

DUKE ENERGY INDIANA 2019 BASE RATE CASE  
REVISED DIRECT TESTIMONY OF JEFFREY R. BAILEY

**REVISED TESTIMONY OF JEFFREY R. BAILEY  
DIRECTOR, RATE DESIGN & ANALYSIS  
ON BEHALF OF DUKE ENERGY INDIANA, LLC  
BEFORE THE INDIANA UTILITY REGULATORY COMMISSION**

1

**I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Jeffrey R. Bailey, and my business address is 1000 East Main Street,  
4 Plainfield, Indiana.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by Duke Energy Business Services, LLC, a utility affiliate of  
7 Duke Energy Indiana LLC ("DEI" "Petitioner" or "Company") as Director, Rate  
8 Design & Analysis.

9 **Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL  
10 BACKGROUND.**

11 A. I was employed by the Company (then known as PSI Energy, Inc.) in July of  
12 1990 as Supervisor, Rate Engineering. I was subsequently promoted to Manager,  
13 Rate Engineering in 1991. I have held several positions in the Rate, Pricing, and  
14 Market Planning areas for the Company and its affiliates (Cinergy Services, Inc.,  
15 which later merged into Duke Energy Business Services LLC) following the  
16 Cinergy Corp./PSI Energy, Inc./ The Cincinnati Gas and Electric Company  
17 transaction in 1994. In 1997, I accepted the position of Manager, Sales Analysis.  
18 In 2000, I joined the Financial Operations Department where I held the positions  
19 of Manager, Financial Projects, and Manager, Finance. I returned to the Rate  
20 Department in mid-2002. Following the merger of Cinergy Corp. with Duke

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1 Power, I assumed my current position in the fall of 2006, and maintained this  
2 position following the merger with Progress Energy. Before joining the Company  
3 in July of 1990, I was employed by the Indiana Utility Regulatory Commission  
4 (the "Commission"). I began my employment there in 1983 as a Staff Engineer.  
5 I held several progressively responsible positions at the Commission, the last of  
6 which was Assistant Chief Engineer. My primary responsibility as Assistant  
7 Chief Engineer for the Commission was the supervision of the gas and electric  
8 sections that investigated rate and regulatory matters pending before the  
9 Commission.

10 I received Bachelor of Science degrees in Industrial Management and  
11 Engineering from Purdue University, West Lafayette, Indiana. I also received  
12 from Purdue University a Master of Science degree majoring in Industrial  
13 Engineering.

14 **Q. PLEASE DESCRIBE YOUR DUTIES AS DIRECTOR, RATE DESIGN &**  
15 **ANALYSIS.**

16 A. As Director, Rate Design & Analysis, my responsibilities focus on the strategic  
17 aspects of the Company's pricing, and identifies, evaluates, and prioritizes pricing  
18 direction for the Company that meets both corporate and customer needs.

19 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
20 **PROCEEDING?**

21 A. The purpose of my testimony is to describe:

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- 1           • Changes that are made to the Company's major retail electric rate schedules;
- 2           • Proposed modifications to the Time-of-Use Service applicable to Rate LLF
- 3           and Rate HLF, respectively;
- 4           • Proposed migration adjustment;
- 5           • Proposed pilots for residential and small commercial customers in anticipation
- 6           of full AMI and Customer Connect deployment;
- 7           • Proposed experimental programs applicable to Rate LLF and Rate HLF
- 8           • The Company's long-term pricing strategy;
- 9           • Decoupling, and how it is an essential element to our future success in
- 10          providing customers choices;
- 11          • And finally, I'll discuss the rate design commitments made in Cause No.
- 12          42873.

13                   Please see the testimony of Mr. Roger A. Flick for discussion of general

14          terms and conditions, various nonrecurring charges, *pro forma* adjustments,

15          lighting schedules, and the Company's retail electric tariffs.

16                   **II. MAJOR ELECTRIC RATE SCHEDULES**

17   **Q.   WHAT ARE THE COMPANY'S MAJOR RETAIL ELECTRIC RATE**

18   **SCHEDULES?**

19   A.   The Company's major retail electric rate schedules include: Rate RS - Schedule

20   for Residential and Farm Service ("Rate RS"); Rate CS - Schedule for

21   Commercial Service ("Rate CS"); Rate LLF - Schedule for Low Load Factor

22   Service ("Rate LLF"); and Rate HLF - Schedule for High Load Factor Service

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1 ("Rate HLF"). Together, these rate schedules and associated Riders comprise 97%  
2 of the Company's retail electric revenue requirement.

3 **Q. WHAT WAS THE COMPANY'S APPROACH TO DESIGNING RATE**  
4 **RS?**

5 A. We compiled a record of bills and sales during the period of July 2017, through  
6 June 2018, and used this information to derive what is commonly referred to as a  
7 frequency distribution. To verify the accuracy of the data, we then reconciled this  
8 distribution of bills and sales against the Company's books and records for the  
9 kilowatt-hours ("kWh") sold and revenues recorded in this period. The  
10 distribution of sales was then used to apportion the forecast data (calendar year  
11 2020) into the respective blocks<sup>1</sup>. The rate was then designed to reflect proposed  
12 revenue levels after subsidy and excess revenue reductions for Rate RS based  
13 upon the criteria discussed below.

