

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF INDIANAPOLIS )  
POWER & LIGHT COMPANY D/B/A AES )  
INDIANA FOR COMMISSION APPROVAL OF AN )  
ELECTRIC VEHICLE PORTFOLIO, ) CAUSE NO. 45843  
INCLUDING: (1) A PUBLIC USE ELECTRIC )  
VEHICLE PILOT PROGRAM PURSUANT TO )  
IND. CODE CH. 8-1-43; AND (2) TIME-VARYING )  
AND OTHER ALTERNATIVE PRICING )  
STRUCTURES AND TARIFFS PURSUANT TO )  
IND. CODE § 8-1-2.5-6(3); AND FOR APPROVAL )  
OF ASSOCIATED ACCOUNTING AND )  
RATEMAKING )

PETITIONER'S SUBMISSION OF DIRECT TESTIMONY OF  
ZACHARY ELLIOT

Indianapolis Power & Light Company d/b/a AES Indiana ("AES Indiana" or "Petitioner"),  
by counsel, hereby submits the direct testimony and attachments of Zachary Elliot.

Respectfully submitted,



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**CERTIFICATE OF SERVICE**

The undersigned certifies that a copy of the foregoing was served this 27th day of January 2023, by electronic transmission or United States Mail, first class, postage prepaid on:

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**VERIFIED DIRECT TESTIMONY  
OF  
ZAC ELLIOT  
ON BEHALF OF  
INDIANAPOLIS POWER & LIGHT COMPANY D/B/A AES INDIANA**

**SPONSORING PETITIONER'S ATTACHMENTS ZE 1-8**

**VERIFIED DIRECT TESTIMONY OF ZAC ELLIOT**

**I. INTRODUCTION**

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**Q1. Please state your name, employer and business address.**

A1. My name is Zac Elliot. I am employed by AES US Services, LLC, which is the service company that serves Indianapolis Power & Light Company d.b.a. AES Indiana (“AES Indiana” or the “Company”). My business address is One Monument Circle, Indianapolis, Indiana 46204.

**Q2. What is your position with AES US Services, LLC?**

A2. My title is Portfolio Lead, Electrification.

**Q3. What are your duties and responsibilities as Portfolio Lead, Electrification?**

A3. My primary responsibility is to manage the planning, implementation, and evaluation of electrification programs for AES’s U.S.-based utilities. This responsibility includes program development, administration, program marketing, oversight of third-party program delivery vendors, budget and expenditure tracking, program impact tracking, quality assurance and quality control, and program process improvement.

**Q4. Please summarize your education and professional qualifications.**

A4. I earned a bachelor’s degree from Indiana University’s College of Arts and Science and have held various positions in which I was responsible for the planning, implementation, and oversight of customer programs for AES for more than ten (10) years. I have been responsible for energy efficiency, demand response, green power, and electric vehicle (“EV”) programs.

1 **Q5. Have you previously testified before the Indiana Utility Regulatory Commission**  
2 **(“Commission”)?**

3 A5. Yes. I have previously testified in AES Indiana’s EV plan proceeding in Cause No.  
4 45509 and in AES Indiana’s Demand Side Management (“DSM”) Plan proceedings in  
5 Cause Nos. 44328, 44497, 44792, 44945, and 45370. Additionally, I have testified in  
6 AES Indiana’s DSM cost recovery proceedings, Cause No. 43623 (DSM-19, DSM-20),  
7 and have testified in support of AES Indiana’s Green Power offering.

8 **Q6. What is the purpose of your testimony in this proceeding?**

9 A6. My testimony describes and supports AES Indiana’s proposed EV Portfolio. I provide an  
10 overview of the programs, background on the statutory framework and AES Indiana’s  
11 prior EV efforts, and describe the proposed rates, programs, and services comprising the  
12 EV Portfolio. I detail the cost estimates for the EV Portfolio and describe the anticipated  
13 benefits of the EV Portfolio for participants, non-participants, and explain how approval  
14 of the EV Portfolio otherwise serves the public interest. Finally, I discuss AES Indiana’s  
15 proposed reporting metrics.

