr. Sears testified both witnesses unjustifiably assign malintent to NIPSCO. He stated NIPSCO is proposing a reasonable approach that complies with the Distributed Generation Statutes and complies with how the Commission has interpreted these statutes. He reiterated that based on current technological capabilities, NIPSCO has only two options when calculating the difference between the two components in Section 5—either monthly or instantaneous netting. He stated NIPSCO is proposing instantaneous netting because it is an appropriate and accurate way of calculating the prescribed difference and because the Commission called into question the justness and reasonableness of monthly netting in the 45378 Order when it stated, "[W]e cannot conclude it is just and reasonable for [Vectren's] other customers to subsidize the payback periods of DG customers by the continuation of monthly netting as opposed to instantaneous netting." 45378 Order at p. 38.

Mr. Sears testified that with respect to NIPSCO's proposed Marginal DG Price, NIPSCO

calculated the price at which EDG will be compensated in compliance with the Distributed Generation Statutes, based on every hour of the prior calendar year utilizing the Real-Time LMP. He stated that NIPSCO's EDG Rider is, therefore, in compliance with the Distributed Generation Statutes and should be approved.

B. Kevin A. Kirkham. On rebuttal, Mr. Kirkham testified that NIPSCO currently has dual channel meters with the capability to measure inflow and outflow either monthly or instantaneously; consequently, other netting time periods–such as hourly, daily, weekly, or any other interval—are not now technically feasible. He stated the instantaneous period the meter measures is an interval of less than one second.[15] There can be inflow or outflow for any particular period or the meter can register "0" if the electricity NIPSCO supplies to the customer and the electricity the customer supplies to NIPSCO match. Mr. Kirkham explained the inflow and outflow channels and stated that if the customer is producing more than they are consuming, it is registered as outflow. If they are consuming more than they are producing, it registers as inflow.

Mr. Kirkham unequivocally testified that the calculation the meter performs is "the difference between" the two components required by Section 5. He stated the outflow measured and recorded by NIPSCO's meters is the net, in kWh, of both components of Section 5—the electricity that is supplied back to the electricity supplier by the customer and the electricity that is supplied by an electricity supplier to a customer. Mr. Kirkham explained that while NIPSCO defines outflow in the EDG Rider as "[t]he separate meter channel measurement of electricity being produced by Customer above the electricity being used by Customer," (Petitioner's Exhibit No. 2-R at p. 5), in this definition the word "above" refers to the "net" or "difference" between the two components. Mr. Kirkham testified that, as provided in Section 3 of the EDG Rider, NIPSCO takes the "Outflow kWh (Excess Distributed Generation)" for the monthly billing cycle and multiplies it by the Marginal DG Price to determine the customer's DG Billing Credit.

Mr. Kirkham testified that in the 45378 Order, the Commission discussed the instantaneous netting calculation and, ultimately, rejected the argument Mr. Alvarez raises in his testimony. *See* 45378 Order at pp. 34-36. He stated NIPSCO's meters operate similar to Vectren's in the way inflow and outflow are calculated, and Mr. Kirkham expressed confidence that what NIPSCO's meters register as outflow is the difference between the two components under Section 5.

Mr. Kirkham testified that NIPSCO's requirement that customers install a disconnect switch is about the safety of the customer, NIPSCO's employees, and first responders who may access a customer's property or equipment in the event of an emergency. He stated a disconnect switch is a standard requirement for all customer-owned generation, and it is currently required for all NIPSCO's Level 1, Level 2, and Level 3 interconnections.[16] It also is required for all net metering facilities.[17] Mr. Kirkham testified this safety requirement has previously been approved by the Commission in multiple instances, and he cited to the interconnection requirements of Duke Energy, Indiana Michigan Power, and DTE Energy, all of whom require disconnect switches for

[15] In Petitioner's Stipulation of Facts, NIPSCO stipulated that "NIPSCO's meters would have 60 measurement cycles per second, and each cycle would be made up of 68 snapshots of energy values."

[16] *See* https://www.nipsco.com/docs/librariesprovider11/rates-and-tariffs/electric-rates/2020-current-rates/electric-service-tariff-(entire-book).pdf?sfvrsn=24, at Rider 789, Sheet No. 7 of 16 (Level 1) and Sheet No. 10 of 16 (Levels 2 and 3).

[17] *See Id*. at Rider 880, Sheet No. 5 of 9.

all interconnections. He also testified that according to NIPSCO System Planning, it is a requirement under Section 690.13 of the National Electric Code (Photovoltaic System Disconnecting Means), including specifically in Section E. Mr. Kirkham stated that requiring disconnect switches for safety purposes is allowed under Ind. Code § 8-1-40-22 ("Section 22") of the Distributed Generation Statutes.

8. Commission's Discussion and Findings. This is the second proceeding under the Distributed Generation Statutes in which the Commission is being asked to approve an EDG Rider. Cause No. 45378 was the first, with the 45378 Order issued on April 7, 2021, reflecting the Commission's interpretation of Ind. Code ch. 8-1-40. In this matter, similar but also additional evidence was admitted, to which the Commission will apply the Distributed Generation Statutes.