14 For Rate RS, we produced two distinct designs for presentation in this  
15 case. First, given the size of the increase, we constructed a rate that maintains a  
16 fairly consistent percentage increase across the spectrum of usage for residential  
17 customers to minimize the impacts. It is a reasonable, cost-based rate. Second,  
18 we produced a rate that is more driven according to our cost curves. The current  
19 structure of Rate RS includes a significant declining block structure that by itself  
20 would be difficult to justify today. Over the course of time, however, a number of  
21 riders have been applied to residential usage which ameliorated this effect. Our

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<sup>1</sup> This description applies to all rates discussed below. The details are available as part of Minimum Standard Filing Requirements or work papers.

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1 cost curves show that there is a decline in per unit cost as usage increases, but not  
2 as much as in the original declining block structure. The proposed structures  
3 reflect that finding.

4 **Q. WHY HAS THE COMPANY PREPARED TWO SCHEDULES FOR**  
5 **RESIDENTIAL SERVICE?**

6 A. As previously described, these rate structures are relatively similar; each has a  
7 declining block structure and similar Connection Charges. Please see Petitioner's  
8 Exhibit 8-A (JRB) for a direct comparison of the schedules. The schedule titled  
9 "Scenario 1" most closely represents our unit cost study and has slightly less of a  
10 declining block structure than the other. It also has a Connection Charge pegged  
11 closely to our actual cost to serve. The second rate titled "Scenario 2" has a  
12 slightly higher Connection Charge and declines somewhat more steeply than  
13 "Scenario 1".

14 "Scenario 2" is largely designed to minimize impacts to customers while  
15 "Scenario 1" most closely matches our unit cost study. "Scenario 2" has more of  
16 a declining block structure and presents a modest reduction in risk to the  
17 Company relative to "Scenario 1" by collecting more revenue in the Connection  
18 Charge and the first block relative to "Scenario 1". For this reason, "Scenario 1"  
19 is the proposed rate when joined with our decoupling proposal, while "Scenario  
20 2" is the proposed rate structure in the absence of decoupling. Later in my  
21 testimony, I'll discuss how decoupling is an important component to the success  
22 of our future rate designs. Please see the testimony of Messrs. Pinegar and

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1 Davey, Dr. Hansen, and Ms. Maria Diaz on the policy and technical issues of  
2 decoupling.

3 **Q. ARE THERE OTHER SCHEDULES FOR RESIDENTIAL SERVICE?**

4 A. Yes. We also provide service to all electric customers under an Optional High-  
5 Efficiency Residential Service. The structure of the rate follows that of Rate RS,  
6 but a 20% discount to usage over 1000 kWh is applied during the non-summer  
7 months. This rate has not been available to new customers since the last rate case.  
8 Our cost of service to this class of customers shows they are less costly to serve  
9 on a unit basis than basic residential service.

10 The availability of AMI data may allow us to further segment the market  
11 and make available additional new rates (including all electric rates) within  
12 residential service in the future. Because of this, we believe this rate should be  
13 retained for existing customers, albeit at a much lower discount on the tail block  
14 of 6.3%.

15 **Q. PLEASE DESCRIBE THE CONNECTION CHARGE USED IN THE**  
16 **DEVELOPMENT OF THE RATE RS STRUCTURE.**

17 A. In this case, the Company has maintained a more traditional definition of a  
18 customer charge, which includes meters and associated rate base and meter  
19 reading expenses. In addition, it includes customer accounts, customer service  
20 and information which encompasses allocated general and intangible rate base,  
21 and certain expenses including billing, bad debts, and customer service. We have  
22 not employed methodologies such as the minimum system method that could

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1 significantly increase the charge. For the development of the two residential  
2 structures I mentioned above, the Connection Charges are \$9.80 (“Scenario 1”)  
3 and \$10.54 (“Scenario 2”), respectively, compared to the current charge of \$9.01  
4 per month.

5 **Q. WHAT IS THE EFFECT OF THIS RATE INCREASE ON A**  
6 **RESIDENTIAL CUSTOMER USING 1000 KWH PER MONTH?**

7 A. Under “Scenario 1”, a residential customer using 1000 kWh per month will  
8 experience an increase of \$22.29 or 18.5%.<sup>2</sup> This reflects the change in the base  
9 cost of fuel and further reflects all applicable Standard Contract Rider’s we expect  
10 to be in effect during the future test period, as well as those that have been  
11 modified to be included in base rates. The calculation showing the derivation of  
12 these amounts are shown on Petitioner’s Exhibit 8-B (JRB). This fulfills the  
13 Minimum Standard Filing Requirement as found in 170 IAC 1-5-16(d).

14 **Q. WHAT WAS THE APPROACH USED IN DEVELOPING RATE CS?**

15 A. We developed this rate in a manner consistent with our above description of Rate  
16 RS. We have two similarly structured rates with one we propose to be joined with  
17 our decoupling proposal. A comparative table is shown in Petitioner’s Exhibit 8-  
18 C (JRB), with the proposed structure with decoupling being “Scenario 1”, and the  
19 other without decoupling being “Scenario 2”.

