TESTIMONY OF JAMES J. McCLAY, III
MANAGING DIRECTOR OF NATURAL GAS TRADING
DUKE ENERGY CORPORATION
ON BEHALF OF
DUKE ENERGY INDIANA, LLC
CAUSE NO. 38707-FAC 140 BEFORE THE
INDIANA UTILITY REGULATORY COMMISSION

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James J. McClay, III, and my business address is 525 South Tryon Street, Charlotte, North Carolina 28202.

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

A. I am employed as Managing Director of Natural Gas Trading for Duke Energy Corporation ("Duke Energy").

Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I received a Bachelor's degree in Business Administration, majoring in Finance from St. Bonaventure University. After 14 years as a fixed income bond trader specializing in government securities, I joined Progress Energy in 1998 as an Energy Trader, was promoted to Manager of Power Trading and held that position through early 2003. I then became the Director of Power Trading and Portfolio Management for Progress Energy Ventures through February 2007. From March 2007 through late 2008, I was the Director of Power Trading for Arclight Energy Marketing. From March 2009 through the present, I've been employed in various

managerial roles at Progress Energy and Duke Energy overseeing Natural Gas Trading and Origination, Pipeline Transportation, Power Trading, Oil procurement, and various jurisdictions' hedging programs.

Q. WHAT ARE YOUR DUTIES AND RESPONSIBILITIES AS MANAGING DIRECTOR OF NATURAL GAS TRADING, AS THEY RELATE TO DUKE ENERGY INDIANA, LLC ("DUKE ENERGY INDIANA" OR "COMPANY")?

A. As Managing Director of Natural Gas Trading, I manage the organization responsible for the natural gas trading, optimization and scheduling functions, gas supply and pipeline transportation origination, oil procurement and emissions management for the regulated gas-fired generation assets in the Carolinas (Duke Energy Carolinas and Duke Energy Progress), Duke Energy Florida, Duke Energy Indiana and Duke Energy Kentucky (collectively, the "Utilities"), as well as the organization responsible for power trading for Duke Energy Indiana and Duke Energy Kentucky. Additionally, I oversee the execution of the Utilities' financial hedging programs, fuel oil procurement, and emissions compliance trading.

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

A. I will discuss the status of Duke Energy Indiana's fuel procurement for natural gas and fuel oil. I will also provide an update on the Company's gas and power hedging activities that have been described in previous FAC proceedings.

II. PHYSICAL NATURAL GAS PROCUREMENT

Q. WHAT WAS DUKE ENERGY INDIANA'S NATURAL GAS BURN FOR THE FAC PERIOD?

A. The Company's natural gas burn for the FAC period was 11,289,036 million MBtu compared to a gas burn of 8,960,639 million MBtu in the prior FAC period, representing an increase of approximately 26%. The change in gas burn in the FAC period was primarily driven by the impacts of seasonal weather demand and lower power prices making the Company's generation more economic in the Midcontinent Independent System Operator ("MISO") market.

Q. PLEASE DESCRIBE THE LATEST PRICE TRENDS IN NATURAL GAS.

A. Spot natural gas prices are dynamic, volatile, and can significantly change day to day based on market fundamental drivers. During December 1, 2023 through February 29, 2024, natural gas prices fluctuated significantly as the price the Company paid for delivered natural gas at its gas generating stations ranged from a high of $30.00 per MMBtu for gas delivered on January 16, 2024 to a low of $1.30 per MMBtu for gas delivered on February 27, 2024. In comparison, during the previous 3-month period of September 1, 2023 to November 30, 2023, the price the Company paid for delivered natural gas at its gas burning generation stations ranged between a high of $3.60 per MMBtu for gas delivered on November 27, 2023 to a low of $1.63 per MMBtu for gas delivered on November 8, 2023.

Natural gas market prices reflect the dynamics between supply and demand factors, and in the short term, such dynamics in the FAC period are influenced primarily by increasing production, growing storage inventory balances, and export demand.

