Cause No. 46193

On Behalf of Petitioner,
DUKE ENERGY INDIANA, LLC

VERIFIED DIRECT TESTIMONY OF STAN C. PINEGAR

Petitioner's Exhibit 1

February 13, 2025

DIRECT TESTIMONY OF STAN C. PINEGAR
PRESIDENT, DUKE ENERGY INDIANA, LLC
BEFORE THE INDIANA UTILITY REGULATORY COMMISSION

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Stan C. Pinegar, and my business address is 1000 East Main Street, Plainfield, Indiana 46168.

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

A. I am President of Duke Energy Indiana, LLC ("Duke Energy Indiana," or "Company"), a wholly owned subsidiary of Duke Energy Indiana Holdco, LLC and an affiliate of Duke Energy Corporation ("Duke Energy").

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I earned an undergraduate degree from Indiana University in 1986. I hold a Bachelor of Arts Degree in both Political Science and History, as well as a Teaching Certificate. In 1990, I earned a Juris Doctor (J.D.) from the Indiana University McKinney School of Law in Indianapolis. Upon graduation, I practiced law at the Indianapolis law firm Johnson, Smith, Densborn, Wright & Heath before joining the Indiana Department of Revenue in the capacity of Deputy Commissioner and General Counsel in 1991. I joined the Indiana Petroleum Council in 1993 as Associate Director and was promoted to Executive Director of the organization in 1997. I joined the Indiana Chamber of Commerce

in 2002 as the Director of Tax and Public Finance. In 2004, I joined the Indiana Energy Association ("IEA") as Vice President. I was promoted to the position of President and Chief Executive Officer of the IEA in 2011. I joined Duke Energy Indiana as Vice President of Government Affairs in 2012 and maintained that role until being appointed President of Duke Energy Indiana in November of 2018. In addition to responsibilities associated with being the State President of Duke Energy Indiana, I oversee our regulatory, governmental, and community affairs teams. I am also responsible for developing and advancing our business strategies, including integrated resource planning. Much of this work allows me to work closely with customers, local elected officials, and policymakers in all branches of Indiana government. I have been admitted to the Indiana Bar since 1990.

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

A. The purpose of my direct testimony is to support Duke Energy Indiana's request for a Certificate of Public Convenience and Necessity ("CPCN") to construct a natural gas-fired combined cycle ("CC") plant consisting of two CC units, each with a winter rating of approximately 738 megawatts ("MW"), (the "Cayuga CC Project"). The Cayuga CC Project will be constructed on available property at Duke Energy Indiana's Cayuga Generating Station site ("Cayuga Energy Complex" or "Cayuga") in alignment with the retirement of the existing units. Duke Energy Indiana is proposing to construct the first CC ("CC 1") to be completed and in-service by September 1, 2029, with the second CC ("CC 2") to

be completed and in-service by May 29, 2030. Specifically, I (1) provide an overview of Duke Energy Indiana's request in this proceeding; (2) explain how Duke Energy Indiana has supported certain statutory requirements;, (3) provide background on Duke Energy Indiana's generation fleet and the proposed Cayuga CC Project; (4) explain how the Company's plan for the retirement of the aging coal units and construction of the Cayuga CC Project supports Indiana's five pillars of energy policy; and (5) provide information on the economic development benefits expected to flow from the Cayuga CC Project.

II. OVERVIEW OF DUKE ENERGY INDIANA'S REQUEST

Q. PLEASE PROVIDE AN OVERVIEW OF DUKE ENERGY INDIANA'S REQUEST IN THIS PROCEEDING.

A. In this proceeding, Duke Energy Indiana requests (1) issuance of a CPCN to construct the Cayuga CC Project; (2) approval of the Cayuga CC Project as a clean energy project and authorization for financial incentives, including timely cost recovery through construction work in progress ratemaking under Ind. Code § 8-1-8.8-11; (3) authority to recover costs incurred in connection with the Cayuga CC Project; (4) approval of the best estimate of costs of construction associated with the Cayuga CC Project; (5) authority to implement a Generation Cost Adjustment Tracker ("GCA") Mechanism; (6) approval of changes to Duke Energy Indiana's Electric Service Tariff relating to the proposed GCA Mechanism; (7) approval of specific ratemaking and accounting treatment; and

(8) ongoing review of the Cayuga CC Project, all pursuant to Ind. Code ch. 8-1-8.5 and 8-1-8.8 and Ind. Code §§ 8-1-2-0.6, and 8-1-2-23.

Q. PLEASE IDENTIFY THE OTHER WITNESSES TESTIFYING IN SUPPORT OF DUKE ENERGY INDIANA'S PETITION IN THIS CAUSE WITH AN OVERVIEW OF EACH'S TESTIMONY.

A. The following witnesses are testifying in support of the Company's request:

Witness:	**Overview of Testimony:**
Kelley A. Karn	• Identifies environmental regulations and explains how they were incorporated into 2024 Integrated Resource Plan ("IRP"), and the Company's decision to construct the Cayuga CC Project. • Explains how the Cayuga coal facilities are nearing the end of their useful life and how environmental regulations make it difficult and cost prohibitive for Duke Energy Indiana to continue to burn coal as the fuel source at Cayuga. • Explains how the Cayuga CC Project is positioned to allow Duke Energy Indiana to achieve compliance with current regulations and will provide flexibility to address future regulations. • Identifies environmental permits needed for the Cayuga CC Project and Duke Energy Indiana's plans for ensuring all permits are secured. • Explains how the Cayuga CC Project is a clean energy project under Indiana law. • Discusses how the Cayuga CC Project will interconnect into MISO. • Explains the Cayuga CC Project's expected contribution to Duke Energy Indiana's system reliability and other benefits of the proposed Cayuga CC Project.

	• Addresses GAO 2022-01, including sponsoring MISO's Affidavit as Attachment 2-A (KAK). • Provides background on Duke Energy Indiana's demand side management energy efficiency and demand response programs and explains how they were considered in the IRP and how they continue to provide value to customers. • Supports the Company's request for the Commission to make findings related to the retirement of the Cayuga coal units pursuant to Indiana House Bill 1007 (2025).
John Robert Smith, Jr.	• Supports the best estimate of construction cost and construction schedule for the Cayuga CC Project.
James J. McClay III	• Provides an overview of Duke Energy Indiana's executable plan to fuel the Cayuga CC Project. • Provides the Commission an update on the changing landscape for additional new interstate natural gas pipeline infrastructure into Indiana and the Company's involvement in these projects to support the fuel security of both existing and proposed new natural gas generation. • Addresses Duke Energy Indiana's executable plan to ensure the sufficiency of natural gas firm transportation to the Cayuga CC Project and how this plan considers the five pillars.
Robert J. Lee Charles River Associates	• Explains the competitive RFP process and the analysis Duke Energy Indiana used to evaluate its various resource options, including the Cayuga CC Project.
Nathan D. Gagnon	• Describes the Company's 2024 IRP analyses and explains how the Cayuga CC Project, is consistent with the Preferred Portfolio and the Short-Term Action Plan. • Addresses various statutory and rule requirements for a CPCN proceeding.

	• Supports the Company's request for the Commission to make findings related to the retirement of the Cayuga coal units pursuant to Indiana House Bill 1007 (2025).
Justin G. Sufan	• Supports Duke Energy Indiana's request for authorization for financial incentives for the Cayuga CC Project as a clean energy project, including timely cost recovery through construction work in progress ("CWIP") ratemaking, under Ind. Code § 8-1-8.8-11. • Supports Duke Energy Indiana's request to establish and implement a Generation Cost Adjustment ("GCA") tracker mechanism to timely recover costs associated with Duke Energy Indiana's Cayuga CC Project.