20 **Q. PLEASE DESCRIBE THE CONNECTION CHARGE USED IN THE**  
21 **DEVELOPMENT OF THE RATE CS STRUCTURE.**

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<sup>2</sup> Does not include the impacts of Utility Receipts Tax.

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1 A. The CS customer charge was developed the same manner as the RS charge. For  
2 the development of the two small commercial structures, the Connection Charges  
3 are \$9.27 (with decoupling) and \$10.70 (without decoupling), respectively,  
4 compared to the current charge of \$9.01 per month.

5 **Q. PLEASE DESCRIBE THE COMPANY'S RATE DESIGN OBJECTIVES**  
6 **FOR RATE LLF - SCHEDULE FOR LOW LOAD FACTOR SERVICE,**  
7 **AND RATE HLF - SCHEDULE FOR HIGH LOAD FACTOR SERVICE.**

8 A. Our rate design objectives for these rate schedules (hereinafter referred to as  
9 “power rate schedules” or “power rates”) have not changed. The power rates are  
10 designed to unbundle our costs to provide more accurate price signals, and to  
11 reduce the inter-voltage subsidy and excess revenues. By “inter-voltage”, I mean  
12 the differences in subsidy and excess revenues that exist within the class of  
13 customers by service level - or voltage – of the customers served. (Subsidy and  
14 excess revenues are produced when customers at a particular voltage level  
15 provide less than or greater than the class average rate of return, respectively.)  
16 This is a direction previously proposed and approved by the Commission.  
17 Historically, the Company has presented testimony justifying its power rate  
18 structures and making improvements where appropriate. In my judgment, only  
19 LLF secondary service indicates the need for any potential modifications. I  
20 discuss those modifications and the limitations of implementation below.

21 **Q. WHAT ARE THE PROPOSED CONNECTION CHARGES FOR RATES**  
22 **LLF AND HLF?**



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1 A. The proposed Connection Charges are shown in Petitioner's Exhibit 8-D (JRB).  
2 In this case we have attempted to uphold the traditional definition of a customer  
3 charge as previously described, but reflect the differing voltage characteristic in  
4 providing service to these customers.

5 **Q. WHAT CHANGES ARE PROPOSED TO RATE LLF?**

6 A. The structure of Rate LLF for secondary served customers can be described as a  
7 rate structure within a rate structure. Overall, the rate has three hours use blocks:  
8 (1), the first at 190 hours use, (2), the next 110 hours use, and (3) usage greater  
9 than 300 hours use. The 190 hours use section contains a fairly aggressive  
10 declining block structure with four tiers. As previously described with Rate RS,  
11 the steepness of the declining structure has been somewhat ameliorated by  
12 numerous energy-related riders applied to the rate over time. However, our  
13 analysis has demonstrated that large secondary served customers can take  
14 advantage of the structure by having sufficient usage to rapidly fill the earlier,  
15 higher priced blocks, with a substantial balance priced out at the lowest cost  
16 block. Our analysis demonstrates that a complete hours-use structure, rather than  
17 kWh blocking, is more appropriate for this rate. However, revising the structure  
18 now, coupled with a significant increase, causes a sizable disparity in impacts to  
19 customers with increases well above average and below average. Because of that,  
20 we propose no changes to the Rate LLF secondary block structure.

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1 Q. HAVE YOU PREPARED RATE STRUCTURES FOR RATE LLF?

2 A. Yes. Other than to conform to the revised revenue requirement and minimize  
3 impacts to customers, there are no proposed structural changes to Rate LLF.

4 Q. HAVE YOU PREPARED RATE STRUCTURES FOR RATE HLF?

5 A. Yes. Other than to conform to the revised revenue requirement and minimize  
6 impacts to customers, there are no proposed structural changes to Rate HLF.

7 Q. ARE THERE OTHER MODIFICATIONS TO THE COMPANY'S RATE  
8 STRUCTURES?

9 A. We have modified any remaining rates not discussed here to reflect the revised  
10 revenue requirement. Mr. Roger A. Flick will address changes to the lighting  
11 schedules.

12 Q. DOES THE COMPANY PROPOSE ANY NEW RATE SCHEDULES?

13 A. Yes. The Company proposes a new Rate USFL – Unmetered Small Fixed Load  
14 Service. This schedule accommodates small wattage equipment more fully  
15 described in the testimony of Mr. Roger A. Flick. This rate has been designed  
16 using the components of Rate CS with load factors significantly higher than the  
17 class average warranting a new classification of service.

18 **III. MODIFICATIONS TO TIME-OF-USE SCHEDULES**  
19 **APPLICABLE TO RATES LLF AND HLF**

20 Q. ARE THERE OTHER CHANGES REGARDING OPTIONAL TIME-OF-  
21 USE SERVICE APPLICABLE TO RATE LLF AND RATE HLF  
22 COLLECTIVELY REFERRED TO AS "TOU RIDERS"?