A. Implementation and Calculation of EDG Rider.

1. Timeliness of Petitioner's Filing for an EDG Rate.

Under Section 10, a utility is to make its net metering tariff available until the earlier of July 1, 2022, or "January 1 of the first calendar year after the calendar year in which the aggregate amount of net metering facility nameplate capacity … equals at least one and one-half percent (1.5%) of the most recent summer peak load." Section 10 requires that a utility petition the Commission for approval of a rate for the procurement of EDG if, before July 1, 2022, the utility reasonably anticipates, at any point in a calendar year, the aggregate amount of its net metering facility nameplate capacity will equal at least 1.5% of its most recent summer peak load. Otherwise, an electricity supplier must file a petition seeking approval of a rate for its procurement of EDG by March 1, 2021.

Petitioner's witness Kirkham testified that as of January 1, 2021, NIPSCO exceeded the overall 1.5% threshold established in Section 10. Additionally, as of January 31, 2021, NIPSCO exceeded the threshold for non-reserved customers by more than 20,000 kW, but Petitioner had not reached the capacity thresholds for residential or biomass customers; therefore, NIPSCO initiated this proceeding on March 1, 2021.[18]

The propriety of when NIPSCO filed for approval of an EDG rate under Section 10 was not questioned. Based on Petitioner's evidence, the Commission finds that at the time NIPSCO initiated this proceeding, Petitioner reasonably anticipated its aggregate capacity level would exceed the statutory 1.5% threshold.

2. EDG Rider Rate.

Once a utility timely files a request for an EDG rate in accordance with Section 10, Section 17 requires the following:

> The commission shall review a petition filed under section 16 [Ind. Code § 8-1-400-6] of this chapter by an electricity supplier and, after notice and a public

[18] NIPSCO has voluntarily elected to continue approving non-reserved net metering applications, although Petitioner has met the applicable threshold, and committed to accept all such applications that are approved by December 31, 2021.

> hearing, shall approve a rate to be credited to participating customers by the electricity supplier for excess distributed generation if the commission finds that the rate requested by the electricity supplier was accurately calculated and equals the product of:
>
> (1) the average marginal price of electricity paid by the electricity supplier during the most recent calendar year; multiplied by
>
> (2) one and twenty-five hundredths (1.25).

Under Section 17, a credit mechanism is established, and the Commission is charged with approving the rate to be credited.

Mr. Kirkham explained and supported NIPSCO's calculation of the EDG Rider rate, which NIPSCO references as the Marginal DG Price. He testified that to determine the average marginal price of electricity under Section 17 that NIPSCO paid during 2020, i.e., the most recent calendar year, NIPSCO averaged the 2020 Real-Time hourly LMP at NIPSCO's NIPS.NIPS CP node, as reported by MISO. He noted the NIPS.NIPS load node is the node at which NIPSCO is charged for energy which makes it representative of the marginal price Petitioner paid for energy. To calculate the proposed Marginal DG Price, the 2020 average LMP per MWh at the NIPS.NIPS load node of $21.16 per MWh was multiplied by 1.25, yielding $26.45 per MWh that Petitioner converted to $0.02645 on a per kWh basis. Mr. Kirkham also testified that NIPSCO will update its Marginal DG Price annually.

Indiana DG witness Inskeep challenged the hours NIPSCO's proposed Marginal DG Price is based upon, contending NIPSCO's calculation using all hours, including nighttime hours, does not align with the hours a DG system actually generates electricity and, therefore, fails to accurately reflect the marginal price. He testified NIPSCO's customers' highest demands for electricity generally occur during the early afternoon when solar DG typically generates electricity and market prices are high; consequently, it is irrational to calculate the value of EDG based on hours when EDG is not being generated and exported to the grid. Mr. Inskeep recommended calculating the average marginal price of electricity for each hour of the previous year and applying a factor that weights the average price in each hour according to the amount of generation a typical DG system is expected to produce that hour. His calculations resulted in a 2020 average LMP of $0.2388/kWh, and when multiplied by the statutory 1.25 amount, yielded an EDG credit of $0.02985/kWh. That is 12.9% higher than NIPSCO's proposed EDG rate. While Mr. Inskeep concluded that calculating the EDG rate based on daylight hours avoids irrationally calculating solar EDG based, in part, on night hours when solar EDG is not exporting to the grid, the Commission finds that Section 17 provides no methodology to exclude hours or weight certain hours differently, instead directing that the average marginal price during the most recent calendar year be used for this calculation. The Commission further notes that the hours when solar DG systems may not export are not necessarily the same hours when other DG customer resources such as wind or biomass are not producing.