III. STATUTORY AND OTHER REQUIREMENTS

Q. ARE YOU FAMILIAR WITH THE STATUTORY REQUIREMENTS REQUIRED FOR THE ISSUANCE OF A CPCN UNDER INDIANA CODE?

A. Yes. These requirements are set forth in Ind. Code §§ 8-1-8.5-4, 8-1-8.5-5, and ch. 8-1-8.8.

Q. ARE YOU FAMILIAR WITH THE FIVE PILLARS (RELIABILITY, AFFORDABILITY, RESILIENCY, STABILITY, AND ENVIRONMENTAL STABILITY) CODIFIED IN IND. CODE § 8-1-2-0.6?

A. Yes.

Q. HAS THE COMMISSION ISSUED ANY GUIDANCE APPLICABLE TO THE ISSUANCE OF A CPCN OR DISCUSSION OF THE FIVE PILLARS?

A. Yes. The Commission has issued General Administrative Orders ("GAO") 2022-01, 2023-03, and 2023-04, which are applicable to this proceeding. An overview of each General Administrative Order as well as any attachments are included with the Petition initiating this filing and discussed throughout Duke Energy Indiana's witnesses' testimony as applicable.

Q. HAS DUKE ENERGY INDIANA PROVIDED SUFFICIENT EVIDENCE TO SUPPORT THE STATUTORY REQUIREMENTS FOR THE ISSUANCE OF A CPCN AND APPROVAL OF A CLEAN ENERGY PROJECT UNDER IND. CODE §§ 8-1-8.5-4, 8-1-8.5-5, AND CH. 8-1-8.8?

A. Yes. Attachment B to the Verified Petition in this cause shows each element of

Ind. Code §§ 8-1-8.5-4, 8-1-8.5-5, and ch. 8-1-8.8 and identifies the Duke Energy Indiana witness providing supporting testimony related to each element.

Q. HAS DUKE ENERGY INDIANA PROVIDED TESTIMONY IN THIS CAUSE TO SUPPORT THE FIVE PILLARS?

A. Yes. Attachment C to the Verified Petition in this cause shows each pillar and identifies the Duke Energy Indiana witness providing supporting testimony related to each element, including notably my testimony.

Q. IS THERE ANY PENDING LEGISLATION WHICH MAY AFFECT THIS FILING THAT DUKE ENERGY INDIANA WOULD LIKE TO ADDRESS?

A. Yes. Currently pending House Bill ("HB") 1007 (2025) may impact this filing as it addresses the retirement of generation. Company witnesses Karn and Gagnon also discuss the potential impacts of the pending bill. See Attachment 2-B (KAK) for the most current version of the bill. By way of overview, the bill adds a definition for "retire" or "retirement" in Ind. Code 8-1-8.5-12.1. It also delineates certain requirements for a report to the Commission regarding planned requirements of generation, and in the alternative, certain findings in a CPCN proceeding. This includes showing that the retirement "will result in the provision to Indiana customers of electric utility service with the attributes of: (A) reliability; (B) affordability; (C) resiliency; (D) stability; and (E) environmental sustainability; as set forth in IC 8-1-2-0.6." In the event the requirements currently provided in HB 1007 becomes law, or if other retirement related requirements become law, Duke Energy Indiana requests the Commission to make any

necessary findings as currently included in HB 1007 or any other required findings passed into law by the 2025 Indiana General Assembly in its final order in this proceeding. To the extent it is made necessary by any change to HB 1007 or another law is passed, Duke Energy Indiana will supplement its testimony, or otherwise work with stakeholders, to ensure the Commission has the information it needs.

IV. DUKE ENERGY INDIANA'S GENERATION FLEET AND CAYUGA STATION

Q. PLEASE GENERALLY DESCRIBE DUKE ENERGY INDIANA'S OPERATIONS AND CURRENT GENERATION FLEET.

A. For over a century, Duke Energy Indiana has proudly provided safe and reliable service to residential customers, communities, and commercial, industrial, and governmental enterprises across Indiana. The Company serves its customers with approximately 6,900 MW of generation capacity, serving 910,000 electric customers across its 23,000 mile service territory. Specifically, the Company's electric generating fleet currently consists of the following: (1) two syngas/natural gas-fired combustion turbines ("CT") and one steam turbine; (2) five solar-powered facilities, two of which have on-site energy storage systems; (3) steam capacity located at two stations comprised of seven coal-fired generating units; (4) combined cycle capacity located at one station comprised of three natural gas-fired CTs and two steam turbine-generators; (5) one CT in a combined heat and power ("CHP") configuration located at Purdue University; (6) a run-of-river

hydroelectric generation facilities comprised of three units; (7) peaking capacity consisting of four oil-fired diesels and twenty-four natural gas-fired CTs, one of which is configured with dual natural gas and fuel oil capability; and (8) one distribution level energy storage system located at Nabb substation.

A. **PLEASE FURTHER DISCUSS CAYUGA STATION AND SOME OF THE DRIVERS FOR REPLACING THE CURRENT UNITS.**

A. Since the early 1970s, the two coal units at Cayuga Station (Cayuga 1 and 2) have provided reliable, affordable energy for Duke Energy Indiana customers. However, these units are now the oldest coal-fired generators in the Company's portfolio having provided service for what will be six decades at the time of the proposed retirement. Much of the equipment is nearing the end of its useful life. Duke Energy Indiana's National Pollutant Discharge Elimination System ("NPDES") permit limits the units' run times to protect the Wabash River temperatures downstream of the plant. Wabash River water temperature limitations have led to the risk of plant derates just at the time that MISO needs the generation most – hot and dry summer days. Indeed, Duke Energy Indiana has had to derate the units each of the past three summers during times in which MISO has called for conservative operations. Duke Energy Indiana has determined that operating the Cayuga steam generators into the mid-2030s would face significant challenges and capital investment, in order to comply with Federal Effluent Limitations Guidelines ("ELG"), potential requirements for closed-cycle cooling to meet Clean Water Act Sections 316(a) and 316(b),

heightened risks from other more stringent environmental regulations, and higher maintenance and capital costs for 60 plus year-old assets.

Q. PLEASE DISCUSS DUKE ENERGY INDIANA'S COMMITMENT TO SUPPORTING AN AFFORDABLE ENERGY TRANSITION.

A. Duke Energy Indiana is committed to an orderly transition to cleaner energy that adds incremental generation to reliably support economic development and serve the needs of its growing customer base while replacing aging plants with a mix of diverse resources, including more flexible, reliable natural gas baseload generation, renewables, and energy storage, all with affordability top of mind. The Company chose its Preferred Portfolio in the 2024 IRP, which includes the Cayuga CC Project at its core, as the best plan to balance the Five Pillars (reliability, affordability, resiliency, stability, and environmental stability) codified in Ind. Code § 8-1-2-0.6. This portfolio achieves compliance with the United States Environmental Protection Agency's ("EPA's") Clean Air Act ("CAA") Section 111(d) requirements but is flexible enough to allow for adjustments in the event the EPA rule is delayed or overturned. Company witnesses Karn and Gagnon further discuss the benefits of this flexibility. This strategy strikes the appropriate balance among the Five Pillars, mitigates risk with opportunities to adjust course as future conditions warrant, and adds new generating capacity to support robust economic development and customer growth in the state of Indiana.

Importantly, the Cayuga transition plan is the quickest path available to us for adding capacity and dispatchable resources. The testimony of Duke Energy Indiana witness Gagnon sponsors our 2024 IRP and describes why the preferred portfolio, including the Cayuga CC Project, was chosen as the best plan for Duke Energy Indiana and its customers.

V. OVERVIEW OF THE CAYUGA CC PROJECT AND TIMING

Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE CAYUGA CC PROJECT DUKE ENERGY INDIANA IS SEEKING APPROVAL OF IN THIS PROCEEDING.