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1 A. Yes. The Company proposes two changes to the TOU Riders. First, after review  
2 of load consumption and marginal cost data, the Company proposes to change the  
3 winter season and the On-Peak periods. Specifically, the month of March is  
4 included in the Winter season since it presents similar characteristics as the  
5 traditional Winter month of December. In addition, the Winter On-Peak period  
6 will be 6 a.m. to 2 p.m. and 6 p.m. to 9 p.m. Eastern Standard Time. This change  
7 extends the morning segment during the Winter from the current 7 a.m. to 1 p.m.  
8 Review of load consumption and marginal cost data show that the hours ending at  
9 7 a.m. and 2 p.m. are 95% or more of the peak hour value and warrant the on-  
10 peak designation. The Summer On-Peak period will be 11 a.m. to 6 p.m. Eastern  
11 Standard Time. Second, historically, the TOU Riders have not received  
12 significant participation. Currently, only four customers receive service under the  
13 TOU Riders. From an allocation standpoint, the limited participation essentially  
14 results in a “special contract” for a limited number of customers. While Duke  
15 Energy Indiana does not propose to change the structure of the charges for this  
16 schedule, the charges have been redesigned to be revenue neutral to the class.  
17 Finally, the Company proposes to eliminate the Rate Equalization  
18 Adjustment<sup>3</sup> since the Company has received feedback from customers  
19 suggesting that the Rate Equalization Adjustment is a provision that is  
20 unappealing.

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<sup>3</sup> The Rate Equalization Adjustment is a derived factor that creates revenue neutrality relative to the customer's existing bill once moved to the TOU structure. It applies for a period of three years before the factor is eliminated from billing.

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1           An objective of time-of-use rates is to better match the price signal to the  
2 Customer with the Company's cost to serve based on the time of consumption.  
3 This design potentially motivates customers to consume electricity more  
4 efficiently in an economic sense and therefore lower costs to serve all customers.

5 **Q. DOES DUKE ENERGY INDIANA HAVE REVENUE CONCERNS**  
6 **RELATED TO THE REMOVAL OF THE RATE EQUALIZATION**  
7 **ADJUSTMENT?**

8 A. Yes. The proposed TOU Riders have been developed as revenue neutral to their  
9 respective rate class. This ensures that the same test year revenues would be  
10 collected if all Rate LLF and HLF customers received service under the proposed  
11 TOU Riders respectively. However, opting into the optional TOU rate could  
12 reduce the Company's revenue collection when customers enroll in the TOU  
13 Riders by reducing their bill without changing their consumption behavior or  
14 pattern. Having said that, if a customer's current load is more suited to the TOU  
15 structure, we believe it should be available to them.

16 **Q. WHAT DOES DUKE ENERGY INDIANA PROPOSE TO MITIGATE THE**  
17 **LOST REVENUE FROM MIGRATIONS TO THE TOU RIDERS?**

18 A. To the extent customers reduce their bills under the TOU Riders relative to their  
19 former standard bill, Duke Energy Indiana proposes to include the shifts to these  
20 rates in the migration adjustment, which I describe in more detail below.



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1 A. Yes, we do. We have done this several times in the past and have had  
2 considerable success with it. We plan to notify customers following an order in  
3 this Cause through a customized letter that will detail the potential bill savings.  
4 We will follow this letter with a personal telephone call. If this fails to elicit a  
5 response from the customer, in some cases a personal visit with the customer will  
6 take place. This further helps to ensure that the amounts we have proposed for  
7 migrations are reasonable. Customers must sign the letter and return it to us to be  
8 placed on the new rate.

9 **Q. WHY DOES THE COMPANY BELIEVE ITS PROPOSED RATE**  
10 **TREATMENT ASSOCIATED WITH EXPECTED MIGRATIONS IS**  
11 **REASONABLE?**

12 A. Historically, the Company has been able to reflect the effects of customer  
13 migrations in the development of its rates. This is reasonable for several reasons.  
14 First, we provide rate options to our customers that allow them to select rates  
15 most favorable to their respective operations. Second, we put forth extensive  
16 effort to notify customers of potential bill savings. And, finally, we have a  
17 conservative approach in the development of the lost revenues from migrations.

18 **V. NEW PROPOSED RESIDENTIAL AND**  
19 **SMALL COMMERCIAL PILOT RATES**

20 **Q. DOES DUKE ENERGY INDIANA PROPOSE NEW DYNAMIC PRICING**  
21 **PILOT RATES FOR RATES RS AND CS?**

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1 A. Yes. To better prepare to offer customers rate options when our Customer  
2 Connect Platform<sup>4</sup> functionality is available, the Company proposes three pilot  
3 rates for the Rate RS class and three pilot rates for the Rate CS class.

4 **Q. PLEASE DESCRIBE THE DYNAMIC PRICING PILOT RATES.**

5 A. The Company proposes three unique rate designs for each of two rate classes:  
6 Rates RS and CS. The basic pilot rate structures are identical for each rate class  
7 and are designed to be revenue neutral for each rate class. A description of the  
8 rate attributes of each of the three rate designs follows. For quick reference, a  
9 side-by-side comparison of the pilot rates is illustrated in Petitioner's Exhibit 8-F  
10 (JRB).

