IURC CAUSE NO. 38707-FAC138 DIRECT TESTIMONY OF JOHN A. VERDERAME FILED OCTOBER 31, 2023

TESTIMONY OF JOHN A. VERDERAME VICE PRESIDENT OF FUELS & SYSTEMS OPTIMIZATION REGULATORY COMMISSION **DUKE ENERGY CORPORATION ON BEHALF OF DUKE ENERGY INDIANA, LLC** CAUSE NO. 38707-FAC138 BEFORE THE INDIANA UTILITY REGULATORY COMMISSION

FILED October 31, 2023 INDIANA UTILITY

I. INTRODUCTION

1	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	A.	My name is John A. Verderame, and my business address is 525 South Tryon
3		Street, Charlotte, North Carolina 28202.
4	Q.	BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
5	A.	I am employed as Vice President of Fuels & Systems Optimization, Duke Energy
6		Corporation.
7	Q.	PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND
8		AND BUSINESS EXPERIENCE.
9	A.	I received a Bachelor of Arts degree in Economics from the University of
10		Rochester in 1983, and a Master's in Business Administration in Finance from
11		Rutgers University in 1985. I have worked in the energy industry for 22 years.
12		Prior to that, from 1986 to 2001, I was a Vice President in the United States (US)
13		Government Bond Trading Groups at the Chase Manhattan Bank and Cantor
14		Fitzgerald. My responsibilities as a US Government Securities Trader included
15		acting as the Firm's market maker in the US Government Treasury securities. I
16		joined Progress Energy (now known as Duke Energy Progress, LLC) in 2001 as a

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1		Real-Time Energy Trader. My responsibilities as a Real-Time Energy Trader
2		included managing the real-time energy position of the Progress Energy regulated
3		utilities. In 2005, I was promoted to Manager of the Power Trading group where
4		I was responsible for the short-term capacity and energy position of the Progress
5		Energy regulated utilities in the Carolinas and Florida. In 2012, upon
6		consummation of the merger between Duke Energy Corp. and Progress Energy, I
7		was named Managing Director, Trading and Dispatch. As Managing Director,
8		Trading and Dispatch I was responsible for power and natural gas trading and
9		generation dispatch on behalf of Duke Energy's regulated utilities in the
10		Carolinas, Florida, Indiana, Ohio, and Kentucky. I assumed my current position
11		in November 2019.
12	Q.	PLEASE BRIEFLY DESCRIBE YOUR DUTIES AND
13		RESPONSIBILITIES AS VICE PRESIDENT OF FUELS & SYSTEMS
14		OPTIMIZATION.
15	A.	As Vice President of Fuels & Systems Optimization, I lead the organization
16		responsible for the purchase and delivery of coal, natural gas, fuel oil, and
17		reagents to Duke Energy's regulated generation fleet, including Duke Energy
18		Indiana, LLC ("Duke Energy Indiana" or "Company").
19	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?