A. Duke Energy Indiana proposes to install two 1x1 Advanced Class Combined Cycle gas units at the Company's existing Cayuga Generation Station. Each unit will have a winter rating of approximately 738 MW, for a combined winter capacity rating of 1,476 MW. One unit will be available in 2029 and the second in 2030. The Company's plan maintains the existing capacity of 1000 MW of generation at the site throughout the construction period. Upon completion of the second unit, we will achieve an overarching goal of adding an incremental 471 MW of efficient, economical, highly dispatchable resources to our system. The proposed Cayuga CC Project will be built on the existing Cayuga Generation Station site to allow Duke Energy Indiana to realize cost and timing savings generated by the benefits of re-using existing facilities, equipment, and transmission interconnection rights.

Q. WHAT BENEFITS ARE ASSOCIATED WITH THE CAYUGA CC PROJECT GENERALLY?

A. The Cayuga CC Project will add incremental capacity within the same footprint. By utilizing advanced class combined-cycle technology, it will enhance the reliability and economic competitiveness of Duke Energy Indiana's generation portfolio while mitigating risks related to maintenance expenses, derates, and potential future environmental compliance costs associated with the aging coal units. These units are less carbon intense than the units they're replacing, plus the units provide reserves, are able to ramp up and down quickly and within a wide range, and balance upfront capital costs with lower long-term operation and maintenance ("O&M") costs.

I would also like to emphasize the benefits Duke Energy Indiana expects from constructing two 1x1 CCs vs. a 2x1 configuration. As discussed by Company witness Gagnon, two 1x1s can be in-service sooner, which allows Duke Energy Indiana to reduce its capacity purchases from the market and to serve incremental customer growth and economic development load expected within the next five years. In addition, there are transmission benefits from reusing the existing interconnection rights which allows Duke Energy Indiana to place one unit fully in-service and most of the second unit in-service without MISO network upgrades, as discussed by Company witness Karn. Consistent with our focus on reliability and resource adequacy there are clear benefits to constructing two machines rather than one. As discussed by Company witness Gagnon, there will

be operational benefits that flow from the ability to take down just one block for an outage (rather than the entire plant if tied together by one steam turbine).

Q. DOES THE COMPANY EXPECT TO RETAIN CURRENT EMPLOYEES AT THE CAYUGA STATION DURING AND AFTER THE CCS ARE INSTALLED?

A. Yes. The Company expects to retain 50% to 60% of the current staffing. The Company also will work to transition employees into other roles throughout Duke Energy. There will also be a spike in construction level jobs during construction and during retirement/demolition of the existing station. As I will discuss further in my testimony, the proposed units will provide a significant increase in property tax revenue for Vermillion County, as well as employ 400-450 in construction jobs at peak construction, while continuing to provide well-paid jobs to operate the plant.

Q. WILL THE CAYUGA CC PROJECT DISPLACE ELECTRICITY GENERATION FROM AN EXISTING COAL FIRED GENERATION FACILITY?

A. Yes. Witness Karn further discusses how the Cayuga CC Project is a "clean energy project" for purposes of Ind. Code Ch. 8-1-8.8. However, as I have discussed, the existing Cayuga units are the oldest in Duke Energy Indiana's generating fleet and are facing pressure from increasingly more stringent environmental regulations, and capacity derates from MISO due to Wabash River temperature limitations when generation is most needed. Additionally, continued

reliance on 60-year-old assets increases the risk of lower accredited capacity value under MISO's Seasonal Accredited Capacity ("SAC") construct and continuing forward into MISO's new Direct Loss of Load ("DLOL") construct. Whereas, replacing these units with the Cayuga CC Project positions Duke Energy Indiana to achieve compliance with current regulations, will provide flexibility to address future regulations, and provide incremental energy and capacity to support resource adequacy and load growth. Further, as discussed by Company witness Sufan, Duke Energy Indiana is petitioning to utilize the clean energy statute incentives to make this project more affordable for customers through the proposed GCA tracker.

Q. DID THE COMPANY CONSIDER THE POTENTIAL FOR CONVERTING CAYUGA UNITS 1 AND 2 TO GAS-FIRED UNITS?

A. Yes, as part of the Company's IRP, it considered various options for the Duke Energy Indiana portfolio, including converting the Cayuga units to natural gas. The Company also analyzed keeping the coal units running longer by co-firing them with natural gas as discussed in the testimony of Company witness Gagnon. However, for the reasons described by witnesses Karn and Gagnon, including lower costs and higher reliability, the Company believes the Cayuga CC Project to be a better option for customers in terms of reliability, risk, additive generation and affordability.

VI. FIVE PILLARS AND OTHER BENEFITS

Q. PLEASE DESCRIBE THE FIVE PILLARS IDENTIFIED IN IND. CODE § 8-1-2-0.6.

A. The Five Pillars of Indiana energy policy, as delineated, in order, of Ind. Code § 8-1-2-0.6, are as follows:

- *Reliability* – including: (A) the adequacy of electric utility service, including the ability of the electric system to supply the aggregate electric demand and energy requirements of end use customers at all times, taking into account: (i) scheduled; and (ii) reasonably expected unscheduled; outages of system elements; and (B) the operating reliability of the electric system, including the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system components;
- *Affordability* – including ratemaking constructs that result in retail electric utility service that is affordable and competitive across residential, commercial, and industrial classes.
- *Resiliency* – including the ability of the electric system or its components to: (A) adapt to changing conditions; and (B) withstand and rapidly recover from disruptions or off-nominal events;
- *Stability* – including the ability of the electric system to: (A) maintain a state of equilibrium during: (i) normal and abnormal conditions; or (ii) disturbances; and (B) deliver a stable source of electricity, in which frequency

and voltage are maintained within defined parameters, consistent with industry standards;

- *Environmental Sustainability* – including: (A) the impact of environmental regulations on the cost of providing electric service; and (B) demand from customers for environmentally sustainable sources of electric generation; and

I have discussed above many benefits of the retirement of the existing units and the Cayuga CC Project. I will now discuss how each specific pillar is supported by retirement and replacement, keeping in mind that my order of discussion tracks the order of the statute. While I discuss the pillars individually, it's important to remember that the five pillars at times work in concert and support each other, so actions to strengthen one may strengthen another. Sometimes the pillars can be in conflict with one another, which is why Duke Energy Indiana worked very hard in its 2024 IRP and in its design of this project to balance all five.

Q. PLEASE EXPLAIN FURTHER HOW THE PILLARS WORK TOGETHER AND WHY IT IS IMPORTANT TO BALANCE ALL FIVE.

A. Having a reliable, resilient, and stable system works to reduce the duration and frequency of outages. I prioritize opportunities to meet with our residential, commercial and industrial customers on a regular basis. A constant theme I hear from each class of customer is the high value of, indeed expectation of Duke Energy Indiana to provide reliable, resilient and stable service. Likewise, potential new customers consider the robustness and reliability of our system as well as the affordability of our rates when determining if Duke Energy Indiana's

service territory meets their needs for new investment. Further, many companies and individual customers alike prioritize environmentally sustainable sources of power as it improves the health and well-being of all citizens – today and in the future. However, a singular focus on environmental sustainability or even reliability, could conflict with the important goal of affordability of service. Nevertheless, these are rightfully the objectives of the Five Pillars and balancing them is Duke Energy Indiana's charge. I believe that Duke Energy Indiana's request in this case and the 2024 IRP's short term action plan strikes that balance.