- 11 • Schedule CPP: Critical Peak Pricing – This design is most similar to the  
12 proposed standard tariff rate design, offering a declining block kWh energy  
13 rate, except during Critical Peak periods. It motivates customers to shift or  
14 reduce their electric consumption during the most critical supply days of the  
15 year. This pilot rate has the following attributes:
  - 16 ○ Connection Charge: This is a fixed \$ per month charge to the customer  
17 matching the rate in the proposed Rate RS and CS tariffs.
  - 18 ○ Critical Peak Energy: The Critical Peak period is identified as Summer  
19 weekdays, excluding listed holidays, from 11 a.m. to 5 p.m. eastern  
20 standard time and Winter weekdays, excluding listed holidays, from 6  
21 a.m. to 1 p.m. and 6 p.m. to 9 p.m. However, the Critical Peak period

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<sup>4</sup> Please see the direct testimony of Ms. Retha I. Hunsicker regarding Customer Connect.

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1 is not effective every weekday. The Company would be permitted to  
2 designate up to 20 Critical Peak days each year of the pilot.

3 Additionally, in the event of a system emergency condition, a Critical  
4 Peak day can be designated even if the limit of 20 has been reached.

- 5 ○ All Other Energy: All other energy during a billing month will be  
6 billed similarly to Rates RS and CS using a declining block structure.  
7 However, note that the non-Critical Peak energy rates are generally  
8 lower than the corresponding energy rates in Rates RS and CS.

- 9 • Schedule VPP: Variable Peak Pricing – This design will test customer's  
10 willingness to increase the number of pricing events throughout the year. It  
11 departs from the standard tariff rate design by offering a flat kWh energy rate,  
12 except for days with Critical and High price periods. It motivates customers  
13 to shift or reduce their electric consumption during a greater number of days  
14 throughout the year. This pilot rate has the following attributes:

- 15 ○ Connection Charge: This is a fixed \$ per month charge to the customer  
16 matching the rate in the proposed Rate RS and CS tariffs.
- 17 ○ Critical Peak Energy: The Critical and High Peak periods are defined  
18 as referenced above. The Company is permitted to designate up to  
19 twenty Critical Peak and twenty High Peak days each year of the pilot.  
20 Additionally, in the event of a system emergency condition, a Critical  
21 Peak day can be designated, even if the limit of twenty has been  
22 reached.



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- 1           ○ All Other Energy: All other energy during a billing month will be  
2           billed through a flat \$ per kWh charge.
- 3           ○ The non-critical Peak energy rates are lower than the Schedule CPP  
4           energy rates.
- 5           ● Schedule VPP-D: Variable Peak Pricing with Demand – This design will test  
6           customer's willingness to increase their attention to electric consumption even  
7           further than the VPP structure by adding a demand charge to the rate design.  
8           While like the VPP design in all other aspects, the maximum monthly demand  
9           charge will motivate customers to shift or reduce their electric consumption  
10          during their high use periods by staggering their use of appliances. This pilot  
11          rate has the following attributes:
- 12          ○ Connection Charge: This is a fixed \$ per month charge to the customer  
13          matching the rate in the proposed Rate RS and CS tariffs.
- 14          ○ Critical and High Peak Energy: The Critical and High Peak periods  
15          are defined and implemented as referenced above under VPP.
- 16          ○ All Other Energy: All other energy during a billing month will be  
17          billed through a flat \$ per kWh charge.
- 18          ○ Demand: The customer's monthly billing demand is based on the  
19          maximum integrated 30-minute demand during the billing month.
- 20          ○ The non-critical Peak energy rates are lower than the Schedule VPP  
21          energy rates.

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1 **Q. WHAT CUSTOMERS ARE ELIGIBLE TO PARTICIPATE IN THE**  
2 **PILOT RATES?**

3 A. The pilot rates require Rate RS and Rate CS customers to have a smart meter  
4 installed and capable of being used to bill the customer since interval data is  
5 necessary to determine usage for the peak events. Customers who opt-out of a  
6 smart meter will not be eligible to participate. In addition, the Company will  
7 focus on the behavior changes motivated from the pilot rates and therefore will  
8 exclude customers who participate in other programs that provide similar  
9 motivation to alter their usage including Power Manager, those with qualifying  
10 facilities, or net energy metering applications. Customers will be required to have  
11 an email address and / or a text number and must be current on their bill. The  
12 Company will also monitor customer enrollments to ensure that a diverse set of  
13 customers are obtained to participate in the pilot rates. Specific to the Rate CS  
14 pilots, low power broadband equipment, municipal sirens, CATV and FOC  
15 customers, as described under Rate CS, are not eligible for this pilot since they are  
16 inherently unable to respond to the price signals provided by the Company.

17 **Q. WHAT DOES DUKE ENERGY INDIANA HOPE TO LEARN FROM THE**  
18 **DYNAMIC PRICING PILOT RATES?**

19 A. The Company's primary objective with innovative rate designs is to offer  
20 customers increased options with respect to how they consume and pay for  
21 electric service. It is anticipated that innovative dynamic designs can offer  
22 improved price signals that better align with cost causation, reducing the

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1 Company's cost of service based upon price response. These rate design choices  
2 will be enabled with deployment of Smart Meter technology and the Customer  
3 Connect billing system. More innovative designs will incent load shifting, which  
4 reduces the Company's cost of service and ultimately contributes to lower overall  
5 rates. Increased choice also leads to higher customer satisfaction as customers  
6 gain more control over their electric costs.