The Commission is a statutory creation, *see* Ind. Code § 8-1-1-2, that serves as a fact-finding body with the technical expertise to regulate Indiana utilities consistent with the regulatory scheme the legislature devises. *Northern Indiana Pub. Serv. Co. v. U.S. Steel Corp.*, 907 N.E.2d

1012, 1015 (Ind. 2009). As such, the Commission "derives its power and authority solely from the statute, and unless a grant of power and authority can be found in the statute it must be concluded that there is none." *Indiana Bell Tel. Co. v. Indiana Util. Regulatory Comm'n*, 715 N.E.2d 351, 360 n.3 (Ind. 1999) (citations omitted). The authority of state agencies like the Commission is limited to the express authority conferred by statutory enactment. *Board of Comm'rs of Morgan County v. Wagoner*, 699 N.E.2d 1196, 1199 (Ind. Ct. App. 1998); *Indiana. Dept. of Natural Res. v. Town of Syracuse*, 686 N.E.2d 410, 411 (Ind. Ct. App. 1997).

In Section 17, the legislature directed how the "rate to be credited to participating customers by the electricity supplier for excess distributed generation" shall be calculated. Section 17 does not differentiate between what this rate should be depending upon the DG resource. Section 17 also does not state a certain "subset" of hours should be used or authorize the Commission to give certain specific hours greater weight than others. Section 17 plainly states that "the average marginal price of electricity paid by the electricity supplier during the most recent calendar year" is to be used. In calculating the Marginal DG Price, we find NIPSCO properly averaged the wholesale electricity price for all hours of the most recent calendar year.

The Commission rejects Mr. Inskeep's claims that NIPSCO's proposal "create[s] a perverse incentive by doing the opposite of what the price signals in these rates are designed to incentivize" and encourages DG customers to increase their consumption during NIPSCO's highest cost summer on-peak periods" Indiana DG Exhibit No. 1 at p. 28, lines 4-8. There is no language in the Distributed Generation Statutes stating or implying its purpose is to incentivize DG customers to generate at specific time periods, but the General Assembly did manifest an intent in these statutes to encourage DG customers to size their systems to meet their needs – not to build systems to send substantial energy to the grid. To that end, Ind. Code § 8-1-40-3 ("Section 3") provides that DG facilities to which the statute is applicable are those with a "nameplate capacity of the lesser of: (A) not more than one (1) megawatt; or (B) the customer's average annual consumption of electricity on the premises." In addition, as discussed above, Mr. Inskeep focuses exclusively on solar generation. He ignores that tailoring the EDG rate to solar resources could be detrimental to other resources such as wind or biomass. The Distributed Generation Statutes—specifically, Section 17—and NIPSCO's EDG Rider, however, treat all DG resources equally.

Given the evidence and the applicable statutory language, the Commission finds the rate for crediting EDG and the calculation Mr. Kirkham presented (Petitioner's Exhibit No. 2 at pp. 15-18) are derived from, and consistent with, the process directed under Sections 6 and 17, neither of which sanctions cherry picking certain hours for greater weight when making this calculation. Accordingly, the Commission finds Petitioner's proposed Marginal DG Price and its calculation were shown to be reasonable and comply with Sections 6 and 17; therefore, the Commission approves Petitioner's proposed rate for crediting EDG, i.e., the Marginal DG Price.

3. Carryover EDG Credits.

NIPSCO seeks approval of a crediting mechanism that affords an EDG Rider customer a credit on the customer's monthly bill, with any excess credit carried forward consistent with Section 18 and applied against Petitioner's future retail charges to that EDG customer for as long as the customer receives electric service from Petitioner at the premises. Any DG Billing Credit balance remaining when that customer terminates service is to be passed back to all customers

through NIPSCO's FAC. Mr. Inskeep took issue with Petitioner's proposal to return any credit balance remaining to all customers through the FAC rather than cashing out this balance. He recommended remaining credits be refundable to EDG customers. Mr. Inskeep asserted that any credit balance represents the approved value of EDG the customer generated, so to not compensate them for that value improperly takes the DG customer's property. As discussed below, the Commission disagrees.

In evaluating the alternatives, the Commission looks first to the following directives in Section 18:

> An electricity supplier shall compensate a customer from whom the electricity supplier procures excess distributed generation (at the rate approved by the commission under section 17 [Ind. Code § 8-1-40-17] of this chapter) through a credit on the customer's monthly bill. Any excess credit shall be carried forward and applied against future charges to the customer for as long as the customer receives retail electric service from the electricity supplier at the premises.