А.	I will discuss the process that Duke Energy Indiana determines its fuel
	procurement needs and the status of the Company's fuel procurement for coal,
	natural gas, and fuel oil.
	II. FORECASTED FUEL NEEDS
Q.	WHAT WAS DUKE ENERGY INDIANA'S FUEL BURN FOR THE FAC
	PERIOD?
A.	Duke Energy Indiana's coal burn was 2.1 million tons, compared to a coal burn of
	1.3 million tons in the prior FAC period, representing an increase of 62%. The
	Company's natural gas burn for the FAC period was 17,784,308 million MBtu
	compared to a gas burn of 12,781,319 million MBtu in the prior FAC period,
	representing an increase of approximately 39%. The change in coal and gas burns in
	the FAC period were primarily driven by the positive impacts of seasonal weather
	demand and lower natural gas prices making the Company's generation more
	economic in the Midcontinent Independent System Operator ("MISO") market.
	III. <u>COAL</u>
Q.	PLEASE EXPLAIN THE PROCESS THE COMPANY UNDERTAKES TO
	MANAGE ITS COAL NEEDS.
A.	The Company utilizes a comprehensive coal procurement strategy that has proven
	successful over the years in limiting average annual fuel price changes while
	actively managing the dynamic demands of its fossil fuel generation fleet in a
	reliable and cost-effective manner. Aspects of this procurement strategy include
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1		determining an appropriate amount of long-term purchases as well as any short-
2		term purchases needed to fill any potential open position, evaluating contract
3		expirations, and limiting exposure to market price changes, diversifying sourcing,
4		and incorporating flexibility into the supply contracts as available. In addition,
5		the Company's Coal Origination and Logistics personnel maintain frequent
6		communication with the coal producers and visit mining operations as needed
7		which assists in the Company's analysis of external coal market conditions. This
8		information, coupled with constant monitoring of published pricing information
9		(e.g. industry newsletters, trade publications, regulatory filings, etc.), as well as a
10		close review of market pricing indices published by brokers and traders, provides
11		an understanding of the various coal markets.
12	Q.	HOW DOES THE COMPANY DETERMINE WHETHER TO PURCHASE
13		COAL UNDER A LONG-TERM VS. A SHORT-TERM CONTRACT?
14		
	A.	In order for Duke Energy to provide a reliable source of electricity, an adequate
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15 16 17 18 19	A.	In order for Duke Energy to provide a reliable source of electricity, an adequate inventory must be maintained to protect against changes in coal burn volatility. The fuel procurement team continuously monitors actual and projected inventory levels, projected coal burns, the amount of coal under contract and the quality characteristics needed for a particular generating station to determine its purchasing needs and to determine appropriate level of supply, including the need
 15 16 17 18 19 20 	A.	In order for Duke Energy to provide a reliable source of electricity, an adequate inventory must be maintained to protect against changes in coal burn volatility. The fuel procurement team continuously monitors actual and projected inventory levels, projected coal burns, the amount of coal under contract and the quality characteristics needed for a particular generating station to determine its purchasing needs and to determine appropriate level of supply, including the need to respond to immediate supply needs through short term purchases. In the event

1		Years 2021 and 2022, the fuel procurement team has executed a strategy of
2		procuring longer term agreements at the upper limits of the risk guidelines to
3		offset the potential exposure to price and availability risk and to ensure reliability
4		of supply.
5	Q.	ONCE THE COMPANY DECIDES THAT IT NEEDS TO PURCHASE
6		COAL UNDER A LONG-TERM CONTRACT, PLEASE DESCRIBE THE
7		PROCESS.
8	A.	Coal supply requirements are competitively bid, and proposals are secured from
9		producers and evaluated, taking into account coal quality, quantity, volume
10		flexibility, transportation alternatives and price, among other factors. The
11		producer (or producers) whose coal offers the best value, particularly regarding
12		overall utilization costs and volume flexibility, is selected for further negotiations
13		to produce a long-term contract or contracts. It is important to note that when
14		negotiations allow the Company's long-term contracts contain provisions for
15		periodic price reopener negotiations, some type of price escalations and de-
16		escalations, or a mechanism to adjust prices based upon a published market price
17		index. In addition, our coal transportation contracts in Indiana contain fuel price
18		surcharge provisions that are based upon published fuel price indices.
19	Q.	ONCE THE COMPANY DECIDES THAT IT NEEDS TO PURCHASE
20		COAL UNDER A SHORT-TERM CONTRACT, PLEASE DESCRIBE THE
21		PROCESS.