7 More specifically, it is our belief that the pilots will help us learn and provide  
8 customers with the choice and control they want and have come to expect from all  
9 service providers. It is important to learn through the pilots if there are segments  
10 of customers who are interested to participate and save money through changes in  
11 their consumption behavior. The proposed pilots have the explicit goal of better  
12 reflecting cost causation and of evaluating customer behavior and acceptance to  
13 new rate designs. Learning how customers respond to price signals and their  
14 satisfaction with the pilots will better prepare the Company to offer rate choices to  
15 customers when Customer Connect functionality is available in the Fall 2022. In  
16 addition, the proposed pilots will help the Company identify processes necessary  
17 to support and communicate a dynamic rate design, evaluate customer response to  
18 dynamic price signals offered under each pilot design, and identify the tools and  
19 techniques necessary to educate participants on dynamic pricing to improve the  
20 overall customer experience and load response.

21 **Q. HOW WILL THE COMPANY DEFINE SUCCESS FOR THESE PILOTS?**

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1 A. At its core, these are research projects. Success is very much tied to what we  
2 learn about our customers' preferences, and from those learnings providing  
3 choices to customers. Some of the specific insights we hope to attain are:

- 4 • Customer behavior before, during, and after Critical and High Peak  
5 Pricing events, *e.g.*, load reduction or load shifting;
- 6 • Customers likes or dislikes about the programs. This can be fairly  
7 extensive, such as the structure of the rate, the number of events,  
8 hours for on-peak periods, etc.;
- 9 • Customer satisfaction levels;
- 10 • Impacts to the Company's integrated resource plan.

11 **Q. IS THERE POTENTIAL INTERACTION BETWEEN THE PILOT RATES**  
12 **AND THE COMPANY'S ENERGY EFFICIENCY AND DEMAND**  
13 **RESPONSE EFFORTS?**

14 A. There could be. The Company hopes that customers become more aware of their  
15 consumption behavior through the price signals made available. Customers may  
16 in turn determine that load shifting and/or conservation efforts implemented can  
17 reduce their bills.

18 **Q. HAVE TARIFF SHEETS BEEN PREPARED FOR THE PROPOSED**  
19 **PILOTS?**

20 A. Yes, and they are attached to the testimony of Mr. Roger A. Flick in Petitioner's  
21 Exhibit 9-A (RAF). A side-by-side comparison of the rates is illustrated in  
22 Petitioner's Exhibit 8-F (JRB). Of additional note, the Company proposes to limit

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1 participation to 500 participants in each pilot for a total across all six pilots of  
2 3,000 participants. Although Smart Meters are being deployed, the new billing  
3 functionality of the Customer Connect system will not be available for several  
4 years. Therefore, there are aspects of the pilot implementation that will be done  
5 outside of the Company's billing system. Due to this more manual process,  
6 Company proposes the limits on participation. This may also require a short  
7 period of preparation time after Company receives approval to implement the  
8 pilots for the Company to prepare and launch marketing campaigns to acquire  
9 customers. Further, Company proposes to run the pilots for two years after their  
10 implementation and then close the pilots for an evaluation period. Participating  
11 customers may remain on the pilot rates at their option until Company evaluates  
12 the pilots, files with the Commission for a final disposition of the pilots, and  
13 receives the Commission's order on the Company's request.

14 **VI. EXPERIMENTAL PROGRAMS**  
15 **APPLICABLE TO RATE LLF AND RATE HLF**

16 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED NEW**  
17 **EXPERIMENTAL PROGRAMS FOR RATE LLF AND RATE HLF.**

18 A. The Company proposes an Experimental Market Pricing Program and an  
19 Experimental Demand Management and Stability Program applicable to Rate  
20 LLF and Rate HLF. The tariff pages are available for review and attached to the  
21 testimony of Mr. Roger A. Flick in Petitioner's Exhibit 9-A.

22 The Experimental Market Pricing Program re-introduces what was  
23 historically known as the Real-Time Pricing Program. The purpose of this

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1 program is to offer an opportunity for customers to manage their electric costs by  
2 providing an opportunity to shift load from higher cost to lower cost pricing  
3 periods, or to add new load during lower cost pricing periods. It would also allow  
4 customers to make short-term production runs without incurring the full cost of  
5 the typical demand charge. Load above a predetermined shape will pay market  
6 based prices, including energy delivery and ancillary service charges, and load  
7 below the predetermined shape will be credited.