Section 18 does not direct or support cash payments to EDG Rider customers, thereby, treating them, arguably, like a wholesale supplier as opposed to adhering to the credit mechanism the legislature established. In this regard, it is important to recognize what the Distributed Generation Statutes say, as well as what they do not say. *See Van Orman v. State*, 416 N.E.2d 1301, 1305 (Ind. Ct. App. 1981). Consistent with the EDG Rider being a retail rate crediting mechanism, Section 18 calls for a credit to be applied against NIPSCO's charges for electric service. Similar to Section 18, Sections 15 and 17 provide for the approved rate to EDG customers to be credited, with Section 17 providing that the Commission "shall approve a rate to be credited to participating customers by the electricity supplier for excess distributed generation." We also note that under Ind. Code § 8-1-40-3(a)(3) ("Section 3"), to be properly sized, a DG customer's system is to be sized to meet the customer's load, limiting the likelihood of a credit-positive position over time. From the Commission's perspective, the crediting mechanism encourages compliance with Section 3 because it precludes customers when taking or terminating NIPSCO's service from monetarily profiting by oversizing their DG system since compensation is limited to a credit against Petitioner's charges. NIPSCO must take all the EDG its customers provide, but its customers may manage the extent to which there is a credit balance. Under this scenario, the Commission is not persuaded there is a taking by NIPSCO absent a cash payout. The amounts NIPSCO credits to its EDG customers are recovered from all customers via the FAC and, as proposed, Petitioner will return any credit balance to all customers using the FAC when the EDG customer stops receiving electric service at the premises.

Based on the Distributed Generation Statutes, the Commission approves NIPSCO's proposal to adopt the proposed retail rate crediting mechanism that affords EDG Rider customers a credit, with any DG Billing Credit balance remaining when the participating customer terminates NIPSCO's electric service at the premises to be credited through the FAC.

4. Compliance Filing Updates.

Section 16 provides that after approval of the initial rate, a utility shall "submit on an annual basis, not later than March 1 of each year, an updated rate for excess distributed generation in

accordance with the methodology set forth in section 17 of this chapter." Accordingly, Petitioner proposes to update its EDG Rider rate annually, by March 1, via a compliance filing under this Cause. Having reviewed above (and approved) Petitioner's method of calculating the EDG rate under Section 17 and after reviewing the evidence presented upon NIPSCO's methodology for annually updating the EDG Rider, the Commission finds NIPSCO's proposal for annually updating its EDG rate is consistent with, and meets the requirements of, Section 16.

5. Recovery of Amounts Credited to EDG Customers through the FAC.

Section 15 provides, "Amounts credited to a customer by an electricity supplier for excess distributed generation shall be recognized in the electricity supplier's fuel adjustment proceedings under IC 8-1-2-42." Because the DG Billing Credits represent energy transferred to NIPSCO to serve other customers on NIPSCO's system, these costs will be recovered from NIPSCO's customers as part of fuel costs, specifically, purchased power costs, in Petitioner's monthly FAC in accordance with Section 15. The Commission finds Petitioner should be authorized, consistent with the statute, to recover amounts credited to EDG customers through its FAC.

B. EDG Tariff Determination.

1. Section 5.

The OUCC and Indiana DG contend Petitioner's proposal to use instantaneous netting does not comply with the Distributed Generation Statutes. Specifically, they assert NIPSCO is not determining EDG in accordance with Section 5. The Commission will, therefore, first look at Section 5, which states:

> As used in this chapter, 'excess distributed generation' means the difference between:
>
> (1) the electricity that is supplied by an electricity supplier to a customer that produces distributed generation; and
>
> (2) the electricity that is supplied back to the electricity supplier by the customer.

After reviewing all the testimony, the Commission disagrees with OUCC witness Alvarez, as will be discussed below, that the outflow Petitioner's meter captures only recognizes Section 5(2). Petitioner's EDG tariff defines EDG consistent with Section 5, and mechanically, Petitioner's evidence shows that in measuring outflow, NIPSCO's meter instantaneously nets both components of EDG under Section 5 at the meter to arrive at EDG. The EDG the meter measures is the "difference between" these components, not merely one component. As Mr. Kirkham explained on rebuttal:

> There is one channel labeled 'inflow' that measures the electricity being used by the customer, *net of* the amount of electricity being produced by the customer during the period recorded by the meter. Stated differently, the inflow channel is calculating the difference between two components: (1) electricity being produced by the customer's distributed generation facility and (2) the electricity that NIPSCO

> is supplying to the customer. It is the difference between these two components that is being measured and recorded by the meter as 'inflow.'
>
> Similarly, the channel labeled 'outflow' measures electricity being produced by the customer *above* the electricity being used by the customer for the same period. Again, stated differently, the outflow channel is calculating the difference between two components: (1) electricity that NIPSCO is supplying to the customer and the customer is consuming and (2) electricity being produced by the customer's distributed generation facility. It is the difference between these two components that is being measured and recorded by the meter as 'outflow.'
>
> If the customer is producing more than they are consuming, it is registered as Outflow. And if they are consuming more than they are producing, it is registered as Inflow.

Petitioner's Exhibit No. 2-R at p. 3, lines 1-17 (emphasis in original).