In addition, there continues to be growth in the need for natural gas pipeline infrastructure to serve increased market demand. However, pipeline infrastructure project permitting, and regulatory process approval efforts are taking longer due to increased reviews and interventions, which can delay and change planned pipeline construction and commissioning timing. Over the longer-term planning horizon, natural gas supply has the ability to respond to changing demand, but the pipeline infrastructure needed to move the growing supply to meet demand related to power generation, liquefied natural gas exports, and pipeline exports to Mexico is highly uncertain.

Q. PLEASE DESCRIBE HOW THE COMPANY PURCHASES NATURAL GAS FOR ITS NATURAL GAS-FIRED GENERATING UNITS.

A. Duke Energy Indiana has contracts for the purchase of gas supply, pipeline transportation, and balancing and parking of natural gas needed for its generating stations. The Company utilizes the spot market to engage gas suppliers to procure natural gas consumed at Madison Generation Station, and Tenaska Marketing Ventures for natural gas consumed at Wheatland, Cayuga CT, Noblesville, Vermillion, Henry County, and Edwardsport IGCC. A summary of the Company's transportation agreements are as follows: (1) Panhandle Eastern

Pipeline Company ("PEPL"), a firm transportation agreement, an interruptible transportation agreement, an enhanced interruptible transportation agreement, and a parking service agreement. The firm natural gas transportation agreement on PEPL has a primary receipt point at Rockies Express ("REX")/Panhandle with a delivery path to the pipeline interconnection with the Indiana Gas Company system (part of Vectren Energy Delivery of Indiana ("Vectren"), a subsidiary of CenterPoint Energy) near Montezuma, Indiana and on a firm contract to the Cayuga CT and directly off the interconnection to Noblesville Station; (2) on Texas Eastern Pipeline Co. ("TETCO"), an interruptible transportation contract, a Lebanon lateral interruptible transportation agreement and operational balancing agreement with natural gas transportation and balancing for the Madison Station; (3) on Midwestern Pipeline two firm transportation agreements, a park and loan agreement, and an operational balancing agreement for gas delivery and parking services for the Wheatland Generation Station, Vermillion Station, and Edwardsport IGCC; (4) a gas transportation service agreement with Vectren Energy Delivery of Indiana – South for Edwardsport IGCC; and (5) a firm transportation agreement, an interruptible transportation agreement and a pooling transportation service on ANR Pipeline Company for the Henry County Station. The Company continues to use its existing firm transportation contracts to enhance supply reliability by reducing the risk of gas pipeline capacity curtailments during periods of tighter supply and demand conditions.

Q. HAS THE COMPANY RENEWED OR AMENDED ANY CONTRACTS FOR NATURAL GAS SUPPLY AND TRANSPORTATION CAPACITY?

A. During the FAC period, Duke Energy Indiana continued to review existing natural gas pipelines serving the Duke Energy Indiana natural gas assets for additional capacity to enhance fuel security and supply reliability. On September 25, 2023, Duke Energy Indiana executed a new firm transportation agreement with Midwestern Gas Transmission beginning October 1, 2023 through October 31, 2043 for delivery to Vermillion, Wheatland, and Edwardsport IGCC stations. The capacity became available as part of an open season where Midwestern Gas Transmission optimized existing compression and offered to the market a total of 28,000 DTh/d of capacity with a firm path that begins with primary firm receipt at Millsdale, Illinois, flowing south past Duke Energy Indiana plants to Portland, Tennessee. In that path, there is an additional REX interconnect at Scotland, Illinois where Duke Energy Indiana has access to supply with multiple shippers providing robust market liquidity. The capacity was released under the Tenaska AMA for optimization when not in use. Duke Energy Indiana continues to evaluate other pipelines for incremental firm capacity to enhance supply deliverability and security to the Midwest portfolio.