Q. PLEASE FURTHER DISCUSS HOW RELIABILITY IS SUPPORTED.

A. Reliability is ensuring customers have the power they need when they need it. Meeting this expectation requires the right generation mix. States and their individual utilities are crucial for shaping the generation mix. Electric utilities must ensure they have energy available to meet customers' needs every hour of every day—including periods of peak demand and times when any given generation unit(s) may be in outage. Duke Energy Indiana just recently set a new winter peak record on January 23, 2025 of 7,431 MW. The previous all-time winter peak load was 7,429 MW set on December 23, 2022. Access to fast ramping dispatchable generation under these conditions is critical to maintain system reliability. Reliability also includes operating in compliance with applicable Federal Energy Regulatory Commission ("FERC") orders and North American Electric Reliability Corporation ("NERC") Reliability Standards, something discussed further by Company witness Karn. Indiana's great success in

economic development has brought greater demand for electricity and that electricity must be reliable. As further discussed by Company witnesses Karn and Gagnon, the Cayuga CC Project replaces a plant that is at the end of its useful life and brings additive energy to the grid and adds it faster than any other evaluated generation option. As further described by Company witness McClay, Duke Energy Indiana's fuel supply strategy provides enhanced fuel security and supply reliability to both the Cayuga CC Project and to the entire Duke Energy Indiana system.

Q. PLEASE FURTHER DISCUSS HOW AFFORDABILITY IS SUPPORTED.

A. All customers, including residential, commercial, and industrial rely on Duke Energy Indiana to provide the energy they need at an affordable price. Duke Energy Indiana has met that expectation. As of July 31, 2024, Duke Energy Indiana presently has the lowest residential rates among the five investor-owned electric utilities in the state.[1] Even with the costs associated with the Cayuga CC Project, the Company is expected to remain competitive with its peer electric utilities in the state. As further discussed by Company witness Gagnon, "affordability" was a key consideration for Duke Energy Indiana under the 2024 IRP. As further explained by Company witness Gagnon, in the context of resource planning, the way in which affordability and customer rate impact are considered is through the economic analysis of projects as compared to alternatives. Duke

[1] Indiana Utility Regulatory Commission, 2024 Electric Residential Bill Survey (2024), https://www.in.gov/iurc/files/2024-Electric-Residential-Bill-Survey-Final.pdf.

Energy Indiana considers affordability by analyzing the economics of projects through the IRP, through the issuance of Request for Proposals ("RFP"), and in the selection of projects for which to request Commission approval. The objective of Duke Energy Indiana's IRP is to identify a preferred resource portfolio that provides safe, reliable, sustainable, and reasonable least cost electricity, giving due consideration to potential risks and stakeholder input. Witness Gagnon details how the preferred portfolio, which specifically calls for the Cayuga CC Project, balances near-term and long-term cost impacts for customers, and, when comparing IRP portfolios that include either cofiring or converting Cayuga to natural gas, the Cayuga CC Project has a lower PVVR of about $500 million. Company witness Lee details how both the CC 1 and CC 2 components of the Cayuga CC Project received high scoring in Charles River Associates' independent RFP analysis, which considered the economics along with other scoring criteria.

The Company's plan prioritizes affordability by reusing the existing infrastructure at the Cayuga site, including valuable transmission interconnection, and by investing in the most efficient natural gas turbines on the market, which will result in lower overall fuel costs

As further described by Company witness McClay, the Five Pillars are served by Duke Energy Indiana's gas service strategy to support the Cayuga CC Project. The Cayuga site is well situated for natural gas supply due to its location near the robust REX pipeline. Duke Energy Indiana was able to obtain available

natural gas capacity on this existing pipeline, at a lower cost than other alternative locations.

Finally, as discussed by Company witness Sufan, Duke Energy Indiana's proposed ratemaking strategy is designed to put downward pressure on the cost to customers. As he discusses, Duke Energy Indiana is proposing to use construction work in progress ("CWIP") ratemaking authorized under Ind. Code 8-1-8.8 to recover financing costs during project development and construction. This allows the Company to minimize capitalized financing expenses, ultimately reducing the project's total cost. This translates into lower long-term costs for both the utility and our customers.

Q. PLEASE FURTHER DISCUSS HOW RESILIENCY IS SUPPORTED.

A. Resiliency is ensuring the availability of electricity under changing or extraordinary system conditions. This would include the system's ability to respond to an acute system emergency or unexpected outage, as well as longer-term resiliency based on evolving market rules, changing weather patterns, or climate related phenomena. Duke Energy Indiana was intentional when selecting the replacement generation at Cayuga which meant ensuring all Five Pillars were served, including resiliency. As explained by Company witness Lee, in the 2022 RFP, a 1x1 advanced class CC was selected over a 2x1 CC that included less efficient class combustion turbine generators ("CTG") to increase confidence in maximum operating flexibility and better ensure EPA CAA Section 111(b) compliance. As noted by Company witness Karn, the Company's plan to

construct two 1x1 CC units promotes system stability by limiting the system impact of a unit trip event. In the Company's most recent RFP, Duke Energy Indiana selected a second 1x1 advanced class CC over a 2x1 CC that was available but would have been at a later in-service date than desired. As discussed by Company witness McClay, because of Duke Energy Indiana's contracting strategy for the Cayuga CC Project, firm natural gas transportation can also be delivered to connecting pipelines serving the Duke Energy Indiana natural gas generation fleet. Duke Energy Indiana will now have increased ability to (a) adapt to changing conditions; and (b) withstand and rapidly recover from system disruptions.

Importantly, Duke Energy Indiana has a need for generating capacity. The Company has currently been averaging about 400 MW in capacity purchases and the Cayuga CC Project will play a key role in minimizing the need for future purchases. Further, MISO is currently faced with the potential of increased demand and has called for additional resources, as discussed by Company witness Karn. Duke Energy Indiana is in the perfect position to answer this call. The Cayuga CC Project has many benefits that brings all Five Pillars together; it brings much needed additive capacity and energy that Duke Energy Indiana itself needs, replaces an aging plant that is nearing the end of its useful life, and still allows Duke Energy Indiana to maintain some of the most affordable rates in the state. Having such a flexible plant in its fleet enhances Duke Energy Indiana's

system resiliency and allows Duke Energy Indiana to play a role in continuing the resilience of MISO.

Q. PLEASE FURTHER DISCUSS HOW STABILITY IS SUPPORTED.

A. The stability of the electric system itself is closely related to concepts of reliability and resiliency. With regard to system stability, as more fully discussed by Company witness Karn, it is essential for Duke Energy Indiana to maintain dispatchable generation for grid reliability and stability. Integrating flexible, dispatchable resources that quick-start and fast-ramp will be paramount as demand for energy and penetration of renewable resources increase. As further described by Company witness McClay, Duke Energy Indiana's chosen pipeline is poised to be able to maintain delivery pressures necessary to support stable station operations during periods of system constraints such as extreme winter weather conditions.

Q. PLEASE FURTHER DISCUSS HOW ENVIRONMENTAL SUSTAINABILITY IS SUPPORTED.

A. As explained further in Company witness Karn's testimony, Duke Energy Indiana's 2024 IRP considered compliance costs with existing rules and regulations as part of the planning process, as well as potential future regulatory actions that should also be considered when making long-term decisions regarding the generation portfolio. Looking at the actual and potential impacts holistically ensured Duke Energy Indiana can meet future resource needs and environmental requirements in a reliable and economic manner with flexibility.

Appendix J of the IRP, included in Attachment 6-A (NDG), discusses the existing laws and regulations followed by any risks associated with anticipated and potential changes to environmental regulations, and how the environmental regulations were included in IRP modeling.

The Company's plan to retire and replace the existing coal units with the CC Project provides many environmental benefits. The use of the most efficient natural gas turbines on the market reduces greenhouse gas and other emissions. The Cayuga CC Project includes construction of new cooling towers using "closed cycle" cooling, which alleviates the environmental risk of river temperature issues experienced with the existing coal units. In addition, the new plant holds the potential for future carbon capture and sequestration or hydrogen use, which could further reduce emissions if those technologies become available and economic.