In Cause No. 45378, the OUCC offered testimony from Mr. Alvarez that was substantively similar to his testimony in this proceeding. Here, Mr. Alvarez claims:

> By utilizing a utility meter for EDG customers with channels pre-programmed to register net readings of various energy components, it runs counter to the plain language of the statutory definition of 'excess distributed generation' requiring the difference between two components: 'the electricity that is supplied by an electricity supplier to a customer…' and 'the electricity that is supplied back to the electricity supplier…'

OUCC Exhibit No. 1 at p. 5, lines 14-20. Interestingly, the implication in this statement is that NIPSCO's meters are, indeed, registering net readings, but for Mr. Alvarez, NIPSCO's proposal should not be approved "because the manner in which its proposed utility meters measure EDG do[es] not conform with the statute's requirements." OUCC Exhibit No. 1 at p. 6, lines 1-3.

Essentially, we find Mr. Alvarez arrives at the difference between Section 5(1) and 5(2) at a different time than NIPSCO, deducting inflow a second time and disregarding that the meter itself already measured the difference by instantaneously netting the two components of EDG to arrive at EDG. As provided in OUCC Exhibit No. 2 at p. 8, which reflects NIPSCO's responses to the OUCC's First Set of Data Requests, "NIPSCO admit[ted] that the kWh amounts recorded and captured in the inflow channel by NIPSCO's meters are not netted against the kWh amounts recorded and captured under the outflow channel by NIPSCO's meters." We are not, however, persuaded that this means NIPSCO's EDG Rider is not compliant with Section 5. Section 5 does not require separate recording of the two components. Section 5 requires there be a calculation of "the difference between" these two components—with this difference being the basis for what the customer will receive compensation for. NIPSCO could install two separate meters—one to measure only "the electricity that is supplied by an electricity supplier to a customer that produces distributed generation" and one to measure "the electricity that is supplied back to the electricity supplier by the customer"—and then NIPSCO could separately net the instantaneous readings from these two meters to come up with "the difference between" the two statutory components. *See* Petitioner's Exhibit No. 1-R at p. 7, footnote 3. But the Commission finds this would be

inefficient, is not required by Section 5, and would yield the same result as utilizing NIPSCO's single meter. Since the electricity supplied by NIPSCO and the electricity supplied by the customer are ultimately competing to be carried across the same single line, in any instant the competing supplies must net to determine the direction of electricity flow. When the supply from the customer's distributed generation exceeds the customer's need behind the meter, the resulting outflow, netted against the necessary inflow of zero being supplied by the electricity supplier, becomes the netted EDG under the statute. Put another way, if there is outflow the customer's meter cannot simultaneously register inflow, and the difference between the metered outflow and inflow, which is zero, is equal to the metered outflow. Thus, the components of Section 5 under NIPSCO's proposal are instantaneously netted when they compete for the direction of flow.

The Commission finds the instantaneous calculation the meter performs of the difference between the electricity NIPSCO is supplying and the electricity the DG customer is supplying to Petitioner properly measures EDG, consistent with Section 5. Our finding is supported by the substantial evidence Petitioner presented explaining how outflow is calculated at the meter in accordance with Section 5 and accounts for the difference Section 5 prescribes.

NIPSCO's testimony demonstrates that its meters register as outflow the net of both components of EDG. Mr. Kirkham testified, "The Outflow (as measured and recorded by NIPSCO's meters) is the net, in kWh, of both components of Section 5—the 'electricity that is supplied back to the electricity supplier by the customer' and the 'electricity that is supplied by an electricity supplier to a customer.'" Petitioner's Exhibit No. 2-R at p. 5, lines 11-14. Mr. Alvarez did not persuade us otherwise. Essentially, as Mr. Kirkham explained in his rebuttal testimony, the meter counts what goes through the meter and puts it into either the inflow or the outflow "bucket," but to get into the outflow "bucket," the meter has computed the difference between the two components under Section 5.

Based upon NIPSCO's testimony, we find the EDG Rider defines EDG in accordance with Section 5 as the difference between: (1) the electricity that is supplied by an electricity supplier to a customer that produces DG and (2) the electricity that is supplied back to the electricity supplier by the customer, and NIPSCO's meter instantaneously captures this difference. Petitioner's Exhibit No. 2, Attach. 2-A at p. 1. As the Commission stated in the 45378 Order:

> [I]t is useful to conceptualize the difference at each instant of time, where the electricity supplied by the supplier and the customer's distributed generation meet at the meter as opposing forces, with the stronger force determining the direction of the flow. If the customer needs less electricity than its distributed generation is supplying, the statute terms the excess or difference between what is being supplied at that instant by Vectren South and what is flowing from behind the customer's meter as EDG.

45378 Order at p. 36.

Notwithstanding NIPSCO's testimony in this proceeding and our 45378 Order approving instantaneously measuring EDG,[19] the OUCC claims outflow, as registered by NIPSCO's meter,

[19] The OUCC disagrees with the Commission's decision in Cause No. 45378 approving an instantaneous netting methodology and has appealed that decision. Petitioner's Exhibit No. 3, OUCC responses to NIPSCO's First Set of

is not actually the difference between electricity supplied to the customer by NIPSCO and the electricity supplied to NIPSCO by the customer because electricity only flows one way. Consistent with our discussion above, the Commission reaffirms that "because it can only flow one way, to become outflow, both components of Section 5 are netted at the meter to arrive at EDG." 45378 Order at p. 36.

