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Indiana Utility Regulatory Commission

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February 29, 2020

Secretary of the Commission
Indiana Utility Regulatory Commission
101 W. Washington St.
Suite 1500 East
Indianapolis, IN 46204-3407

Dear Secretary:

Duke Energy Indiana, LLC hereby submits, in accordance with 170 IAC 1-4-4.1-10, for review and approval under the Commission's thirty-day filing procedure, Standard Contract Rider No. 50 – Parallel Operation for Qualifying Facility.

Standard Contract Rider 50 shows Duke Energy Indiana's standard offer energy and capacity rates for 2020 for a qualifying facility. As per the Commission, under 170 IAC 1-6-3, Section 3-6, this filing should be made under the thirty-day filing procedure.

Attached are the working papers that show the development of the standard offer energy and capacity rates for 2020. This filing reflects the variable and fixed costs impacts from an updated study from Burns and Mac. Further, this filing reflects the capital structure and current cost rates as of December 31, 2019. It also reflects the cost of common equity rate approved by the Commission in Cause No. 42359. The energy rate was developed utilizing a Planning and Risk (PaR) model version 6.1 simulation run that treats the 100 MW decrement as a dispatchable non-firm, external purchase. Thus, the marginal energy cost savings is the replacement cost for the 100 MW purchase. This cost includes fuel, fuel handling, variable O&M related to energy, effluent values and fuel auxiliary costs. Generator start-up cost have been included. The Company is also proposing to change the peak hours to be consistent with the peak hours in its Time of Use Rates proposed in its pending rate case Cause No. 45253.

The marginal energy cost is down from the 2019 filing due to a drop in the projected 2020 DEI MISO energy market prices. A 221.4MW combustion turbine is used as the 2020 standard offer capacity rate. We have compared this to a 221.4 MW combustion turbine with an in-service date of 2022.

We are filing Rider 50 and all associated work papers, including the Company's verified statement that we have provided or will provide notice to our customers as

Secretary of the Commission
February 29, 2020
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required under Section 6 of the thirty-day filing rules, electronically. We would appreciate the return of a file-stamped copy for our files.

If there are any questions concerning this filing, please contact me at 317.838.1218.

Sincerely,



Jayme Stemle
Attachments

cc:

B. P. Davey
M. T. Diaz
C. D. Hixson
K. A. Karn
K. C. Lilly
S. Park
M. D. Price
D. L. Smotherman
R. A. Mc Murry

Service List

OUC

Randy Helmen
Indiana Office of Utility Consumer Counselor
PNC Center
115 W. Washington Street
Suite 1500 South
Indianapolis, Indiana 46204
rhelmen@oucc.in.gov

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

Availability

Available to any Customer contracting for parallel operation of a qualifying facility (cogeneration or small power production facility) in accordance with 170 IAC 4-4.1-1 et. seq. The qualifying facility must be located adjacent to an electric line of Company that is adequate for the service provided by such qualifying facility.

Contract

Customer shall enter into a contract in the applicable form (Exhibit A—Contract for the Purchase of Energy from Qualifying Facility or Exhibit B—Contract for the Purchase of Energy and Capacity from Qualifying Facility) before operating any generating equipment electrically connected with Company's electric system.

Rate for Purchase of Energy

Company will purchase energy from the qualifying facility of Customer in accordance with the conditions and limitations of this Rider and the applicable contract at the following rate:

For all kWh supplied per month.....\$0.024164 per kWh

Measured by suitable integrating instruments.

Rate for Purchase of Capacity

Company will purchase capacity supplied from the qualifying facility of Customer in accordance with the conditions and limitations of this Rider and the applicable contract at the following rate:

Rate per kW per month of Contracted Capacity\$4.39 per kW

Customer shall receive from Company payment for such qualifying facility capacity in accordance with the following:

$$\text{\$ per kW} \times \text{Contracted Capacity in kW} \times \left(\frac{E}{K \times T} \right) \text{ per month}$$

- Where: E = kilowatt-hours supplied by qualifying facility during the Peak Period
- K = kilowatts of capacity the qualifying facility contracts to provide to Company
- T = number of hours in the Peak Period

Peak Period shall be defined as follows:
For the months of May through October, the Peak Period shall be Monday through Friday 11:01 a.m. through 6:00 p.m. (Eastern Standard Time), excluding holidays defined below. For the months of November through April, the Peak Period shall be Monday through Friday 6:01 a.m. through 2:00 p.m. and 6:01 pm through 9:00 pm (Eastern Standard Time), excluding holidays defined below.

Issued:

Effective:

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

The entire twenty-four (24) hours of the following holidays will be considered as off-peak hours:

New Year's Day	Labor Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

Whenever any of the above holidays occur on a Sunday and the following Monday is legally observed as a holiday, the entire twenty-four (24) hours of such Monday will be considered as off-peak hours.

Whenever any of the above holidays occur on a Saturday and the preceding Friday is legally observed as a holiday, the entire twenty-four (24) hours of such Friday will be considered as off-peak hours.

Contracted Capacity shall be the amount of capacity expressed in terms of kilowatts that Customer guarantees the qualifying facility will supply to Company as provided for in the contract for such service.