Q. DOES THE CAYUGA CC PROJECT HAVE OTHER BENEFITS?

A. Yes. Duke Energy Indiana has a long history of community engagement and philanthropic support of the greater Vermillion County community where Cayuga Station is located. This project allows us to re-invest in this supportive community providing continued employment, tax benefits, and local economic development opportunities. Duke Energy Indiana commissioned Ernst & Young to perform an economic impact analysis. Their report is attached as Attachment 1-A (SCP). Some key findings from the report include:

- Total economic impact of construction statewide (2025-2030) is 3,733 total jobs and $871.2 M Statewide GDP supported.
- Annual economic impact of new generation station operations in Vermilion County (2030+) is $4.3M property tax and $11.7M total regional GDP.

VII. CONCLUSION

Q. DO YOU BELIEVE DUKE ENERGY INDIANA'S REQUESTED RELIEF IN THIS PROCEEDING IS REASONABLE?

A. I do. As a Company, we need to maintain reliable service, continue to work towards a cleaner energy future, and focus on customers' growing needs and expectations of affordability. The Company believes the Cayuga CC Project provides a balanced approach to direct the Company where it needs to go, and where the customers are expecting it to go, in a reasonable timeframe and in a cost-effective way.

Q. DO THE PUBLIC CONVENIENCE AND NECESSITY REQUIRE THE CONSTRUCTION OF THE CAYUGA CC PROJECT?

A. Yes. The Cayuga CC Project supports and balances all Five Pillars and therefore public convenience and necessity require the construction of the Cayuga CC Project. Duke Energy Indiana has determined that continuing to operate the existing 60 plus year-old assets at Cayuga would face significant challenges and capital investment, heightened risks from other more stringent environmental regulations, and higher maintenance and capital costs. The Cayuga CC Project

will add incremental capacity within the same footprint. It will enhance the reliability and economic competitiveness of Duke Energy Indiana's generation portfolio while mitigating risks related to maintenance expenses and potential future environmental compliance costs associated with the aging coal units. The selected technology is flexible, with fast start and spinning reserve capability, and balances upfront capital costs with long-term lower O&M costs.

This project is also the quickest way to add incremental generation to our system – 471 additional MWs. Other options such as continuing to run on coal, or converting to natural gas or co-firing coal and gas at the site, would at best maintain the existing generation on site and at worst, result in future degradation of MISO accredited capacity. By reusing the existing transmission interconnection and modifying the existing site-wide air permit, the Company is able to provide the incremental generation by 2030, when other options considered, including a 2x1 configuration would have in-service dates at least a year or two later. This allows Duke Energy Indiana to reduce its capacity purchases from the market and to serve incremental customer growth and economic development load expected within the next five years. There are transmission benefits from reusing the existing interconnection rights and operational benefits that will allow Duke Energy Indiana to take down just one block for an outage (rather than the entire plant if tied together by one steam turbine).

The Company has been thoughtful in this analysis, examining the various options in its 2021 IRP and subsequent updates, and then finally again in its 2024 IRP. We are confident this is the right choice for our customers and the state.

Q. WAS ATTACHMENT 1-A (SCP) PREPARED BY YOU OR UNDER YOUR DIRECTION?

A. Yes.

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: Stan Pinegar
Stan C. Pinegar

Dated: 02/13/2025

Economic and fiscal contributions of new Cayuga generation stations

Prepared for Duke Energy

February 13, 2025

Building a better working world

Executive summary: Economic impact of new Cayuga generation stations

Cause No. 46193

Capital investment (2025-2030):

5-year construction with $3.3 billion[1] in potential expenditures (Oct. 2025 – Jun. 2030)
New construction for combined cycle gas generation facilities in Vermillion County, Indiana plus other costs such as financing and estimated transmission line upgrades

10.6% of regional economic activity [2]
The construction will support $603.5M in regional GDP over the construction period (average of $127.1M per year)

252 construction jobs (annual avg. for 5 years)
Construction worker-years are expected to total 1,198 in Vermillion County

Total economic impact of construction statewide (2025-2030):

3,733
Total jobs supported[3]

$871.2M
Statewide GDP supported

Operations (2030 onward):

36 employees (full-time and part-time)
Most of these workers will be workers transitioning from current Duke Energy operations

$5.5M annual payroll costs (wages + benefits)
Average payroll and benefits is $154k per employee

$3M annual non-labor operating costs
With $2.2M in service contracts and $0.8M in materials and other costs

Annual economic impact of new generation station operations in Vermilion County (2030+):

$4.3M
Property tax[4]

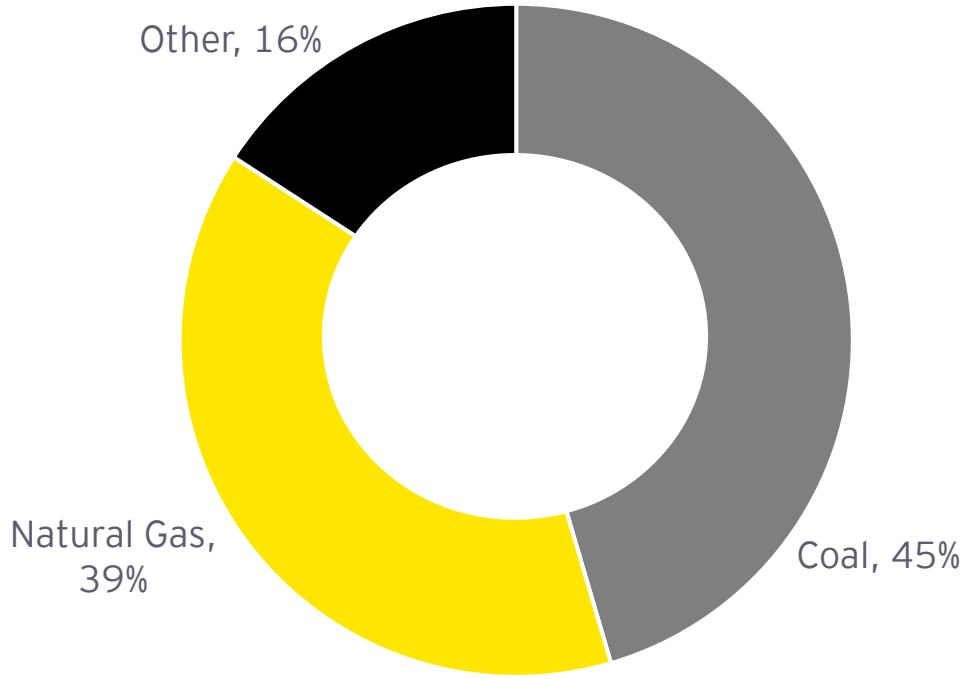
$11.7M
Total regional GDP

[1] *Economic impact analysis of the project accounts for all total project expenditures, inclusive of transmission line upgrades, financing costs, equipment, materials and other services, provided by suppliers located outside of Vermillion County and state of Indiana.*
[2] *Regional economic activity refers to the gross domestic product (GDP) for Vermillion County, Indiana, which is $1.2 billion based on 2023 data from Bureau of Economic Analysis (BEA).*
[3] *Jobs supported are one-year jobs over five-year period and includes direct (construction), indirect (supplier) and induced jobs in the state of Indiana.*
[4] *Property tax is for the first year of full operation and is net of potential incentives.*

Project background - Duke Energy's proposed Cayuga facility

- As of 2023, coal remains the most prevalent energy source for electricity generation in Indiana, accounting for 45% of the state's electricity production, while natural gas contributes 39%.
- However, coal generating plants are aging and nearing the end of their useful lives.
- In its commitment to reliability, affordability, environmental sustainability and a cleaner energy future, Duke Energy Indiana is proposing to build new natural gas-based plants at the existing Cayuga Station in Indiana, replacing the current coal-based plants.
  - Specifically, the proposed new natural gas-based plants consist of two combined-cycle facilities which can operate independently or concurrently
  - Combined-cycle facilities are generally more efficient at generating electricity than simple-cycle facilities.[1]