Having reviewed the evidence, as discussed above, the Commission finds the electricity that flows through the meter and registers as outflow is the EDG produced by a DG customer for purposes of Section 5. This excess electricity is the electricity NIPSCO must accept from the DG customer, regardless of whether that excess electricity is then needed to meet NIPSCO's system needs. The amount of electricity NIPSCO must accept from the customer is the amount of electricity that is supplied to Petitioner by the customer in excess of the amount NIPSCO supplies to the customer at the same moment – i.e., the difference between the two components of Section 5 occurring at that instant.

In contrast, under the OUCC's interpretation of Section 5 and Indiana DG's proposal to require NIPSCO to utilize monthly netting, NIPSCO would be required to permit DG customers to net the amount of the EDG they deliver to Petitioner a second time against the amount of electricity NIPSCO supplies to them over the course of the same month. The Distributed Generation Statutes do not, however, require monthly or billing period netting, and the timing of the proposed monthly netting "fails to recognize that the outflow measurement on the meter already is net of the amount of electricity supplied by the utility to meet the customer's load at the instant the outflow occurs." 45378 Order at p. 36. The Commission further finds that the multiple measurement cycles NIPSCO's meters have per second facilitates accurate snapshots of energy values, but if the OUCC and Indiana DG's positions were adopted, this would over-value EDG beyond what the statute directs. This alternative would, essentially, permit EDG Rider customers to continue to bank their EDG on the utility's system at no charge until needed during the month, effectively providing EDG Rider customers the retail rate allowed under net metering for their "banked" excess generation when used by the DG customer throughout the month. Only at month-end would excess energy returned to the grid by the DG customer be valued at the EDG rate. We find all EDG as defined in Section 5 should be valued at the EDG rate, not just the EDG the DG customer does not use before month-end.

While Mr. Inskeep asserted, "There is no language in the statute that says monthly netting should stop," Indiana DG Exhibit No. 1 at p. 16, lines 4-5, we are not persuaded the General Assembly enacted the Distributed Generation Statutes to sunset net metering but replace it with a construct that achieves a similar outcome, and the testimony Mr. Inskeep provided on various, unadopted versions of the DG Statutes (*see generally* Indiana DG Exhibit No. 1 at pp. 17-21 and Attachments BDI-2 through 6) does not convinces us otherwise. Our position is buttressed by the legislature having capped the amount of net metering capacity on an electricity supplier's system but placing no comparable cap on the EDG each utility must accept.

Based on the substantial evidence of record, the Commission finds that NIPSCO's meters register the difference between: (1) the electricity that is supplied by an electricity supplier to a customer that produces DG; and (2) the electricity that is supplied back to the electricity supplier

Data Requests at Request 1-2. That appeal is pending.

by the customer and that Petitioner's proposed instantaneous netting is permissible under Section 5 and should be approved.

2. Reasonableness of Rates and Charges.

Mr. Inskeep asserts that NIPSCO's instantaneous netting proposal "is inconsistent with the principles underlying just and reasonable rates," Indiana DG Exhibit 1 at p. 5, lines 22-23, and inconsistent with longstanding ratemaking principles." Indiana DG Exhibit 1, Section II.D.5 at pp. 44-49. He advocates for a monthly netting period. The Commission, however, finds the instantaneous measurement of EDG, i.e., instantaneous netting as that term is used by NIPSCO, using the components the General Assembly set forth in Section 5 and calculating the rate per Section 17, yields rates that are just and reasonable. In so finding, we are persuaded the Distributed Generation Statutes are intended to transition from the net metering construct for new DG customers, with the primary value of DG creation prospectively being its offsetting of the DG customer's demand behind the meter, a value overlooked or unreasonably discounted by Indiana DG's focus upon payback and bill differences. Nevertheless, NIPSCO's EDG rate must be reasonable.

Under NIPSCO's proposed EDG Rider, DG customers continue to be able to use their DG system's output to offset their need behind the meter to procure energy from NIPSCO at the full retail rate. As found above, instantaneous netting reasonably computes what, if any, EDG the customer provides to NIPSCO, net of their own usage, and NIPSCO properly calculated the rate to compensate its customers for their EDG. While the evidence reflects that netting the two elements identified in Section 5 on a monthly basis, as Mr. Inskeep proposes, rather than instantaneously would substantially reduce the DG customer's bill for the energy Petitioner provides, the evidence also shows the dollars associated with such reduction would be shifted to NIPSCO's customers that do not have behind the meter generation. Mr. Inskeep presented a comparison of monthly netting and instantaneous netting (and other netting periods) that shows the amounts DG customers will pay for the electricity they consume are lower under a monthly netting paradigm. Indiana DG Exhibit No. 1 at p. 67, Table 2. But we find the reasonableness of NIPSCO's EDG rate should consider all customers, and the payback periods Mr. Inskeep computes are not determinative of whether NIPSCO's proposed netting is just and reasonable. The Commission considers the reasonableness and implications for DG customers and non-DG customers.