Special Terms and Conditions

1. It shall be Customer's responsibility to inform Company of any changes in its electric generation capability.
2. Customer shall comply with all applicable requirements of Standard Contract Rider No. 80 – Interconnection Service.
3. Customer may be required to enter into a "Substation Operation and Maintenance Agreement" for setting, resetting, and adjusting the Control Equipment.
4. Customer shall agree to pay Company, in accordance with "Standard Contract Rider No. 53—Excess Facilities," for all excess facilities required by Company to provide service to such parallel operation, as determined by Company, including any additional metering equipment required for Company to purchase electric energy from the qualifying facility.
5. Customer shall agree that Company shall not be liable for any damage to, or breakdown of Customer's equipment operated in parallel with Company's electric system.
6. Customer shall agree to release, indemnify, and hold harmless Company from any and all claims for injury to persons or damage to property due to or in any way connected with the operation of Customer's said generators.
7. Company may install necessary metering to monitor the electric output of Customer's generating facility. Customer shall agree that the watt-hour and reactive-ampere-hour meters installed by Company to measure electric energy may be equipped to prevent reverse registration.
8. Supplementary, Backup, Interruptible and/or Maintenance Power, as defined in 170 IAC 4-4.1-1, will be supplied by Company only in accordance with the applicable rate schedules, this Rider, the applicable contract and the applicable Service Schedules to be filed by Company with the Commission. Such rates shall be non-discriminatory and shall be based on the costs to provide such service to Customer.
9. To the extent required by law, Company will make available wheeling service to Customer in accordance with the provisions of 170 IAC 4-4.1-6.

Issued:

Effective:

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy from Qualifying Facility**

This Contract, made and entered into as of this _____ day of _____, 20____, by and between Duke Energy Indiana, LLC (hereinafter "Company"), an Indiana corporation and an electric utility subject to the jurisdiction of the Indiana Utility Regulatory Commission (hereinafter "Commission"), and _____ (hereinafter "Customer").

WITNESSETH:

WHEREAS, Customer is constructing or has constructed the following facilities (description): _____ located in _____, Indiana; and

WHEREAS, Customer's facility is a "qualifying facility" (hereinafter "QF") as defined in 170 IAC 4-4.1-1; and

WHEREAS, Customer desires to operate its QF in parallel with Company's electric system, and to engage in electric energy transactions with Company, but Customer does not desire to have Company purchase any of the capacity of Customer's QF; and

WHEREAS, Company's electric energy service to Customer and Customer's electric energy service to Company shall have the following characteristics: _____

NOW, THEREFORE, in consideration thereof, Customer and Company agree as follows:

1. **Service Option.** At the beginning of the contract period, Customer shall elect one of the two following options:

Option A. Simultaneous sale of the entire electric energy output of the QF to Company, and purchase of all of Customer's electric energy requirements from Company (simultaneous purchase and sale shall relate to the net electric energy output of the QF, exclusive of the electricity used in the generating process); or

Option B. Use of electric energy output of the QF by Customer to supply Customer's own electric energy requirements, and purchase of Customer's remaining requirements, if any, from Company.

Customer elects Option _____.

2. **Interconnection.** Customer shall comply with all applicable requirements of Standard Contract Rider No. 80 – Interconnection Service and 170 IAC 4-4.1-7.

If required by Company, Customer agrees to enter into a "Substation Operation and Maintenance Agreement" providing for Company to set, reset and adjust the Control Equipment. Customer shall make no modification to the QF or Control Equipment without prior review and approval of Company.

3. **Application.** It is understood and agreed that this Contract applies only to the operation of Customer's QF located at _____, Indiana.

4. **Metering and Excess Facilities.** The electric energy supplied hereunder by Customer shall be measured by integrating instruments supplied by Company. Customer shall pay Company, in accordance with "Standard Contract Rider No. 53—Excess Facilities," for all excess facilities required by Company to provide service to such parallel operation, as determined by Company, including any additional metering equipment required for Company to purchase electric energy from the QF, as determined by Company. Company may, at its sole option, install additional recording instruments at its own expense.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy from Qualifying Facility**

5. **System Emergency.** Company shall not be required to purchase from or sell electric energy to Customer at the time of an emergency on either Company's or Customer's electric system. System emergencies causing discontinuance of parallel operation are subject to verification by the Commission.
6. **Purchase of Energy.** Company will purchase the electric energy supplied to its system from Customer's QF at the rate of the average of the marginal running costs of Company adjusted for line losses in accordance with 170 IAC 4-4.1-8 (a), as then set forth in "Standard Contract Rider No. 50—Parallel Operation For Qualifying Facility." Company shall file annually with the Commission data supporting such costs. The basis for the determination of such rate for the purchase of energy shall be an appropriate generation simulation program with and without one hundred megawatts of load decrement. Company shall make no capacity payments for the energy supplied by Customer's QF.
7. **Output.** The maximum electric energy output of Customer's QF expected to be made available to Company is _____.
8. **Power Supplied by Company.** Supplementary, Backup, Interruptible and/or Maintenance Power, as defined in 170 IAC 4-4.1-1, requested by Customer shall be supplied by Company only in accordance with the applicable rate schedules, "Standard Contract Rider No. 50—Parallel Operation For Qualifying Facility," this Contract and the applicable Service Schedules to be filed by Company with the Commission. Such rates shall be non-discriminatory and shall be based on the costs to provide such service.
9. **Billing.** The meter measuring the supply of electric energy to Company's electric system shall be read by Company every _____, and Company shall provide those meter readings to Customer and render payment therefor within _____ after the meter reading.