8 The Experimental Demand Management and Stability Program is directed  
9 to those customers with significant ability to interrupt their load and make  
10 commitments to the stability of that load. In short, load greater than 75% of their  
11 average on peak demand is treated at market pricing, plus energy delivery and  
12 ancillary services charges, and no more than 25% of their load would be  
13 considered base usage. The balance of the load is required to be interruptible and  
14 must include at least 75 hours of economic events as well as a maximum of five  
15 emergency events. A term of five years is required to participate on this program.  
16 If a customer fails to maintain a non-coincident peak demand of at least 75% of  
17 the average on peak demand and 75% of the average monthly energy usage as  
18 compared to the 12-month period prior to commencement of the agreement, the  
19 customer will revert to the Company's Rate HLF or Rate LLF as appropriate. In  
20 addition, the customer will be required to refund one-half of all savings obtained  
21 from being on the rider for the lesser of the previous three years or  
22 commencement of the agreement.

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1 Both of these new experimental programs indicate our willingness and  
2 commitment to providing pricing options which can assist our customers in  
3 meeting their need to manage costs.

4 **Q. HOW WILL THE COMPANY DEFINE SUCCESS FOR THESE**  
5 **EXPERIMENTAL PROGRAMS?**

6 A. As I mentioned above, we are essentially re-introducing real time pricing for one  
7 of the programs. We gained an extensive knowledge base from that experience,  
8 and know there is a wide range of customer behavior once on the program. I  
9 would suggest, then, that these offerings are more about customers learning about,  
10 and adapting to, more market based pricing exposure. While I offer no  
11 commitments, these programs are likely to assume a long-term presence in our  
12 product portfolio.

13 **VII. LONG-TERM PRICING STRATEGY**

14 **Q. PLEASE DESCRIBE THE COMPANY'S LONG-TERM PRICING**  
15 **STRATEGY.**

16 A. As I'm sure most are well aware, the Company has a well-established Smart  
17 Meter buildout, with additional plans for a new billing system known as Customer  
18 Connect. When both of these projects are fully deployed, a whole new world will  
19 be available to our customers. This new world will offer transparency not  
20 normally associated with the utility industry. Customers will be able to go to our  
21 website, link to their account, run scenarios on available rates for their type of  
22 service, and select the rate most suited to their needs. To facilitate that vision, we

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1 are committed to providing voluntary rate options to customers that allow them  
2 more choices and greater control over their electric bills. Along with this, we  
3 have the goal of improving our pricing structures in program and product pricing  
4 to provide signals that more properly balance embedded and marginal costs, and  
5 move us toward a more time differentiated and dynamic pricing construct – and  
6 this is just in the initial stages. While well beyond the scope of this proceeding,  
7 additional evolution will take place, moving toward greater unbundling  
8 (transaction based) product pricing that will better accommodate renewable  
9 energy, and potential locational marginal pricing at the circuit level. This  
10 unprecedented level of transparency, however, presents some significant  
11 uncertainty for the Company, which I describe below.

12 **VIII. DECOUPLING**

13 **Q. WHY IS THE COMPANY PROPOSING DECOUPLING FROM A RATE**  
14 **DESIGN PERSPECTIVE?**

15 A. While we are initially employing pilots to gain experience in customer usage and  
16 adoption characteristics, our work has shown that the potential for revenue  
17 erosion is significant when pilots become fully available to the general populous  
18 of customers, potentially running into the tens of millions. Our proposal to  
19 decouple sales from usage for residential and small commercial service allows us  
20 to pursue this vision without financial harm. While many may focus on additional  
21 energy efficiency opportunities, or alternatively reductions in disincentives for  
22 utilities to pursue energy efficiency, by far and away the greatest potential for



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1 harm to the utility is the revenue erosion from mass migration of customers across  
2 rate schedules, and particularly so if we intend to assist our customers in obtaining  
3 cost savings. There are many statistics that suggest a mature time of use program  
4 may attract 5% to 10% of the customer population, but the transparency afforded  
5 by new technology can make that number much higher, in my opinion. Thus,  
6 approval of our proposed decoupling mechanism properly aligns our interest with  
7 that of our customers and allows us to move forward with the vision we have  
8 described here.

9 **IX. MERGER COMMITMENT**

10 **Q. PLEASE DESCRIBE THE RATE DESIGN COMMITMENT MADE BY**  
11 **THE COMPANY IN CAUSE NO. 42873.**

12 A. In the above- mentioned Cause, the Company committed to file cost of service  
13 under both 4 CP and 12 CP methodologies. Similarly, the Company also  
14 committed to filing rate designs under both methods. Please see the testimony of  
15 Ms. Diaz for details on the class allocation differences under the two  
16 methodologies, which appear to be small from a revenue requirement perspective.  
17 The methodological difference does not materially alter any of the designs. Thus,  
18 from a rate design standpoint, we have computed the rates listed in Section II of  
19 my testimony on a 12 CP basis and filed them as work papers. Any interest in the  
20 remaining rates the Company will provide upon request.

