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 138 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 526 South Church 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 provide an update on the Company's gas and power hedging activities that have been described in previous FAC proceedings.

II. 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 2018 through August 2023, prompt month Henry Hub natural gas prices have settled between $1.50 and $9.35 per MMBtu. As of October 17, 2023, prompt month natural gas contracts settled at $3.601/Mmbtu. This is an increase of more than 50% from a recent low price of $1.991/Mmbtu, reached on March 29, 2023, but it's still low in the historical price range. 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 FAC137 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 July 2023 through December 2025. 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 June through August 2023 native gas burn realized a loss of $5,379,565. These gas hedges were purchased prior to the summer 2023 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

June 2023	July 2023	August 2023
($3,861,728)	($1,189,529)	($328,308)

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.

III. 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 Midcontinent Independent System Operator, Inc. ("MISO") energy markets in April of 2005. Through the end of August 2023, the average peak daily Indiana Hub Day Ahead LMP was $44.95/MWH. For the same period, average daily Indiana Hub Real Time LMP was $43.74/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 136 days where Day Ahead daily price exceeded $100/MWH and 138 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. The Company paid the then current market price for the June 2023 on-peak monthly forward contracts in the amount of $48.25/MWH, and June 2023 off-peak contracts at $47/MWH. In addition, the Company put on short-term hedges and paid the then market prices between $28.50/MWH and $65/MWH to hedge portfolio imbalances in daily and weekly markets.

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

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

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 never makes a 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 JUNE THROUGH AUGUST 2023?

A. The final realized value of the native power hedges for this period was $1,450,787 negative, resulting from forward monthly transactions, intra-month transactions,

[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 well as any MISO virtual trades. The negative result was driven by low realized power prices resulting from mild weather this past spring and market fundamentals including increased natural gas production, improved U.S. natural gas storage inventories, and improvement in coal delivery.

Realized Native Power Hedging Results

June 2023	July 2023	August 2023
($1,381,912)	($21,665)	($47,210)

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 $1,453,756.

Including net realized results from native natural gas hedging mentioned above, total hedging losses for this FAC filing are $6,833,321.

Q. IS THE COMPANY CONTINUING ITS POWER HEDGING PRACTICES?

A. Yes. Though Duke Energy Indiana didn't 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 September and October 2023 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's necessary to keep a more realistic shorter-term limit for power hedges.

Q. WHEN WILL 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 never speculates 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).

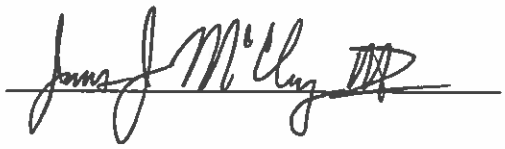
Just as an electric reserve margin reduces risk that capacity may not be available when it is needed, Duke Energy Indiana believes its gas and power hedging practices benefits customers by reducing customers' risk of paying potentially higher spot market prices. Further, as stated above, our practices going forward will be 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: October 31, 2023