Customer shall be billed for the electric service requirements used by Customer in accordance with Section 10 of this Contract.

10. **Insurance.** Customer shall procure and keep in force during all periods of parallel operation with Company's electric system, the following insurance, with insurance carriers acceptable to Company, and in amounts not less than the following:

Coverage	Limits
Comprehensive General Liability	
Contractual Liability	(to be inserted depending upon the
Bodily Injury	nature and size of the QF)
Property Damage	

Customer shall deliver a CERTIFICATE OF INSURANCE verifying the required coverage to:

Duke Energy Indiana, LLC
Attention: District Manager

at least fifteen (15) days prior to any interconnection with Company's electric system by Customer.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy from Qualifying Facility**

11. **Release and Indemnification.** Each party shall release, indemnify and hold harmless the other party from and against all claims, liability, damages and expenses, including attorneys' fees, based on any injury to any person, including loss of life, or damage to any property, including loss of use thereof, arising out of, resulting from or connected with, or that may be alleged to have arisen out of, resulted from or connected with, an act or omission by such other party, its employees, agents, representatives, successors or assigns in the construction, ownership, operation or maintenance of such party's facilities used in connection with this Contract. Upon the written request of the party seeking relief under this Section 13, the other party shall defend any suit asserting a claim covered by this Section 13. If a party is required to bring an action to enforce its rights under this Section 13, either as a separate action or in connection with another action, and said rights are upheld, the party from whom the relief was sought shall reimburse the party seeking such relief for all expenses, including attorneys' fees, incurred in connection with such action.
12. **Term.** This Contract shall be in effect for an initial term of _____ years, beginning _____, 20____ and ending _____, 20____, and thereafter shall continue in effect for succeeding like terms, unless and until terminated by written notice given by one party to the other party at least sixty (60) days prior to the initial date of expiration, or any succeeding expiration date, and stating an intention to terminate this Contract as of the applicable expiration date.
13. **Termination of Any Applicable Existing Agreement.** From and after the date when service commences under this Contract, this Contract shall supersede any oral and/or written agreement between Company and Customer concerning the service covered by this Contract and any such agreement shall be deemed to be terminated as of the date service commences under this Contract.
14. **Force Majeure.** "Force Majeure" means any cause or event not reasonably within the control of the party claiming Force Majeure, including, but not limited to, the following: acts of God, strikes, lockouts, or other industrial disturbances; acts of public enemies; orders or permits or the absence of the necessary orders or permits of any kind which have been properly applied for from the government of the United States, the State of Indiana, any political subdivision or municipal subdivision or any of their departments, agencies or officials, or any civil or military authority; unavailability of a fuel or resource used in connection with the generation of electricity; extraordinary delay in transportation; unforeseen soil conditions; equipment, material, supplies, labor or machinery shortages; epidemics; landslides; lightning; earthquakes; fires; hurricanes; tornadoes; storms; floods; washouts; drought; arrest; war; civil disturbances; explosions; breakage or accident to machinery, transmission lines, pipes or canals; partial or entire failure of utilities; breach of contract by any supplier, contractor, subcontractor, laborer or materialman; sabotage; injunction; blight; famine; blockade; or quarantine.

If either party is rendered wholly or partly unable to perform its obligations because of Force Majeure, both parties shall be excused from whatever obligations are affected by the Force Majeure (other than the obligation to pay money) and shall not be liable or responsible for any delay in the performance of, or the inability to perform, any such obligations for so long as the Force Majeure continues. The party suffering an occurrence of Force Majeure shall, as soon as is reasonably possible after such occurrence, give the other party written notice describing the particulars of the occurrence and shall use its best efforts to remedy its inability to perform, provided, however, that the settlement of any strike, walkout, lockout or other labor dispute shall be entirely within the discretion of the party involved in such labor dispute.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy from Qualifying Facility**

15. **Invalid Legal Basis.** This Contract has been entered into by Company and Customer pursuant to the Commission's October 5, 1984 Order in Cause No. 37494 approving rules and regulations with respect to cogeneration and alternate energy production facilities, 170 IAC 4-4.1-1 et. seq., under Public Law 72-1982, IC 8-1-2.4-1 et. seq. In the event that any part of such Commission Order, such rules and regulations or such law is finally adjudged by a court of competent jurisdiction to be invalid, then either Company or Customer may, at its sole option, terminate this Contract at any time within one hundred eighty (180) days of the date such determination becomes final by giving sixty (60) days' written notice to the other party stating an intention to terminate this Contract at the expiration of such sixty (60) day period.
16. **Wheeling Service.** To the extent required by law, Company will make available wheeling service to Customer in accordance with the provisions of 170 IAC 4-4.1-6.