Q. PLEASE DESCRIBE THE COMPANY'S DELIVERED COST OF NATURAL GAS DURING THE FAC PERIOD.

A. The Company's average price of gas purchased for the FAC period was $3.47 per MMBtu, compared to $2.52 per MMBtu in the prior FAC period, representing an

increase of approximately 38%. The average price increase for the current period was driven by price volatility in spot natural gas prices during this FAC period.

Q. DO YOU HAVE AN OPINION AS TO WHETHER THE COMPANY PURCHASED NATURAL GAS AT THE LOWEST MARKET PRICE?

A. Yes. It is my opinion that the Company purchased natural gas at the lowest market prices available. Duke Energy Indiana's Asset Management Agreement provides multiple benefits for customers including decreased costs via monthly premiums paid to Duke Energy Indiana by the Asset Manager, optimization sharing, increased fuel reliability and security as Duke Energy Indiana leverages the Asset Manager's assets, and access to best fuel prices via ability to engage third-party suppliers.

Q. IS DUKE ENERGY INDIANA PLANNING TO ENGAGE IN NATURAL GAS PROCUREMENT FOR FUTURE PLANNED NATURAL GAS-FIRED GENERATION?

A. Yes. With an eye towards ensuring reliable natural gas supply for planned, but not yet proposed for approval by the Commission natural gas fired generation, the Company is planning to participate in an upcoming "open season" event scheduled by the REX pipelineREX. Obtaining access to firm, long-term natural gas transportation takes time based on pipeline availability, we must begin the process in July 2024 to try and reserve firm transportation for a generating plant not yet proposed and with construction not having yet begun. The planned REX open season is for capacity that is coming available on the pipeline, and any

further capacity availability is uncertain or requires significant infrastructure upgrades such as incremental compression and new pipe. To the extent Duke Energy Indiana is a successful participant in the July 2024 and other future "open seasons," it will include in any contract for transportation that it is dependent on Duke Energy Indiana proceeding with construction of a natural gas plant, and dependent on the Commission's approval of that construction. With that requirement, the Company intends to take reasonable actions now to procure future firm capacity from the REX pipeline, and to protect the Company and customers from any contract for natural gas transportation that ends up being unnecessary.

The Company does not anticipate needing this firm gas transportation until Q4 of 2026 to access supply to begin testing but must begin the process to procure it now, as the pipeline schedules dictate. If the Company ends up with any natural gas firm transportation prior to being needed by a future plant, Duke Energy Indiana would use its Asset Manager to optimize the transportation for the Indiana portfolio or negotiate a capacity release with a third party until needed for plant operations.

III. PHYSICAL FUEL OIL PROCUREMENT

Q. REFERRING NOW TO THE COMPANY'S PURCHASE OF OIL, WILL YOU DESCRIBE THOSE PURCHASES?

A. Oil for peaking and cycling units is purchased from primarily one supplier at the lowest delivered price available under prearranged logistics. The Company's

primary oil requirements are for #2 ultra-low sulfur fuel oil, which varies little in delivered quality.

Q. BASED UPON YOUR EXPERIENCE, DO YOU HAVE AN OPINION AS TO WHETHER THE COMPANY PURCHASED OIL AT THE LOWEST MARKET PRICE?

A. Yes. It is my opinion that the Company purchased oil at the lowest market prices available at the time of purchase.

Q. ARE YOU AWARE OF ANY SIGNIFICANT OUT OF PERIOD ADJUSTMENTS TO FUEL INVENTORY OR FUEL EXPENSE BEING MADE IN THIS PROCEEDING?

A. There were no out of period adjustments during the FAC 140 period.

IV. REALIZED NATIVE NATURAL GAS HEDGING RESULTS

Q. DO YOU BELIEVE THAT IT IS REASONABLE FOR THE COMPANY TO ENTER INTO HEDGES AGAINST GAS PRICES?

A. Yes, I do.

Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT SUCH ACTIONS ARE REASONABLE.

