IndianaDG Exhibit 2

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE VERIFIED PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY D/B/A AES INDIANA PURSUANT TO IND. CODE § 8-1-40-16 FOR APPROVAL OF RATE FOR THE PROCUREMENT OF EXCESS DISTRIBUTED GENERATION BY AES INDIANA.	)))))))	**CAUSE NO. 45504**

FILED
August 17, 2021
INDIANA UTILITY
REGULATORY COMMISSION

DIRECT TESTIMONY OF KENDALL LUDWIG

ON BEHALF OF

INDIANA DISTRIBUTED ENERGY ALLIANCE

AUGUST 17, 2021

I. INTRODUCTION

Q. Please state your name and business address

A. My name is Kendall Ludwig, and I am the Director of Operations for Jefferson Electric LLC. My business address is 2114 E. Washington Street, Indianapolis, Indiana, 46201.

Q. Please describe your business activity.

A. Jefferson Electric LLC is an electrical contracting firm that specializes in renewable energy installations and electric vehicle support, as well as providing other electrical services. I have been in the renewable energy business since 2016.

Q. Please describe your educational background, training, and experience.

A. I have a Bachelor's Degree in Business Administration. I am a licensed Master Electrician. I have attended numerous solar conferences and training programs. My experience includes 10 years in education, 7 years in the solar business, and 20 years in electrical.

Q. Please describe your professional background.

A. I have worked for two different providers of renewable energy solutions within the Indianapolis area. In my current role with Jefferson Electric, our company has grown to employ 40 full-time employees, 8 part-time employees internally, and 4 other positions with subcontractors and suppliers. I hope the regulatory environment in Indiana will allow the continued growth of our solar business and number of employees.

Q. What are your duties, responsibilities, and goals with Jefferson Electric?

A. I oversee the Operations Department and am responsible for the execution of both electrical and solar projects. I am very familiar with our solar marketing and customer interaction efforts and feedback. I assist in the design and engineering of roof mounted, ground mounted, battery backup, and off-grid solar systems. I consult with our project managers to create and deliver innovative electrical solutions to meet the needs of our customers in a constantly changing environment.

Q. Have you previously testified before the Indiana Utility Regulatory Commission ("IURC")?

A. No.

II. SUMMARY

Q. What is the purpose of your testimony in this Cause?

A. My testimony will explain the adverse impacts that AES's excess distributed generation ("EDG") proposals would have on our business, other Indiana solar companies, our prospective customers, ratepayers served by AES, and Indiana's economy.

III. NEGATIVE IMPACTS OF AES'S PROPOSAL

Q. Please describe the Hoosiers that express interest in solar installation and those who own solar generation.

A. Those who own and those who are interested in owning solar generation units represent a cross section of Indiana. They include small residential customers, farms, municipal governments, schools, commercial business customers, and industrial customers. The vast majority of our customers purchase a solar energy

system to provide a long term, cost-effective, fuel-less energy supply that, over a reasonable time, generates savings that offset the system's cost, i.e. investment payback period. Without a reasonable investment payback period, there would be very little demand for solar energy systems.

Q. What are the common critical considerations for prospective solar installation customers?

A. The most critical consideration generally is system cost and the period over which the solar equipment and installation costs will be recovered. Most customers want approximately no more than a 10 year payback period.

Q. How would AES's no netting proposal and approximate 2.7 cents per kWh EDG proposal impact customer payback periods?

A. As Mr. Inskeep explains, AES's proposals would increase the customer payback period to over 20 to 30 years.

Q. What is the current status of the federal tax credit for solar installations?

A. The federal Investment Tax Credit ("ITC") currently is 26%. The 26% credit would have expired but was briefly extended with the December 2020 Covid Stimulus Bill. In 2023, or only six months after AES's EDG Rider is scheduled to go into effect, the ITC will step down to a 22% tax credit. Beginning in 2024, the commercial ITC drops down to 10%, and the residential ITC will be eliminated for new systems. As ITC steps down and later ends, customer payback periods increase.