We find the evidence demonstrates that, ultimately, the DG customer faster payback periods translate to non-DG customers paying costs associated with the excess electricity DG customers put on Petitioner's system and further find it was not shown to be just, reasonable, or appropriate for Petitioner's other customers to subsidize the payback periods of DG customers by the continuation of monthly netting, notwithstanding Mr. Inskeep's characterization of this subsidization as very modest. These costs are not non-DG customers' costs to pay. Monthly netting is prescribed for net metering customers; however, the legislature created a specific EDG rate that differs from the net metering retail rate, entrusting the Commission to exercise its expertise and discretion in determining the reasonableness of NIPSCO's proposed EDG Rider.

Mr. Inskeep asserts NIPSCO's instantaneous netting proposal is not "reflective of the value of the benefits DG customers provide." Indiana DG Exhibit No. 1 at p. 26, line 1; *see also*

id. at p. 30, line 17 to p. 31, line 4. Similarly, Mr. Straeter testified about the "benefits that distributed customer owned solar generation bring to NIPSCO and all NIPSCO customers." Indiana DG Exhibit No. 2 at p. 8, lines 1-2 and pp. 8-9. The Commission finds, however, that the General Assembly in Section 17 established the value of EDG, and that value does not fluctuate because of the benefits described. A DG customer wanting to continue the monthly netting paradigm and use the electricity they produce over the course of a month to offset their consumption has the option to do so by installing behind the meter equipment such as a battery. Mr. Inskeep's displeasure that NIPSCO offers no proposal to mitigate the upfront cost of customer investments in battery storage does not negate the propriety of approving NIPSCO's EDG Rider or make it unreasonable. Batteries for home solar systems have become more readily available in today's market and can be purchased by DG customers if they so choose.

Based on the evidence, the Commission finds instantaneous netting will reasonably result in new EDG Rider customers paying for the energy they are supplied by NIPSCO, no more and no less. Likewise, instantaneous netting will compensate the DG customer for the energy they produce in excess of the amount NIPSCO supplied at that time at the prescribed EDG rate. Accordingly, the Commission finds Petitioner's proposed instantaneous netting mechanism yields rates that are just and reasonable for DG and non-DG customers, consistent with applicable statutes. The fact that DG customers generate behind the meter and, therefore, buy less from NIPSCO will generate value and return on their investment.

Mr. Inskeep also testified that Rider 878 represents NIPSCO's avoided cost rate under the Public Utility Regulatory Policies Act of 1978 and as such, reflects NIPSCO's incremental cost. Per Mr. Inskeep, "It would be an absurd result and illogical to assume the General Assembly intended for DG customers to be compensated at a rate *far below* NIPSCO's avoided cost rate while also experiencing less certainty in pricing from year-to-year." Indiana DG Exhibit No. 1 at p. 30, lines 13-16 (original emphasis). The Commission is charged with reviewing the proposed EDG Rider under the Distributed Generation Statutes. Having found the proposed EDG rate is compliant with those statutes and is just and reasonable, Mr. Inskeep's comparison does not change our determination. The availability of the alternative opportunity he presents is not foreclosed should that be a customer's preference.

C. Miscellaneous Technology, Tariff, and Other Issues.

1. Disconnect Devices.

Mr. Inskeep also raised concerns regarding a provision in Section 10 of NIPSCO's proposed EDG Rider related to disconnect devices. This provision states, "At the Customer's expense, Customer shall install a lockable manual or power operable disconnect switch, or lockable circuit breaker shall be installed between the generation source and Company's electric system, and be accessible to Company personnel at all times." Mr. Inskeep testified that based on his understanding, external disconnect switches are not necessary for isolating a small, inverter-based DG facility, such as Level 1 interconnections. On this basis, he requests the Commission direct NIPSCO to clarify in its EDG Rider that disconnect switches are not required for Level 1 interconnections.

On rebuttal, NIPSCO witness Kirkham stated this requirement is for the safety of NIPSCO

customers and employees, as well as first responders who access DG equipment in an emergency. He explained that under NIPSCO's current Rider 789 – Interconnection Standards, disconnect switches are required for Level 1, 2, and 3 interconnections. While Mr. Inskeep cited to Vectren's approved EDG tariff and New York's Standard Interconnection Requirements as not requiring disconnect switches for systems 25 kW or smaller, Mr. Kirkham testified that disconnect switches for all facilities are required by several utilities, including NIPSCO, Duke Energy, Indiana Michigan Power, and DTE Energy.

Mr. Kirkham also cited Section 22, stating that Section 22 provides as follows:

> A customer that produces distributed generation shall comply with applicable safety, performance, and reliability standards established by the following:
>
> (1) The commission.
> (2) An electricity supplier, subject to approval by the commission.
> (3) The National Electric Code.
> (4) The National Electrical Safety Code.
> (5) The Institute of Electrical and Electronics Engineers.
> (6) Underwriters Laboratories.
> (7) The Federal Energy Regulatory Commission.
> (8) Local regulatory authorities.