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1

**X. CONCLUSION**

2 **Q. WERE PETITIONER'S EXHIBITS 8-A (JRB) THROUGH 8-F (JRB)**  
3 **PREPARED BY YOU OR UNDER YOUR SUPERVISION?**

4 A. Yes, they were.

5 **Q. DOES THIS CONCLUDE YOUR PREFILED DIRECT TESTIMONY?**

6 A. Yes, it does.

Residential Billing Comparison Rate RS						
Line No.	Description (a)	Customer Bills and KWH (b)	Present Rates (c)	Monthly Revenue at Present Rates (d)	Proposed Rates (e)	Monthly Revenue at Proposed Rates (f)
1	<b>Connection Charge</b>	1	\$9.01	\$9.01	\$9.80	\$9.80
	<b>Energy</b>	Begin End				\$0.00
2	1st Block	0 300	\$0.089116	\$26.73	\$0.150893	\$45.27
3	2nd Block	301 1,000	\$0.051948	\$36.36	\$0.122344	\$85.64
4	End Block	1,001 and Over	\$0.042634	\$0.00	\$0.110347	\$0.00
5	Total Energy	1,000		\$72.11		\$140.71
6	<b>Standard Contract Riders*</b>		\$0.048188	\$48.19	\$0.001877	\$1.88
7	<b>Calculated Revenue</b>			\$120.30		\$142.59
8	<b>Difference</b>					\$22.29
9	<b>Percent Increase / (Decrease)**</b>					18.5%
<b>*Standard Contract Rider Summary Table</b>						
				<b>Present Rates</b>	<b>Proposed Rates</b>	
	Standard Contract Rider 60 - Fuel Cost Adjustment			\$0.012759	\$0.000000	
	Standard Contract Rider 61 - Integrated Coal Gasification Combined Cycle Generating Facility Adjustment			\$0.013991	-\$0.001385	
	Standard Contract Rider 62 - Environmental Compliance Investment Adjustment			\$0.003255	\$0.000000	
	Standard Contract Rider 63 - SO <sub>2</sub> , NO <sub>x</sub> , and Hg Emission Allowance Adjustment			\$0.000008	\$0.000000	
	Standard Contract Rider 65 - Transmission and Distribution Infrastructure Improvement Cost Rate Adjustment			\$0.005402	\$0.002207	
	Standard Contract Rider No. 66-A - Energy Efficiency Revenue Adjustment			\$0.003871	\$0.002321	
	Standard Contract Rider No. 67 - Credits to Remove Annual Amortization of Cinergy Merger Costs			-\$0.001950	-\$0.001498	
	Standard Contract Rider No. 68 - Midcontinent ISO Management Cost and Revenue Adjustment			\$0.002835	\$0.000000	
	Standard Contract Rider No. 70 - Reliability Adjustment			\$0.000732	\$0.000000	
	Standard Contract Rider No. 71 - Environmental Compliance Operating Cost Adjustment			\$0.006403	\$0.000233	
	Standard Contract Rider No. 72 - Federally Mandated Cost Rate Adjustment			\$0.000124	\$0.000000	
	Standard Contract Rider No. 73 - Renewable Energy Project Revenue Adjustment			\$0.000757	\$0.000000	
	Totals			\$0.048188	\$0.001877	
	<b>** Does not include the impacts of Utility Receipts Tax</b>					

<b>Connection Charges</b>					
<b>Rate Schedule</b>	<b>Calculated Connection Charge</b>	<b>Proposed Connection Charge</b>	<b>Current Connection Charge</b>	<b>Increase</b>	<b>Percent Increase</b>
<b>Rate RS</b>	\$9.80	\$9.80	\$9.01	\$0.79	8.77%
<b>Rate CS</b>	\$9.27	\$9.27	\$9.01	\$0.26	2.89%
<b>Rate LLF</b>					
Secondary	\$23.24	\$22.83	\$14.00	\$8.83	63.07%
Primary	\$92.31	\$109.43	\$71.00	\$38.43	54.13%
Primary Direct	\$88.15	\$109.43	\$71.00	\$38.43	54.13%
Transmission	\$360.20	\$360.20	\$284.00	\$76.20	26.83%
<b>Rate HLF</b>					
Secondary	\$26.80	\$26.80	\$14.00	\$12.80	91.43%
Primary	\$103.93	\$105.07	\$71.00	\$34.07	47.99%
Primary Direct	\$111.14	\$105.07	\$71.00	\$34.07	47.99%
Common	\$478.23	\$727.14	\$284.00	\$443.14	156.04%
Bulk	\$1,002.94	\$727.14	\$284.00	\$443.14	156.04%

<b>Migration Impacts</b>			
	<b>LLF</b>	<b>HLF</b>	<b>Total</b>
Rate Migration	\$1,672,753	\$2,268,620	\$3,941,373
TOU Migration	\$58,065	\$0	\$58,065
Total	\$1,730,818	\$2,268,620	\$3,999,438
Less Overlap	\$0	\$0	\$0
Net Migration	\$1,730,818	\$2,268,620	\$3,999,438
Revenue Ask %	50%	50%	
Additional Revenue Ask	\$865,409	\$1,134,310	\$1,999,719
Class Revenue Requirement	\$556,367,343	\$949,679,363	\$1,506,046,706
Revenue Requirement %	36.9%	63.1%	
Adjustment Amount	\$738,741	\$1,260,978	\$1,999,719

**VERIFICATION**

I hereby verify under the penalties of perjury that the foregoing representations are true to the best of my knowledge, information and belief.

Signed: Jeffrey R. Bailey  
Jeffrey R. Bailey

Dated: 9/9/19