IN WITNESS WHEREOF, the parties have executed this Contract, effective as of the date first above written.

Duke Energy Indiana, LLC
"Company"

By: _____

"Customer"

By: _____

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

This Contract, made and entered into as of this _____ day of _____, 20____, by and between Duke Energy Indiana, LLC (hereinafter "Company"), an Indiana corporation and an electric utility subject to the jurisdiction of the Indiana Utility Regulatory Commission (hereinafter "Commission"), and _____ (hereinafter "Customer").

WITNESSETH:

WHEREAS, Customer is constructing or has constructed the following facilities (description): _____ located in _____, Indiana; and

WHEREAS, Customer's facility is a "qualifying facility" (hereinafter "QF") as defined in 170 IAC 4-4.1-1; and

WHEREAS, Customer desires to operate its QF in parallel with Company's electric system, and to engage in electric energy and capacity transactions with Company; and

WHEREAS, Company's electric energy service to Customer and Customer's electric energy service to Company shall have the following characteristics: _____:

NOW, THEREFORE, in consideration thereof, Customer and Company agree as follows:

1. **Service Option.** At the beginning of the contract period, Customer shall elect one of the two following options:

Option A. Simultaneous sale of the entire electric energy output of the QF to Company, and purchase of all of Customer's electric energy requirements from Company (simultaneous purchase and sale shall relate to the net electric energy output of the QF, exclusive of the electricity used in the generating process); or

Option B. Use of electric energy output of the QF by Customer to supply Customer's own electric energy requirements, and purchase of Customer's remaining requirements, if any, from Company.

Customer elects Option _____.

2. **Interconnection.** Customer shall comply with all applicable requirements of Standard Contract Rider No. 80 – Interconnection Service and 170 IAC 4-4.1-7.

If required by Company, Customer agrees to enter into a "Substation Operation and Maintenance Agreement" providing for Company to set, reset and adjust the Control Equipment. Customer shall make no modification to the QF or Control Equipment without prior review and approval of Company.

3. **Application.** It is understood and agreed that this Contract applies only to the operation of Customer's QF located at _____, Indiana.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

4. **Metering and Excess Facilities.** The electric energy supplied hereunder by Customer shall be measured by integrating instruments supplied by Company. Customer shall pay Company, in accordance with "Standard Contract Rider No. 53 Excess Facilities," for all excess facilities required by Company to provide service to such parallel operation, as determined by Company, including any additional metering equipment required for Company to purchase electric energy from the QF, as determined by Company. Company may, at its sole option, install additional recording instruments at its own expense.
5. **System Emergency.** Company shall not be required to purchase from or sell electric energy to Customer at the time of an emergency on either Company's or Customer's electric system. System emergencies causing discontinuance of Parallel operation are subject to verification by the Commission.
6. **Purchase of Energy.** Company will purchase the electric energy supplied to its system from Customer's QF at the rate of the average of the marginal running costs of Company adjusted for line losses in accordance with 170 IAC 44.18 (a), as then set forth in "Standard Contract Rider No. 50 Parallel Operation For Qualifying Facility." Company shall file annually with the Commission data supporting such costs. The basis for the determination of such rate for the purchase of energy shall be an appropriate generation simulation program with and without one hundred megawatts of load decrement. Except as set forth in section 7. below, Company shall make no capacity payments for the energy supplied by Customer's QF.
7. **Purchase of Capacity.** Company will purchase the electric capacity supplied to its system from Customer's QF at the Company's monthly avoided cost of capacity for Company per kilowatt in accordance with 170 IAC 4-4.1-9 (a), as then set forth in "Standard Contract Rider No. 50—Parallel Operation For Qualifying Facility." Company shall file annually with the Commission data supporting such costs.

Monthly payments for such purchase of capacity shall be adjusted by the application of a factor developed in accordance with 170 IAC 4-4.1-9 (d) reflecting actual output of the QF.
8. **Capacity.** The amount of "Contracted Capacity" that Customer guarantees the QF will make available to Company during each year of the Contract is _____ kw.
9. **Performance.** The parties agree that the amount of the capacity payment which Company is to make to Customer for the QF is based upon the QF's performance of its obligation to provide Contracted Capacity during the term of this Contract. The parties further agree that in the event Company does not receive such full performance by reason of a termination of this Contract prior to its expiration or a reduction in the amount of such Contracted Capacity, (1) Company shall be deemed damaged by reason thereof, (2) it would be impracticable or extremely difficult to fix the actual damages to Company resulting therefrom, (3) the reductions, offsets and refund payments as provided hereafter, as applicable, are in the nature of adjustments in prices and are to be considered liquidated damages, and not a penalty, and are fair and reasonable, and (4) such reductions, offsets and refund payments represent a reasonable endeavor by the parties to estimate a fair compensation for the reasonable damages that would result from such premature termination or failure to deliver the specified amount of capacity.