1	А.	The primary difference in the process is that for spot purchases, those contracts
2		with a duration of 12 months or less, telephone solicitations are utilized to allow
3		for prompt execution and delivery in order to support immediate supply needs
4		resulting from changes in burn, inventory levels, or supply and transportation
5		challenges.
6	Q.	WHAT WAS THE COST OF COAL PURCHASED PURSUANT TO ALL
7		CONTRACTS FOR THE TWELVE-MONTH PERIOD ENDING
8		AUGUST 31, 2023?
9	A.	For the twelve-month period ending August 31, 2023, the Company purchased a
10		total of approximately 8.6 million tons of coal (pursuant to both long and short-
11		term contract commitments) at an approximate average cost of \$3.03/MMBtu or
12		\$68.19/ton.
13	Q.	WHAT STEPS DOES DUKE ENERGY INDIANA UNDERTAKE TO
14		ASSURE THAT IT IS PROCURING COAL AT THE LOWEST COST
15		REASONABLY POSSIBLE?
16	A.	The Company uses various methods and strategies to ensure reasonable costs,
17		including the use of staggered terms on long-term contracts, maintaining a
18		diversified mix of suppliers, and using indices, at times, in the determination of
19		adjustment of prices. Duke Energy Indiana diversifies its sourcing of suppliers
20		and works with suppliers to incorporate additional flexibility into the supply
21		contracts. In addition, the fuel procurement group conducts constant monitoring

1		of published pricing information (e.g. industry newsletters, trade publications,
2		regulatory filings, etc.), and closely reviews market pricing indices published by
3		brokers and traders.
4	Q.	PLEASE DESCRIBE THE LATEST PRICE TRENDS IN COAL.
5	A.	Published prices for U.S. coal markets continue to soften in response to declining
6		natural gas prices and lack of demand both domestically and internationally
7		driven by a mild first half of 2023. Although published market curves convey
8		softening coal prices, coal production companies are communicating upward
9		pressure on costs due to rising coal production costs as a result of inflation. The
10		following are the market price indications for the balance of 2023 as of October 6,
11		2023: High-sulfur Illinois basin coal prices are in the mid \$40s per ton; Central
12		Appalachia coal prices are in the high \$60s per ton; Northern Appalachia coal
13		prices are in the high \$40s per ton; and Colorado coal prices are in the low \$70s
14		per ton.
15	Q.	PLEASE DESCRIBE THE LATEST COAL MARKET TRENDS.
16	A.	Coal markets continue to experience a high degree of market volatility due to a
17		number of factors, including: (a) the inability of coal suppliers to respond timely
18		to changes in demand; (b) natural gas and power price volatility; (c) increased
19		uncertainty regarding proposed and imposed U.S. Environmental Protection
20		Agency ("EPA") regulations for power plants; (d) global demand for both steam
21		and metallurgical coal; (e) tightened access to investor financing; (f) continued

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1		shifts in production between thermal and metallurgical coal as producers move
2		away from supplying declining electric generation to take advantage of industrial
3		demand; and (g) labor and resource constraints further limiting suppliers'
4		operational flexibility. Published coal market curves continued to decline during
5		this FAC period from the historically high levels in 2022 in response to low
6		natural gas prices and lack of overall demand. Despite current market conditions,
7		coal producers are seeing the inflationary impacts of rising costs associated with
8		mining operations including, but not limited to, labor and equipment costs putting
9		additional pressure on their ability to compete with natural gas and renewables.
10	Q.	PLEASE DESCRIBE THE LONG-TERM COAL TRANSPORTATION
11		TRENDS.
12	A.	Declining demand for coal in the utility sector has also driven rail transportation
13		providers to modify their business models to be less dependent on coal-related
14		transportation revenues. Although rail transportation providers are required to
15		provide rail service, the Company's rail transportation providers have limited
16		resources to adapt to significant changes in scheduling demand resulting from the
17		Company's burn volatility, specifically in higher than forecasted coal burn
18		scenarios.
19		During the FAC period, the Surface Transportation Board ("STB")
20		continued to receive the submission of bi-weekly service progress reports. Per the