IV. HARM TO INDIANA'S ECONOMY

Q. What would be the impact of AES's proposals on customers' interest in investing in solar generation?

A. The resulting augmentation of customer investment payback periods would make AES customers extremely reluctant or unwilling to make the investment in solar. This and similar proposals would be devastating to Indiana's solar industry, resulting in job losses and market contraction to an industry that was just beginning to blossom. This will push Indiana's solar jobs and new job opportunities backwards instead of moving forward.

Q. What would be the impact of AES's current EDG proposal on your company and other Indiana solar installation companies?

A. It will be very detrimental to both our and other Indiana solar businesses. Our company alone currently employs 48 people, and we are currently working to hire more. In addition, we engage many subcontract workers. AES's proposals could force us to lay off workers and possibly cease installation of solar energy systems in AES's service area. Instead of focusing on investing our time and resources in Indiana, we and other Indiana solar companies would have to shift focus to neighboring states that treat solar installations reasonably, rather than punishing solar participants. For example, in Michigan, new residential DG customers receive substantially higher export credits. The credit rate for Indiana Michigan Power Company's new Michigan customers' exports is $0.10024/kWh, about four times as much as AES's proposed compensation rate. Similarly, Consumers Energy's new residential customers' credit is $0.119655/kWh for summer on-peak, $0.080485/kWh for summer off-peak, and $0.084785/kWh for all exports in non-summer months. If after July 1, 2022, the Indiana regulatory framework for EDG

will be like that proposed by AES, we will likely shift our business focus out of Indiana. We will be forced to cut our Indiana workforce and may replace them with out of state workers. Other Indiana solar installation companies will suffer the same financial harm from EDG proposals like AES's and will logically shift their solar business focus, employment opportunities, and financial stimulus to neighboring states that treat solar customers reasonably.

In neighboring states, we have seen governments work to promote the implementation of solar energy by the creation of solar renewable energy certificates' markets, state tax credits, and other local incentive programs which have motivated utilities to diversify their means of energy generation and provide incentives to their customers. If AES is allowed to implement their EDG proposals, their customers will experience unreasonably longer "payback" periods for the cost of new solar energy systems. This will, to a large degree, end customer interest in solar installations and force solar installation companies to focus their efforts elsewhere and possibly lay off Indiana workers. Solar jobs provide a stable income for many families throughout Indiana, my own included. Jobs in the renewable energy sector are generally safer and provide for a better quality of life than jobs in other antiquated forms of energy generation such as coal mining or work in oil fields. The renewable energy sector is currently one of the fastest growing throughout the United States. Proposals like AES's will reduce Indiana solar jobs rather allow their continued growth.

Q. What economic contribution does your solar business alone make to the wellbeing of AES's service area and in Indiana as a whole?

A. Last year, our solar business did approximately $2,500,000.00 of projects in Indiana as a whole and approximately $1,000,000.00 of projects in AES's service area. We paid approximately $625,000.00 in Indiana wages with benefits estimated at an additional 30%. We also regularly hire local electricians and contractors. When possible, we purchase materials and supplies locally. The money we inject into Indiana's economy gets re-spent and invested by the Hoosier recipients several times before those dollars leave Indiana. The business pays state and local taxes improving the ability of the government to provide public services. I believe our solar business makes a substantial contribution to the economic well-being of Indiana and Hoosiers in AES's service area.

The Indiana operations of other Indiana solar installation companies provide the same types of economic benefits. Some have business operations larger than ours. EDG proposals like AES's will financially harm Indiana solar businesses and the jobs, economic development, and stimulus they currently create.

Q. Does Indiana and local government benefit from your solar business activity?

A. Yes. Our company, employees, and contract workers pay local and state income taxes and sales taxes. The economic stimulus we create spurs more tax revenues from ripple effect beneficiaries as wages and profits get spent in local economies.