**STANDARD CONTRACT RIDER NO. 50
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**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

10. **Refund.** In the event this Contract is terminated or the Contracted Capacity is reduced prior to the expiration of the initial term of this Contract, Customer shall refund to Company the capacity payments in excess of those capacity payments which would have been made had all of the capacity or the reduced capacity, whichever is applicable, been subject to a capacity rate based on the actual term of delivery to Company.
11. **Probationary Period.** Except in the event of Force Majeure, as defined in Section 21 of this Contract, if, within any twelve (12) month period during the term of this Contract ending on the anniversary date of the date that the QF first provided capacity to Company under this Contract, the QF fails to provide Company with the Contracted Capacity specified in this Contract, the capacity for which Customer shall be entitled to capacity payments during the subsequent twelve (12) month period (hereinafter "the Probationary Period") shall be reduced to the capacity provided during the prior twelve (12) month period. If, during the Probationary Period, the QF provides the Contracted Capacity specified in this Contract, Company, within thirty (30) days following the end of the Probationary Period, shall reinstate the full capacity amount originally specified in this Contract. If, during the Probationary Period, the QF again fails to provide the Contracted Capacity specified in this Contract, Company may permanently reduce the capacity purchased from the QF for the remainder of the term of this Contract. Company may also require that the reduction in the capacity be subject to the refund provisions of Section 12 of this Contract.
12. **Scheduled Outages.** Scheduled outages of the QF shall be usefully coordinated with scheduled outages of Company's generating facilities.
13. **Power Supplied by Company.** Supplementary, Backup, Interruptible and/or Maintenance Power, as defined in 170 IAC 4-4.1-1, requested by Customer shall be supplied by Company only in accordance with the applicable rate schedules, "Standard Contract Rider No. 50—Parallel Operation For Qualifying Facility," this Contract and the applicable Service Schedules to be filed by Company with the Commission. Such rates shall be non-discriminatory and shall be based on the costs to provide such service.
14. **Billing.** The meter measuring the supply of electric energy to Company's electric system shall be read by Company every _____, and Company shall provide those meter readings to Customer and render payment therefor within after the meter reading.

Customer shall be billed for the electric service requirements used by Customer in accordance with Section 10 of this Contract.
15. **Insurance.** Customer shall procure and keep in force during all periods of parallel operation with Company's electric system, the following insurance, with insurance carriers acceptable to Company, and in amounts not less than the following:

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

Coverage	Limits
Comprehensive General Liability	
Contractual Liability	(to be inserted depending upon the
Bodily Injury	nature and size of the QF)
Property Damage	

Customer shall deliver a CERTIFICATE OF INSURANCE verifying the required coverage to:

Duke Energy Indiana, LLC
Attention: District Manager

at least fifteen (15) days prior to any interconnection with Company's electric system by Customer.

- 16. Release and Indemnification.** Each party shall release, indemnify and hold harmless the other party from and against all claims, liability, damages and expenses, including attorneys' fees, based on any injury to any person, including loss of life, or damage to any property, including loss of use thereof, arising out of, resulting from or connected with, or that may be alleged to have arisen out of, resulted from or connected with, an act or omission by such other party, its employees, agents, representatives, successors or assigns in the construction, ownership, operation or maintenance of such party's facilities used in connection with this Contract. Upon the written request of the party seeking relief under this Section 18, the other party shall defend any suit asserting a claim covered by this Section 13. If a party is required to bring an action to enforce its rights under this Section 18, either as a separate action or in connection with another action, and said rights are upheld, the party from whom the relief was sought shall reimburse the party seeking such relief for all expenses, including attorneys' fees, incurred in connection with such action.
- 17. Term.** This Contract shall be in effect for an initial term of ____ years, beginning _____, 20__, and ending _____, 20__, and thereafter shall continue in effect for succeeding like terms, unless and until terminated by written notice given by one party to the other party at least sixty (60) days prior to the initial date of expiration, or any succeeding expiration date, and stating an intention to terminate this Contract as of the applicable expiration date.
- 18. Termination of Any Applicable Existing Agreement.** From and after the date when service commences under this Contract, this Contract shall supersede any oral and/or written agreement between Company and Customer concerning the service covered by this Contract and any such agreement shall be deemed to be terminated as of the date service commences under this Contract.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

19. **Force Majeure.** "Force Majeure" means any cause or event not reasonably within the control of the party claiming Force Majeure, including, but not limited to, the following: acts of God, strikes, lockouts, or other industrial disturbances; acts of public enemies; orders or permits or the absence of the necessary orders or permits of any kind which have been properly applied for from the government of the United States, the State of Indiana, any political subdivision or municipal subdivision or any of their departments, agencies or officials, or any civil or military authority; unavailability of a fuel or resource used in connection with the generation of electricity; extraordinary delay in transportation; unforeseen soil conditions; equipment, material, supplies, labor or machinery shortages; epidemics; landslides; lightning; earthquakes; fires; hurricanes; tornadoes; storms; floods; washouts; drought; arrest; war; civil disturbances; explosions; breakage or accident to machinery, transmission lines, pipes or canals; partial or entire failure of utilities; breach of contract by any supplier, contractor, subcontractor, laborer or material man; sabotage; injunction; blight; famine; blockade; or quarantine.