Mr. Kirkham stated he had been informed by NIPSCO System Planning that inclusion of a disconnect switch is a requirement under Section 690.13 of the National Electric Code (Photovoltaic System Disconnecting Means), including specifically in Section E, and that there are other relevant provisions in Section 690.12 that relate to rapid shutdown for protection of firefighters and first responders, and in Section 690.33.

Having reviewed all the testimony, the Commission finds it is unclear whether the switch at issue is required under the National Electric Code; however, we find that under 170 IAC 4-4.3-4(d), NIPSCO has authority to require such switches. In the 45378 Order (at Section 9.C.3), we discussed language in Vectren's EDG Rider related to disconnecting devices and that Vectren witness Abshier testified Vectren does not require disconnects for Level 1 interconnections and certain Level 2 interconnections, but the Commission was not asked to evaluate whether a disconnect switch for Level 1 interconnections may be required.

Upon review of the evidence and the tariff language at issue, the Commission finds NIPSCO's witnesses demonstrated the prudence of its requirement for disconnect switches. While the Commission approved Vectren's DG tariff which does not require disconnect switches for Level 1 interconnections (45378 Order at pp. 41-42), NIPSCO presented evidence demonstrating disconnect switches on all DG equipment help ensure the safety of NIPSCO's personnel, its customers, and emergency personnel. Petitioner also showed that if Level 1 interconnections for DG facilities were excepted from this requirement, this will be inconsistent with what NIPSCO otherwise requires for Level 1 interconnections, leading to confusion by NIPSCO's employees who service equipment, especially in an emergency. On NIPSCO's system, such switches are a

standard safety requirement as permitted under 170 IAC 4-4.3-4(d). Although Mr. Inskeep testified that it is his "understanding" external disconnect switches are not necessary for isolating a small, inverter-based DG facility, Indiana DG Exhibit No. 1 at p. 80, line 11, we decline to second-guess their need on NIPSCO's system from a safety perspective. By requiring the disconnect switches at issue, personnel servicing a customer-owned generation facility (whether DG or otherwise) will know such equipment is required for all interconnection levels. The Commission finds that NIPSCO showed the propriety of this requirement, particularly from a safety perspective; therefore, the disconnect switch requirement for Level 1 interconnections in NIPSCO's EDG Rider is approved.

2. Other Issues.

Mr. Inskeep recommends that if the Commission approves NIPSCO's EDG Rider, we "direct NIPSCO to provide additional consumer information and education regarding its 'Purchases from Cogeneration Facilities and Small Power Production Facilities' tariff Rider 878 to ensure all eligible DG customers have access to and are fully informed of this rate option, which would provide a significantly higher compensation rate than the EDG Rider as proposed." Indiana DG Exhibit No. 1 at p. 81, lines 16-21.

In this proceeding, Petitioner's proposed EDG Rider is before the Commission to implement the General Assembly's statutory directives set forth in the Distributed Generation Statutes. NIPSCO's Electric Tariff is available on Petitioner's public website; consequently, the Commission declines to require Petitioner, as part of this proceeding, to additionally educate DG customers about other customer options or Rider 878. Indiana DG is certainly not precluded from providing consumers with such additional information or education as it deems needed upon Rider 878, but the Commission will not order NIPSCO to do so in this matter.

In Petitioner's Exhibit No. 2, Attachment C, NIPSCO proposes other changes to its Electric Tariff that are necessary to incorporate the EDG Rider. No party took issue with these proposed changes. We, therefore, approve their inclusion.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. NIPSCO's rate for the procurement of EDG is approved in accordance with Ind. Code §§ 8-1-40-16 and -17.

2. NIPSCO's EDG Rider and the other tariff changes contained in Petitioner's Exhibit No. 2, Attachment C to its Tariff for Electric Service to implement EDG Rider are approved.

3. Prior to implementing its EDG Rider and the approved changes contained in Petitioner's Exhibit No. 2, Attachment C to its Tariff for Electric Service, and any amendment thereto, NIPSCO shall file such documents under this Cause for approval by the Commission's Energy Division.

4. NIPSCO is authorized to recover credits provided to EDG Rider customers through its FAC proceedings.

5. Until otherwise ordered, NIPSCO shall annually update its approved EDG rate via a compliance filing under this Cause by March 1 based on updated LMP data for the prior calendar year.

6. This Order shall be effective on and after the date of its approval.

HUSTON, FREEMAN, KREVDA, OBER, AND ZIEGNER CONCUR:

APPROVED: DEC 15 2021

I hereby certify that the above is a true and correct copy of the Order as approved.

Dana Kosco Digitally signed by Dana Kosco
Date: 2021.12.15 10:11:18 -05'00'

Dana Kosco
Secretary of the Commission