Q. Is AES's electric service area the only area of Indiana in which Jefferson Electric does business?

A. No, it is not. But all the other Indiana investor-owned utilities have filed EDG cases proposing harmful netting and low EDG rates that would also dramatically lengthen

customer investment payback periods. Approval of these punitive EDG proposals would force our company and other solar companies to focus business efforts in nearby states that do not discourage customer investments in solar energy generation and offer substantially higher EDG rates, e.g. 9 to 11 cents / kWh.

V. BENEFITS OF CUSTOMER-OWNED SOLAR GENERATION.

Q. Please describe the benefits that distributed customer-owned solar generation bring to AES and all AES customers.

A. Distributed solar generation has many benefits. First is the improvement to the environment by displacing the need to burn carbon-emitting coal, diesel, or natural gas to generate electricity. Second is the reduced load on the transmission system and reduced transmission line loss. The current electrical infrastructure is aging and is in disrepair in many areas. As electricity follows the path of least resistance, DG export energy is consumed by other AES customers in the area it is generated in, thus reducing loads on larger volatile transmission lines and line loss. Third is reduced demand for electricity in daylight hours resulting in decreased purchased power, including during peak demand hours. Customer-owned solar is an extraordinary form of customer financed demand side management reducing or eliminating solar customer peak period demand and shaving the utility's total peak demand. But instead of solar customers receiving additional compensation for this customer financed demand side management, AES treats solar customers punitively. Fourth is avoided carbon-based fuel use and costs, among many other benefits not listed here.

Q. What direct economic benefits have customer-owned solar brought to all Hoosiers and to state and local Indiana governments?

A. Customer-owned solar brings jobs and the economic stimulus they create. The Indiana solar industry has grown substantially over the past ten years. The number of solar jobs has increased to approximately 3,400 in 2020. The solar industry also engages in substantial contract work, often with union electrical workers. It buys local goods and materials. All of those economic benefits are multiplied by the ripple effect of solar employees' contractors and merchants spending their solar industry earnings locally in Indiana. State, county and municipal governments all thereby benefit from the various tax revenues that the solar economic stimulus creates. The full Solar Foundation 2020 Report describing the growth in solar jobs is available at https://www.thesolarfoundation.org/national/.

VI. OTHER REASONS WHY AES'S EDG PROPOSALS ARE UNJUST, UNREASONABLE AND INEQUITABLE

Q. Are there other aspects of AES's EDG proposals that, in your opinion, are unjust and should be discussed?

A. Yes, there are. Solar installation companies like ours endured the cost and struggle of starting new Indiana businesses. We overcame all the challenges and created successful solar installation businesses. At the same time, investor-owned electric utilities were promoting high cost rates and increases in their base rates to fund coal fired pollution control and huge new gas fired generation. Now their focus is on customers paying for remaining net investments in old coal fired generation and shifting to large scale solar and wind farms. But as they make the transition to renewable energy, AES and others ask to deploy an EDG regime that clearly serves

to financially constrict, or end, new customer solar DG and the businesses that install customer solar. It is one thing to have a monopoly service area for retail sales of electricity, but it is completely inequitable and unfair to then seek regulatory treatments that serve to prevent customers from using the sun to illuminate, cool, and heat their homes with their own solar generation. The sun shines to sustain all our lives, not to become the monopoly tool of AES and other utilities. So severely restricting the value of customers' monthly solar generation exports moves AES into monopolizing solar energy generation in its service area through its own installation of solar farms. I believe AES's EDG proposals are punitive, seek to prevent customers from installing solar generation, and are unjust and unreasonable.

Q. What are your recommendations to the Commission?

A. The Commission should reject AES's "no netting" and overall EDG proposal.

Q. Does this conclude your testimony?

A. Yes, it does at this time.

VERIFICATION

I, Kendall Ludwig, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

August 17, 2021

Kendall Ludwig