If either party is rendered wholly or partly unable to perform its obligations because of Force Majeure, both parties shall be excused from whatever obligations are affected by the Force Majeure (other than the obligation to pay money) and shall not be liable or responsible for any delay in the performance of, or the inability to perform, any such obligations for so long as the Force Majeure continues. The party suffering an occurrence of Force Majeure shall, as soon as is reasonably possible after such occurrence, give the other party written notice describing the particulars of the occurrence and shall use its best efforts to remedy its inability to perform, provided, however, that the settlement of any strike, walkout, lockout or other labor dispute shall be entirely within the discretion of the party involved in such labor dispute.

20. **Invalid Legal Basis.** This Contract has been entered into by Company and Customer pursuant to the Commission's October 5, 1984 Order in Cause No. 37494 approving rules and regulations with respect to cogeneration and alternate energy production facilities, 170 IAC 4-4.1-1 et. seq., under Public Law 72-1982, IC 8-1-2.4-1 et. seq. In the event that any part of such Commission Order, such rules and regulations or such law is finally adjudged by a court of competent jurisdiction to be invalid, then either Company or Customer may, at its sole option, terminate this Contract at any time within one hundred eighty (180) days of the date such determination becomes final by giving sixty (60) days' written notice to the other party stating an intention to terminate this Contract at the expiration of such sixty (60) day period.
21. **Wheeling Service.** To the extent required by law, Company will make available wheeling service to Customer in accordance with the provisions of 170 IAC 4-4.1-6.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

**Contract for the Purchase of
Energy and Capacity from Qualifying Facility**

IN WITNESS WHEREOF, the parties have executed this Contract, effective as of the date first above written.

Duke Energy Indiana,
LLC "Company"

By: _____

"Customer"

By: _____

2. Cogeneration and Alternate Energy Production Facilities

The following utility has submitted a proposed tariff for the purchase of power and energy from a qualifying facility as required in Appendix A, Rules and Regulations with Respect to Cogeneration and Alternate Energy Production Facilities, (170 I.A.C. 4-4.1), Cause No. 37494. Supporting documentation has been supplied.

<u>Utility</u>	<u>Rate Schedule</u>	<u>Energy (\$/kWH)</u>	<u>Demand (\$/kW/month)</u>
Duke Energy Indiana, LLC	Rider No. 50	.024164	4.39

The tariff sheet affected by this filing is Sheet No. 50.

DUKE ENERGY INDIANA, LLC
2020 COGENERATION FILING
CALCULATION OF PRESENT VALUE OF CARRYING CHARGES

CCR = 9.44%

$$\text{Cumulative Present Worth Factor} = \frac{(1 + r)^n - 1}{r * (1 + r)^n} = 12.248696$$

Where:

r = 7.13%
n = 30

D = CCR * Cumulative Present Worth Factor

= 9.44% X 12.248696

= 1.15628

Source: Financial Capital Structure as of 12/31/2019 per company books and records.
Long term debt rate is for 30 year credit adjusted risk free rates as of 1/1/2020.

DUKE ENERGY INDIANA, LLC
2020 COGENERATION FILING
CALCULATION OF STANDARD OFFER RATE
FOR THE PURCHASE OF ENERGY

RATE FOR THE PURCHASE OF ENERGY

2020 ENERGY RATE = (\$0.023518 PER KWH)

2020 ENERGY RATE ADJUSTED FOR LOSSES

= \$0.023518 PER KWH / (1 - (0.053440042 / 2))

= \$0.024164 PER KWH

WHERE : (A) The Planning and Risk (PaR) model version 6.1 cost program performed a single run that treats the one hundred MW decrement as a dispatchable non-firm, external purchase. Thus, the marginal energy cost savings is the replacement cost for the 100 MW purchase. This cost includes fuel, fuel handling, variable O&M related to energy, effluent values and fuel auxiliary costs. We have included changes in generator start-up costs.

(B) The loss factor is 5.3440042%.

Source: Primary Metered Sales Retail Loss Factor from latest retail rate case (Cause No. 42359)

DUKE ENERGY INDIANA, LLC
2020 COGENERATION FILING
CALCULATION OF STANDARD OFFER RATE
FOR THE PURCHASE OF CAPACITY

FOR GENERIC COMBUSTION TURBINE

RATE FOR THE PURCHASE OF CAPACITY

$$C = \frac{1}{12} * [(D * V * F * ((1+lp)^{t-1})) + (O * ((1 + lo)/(1+r)) * ((1 + lo)^{t-1}))] / (1 -L/2)$$

= \$4.39 PER KW PER MONTH

$$Ca = C * (((1 + lp)/(1 + r))^{(Yi-Yc)})$$

= \$4.39 PER KW PER MONTH

WHERE : D = 1.15628
V = 620.30 PER KW (2020 \$)
F = 0.054918 (Based on formula contained in 170 IAC 4-4.1-9)
lp = 2.50%
lo = 2.50%
O = \$12.36 PER KW (2020 \$)
r = 7.13%
n = 35
L = 5.3440042%
t = 1
Yi = 2020 (In service year of CT)
Yc = 2020 (Current year)

NOTE : (a) Investment cost based on a 221.4 MW hypothetical combustion turbine with a 2020 in service date.
(b) Escalation rates is standard rate used in model.