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1		validation from the data provided that railroad operations remain generally
2		challenged. Accordingly, continued monitoring is needed. ¹
3		Towards the end of the previous FAC period, going into the summer
4		months, rail transportation providers service levels began to decline. However,
5		during the latter part of this FAC period the Company saw delivery improvement
6		by its' rail transportation service providers. The Company continues to monitor
7		rail performance and remains in communication with the rail providers to stay
8		ahead of future delivery constraints.
9	Q.	HAVE ANY OF THE COMPANY'S SUPPLIERS EXPERIENCED
10		SIGNIFICANT FINANCIAL OR OPERATIONAL CONSTRAINTS?
11	A.	Yes, while during this specific FAC period, the Company's suppliers saw demand
12		stabilize; earlier declines in demand continued to put downward pressure on the
13		Company's coal deliveries. The Company remains concerned and continues to
14		monitor the viability of future supply due to the financial and labor constraints
15		facing its suppliers and rail transportation providers.
16	Q.	PLEASE DESCRIBE THE COMPANY'S DELIVERED COST OF COAL
17		DURING THE FAC PERIOD.
1/		
17	A.	The Company's average delivered cost of coal per ton for this FAC period was

¹ Surface Transportation Board Decision, Docket No. EP770 (Sub-No. 1), 5/2/2023, Urgent Issues in Freight Rail Service-Railroad Reporting.

1		decrease of approximately 4%. This decrease in contracted cost is primarily due to
2		deliveries of 2023 term coal previously contracted from the solicitations in late 2022
3		and the restructuring of coal deliveries.
4	Q.	DID THE COMPANY ISSUE ANY REQUESTS FOR PROPOSALS FOR
5		COAL SUPPLY DURING THIS FAC PERIOD?
6	A.	No, the Company did not conduct a request for proposal during the FAC 138 time
7		period.
8	Q.	DID THE COMPANY EXECUTE ANY SUPPLY CONTRACTS DURING
9		THIS FAC PERIOD?
10	A.	Yes. The Company executed three contract amendments during this FAC period.
11	Q.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER
11 12	Q.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD?
11 12 13	Q. A.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this
11 12 13 14	Q. A.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period.
 11 12 13 14 15 	Q. A. Q.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period. HAS DUKE ENERGY INDIANA REOPENED THE PRICE IN ANY COAL
 11 12 13 14 15 16 	Q. A. Q.	DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period. HAS DUKE ENERGY INDIANA REOPENED THE PRICE IN ANY COAL OR TRANSPORTATION CONTRACTS?
 11 12 13 14 15 16 17 	Q. A. Q. A.	 DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period. HAS DUKE ENERGY INDIANA REOPENED THE PRICE IN ANY COAL OR TRANSPORTATION CONTRACTS? Yes. During this FAC, the Company did reopen the price of a coal contract. The
 11 12 13 14 15 16 17 18 	Q. A. Q.	 DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period. HAS DUKE ENERGY INDIANA REOPENED THE PRICE IN ANY COAL OR TRANSPORTATION CONTRACTS? Yes. During this FAC, the Company did reopen the price of a coal contract. The Company did not reopen any transportation contracts.
 11 12 13 14 15 16 17 18 19 	Q. A. Q. Q.	 DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER DID THE COMPANY EXECUTE ANY AMENDMENTS TO DEFER TONS DURING THIS FAC PERIOD? No. The Company did not execute a Deferral Amendment of tons during this FAC period. HAS DUKE ENERGY INDIANA REOPENED THE PRICE IN ANY COAL OR TRANSPORTATION CONTRACTS? Yes. During this FAC, the Company did reopen the price of a coal contract. The Company did not reopen any transportation contracts. HAS THE COMPANY RENEWED OR AMENDED ANY COAL

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1	A.	Yes, the Company has amended four trucking transportation contracts during this
2		FAC period.
3	Q.	HAS DUKE ENERGY INDIANA RETIRED ANY COAL UNITS DURING
4		THIS FAC PERIOD?
5	A.	No. The Company did not retire any coal units in this FAC period.
6	Q.	BASED UPON YOUR EXPERIENCE, DO YOU HAVE AN OPINION AS
7		TO WHETHER THE COMPANY PURCHASED COAL AT THE
8		LOWEST REASONABLE PRICE?
9	A.	I do. In my opinion, the Company purchased coal at the lowest reasonable prices
10		negotiable.
11		IV. COAL INVENTORY POSITION
12	Q.	PURSUANT TO THE COMMISSION'S ORDER IN FAC 95, PLEASE
13		EXPLAIN THE COMPANY'S COAL INVENTORY POSITION.
14	A.	As noted in my FAC 137 testimony, filed on July 31, 2023, Duke Energy
15		Indiana's coal inventories as of May 31, 2023, were approximately 3,232,105 tons
16		(or 63 days of coal supply at a full load burn rate per day) across the system. As
17		of August 31, 2023, coal inventories decreased to approximately 3,165,695 tons
18		(or 61 days of coal supply at a full load burn rate per day). The changes in
19		inventory are primarily driven by increased weather driven demand, along with
20		the price adjustment discussed in Mr. Daniel's testimony throughout the FAC
21		period. The Company is actively managing to maintain inventories within