Electricity power generation by energy sources, Indiana[2]



[1]EIA article: https://www.eia.gov/todayinenergy/detail.php?id=52158

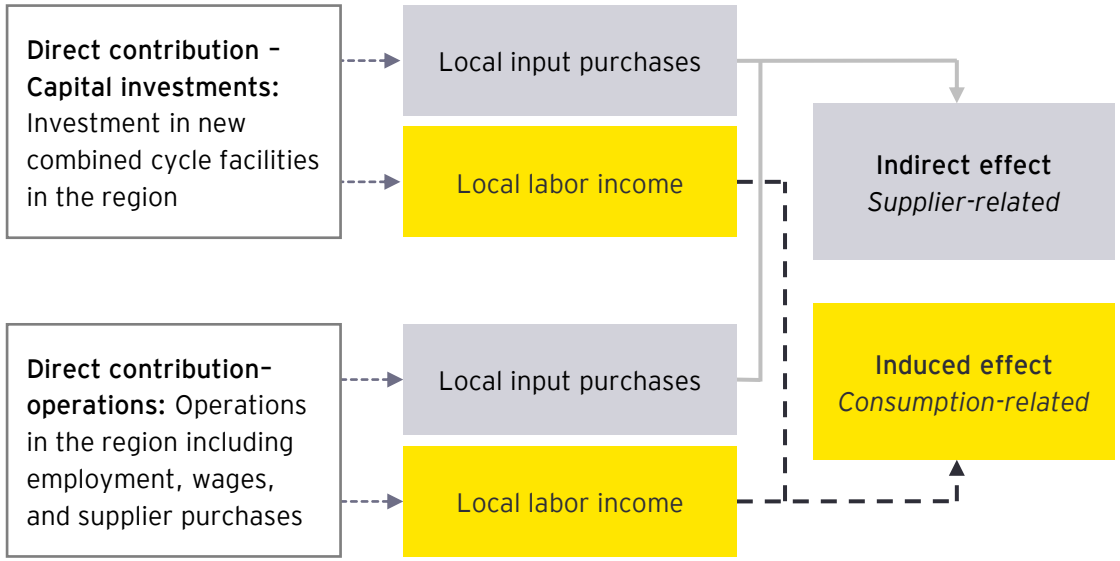
[2]2023 Energy Information Administration (EIA) data

Cause No. 46193

Definition of economic contributions and impact metrics

Economic impact metrics

- **Employment**
  The total number of part- and full-time jobs (headcount) supported by Duke Energy
- **Labor income**
  Includes employee compensation (value of wages and benefits) related to employment
- **Value added (GDP)**
  Includes labor income plus indirect business taxes, consumption of fixed capital (depreciation), and mixed income
- **Economic output**
  The sum of value-added and intermediate inputs (supplier) purchases
- **Tax revenue**
  State and local taxes paid by Duke Energy and its workers and supported by increased economic activity, including income, sales, property, and other taxes.



1. **Direct contributions** include Duke energy employees, labor income, value added, output (including project subcontractors), and local taxes generated from Duke Energy's expenditures to build the combined cycle facilities then operate them.
2. **Indirect contributions** are the employees, labor income, value added, output, and local taxes attributable to purchases from local suppliers. The indirect contributions capture the additional input purchases from local suppliers by businesses supplying the materials for the construction, thereby creating subsequent rounds of indirect effects.
3. **Induced contributions** include the employment, labor income, value added, economic output, and local taxes supported through the spending by Duke Energy employees and supplier employees at regional businesses including grocery stores, restaurants, and service providers.

Cause No. 46193

Capital investment details for the Cayuga Project (2025-2030)

Construction expenditure: Duke Energy plans to replace coal-powered electric generation facilities with new combined cycle power generation facilities in Cayuga, Vermillion County, Indiana, and upgrade power transmission infrastructure. The existing Cayuga Station has been operating since 1970.[1] Project construction is expected to occur from 2025 until 2030 with nearly $2.97 billion in expenditures on equipment, construction employee compensation, professional services and materials, plus additional costs such as financing and transmission line upgrades necessary to transport the additional power, bringing total estimated project cost to $3.3 billion.

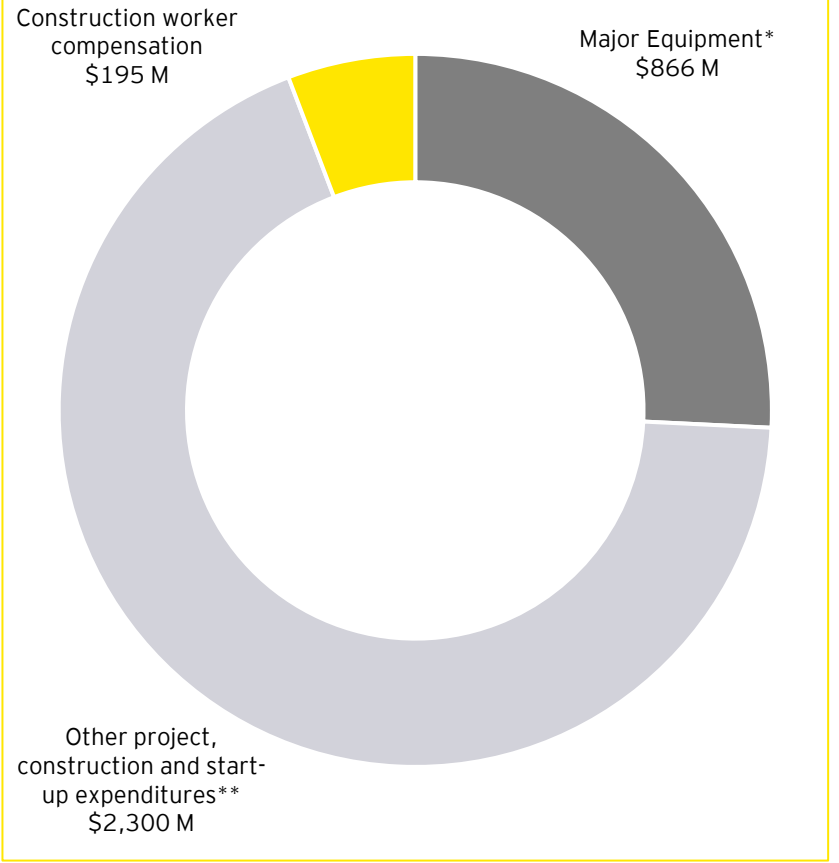
Combined cycle natural gas plant: Combined cycle natural gas plants are significantly more efficient than coal generation, so the updated plant will reduce average emission rates in the region due to cleaner power generation.[2]

Employment: Total construction employment is expected to average 252 workers in the county each year, including Duke Energy oversight, contractors, and sub-contractors, with peak annual employment at 570 full-time equivalents (550 construction workers plus 20 Duke Energy employees for oversight). This level of construction employment is expected to exceed the local construction labor supply, resulting in economic activity from out-of-county laborers staying in Vermillion County for extended periods. Additionally, an estimated 13 workers annually will be needed in the state to work on transmission network upgrades.

[1] Information from duke-energy.com

[2] Data from eia.gov

Cayuga Energy Complex investment



*The majority (~95%) of the equipment is expected to be supplied from outside the state.
**A portion (2%) of this expenditure is used for upgrading the transmission network across the state, creating impacts at the state level.