DUKE ENERGY INDIANA, LLC
2020 COGENERATION FILING
CALCULATION OF STANDARD OFFER RATE
FOR THE PURCHASE OF CAPACITY

FOR 2022 221.4 MW Combustion Turbine Unit

RATE FOR THE PURCHASE OF CAPACITY

$$C = \frac{1}{12} * [(D * V * F * ((1+lp)^{n-1})) + (O * ((1 + lo)/(1+r)) * ((1 + lo)^{n-1}))] / (1 -L/2)$$

= \$4.61 PER KW PER MONTH

$$Ca = C * (((1 + lp)/(1 + r))^{(Yi-Yc)})$$

= \$4.04 PER KW PER MONTH

- WHERE: D = 1.15628
- V = \$620 PER KW (2020 \$)
- F = 0.054918 (Based on formula contained in 170 IAC 4-4.1-9)
- lp = 2.50%
- lo = 2.50%
- O = \$12.36 PER KW (2020 \$)
- r = 7.13%
- n = 35
- L = 5.3440042%
- t = 3
- Yi = 2022 (In service year of CT)
- Yc = 2019 (Current year)

NOTE : (a) Investment cost based on a 221.4 MW combined cycle unit with a 2022 in service date.
 (b) Escalation rates is standard rate used in model.

DUKE ENERGY INDIANA, INC.

**Calculation Of Carrying Charge
Rate For Cogeneration Facilities
With A 30 Year Life For The 2020 Filing
Based On Calendar Year 2019 Information**

$$CCR = (1/(1-t)) * ((r+d) + ((T/(1-T)) * (r+d-D) * ((r-(bL+lp))/r)))$$

r:	Rate of Return	7.13%
d:	Sinking fund depreciation rate	1.03%
T:	Federal and State composite income tax rate	25.246%
D:	Book depreciation rate	3.33%
b:	Interest rate on debt capital	3.30%
L:	Debt ratio	46.85%
l:	Interest rate on preferred stock	0.00%
p:	Preferred stock ratio	0.00%
n:	Service life	30
t:	Other taxes & expense from revenues	0.000%

$$CCR = 9.44\%$$

Memo:

$$\begin{aligned}
 CCR &= \left(\frac{1}{1 - 0.25246} \right) * \left(7.13 + 1.03 + \left(\frac{25.246}{1 - 0.25246} \right) * \left(7.13 + 1.03 - 3.33 \right) * \left(\frac{7.13 - (3.3 * 0.4685 + 0)}{7.13} \right) \right) \\
 &= 1.00000 * \left(8.16 + \left(0.3377 \right) * \left(4.83 \right) * \left(7.13 - 1.5461 \right) / 7.13 \right) \\
 &= 1.00000 * \left(8.16 + 1.2774 \right) \\
 &= 9.44
 \end{aligned}$$

Carrying Costs Calculation Check 9.44%Difference 0.00%

2020 Cogeneration-Compliance Filing

A.	Marginal Energy Cost	
	Annual Run for with one hundred MW decrement (mills/kWh).	100 MW Run 23.52
B.	For Generic Combustion Turbine	
1.	In-Service Date	01/01/2020
2.	Type of Unit	Combustion Turbine
3.	Size of Unit (MW - summer)	221.4
4.	Investment Cost per kW-summer	620.30
5.	A. Fixed O&M Expense in the first year of service (\$/kW-yr, summer)	2.019
	Variable O&M Expense in the first year of service (\$/kW-yr, summer)	10.342
	B. summer	10.342
	Total Fixed & Variable O&M Expense in the first year of service (\$/kW-yr, summer)	12.361
6.	Expected Life (years)	35
7.	Escalation Rates (%):	
	2020-2038 Investment	2.50
	O&M	2.50

Note: All costs expressed in January 2020 dollars.

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

Availability

Available to any Customer contracting for parallel operation of a qualifying facility (cogeneration or small power production facility) in accordance with 170 IAC 4-4.1-1 et. seq. The qualifying facility must be located adjacent to an electric line of Company that is adequate for the service provided by such qualifying facility.

Contract

Customer shall enter into a contract in the applicable form (Exhibit A—Contract for the Purchase of Energy from Qualifying Facility or Exhibit B—Contract for the Purchase of Energy and Capacity from Qualifying Facility) before operating any generating equipment electrically connected with Company's electric system.

Rate for Purchase of Energy

Company will purchase energy from the qualifying facility of Customer in accordance with the conditions and limitations of this Rider and the applicable contract at the following rate:

For all kWh supplied per month.....~~\$0.0241640-031964~~
per kWh

Measured by suitable integrating instruments.