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1		established reliability and operational safety tolerances, which are typically a
2		minimum of <begin confidential=""></begin> <end< b=""></end<>
3		CONFIDENTIAL> and a maximum of between <begin confidential=""></begin>
4		<end confidential="">.</end>
5	Q.	DID THE COMPANY PURSUE ADDITIONAL INVENTORY
6		MITIGATION EFFORTS ASIDE FROM THE REFERENCED PRICE
7		ADJUSTMENT?
8	А.	Yes. Truck deliveries to the logistically advantageous rail loop to Gibson Station
9		continued in order to maintain diversified transportation logistics and allow for
10		continued coal deliveries. The Company continues onsite third-party train
11		operations according to the contract currently in place.
12	Q.	DID THE COMPANY HAVE COAL STORED AT ANY INTERIM
13		STORAGE SITES? IF SO, WHAT WAS THE AMOUNT IN STORAGE
14		AND ARE THERE ANY PLANS TO INCREASE OR DECREASE THE
15		AMOUNTS IN STORAGE?
16	A.	At the end of the review period, the Company had zero tons remaining at its
17		interim storage location.
18	Q.	WHAT STEPS IS THE COMPANY UNDERTAKING TO ACTIVELY
19		MANAGE ITS COAL INVENTORY LEVELS?
20	А.	The Company regularly evaluates market conditions, contract obligations,
21		delivery options and forward plans to effectively manage inventory levels. Due to

1	mild weather coupled with lower than anticipated natural gas and power prices,
2	actual burns were below projections and the Company's inventory levels are
3	above target but within established operational and safety tolerances. As
4	inventory levels dictate, the Company explores options to store or defer contract
5	coal or resell surplus coal into the market if the opportunity exists. In cases where
6	actual burns unexpectedly increase above projections the Company evaluates
7	opportunities to accelerate contract deliveries and purchases of supply, exercises
8	spot purchases as available and looks for operational efficiencies. The Company
9	will continue to closely monitor its anticipated coal requirements and inventories
10	and take every action available to effectively manage coal inventories in the least
11	cost-impact manner for customers. Furthermore, as discussed in the direct
12	testimony of Mr. Daniel, the Company has economically served its customers and
13	successfully navigated extreme supply disruptions and now depressed energy
14	markets with the utilization of the supply offer adjustment to avoid potentially
15	higher cost inventory risks and solutions. At both ends of the spectrum the
16	Company has been able to proactively manage market constraints in order to
17	economically and reliably serve customers, maintain reliable fuel inventory, and
18	maintain its minimum and maximum coal inventory boundaries.

1		V. MODELING UPDATE
2	Q.	HAVE THERE BEEN ANY CHANGES TO THE COMPANY'S
3		MODELING PROCESS RELATED TO THE SUPPLY OFFER
4		ADJUSTMENT?
5	A.	Yes, starting with the August 30 th COB adjustment update, the Company
6		transitioned the adjustment modeling process from a deterministic modeling
7		approach to a stochastic modeling approach, as discussed in Mr. Daniel's
8		testimony.
9	Q.	PLEASE PROVIDE AN OVERVIEW OF STOCHASTIC MODELING
10		CAPABILITIES.
11	A.	The stochastic model uses historic weather information to simulate numerous
12		scenarios of future weather and commodity prices. For each of these scenarios,
13		system load and commodity prices (gas, coal, oil and power) are all calculated in
14		a correlated manner using historical correlations with each other and with
15		weather. The resulting forecasts of this stochastic model give the Company not
16		only expected fuel burns, but also the range of fuel burns and the probability
17		associated with each range.
18		VI. <u>NATURAL GAS</u>
19	Q.	PLEASE DESCRIBE THE LATEST PRICE TRENDS IN NATURAL GAS.
20	A.	Spot natural gas prices are dynamic, volatile, and can significantly change day to
21		day based on market fundamental drivers. During June 1, 2023 through