A. Duke Energy Indiana continues to rely on a portfolio of natural gas to support its combined cycle and combustion turbine generation, and natural gas prices have historically been volatile. From March 2019 through February 2024, prompt month Henry Hub natural gas prices have settled between $1.44 and $9.76 per MMBtu. As of April 15, 2024, prompt month natural gas contracts settled at

$1.689/Mmbtu, close to the lowest price realized in this period. In addition, in the past ten years, spot daily market supply/demand imbalances have created occasional significant short-term price spikes in some locations during high demand seasons. Furthermore, because Duke Energy Indiana's natural gas demand is somewhat linked to weather, the Company is further exposed to such fluctuations in natural gas prices. Forward natural gas market prices are highly visible and liquid and there are a number of hedging tools available to help protect against such price fluctuations. In my opinion, it makes sense for the Company to take advantage of these tools.

Q. HAS THE COMPANY COMPLETED ANY GAS HEDGING TRANSACTIONS SINCE THE LAST UPDATE TO THE COMMISSION IN THE FAC139 PROCEEDING?

A. Yes. The Company used hedging products available on InterContinental Exchange ("ICE") and purchased hedges based on forecasted forward expected native gas burns for the period from March 2024 through December 2026. In addition to Henry Hub future contracts that the Company uses to hedge gas exposure, Duke Energy Indiana uses two types of financial future contracts to convert Henry Hub hedging trades to a hedging position that settles at Chicago Citygate daily gas index. These financial products help manage the price separation between Henry Hub and Chicago Citygate gas price that may occur, due to locational differences and source of gas production. The cost of natural gas the Company pays for its gas generation units now moves more closely with

Chicago Citygate daily gas index and sometimes disconnects from Henry Hub price.

Q. WHAT WERE THE RESULTS OF THE GAS HEDGING APPLICABLE TO THE RECONCILIATION PERIOD FOR THIS FAC PROCEEDING?

A. Natural gas purchases made to hedge December 2023 through February 2024 native gas burn realized a loss of $2,522,004. These gas hedges were purchased prior to the winter 2023/2024 high demand season to reduce volatility and lock in certainty of price, following the Duke Energy Indiana hedge plan. During this FAC reconciliation period, market prices for gas realized lower than the hedged prices primarily due to improved domestic gas production, above average U.S. storage balances and relatively mild weather.

Realized Native Natural Gas Hedging Results

December 2023	January 2024	February 2024
($1,880,405)	$2,413,104	($3,054,703)

As with our past practice, the Company will evaluate forecasted gas burn needs regularly and may purchase gas hedges as needed and when it is prudent to do so.

V. REALIZED NATIVE POWER HEDGING RESULTS

Q. DOES THE COMPANY CONDUCT OTHER HEDGING ACTIVITIES?

A. Yes, Duke Energy Indiana also hedges the costs of purchased power. Power prices have been volatile since the beginning of the MISO energy markets in

April of 2005. Through the end of February 2024, the average peak daily Indiana Hub Day Ahead LMP was $44.79/MWH. For the same period, average daily Indiana Hub Real Time LMP was $43.57/MWH. However, there was a wide range of prices. Day Ahead daily price settled between $17.83 and $398.63 while Real Time price went from as low as $15.57/MWH to as high as $924.46/MWH. There were 139 days where Day Ahead daily price exceeded $100/MWH and also 139 days in the same period that daily Real Time peak power prices reached above $100/MWH. To help hedge against this market volatility, if the position warrants, the Company enters into forward power purchase contracts that are financially settled on a specific future date at MISO Indiana Hub Day-Ahead or Real Time LMPs.[1] The applicable LMPs on the settlement date for these contracts may be higher or lower than the price the Company paid for the forward contract and the Company will either pay or be refunded the difference.

Q. WHAT PRICE DOES THE COMPANY PAY FOR THESE POWER CONTRACTS?

A. No forward monthly forward power hedges were purchased for these three months because the power portfolio positions were forecasted to be economically long, but the Company put on short-term hedges and paid the then market prices between $22/MWH and $110/MWH to hedge portfolio imbalances in daily and weekly markets.