Rate for Purchase of Capacity

Company will purchase capacity supplied from the qualifying facility of Customer in accordance with the conditions and limitations of this Rider and the applicable contract at the following rate:

Rate per kW per month of Contracted Capacity~~\$4,394.38~~ per kW

Customer shall receive from Company payment for such qualifying facility capacity in accordance with the following:

$$\text{\$ per kW} \times \text{Contracted Capacity in kW} \times \left(\frac{E}{K \times T} \right) \text{ per month}$$

- Where: E = kilowatt-hours supplied by qualifying facility during the Peak Period
- K = kilowatts of capacity the qualifying facility contracts to provide to Company
- T = number of hours in the Peak Period

Peak Period shall be defined as follows:
For the months of ~~May through October~~ ~~June through September~~, the Peak Period shall be Monday through ~~Friday~~ ~~Saturday 11:019:00~~ a.m. through ~~6:009:00~~ p.m. (Eastern Standard Time), excluding holidays defined below. For the months of ~~November through April~~ ~~October through May~~, the Peak Period shall be Monday through ~~Friday~~ ~~Saturday 6:01-7:00~~ a.m. through ~~2:009:00~~ p.m. and 6:01 pm through 9:00 pm (Eastern Standard Time), excluding holidays defined below.

Issued:

Effective:

**STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION—
FOR QUALIFYING FACILITY**

The entire twenty-four (24) hours of the following holidays will be considered as off-peak hours:

New Year's Day	Labor Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

Whenever any of the above holidays occur on a Sunday and the following Monday is legally observed as a holiday, the entire twenty-four (24) hours of such Monday will be considered as off-peak hours.

Whenever any of the above holidays occur on a Saturday and the preceding Friday is legally observed as a holiday, the entire twenty-four (24) hours of such Friday will be considered as off-peak hours.

Contracted Capacity shall be the amount of capacity expressed in terms of kilowatts that Customer guarantees the qualifying facility will supply to Company as provided for in the contract for such service.

Special Terms and Conditions

1. It shall be Customer's responsibility to inform Company of any changes in its electric generation capability.
2. Customer shall comply with all applicable requirements of Standard Contract Rider No. 80 – Interconnection Service.
3. Customer may be required to enter into a "Substation Operation and Maintenance Agreement" for setting, resetting, and adjusting the Control Equipment.
4. Customer shall agree to pay Company, in accordance with "Standard Contract Rider No. 53—Excess Facilities," for all excess facilities required by Company to provide service to such parallel operation, as determined by Company, including any additional metering equipment required for Company to purchase electric energy from the qualifying facility.
5. Customer shall agree that Company shall not be liable for any damage to, or breakdown of Customer's equipment operated in parallel with Company's electric system.
6. Customer shall agree to release, indemnify, and hold harmless Company from any and all claims for injury to persons or damage to property due to or in any way connected with the operation of Customer's said generators.
7. Company may install necessary metering to monitor the electric output of Customer's generating facility. Customer shall agree that the watt-hour and reactive-ampere-hour meters installed by Company to measure electric energy may be equipped to prevent reverse registration.
8. Supplementary, Backup, Interruptible and/or Maintenance Power, as defined in 170 IAC 4-4.1-1, will be supplied by Company only in accordance with the applicable rate schedules, this Rider, the applicable contract and the applicable Service Schedules to be filed by Company with the Commission. Such rates shall be non-discriminatory and shall be based on the costs to provide such service to Customer.
9. To the extent required by law, Company will make available wheeling service to Customer in accordance with the provisions of 170 IAC 4-4.1-6.

Issued:

Effective:

In accordance with 170 IAC 1-6 *et seq.*, I hereby verify under the penalties of perjury that all affected customers have been notified as required under section 6 of the above-referenced rule by posting the attached legal notice on Duke Energy Indiana's website as well as publishing the legal notice in the newspaper(s) of general circulation encompassing the highest number of the utility's customers affected by the filing to the best of my knowledge, information and belief.

Duke Energy Indiana, LLC
Stan Pinegar, President

Dated: February 29, 2020

**LEGAL NOTICE OF
DUKE ENERGY INDIANA, LLC'S
STANDARD CONTRACT RIDER NO. 50
PARALLEL OPERATION –
FOR QUALIFYING FACILITY**

DUKE ENERGY INDIANA, LLC (“Duke Energy Indiana”) hereby provides notice that on or around February 29, 2020, Duke Energy Indiana, in accordance with 170 IAC 4-4.1-10, will submit its Standard Contract Rider No. 50, Parallel Operation-For Qualifying Facility (“Standard Contract Rider 50”) to the Indiana Utility Regulatory Commission (“Commission”) for approval under the Commission’s thirty-day administrative filing procedures and guidelines. Standard Contract Rider 50 provides the calculation for the standard offer for the purchase of energy and capacity.

Standard Contract Rider 50 is available to all qualifying Duke Energy Indiana customers and is expected to be approved approximately thirty-days from the date of filing, unless an objection is made. Any objections may be made by contacting the Secretary of the Commission, or Randall C. Helmen with the Indiana Office of the Utility Consumer Counselor at the following addresses or phone numbers:

Indiana Utility Regulatory Commission
101 W. Washington St.
Suite 1500 East
Indianapolis, IN 46204-3407
317-232-2703

Indiana Office of Utility Consumer Counselor
PNC Center
115 W. Washington St.
Suite 1500 South
Indianapolis, IN 46204
317-232-2494.

Duke Energy Indiana, LLC
By: Stan Pinegar