1	August 31, 2023, natural gas prices fluctuated significantly as the price the
2	Company paid for delivered natural gas at its gas generating stations ranged from
3	a high of \$3.01 per MMBtu for gas delivered on August 10, 2023 to a low of
4	\$1.55 per MMBtu for gas delivered on June 5, 2023, an increase of approximately
5	94% over the period. In comparison, during the previous 3-month period of
6	March 1, 2022 to May 31, 2023, the price the Company paid for delivered natural
7	gas at its gas burning generation stations ranged between a high of \$3.50 per
8	MMBtu for gas delivered on March 4, 2023 to a low of \$1.65 per MMBtu for gas
9	delivered on May 27, 2023.
10	Natural gas market prices reflect the dynamics between supply and demand
11	factors, and in the short term, such dynamics in the FAC period are influenced
12	primarily by increasing production, growing storage inventory balances and export
13	demand.
14	In addition, there continues to be growth in the need for natural gas pipeline
15	infrastructure to serve increased market demand. However, pipeline infrastructure
16	permitting and regulatory process approval efforts are taking longer due to increased
17	reviews and interventions, which can delay and change planned pipeline
18	construction and commissioning timing. Over the longer-term planning horizon,
19	natural gas supply has the ability to respond to changing demand while the pipeline
20	infrastructure needed to move the growing supply to meet demand related to power

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generation, liquefied natural gas exports, and pipeline exports to Mexico is highly
 uncertain.

3 Q. PLEASE DESCRIBE HOW THE COMPANY PURCHASES NATURAL

4

GAS FOR ITS NATURAL GAS-FIRED GENERATING UNITS.

5 A. Duke Energy Indiana has contracts for the purchase of gas supply, pipeline 6 transportation, balancing and parking of natural gas needed for its generating 7 stations. The Company utilizes the spot market to engage gas suppliers to procure 8 natural gas consumed at Madison Generation Station, and Tenaska Marketing 9 Ventures for natural gas consumed at Wheatland, Cayuga CT, Noblesville, 10 Vermillion, Henry County, and Edwardsport IGCC. A summary of the 11 Company's transportation agreements are as follows: (1) Panhandle Eastern 12 Pipeline Company ("PEPL"), a firm transportation agreement, an interruptible 13 transportation agreement, an enhanced interruptible transportation agreement, and 14 a parking service agreement. The firm natural gas transportation agreement on 15 PEPL has a primary receipt point at the Texas Eastern / Lebanon point with 16 delivery path to the pipeline interconnection with the Indiana Gas Company 17 system (part of Vectren Energy Delivery of Indiana ("Vectren") a subsidiary of 18 CenterPoint Energy) near Montezuma, Indiana and on a firm contract to the 19 Cayuga CT and directly off the interconnection to Noblesville Station; (2) on 20 Texas Eastern Pipeline Co. ("TETCO"), an interruptible transportation contract, a 21 Lebanon lateral interruptible transportation agreement and operational balancing