[1] Since the onset of MISO energy markets, almost all bilateral contracts have been "financial" rather than "physical" contracts.

Q. HOW IS IT DETERMINED WHETHER TO ENTER INTO FORWARD POWER HEDGING TRANSACTIONS?

A. Duke Energy Indiana uses a forward power forecast generated by analytics to determine a monthly forward power position. When entering into a hedge transaction, Duke Energy Indiana measures the purchase price for the forward power purchase contract against the expected cost of operating the incremental Company generation units needed to meet the forecasted load. For example, if our forecasted native load would require the Company to operate a gas turbine peaking plant at a cost of $100/MWH and we could purchase a forward power purchase contract at a cost of $80/MWH, Duke Energy Indiana would make that purchase, essentially fixing a price for purchased power at a cost lower than the expected cost of operating our own generation. The Company does not make any forward power purchase unless the cost of such purchase is less than the cost of running the incremental generating unit needed to meet the forecasted load.

If, on the settlement date, the LMP is higher than the forward contract price, the Company would be credited the difference from the counterparty. On the other hand, if the LMP is lower than the forward contract price, the Company would have to pay the difference to the counterparty. The actual purchase of power or dispatch of units to serve native load would still be done on an economic basis.

Q. WHEN DID THE COMPANY BEGIN THIS HEDGING PROGRAM?

A. Duke Energy Indiana started making such purchases for January 2006, and made forward power purchases for each month of 2006, and have generally continued that practice to the present.[2]

Q. WHAT WERE THE RESULTS FOR DECEMBER 2023 THROUGH FEBRUARY 2024?

A. The final realized value of the native power hedges for this period was $98,192 negative, resulting from forward monthly transactions, intra-month transactions, as well as any MISO virtual trades. The negative result was driven by low realized power prices resulting from mild weather this past winter and market fundamentals including increased natural gas production, sufficient U.S. natural gas storage inventories, and improvement in coal delivery.

In addition to the native power and gas hedging program, the Company entered into non-native hedges for this reconciliation period that realized approximately $2.9 million gain in power hedges and $2.9 million gain from gas hedges. These gains will be reported in the Company's Rider 70 filing later this year and flow 100% back to the customers.

Realized Native Power Hedging Results

December 2023	January 2024	February 2024
$19,145	($44,383)	($72,954)

[2] As noted later in my testimony, Duke Energy Indiana's power hedging practices subsequent to the effectiveness of a settlement with the Indiana Office of Utility Consumer Counselor and the Commission's Order on June 25, 2008, in Cause No. 38707-FAC68 S1 are consistent with such settlement and Commission Order.

As noted in the pre-filed testimony of Ms. Christa L. Graft, the net realized results for the reconciliation period from the power hedging activity exclusive of MISO virtual trades, and including prior period adjustments, was a loss of $98,192.

Including net realized results from native natural gas hedging mentioned above, total hedging losses for this FAC filing are $2,620,196.

Q. IS THE COMPANY CONTINUING ITS POWER HEDGING PRACTICES?

A. Yes. Though Duke Energy Indiana did not make new forward native purchases during this reporting period because its forward positions were expected to be economically long based on the prevailing market prices, the Company made intra-month purchases for March and April 2024 to mitigate short-term position imbalances. The Company's methodology for making purchases has remained consistent. If the forward purchase price of power is less than the cost of running the incremental generating units required to meet the forecasted load, then Duke Energy Indiana may purchase a forward power hedge. Of course, forward power prices, gas prices, emission allowance prices, weather conditions, expected load, and availability of generating units, among other factors, are constantly changing. As conditions change, the Company would evaluate these conditions and adapt. Duke Energy Indiana constantly assesses the Company's forward power positions using similar outputs as the fuel procurement team on a monthly, daily and even intra-day basis. The goal is to maintain forward power hedges only in an amount necessary to economically cover our forecasted load.