Capital investment's economic impact (2025 – 2030)

- **Construction jobs:** Duke Energy is planning for an average of 252 workers annually in Vermillion County in the construction of the facilities, with an average labor income per worker of $162,500 totaling $194.7 million in direct labor income over the construction period. In addition, 13 workers annually are expected to work on state power transmission structure upgrades outside the county.
- **Indirect and Induced Jobs:** Duke Energy will support an additional 120 indirect workers annually in county supplier industries during construction. Total labor income paid to indirect and induced workers is expected to total $35.1 million during that timespan, averaging $61,500 per worker.
- **Total Value Added:** Duke Energy's combined cycle facilities' construction and other upgrades will support an estimated $603.5 million in GDP for Vermillion County, and $871.2 million in GDP for the state of Indiana.
- **Total Economic Output:** $1.0 billion in economic output supported by Duke Energy's construction will remain in Vermillion County, with an additional $258 million in the rest of the state during the construction period. The total economic output for the state of Indiana is $1.3 billion during the construction period.
- **Total state and local taxes:** Construction will support an estimated $14.0 million in direct tax contributions across the state due to the construction activity, with indirect and induced tax contributions of $13.0 million, totaling $27.0 million in state and local tax supported. On average, Duke Energy will support an estimated $5.7 million in taxes annually over the construction period. (See slide 7)

Total estimated economic and tax contributions from Duke Energy's combined cycle facility construction

(2025-2030, $ in millions)

	Vermillion County impacts			Total Indiana impacts		
Contribution measure	Direct	Indirect & Induced	Total	Direct	Indirect & Induced	Total
Employment (total one-year jobs)	1,198	571	**1,769**	1,259	2,474	**3,733**
Average annual jobs	252	120	**372**	265	521	**786**
Labor income	$194.7	$35.1	**$229.8**	$204.6	$102.1	**$306.7**
Average annual labor income	$41.0	$7.4	**$48.4**	$43.1	$21.5	**$64.6**
Average annual labor income per worker	$162,500	$61,500	**$130,000**	$162,500	$41,500	**$82,000**
Value added (GDP)	$529.1	$74.4	**$603.5**	$556.1	$315.1	**$871.2**
Economic output	$889.6	$131.8	**$1,021.4**	$935.0	$344.3	**$1,279.3**
Total state and local tax impacts	$0.9	$0.3	**$1.2**	$14.0	$13.0	**$27.0**

Source: EY Analysis of data from Duke Energy and the IMPLAN 2023 Economic Model of Vermillion County and Indiana

Cause No. 46193

State and local tax contributions during capital investment period

- **Local income tax:** Construction activities are estimated to support $1.2 million in local income tax in Vermillion county, and an additional $3.9 million in other counties in the state, averaging $1 million in local labor income tax annually during construction.
- **State income tax:** Plant construction activities from 2025 to 2030 are expected to support a total of $9.3 million state individual income tax on workers' income.
- **Corporate income tax:** Duke Energy's construction contractors are estimated to directly contribute $0.6 million in corporate income tax to the state and support an additional $0.5 million through indirect and induced impacts, totaling $1.1 million in supported corporate income tax.
- **State sales tax**: Indiana only levies a sales tax at the state level. Plant construction is estimated to directly contribute $3.6 million in sales tax, and a total of $10.7 in total supported sales tax.
- **Other taxes and fees:** These include excise taxes, licenses fees, and other taxes and fees. Duke Energy is expected to support a total of $0.8 million in other taxes and fees during construction.

Total estimated tax impact from Duke Energy's combined cycle facilities' construction *(2025-2030, $ in millions)*

Contribution measure	Direct	Indirect & Induced	Total
Vermillion county			
Local income tax	$0.9	$0.3	**$1.2**
Other local governments			
Local income tax	$2.5	$1.4	**$3.9**
Indiana			
State individual income tax	$6.0	$3.3	**$9.3**
State corporate income tax	$0.6	$0.5	**$1.1**
Sales tax	$3.6	$7.1	**$10.7**
Other taxes	$0.4	$0.4	**$0.8**
Total state and local tax impacts	**$14.0**	**$13.0**	**$27.0**

Source: EY Analysis of data from Duke Energy and the IMPLAN 2023 Economic Model of Vermillion County and Indiana, and data from US Census and the Bureau of Economic Analysis.

Cause No. 46193

Economic impact from annual operations of the combined cycle stations (2030)

36 employees (full-time and part-time)
The majority of these workers will be workers transitioning from current Duke Energy's operations

$5.5M payroll costs (wages + benefits)
Average payroll and benefits is $154k per employee

$3M non-labor operating costs
With $2.2M in contract costs and $0.8M in materials and other costs

- **Total jobs:** Duke Energy will directly employ 36 workers and support an additional 26 workers in other industries across Indiana, totaling 62 overall. These jobs are expected to earn $7.3 million in wages, salaries and benefits across the state.*
- **Total value added:** Duke Energy's combined cycle facilities' operations will contribute $11.7 million to the county's GDP 2030.
- **Total economic output:** Most economic output from Duke Energy's operations will remain in Vermillion County, with $16.1 million in Vermillion County and $3.3 million in additional annual output being supported in the rest of the state.
- **Total state and local taxes:** Duke Energy's expected property tax contributions of $4.4 million annually during the first 10 years after the stations have been placed into service make up 87% of the total estimated tax impact of $4.9 million in supported taxes annually across the state. (See slide 9 for breakdown)

Total estimated economic impact from Duke Energy combined cycle facilities' operations *(2030, $ in millions)*

	Vermillion County impacts			Total Indiana impacts		
Contribution measure	Direct	Indirect & Induced	Total	Direct	Indirect & Induced	Total
Employment*	36	8	**44**	36	26	**62**
Labor income	$5.5	$0.5	**$6.0**	$5.5	$1.8	**$7.3**
Average labor income per worker	$154,000	$57,500	**$136,000**	$154,000	$68,500	**$118,500**
Value added (GDP)	$10.3	$1.4	**$11.7**	$10.3	$3.4	**$13.8**
Economic output	$13.3	$2.8	**$16.1**	$13.3	$6.1	**$19.4**
Total state and local tax impacts	**$4.4**	**$0.02**	**$4.4**	**$4.7**	**$0.2**	**$4.9**

Source: EY Analysis of data from Duke Energy and the IMPLAN 2023 Economic Model of Vermillion County and Indiana
**New or transitioned job count in direct support of the new generating units.*

Cause No. 46193

Annual state and local tax contribution details from operations

- **Property tax** paid in the first full year of operations of new units is expected to be $4.3 million*, which provide funding for local schools and county government services.
- **Local income tax:** Duke Energy is estimated to support $87.6 thousand in local income tax in Vermillion county, and an additional $13.1 thousand in other counties in the state.
- **State income tax:** Plant operations in 2030 are expected to support $195.3 thousand in state individual income tax on workers' income.
- **Corporate income tax:** Duke Energy is estimated to directly contribute $28.9 thousand dollars in corporate income tax to the state and support an additional $5.3 thousand through indirect and induced impacts.
- **State sales tax**: Indiana only levies a sales tax at the state level. Plant operations in 2030 are estimated to directly contribute $153.5 thousand in sales tax between Duke Energy purchases and employee purchases, and a total of $225.1 thousand in supported sales tax.
- **Other taxes and fees:** These include excise taxes, licenses fees, and other taxes and fees. Duke Energy is expected to support a total of $15.6 thousand in other taxes and fees in 2030.

Note that the annual property tax estimate is net of incentives but does not include an additional payment by Duke Energy in the form of an economic development payment.