1		agreement with natural gas transportation and balancing for the Madison Station;
2		(3) on Midwestern Pipeline a firm transportation agreement, a park and loan
3		agreement, and an operational balancing agreement for gas delivery and parking
4		services for the Wheatland Generation Station, Vermillion Station, and
5		Edwardsport IGCC; (4) a gas transportation service agreement with Vectren
6		Energy Delivery of Indiana – South for Edwardsport IGCC; and (5) a firm
7		transportation agreement, an interruptible transportation agreement and a pooling
8		transportation service on ANR Pipeline Company for the Henry County Station.
9		The Company continues to use its existing firm transportation contracts to
10		enhance supply reliability by reducing the risk of gas pipeline capacity
11		curtailments during periods of tighter supply and demand conditions.
12	Q.	HAS THE COMPANY RENEWED OR AMENDED ANY CONTRACTS
13		FOR NATURAL GAS SUPPLY AND TRANSPORTATION CAPACITY?
14	А.	During the FAC period Duke Energy Indiana negotiated an extension of its Asset
15		Management Agreement ("AMA") with Tenaska Energy Marketing through
16		March 31, 2026. Additionally, the Company performed a review of all existing
17		natural gas pipelines serving the Duke Energy Indiana natural gas assets for
18		additional capacity to enhance fuel security and supply reliability. In June, Duke
19		Energy Indiana executed new firm capacity for a 1-year term beginning July 1,
20		2023 on the ANR pipeline for delivery to Henry County. Duke Energy Indiana

1		the Noblesville CC starting November 1, 2023. Both the Panhandle and ANR
2		agreements have REX supply receipt points with multiple shippers providing
3		robust market liquidity. Duke Energy Indiana is in the process of aligning its firm
4		capacity to enable upstream supply from the REX pipeline which is more reliable
5		and has a high delivery pressure. Capacity will be released under the Tenaska
6		AMA for optimization when not in use. Duke Energy Indiana continues to
7		evaluate other pipelines for incremental firm capacity to enhance supply
8		deliverability and security to the Midwest portfolio.
9	Q.	PLEASE DESCRIBE THE COMPANY'S DELIVERED COST OF NATURAL
10		GAS DURING THE FAC PERIOD.
11	A.	The Company's average price of gas purchased for the FAC period was \$2.43 per
12		MMBtu, compared to \$2.23 per MMBtu in the prior FAC period, representing an
13		increase of approximately 9%. The average price increase for the current period was
14		driven by price volatility in spot natural gas prices during this FAC period.
15	Q.	DO YOU HAVE AN OPINION AS TO WHETHER THE COMPANY
16		PURCHASED NATURAL GAS AT THE LOWEST MARKET PRICE?
17	А.	Yes. It is my opinion that the Company purchased natural gas at the lowest
18		market prices available. Duke Energy Indiana's Asset Management Agreement
19		provides multiple benefits for customers including decreased costs via monthly
20		premiums paid to Duke Energy Indiana by the Asset Manager, optimization
21		sharing, increased fuel reliability and security as Duke Energy Indiana leverages

1		the Asset Manager's assets, and access to best fuel prices via ability to engage
2		third-party suppliers.
3		VII. <u>FUEL OIL</u>
4	Q.	REFERRING NOW TO THE COMPANY'S PURCHASE OF OIL, WILL
5		YOU DESCRIBE THOSE PURCHASES?
6	A.	Oil for peaking and cycling units is purchased from primarily one supplier at the
7		lowest delivered price available under prearranged logistics. Our primary oil
8		requirements are for #2 ultra-low sulfur fuel oil, which varies little in delivered
9		quality.
10	Q.	BASED UPON YOUR EXPERIENCE, DO YOU HAVE AN OPINION AS
11		TO WHETHER THE COMPANY PURCHASED OIL AT THE LOWEST
12		MARKET PRICE?
13	A.	Yes. It is my opinion that the Company purchased oil at the lowest market prices
14		available at the time of purchase.
15		VIII. <u>CONCLUSION</u>
16	Q.	ARE YOU AWARE OF ANY SIGNIFICANT OUT OF PERIOD
17		ADJUSTMENTS TO FUEL INVENTORY OR FUEL EXPENSE BEING
18		MADE IN THIS PROCEEDING?
19	A.	No, there were not any out of period adjustments during the FAC 138 period.
20	Q.	DOES THIS CONCLUDE YOUR PREPARED TESTIMONY?
21	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: John A Verderame

Dated October 31, 2023