Q. HOW DID THE COMMISSION'S JUNE 25, 2008 ORDER IN CAUSE NO. 38707 FAC68 S1 AFFECT THE COMPANY'S CURRENT HEDGING METHODOLOGY?

A. The Company's hedging methodology is consistent with the Settlement Agreement with the OUCC and the Commission order. Accordingly, beginning on August 1, 2008, Duke Energy Indiana has not utilized its flat hedging methodology. Rather, Duke Energy Indiana will hedge up to approximately flat minus 150 MW on a forward, monthly, and intra-month basis, and up to approximately flat on a Day Ahead/Real-Time basis. This methodology will leave the Company with at least approximately 150 MW of expected load unhedged on a forward forecasted basis.

Q. WHAT RECENT CHANGES WERE MADE TO APPLICANT'S POWER AND GAS HEDGING PLANS, AS APPROVED IN THE COMMISSION'S MARCH 29, 2023 ORDER IN CAUSE NO. 38707 FAC 135?

A. Duke Energy Indiana extended the rolling native power hedging horizon to cash month plus twelve months and the native gas hedging term limit to cash month plus three years, with target ranges for the new horizon periods for natural gas adjusting over time to allow the Company to layer in hedges.

Q. WHY WAS POWER HEDGING EXTENDED TO 12 MONTHS WHILE THE GAS HEDGING TIME HORIZON WAS EXTENDED TO 3 YEARS?

A. The hedge horizon variance is mostly driven by liquidity differential in these two markets. Natural gas has a robust futures market that is active and transparent for

several years out. In addition, there are many active players in the over-the-counter gas bilateral market to provide more liquidity. On the other hand, power forward markets are not as active as natural gas and have much lower trading volumes. The MISO Indiana Hub market, where the Company obtains most of its native hedges, has a fair number of active players that provide adequate liquidity in the next 12 months. There are market quotes for time periods beyond 12 months from time to time but there is not enough competition for market price discovery function to work well. Therefore, the Company believes it is necessary to keep a more realistic shorter-term limit for power hedges.

Q. WHEN DID THE COMPANY BEGIN HEDGING WITH THE NEW COMMISSION APPROVED POWER AND GAS LIMITS?

A. Subsequent to the Commission's March 29, 2023 Order in Cause No. 38707 FAC 135, the Company began the internal process of approving the updated Duke Energy Indiana Risk Management Guidelines with the new power and gas limits. The updated Duke Energy Indiana Risk Management Guidelines were approved June 15, 2023. The Company began the process to layer in additional power and gas hedges over time toward the new target ranges.

Q. DO YOU BELIEVE THE COMPANY'S GAS AND POWER HEDGING PRACTICES ARE REASONABLE?

A. Yes, I do. The Company does not speculate on future prices, but rather uses a sophisticated model to determine when it is economic to purchase and sell on a forward basis. The practice is economic at the time the decision is made and

reduces volatility because Duke Energy Indiana is transacting in a less volatile forward market, as opposed to more volatile spot markets (*i.e.*, the MISO day ahead and real-time markets).

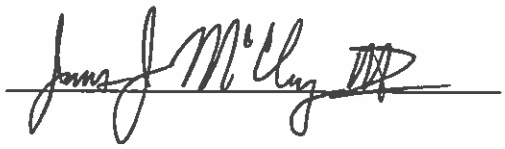
Just as an electric reserve margin reduces risk that capacity may not be available when it is needed, Duke Energy Indiana believes its gas and power hedging practices benefits customers by reducing customers' risk of paying potentially higher spot market prices. Further, as stated above, our practices are consistent with the Commission Order in Cause No. 38707 FAC 135.

Q. DOES THIS CONCLUDE YOUR PREFILED DIRECT TESTIMONY?

A. Yes, it does.

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: 

Date: April 30, 2024