Estimated tax impact from Duke Energy combined cycle facilities' operations *(2030, $ in thousands)*

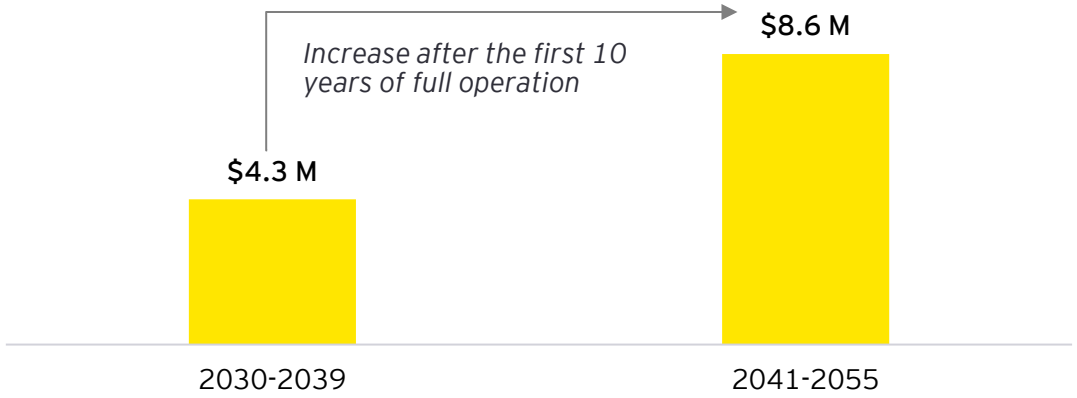
Contribution measure	Direct	Indirect & Induced	Total
Vermillion county			
Property tax	$4,286.3	$12.7	**$4,299.0**
Local income tax	$83.2	$4.4	**$87.6**
Other local governments			
Property tax	--	$30.8	**$30.8**
Local income tax	--	$13.1	**$13.1**
Indiana			
State individual income tax	$162.4	$32.8	**$195.3**
State corporate income tax	$28.9	$5.3	**$34.2**
Sales tax	$153.5	$71.6	**$225.1**
Other taxes	$11.8	$3.8	**$15.6**
Total state and local tax impacts	**$4,726.1**	**$174.4**	**$4,900.5**

Source: EY Analysis of data from Duke Energy and the IMPLAN 2023 Economic Model of Vermillion County and Indiana, and data from US Census and the Bureau of Economic Analysis.
Note: Figures that show "--" are zero.

Cause No. 46193

Annual property taxes related to Duke Energy's new facilities[1]

Annual property tax, *in millions of dollars*

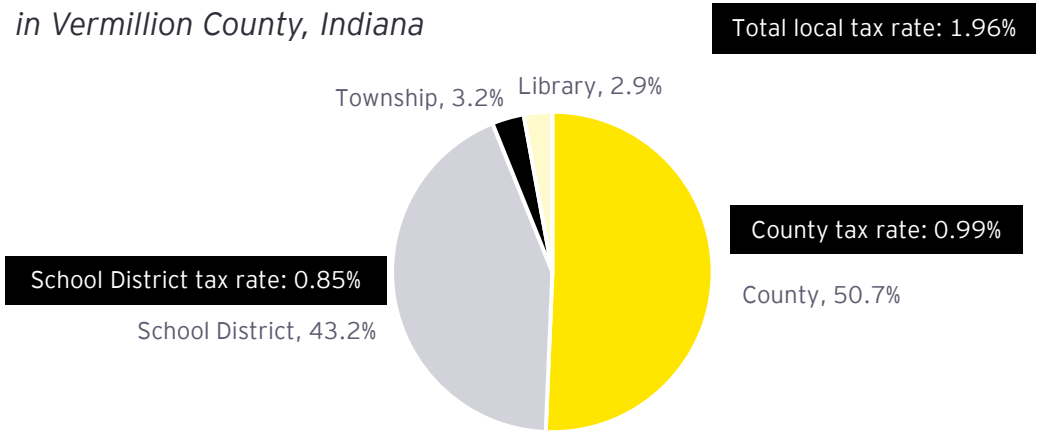


Note: Property tax amounts presented are net of potential incentives. The tax amount for 2040 is between those assumed for 2030-2039 and 2041-2055.

	2030-2039	2041-2055
Property tax (in million $)		
Total Local Property Tax	$4.3	$8.6
County Property Tax[2]	$2.2	$4.3
School District Property Tax[2]	$1.9	$3.7
Wages[3]		
Police Officers	$63,200	$63,200
Firefighters	$50,500	$50,500
Teachers	$56,600	$56,600
Property taxes are equivalent to this number of public salaries for:		
Police Officers (County)	34	69
Firefighters (County)	43	86
Teachers (School District)	33	65

[1]The annual property tax on this page is only for the new facilities and are separate from Duke Energy's current property tax for the existing facilities in Vermillion County.
[2]The county and school district property tax are estimated by applying their shares of local property tax rate (50.7% and 43.2%) to the total local property tax.
[3]Average wages are data for 2024 Q2 Vermillion County from Bureau of Labor Statistics (BLS), accessed through JobsEQ.

Share of local property tax rate by taxing jurisdiction
in Vermillion County, Indiana



- For the first ten years of full operation (2030-2039), Duke Energy is expected to pay an estimated $4.3 million in property taxes annually, net of potential incentives. After the first ten years, in 2041, Duke Energy is expected to pay $8.6 million annually in property taxes on the facility.
- Property taxes support public services in the community, including education, public safety and fire. The table on the left provides examples of the number of salaries supported through the new facilities' expected property tax contributions.
  - The County government receives 50.7% of the local property tax. The amount of property tax expected for the county government is equivalent to 34 police officer salaries or 43 firefighter salaries in the first 10 years of operation.
  - The school district receives 43.2% of the local property tax. The amount of property tax is equivalent to 33 teacher salaries in the first 10 years of operation and 65 teacher salaries after the first 10 years of operation.

Appendix

Tax methodology

Cause No. 46193

The economic activity from construction and operations supports local income and property taxes, as well as various state taxes. Taxes are estimated directly using Duke Energy expenditure data and state and local tax rates, or through ratios of tax collections to personal income.

Direct estimation

- **Property tax (once placed in service):** Direct operations property tax is estimated by EY subject matter experts based on an expected property assessed value and an estimated package of likely incentives for the power plant.
- **Income taxes (operation and construction)**: Indiana has a flat income tax rate at both the state and local levels. Income tax is estimated at the local and state level by multiplying total payroll by the relevant state or local tax rate. For local income tax, 40% of operations employees are assumed to be living within Vermillion County and paying income tax to the county, and 30% of construction employees are assumed to be living in the county. The rest of the operations and construction employees are assumed to be commuting to Vermillion County from their residence in other counties. The commuters are assumed to pay tax in other Indiana counties using the state-wide average local income tax rate weighted by county population.
- **Sales tax – Duke Energy purchases (operation):** Duke energy operations include spending on contract services which are assumed non-taxable, and materials and other purchases which are assumed to be taxable. Purchases on direct use inputs such as fuel for the plant are non-taxable. Purchases on construction materials and equipment are also not subject to the sales tax for the power plant.
- **Sales tax – Employees (operation and construction):** All employees, both operations and construction, are assumed to spend 25% of total compensation on taxable goods based on data from the Consumer Expenditure survey from the Bureau of Labor Statistics.
- **Corporate income tax (operation):** Tax on power plant operational income is calculated based on Duke Energy's most recent 10-K statement, using Duke Energy Indiana's ratio of current state income tax to operating expenses, multiplied by expected operating expenses for the new power generating stations.

Estimation through personal income ratios

- All other directly supported taxes and all indirect and induced supported taxes are calculated by taking the labor income from the economic impact analysis and multiplying by the relevant ratio of tax collected to the region personal income using data from Census Survey of State and Local Governments and the Bureau of Economic Analysis.

Cause No. 46193

Economic impact measure definitions

Labor income

Labor income =
Wages + benefits + employer-contributions to healthcare and retirement accounts + owner's income

Taxes and other income

Taxes on production, other property type income

Value added (GDP)

Value added =
Labor income + other property income and taxes on production and imports

Value added (GDP)

Value added =
Labor income + other property income and taxes on production and imports

Intermediate Suppliers

Intermediate Suppliers: purchases from vendors within the region

Economic output

Economic output = Value added + intermediate suppliers in the region

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