16 **Q7. Are you sponsoring any attachments in this proceeding?**

17 A7. Yes. I am sponsoring the following attachments:

- 18 • Petitioner’s Attachment ZE-1: EV Portfolio Participation & Budgets
- 19 • Petitioner’s Attachment ZE-2: EV Charging Market Rate Assessment
- 20 • Petitioner’s Attachment ZE-3: Table of Contents and Rate EVX Redlined and  
21 Clean Copies

- 1 • Petitioner's Attachment ZE-4: Rate EVP Redlined and Clean Copy
- 2 • Petitioner's Attachment ZE-5: Rate DCFC
- 3 • Petitioner's Attachment ZE-6: Tariff EVSE
- 4 • Petitioner's Attachment ZE-7: Proofs of Publication
- 5 • Petitioner's Attached ZE-8: Petition

6 **Q8. Are you sponsoring any workpapers?**

7 A8. Yes. I am sponsoring the Petitioner's Workpaper ZE-1, which was used to prepare  
8 Petitioner's Attachment ZE-1.

9 **Q9. Were the attachments and workpapers you sponsor prepared or assembled by you  
10 or under your direction and supervision?**

11 A9. Yes.

12 **II. OVERVIEW**

13 **Q10. Please briefly summarize the relief sought by AES Indiana in this proceeding.**

14 A10. AES Indiana seeks approval of its proposed three-year EV Portfolio, along with  
15 associated accounting and ratemaking treatment as described further by AES Indiana  
16 witness Aliff. The EV Portfolio consists of two parts: (1) a set of Public Use EV Pilot  
17 Programs; and (2) alternative rates, tariffs, and pricing structures. As discussed in greater  
18 detail below, AES Indiana estimates the cost of the EV Portfolio over the three-year pilot  
19 period will total \$16.2 million. The EV Portfolio provides opportunities for participation  
20 by residential and commercial and industrial ("C&I") customers, including low-to-  
21 moderate income customers and disadvantaged communities. As discussed in the

1 testimony of AES Indiana witness Schmidt, the benefits of the EV Portfolio exceed the  
2 costs for both participants and non-participants.

3 **Q11. What is meant by “Public Use EV Pilot Program” and “Public Use EV” as those**  
4 **terms are used in your testimony?**

5 A11. My testimony relies on the statutory definitions provided in Ind. Code ch. 8-1-43  
6 (“Chapter 43”), which was established through House Enrolled Act 1221 (“HEA 1221”).

7 More specifically, Chapter 43 defines “public use EV” as follows:

8 “[P]ublic use EV” means any of the following electric vehicles that is used  
9 primarily to serve the public, regardless of whether the electric vehicle (or  
10 any associated charging infrastructure) is owned, leased, or operated by, or  
11 on behalf of, a governmental or private entity:

- 12 (1) An electric school bus.
- 13 (2) An electric transit bus.
- 14 (3) An electric vehicle that is used by a public or private commercial  
15 enterprise primarily to deliver goods or services to the public.

16 Chapter 43 defines a “public use electric vehicle pilot program” as:

17 [A] limited deployment of (1) charging infrastructure; or (2) make-ready  
18 infrastructure; that is designed to evaluate the feasibility and design,  
19 including the associated costs and benefits, of a larger scale deployment of  
20 such infrastructure necessary to support public use electric vehicles.

21 Ind. Code § 8-1-43-7. Chapter 43 further states an electric utility may request  
22 Commission approval to implement a public use electric vehicle pilot program to do any  
23 of the following:

- 24 (1) install, own, or operate charging infrastructure or make-ready  
25 infrastructure to support public use EVs.
- 26 (2) provide incentives or rebates to customers to encourage customer  
27 investment in public use EVs and in associated EV supply  
28 equipment.” Ind. Code § 8-1-43-8.

1 **Q12. Please describe the Public Use EV Pilot Program component of the EV Portfolio.**

2 A12. The Public Use EV Pilot Program component of the EV Portfolio consists of the limited  
3 deployment of charging and make-ready infrastructure as well as incentives and rebates  
4 to encourage customer investment in public use EVs and associated EV supply  
5 equipment ("EVSE"). The Public Use EV Pilot Program includes the following:

- 6 • Bi-directional Charging Pilot: This pilot program will test vehicle-to-grid  
7 ("V2G") integration and bi-directional power flow with select customers  
8 in AES Indiana's service territory.
- 9 • Fleet Solutions: This pilot program will provide planning and advisory  
10 services to customers who are transitioning their fleets from traditional  
11 fuels to Public Use EVs.
- 12 • EVSE Rebates: This pilot program will provide rebates to encourage  
13 customer investment in Level 2 and direct current fast charging ("DCFC")  
14 equipment to serve Public Use EVs.
- 15 • EVSE Rebates for Disadvantaged Communities: This program dedicates  
16 funds to help ensure that all customers within AES Indiana's service area  
17 have convenient access to charging infrastructure, including in areas that  
18 are economically distressed or racially or ethnically diverse.

19 **Q13. Please describe the alternative rates, tariffs, and pricing structures component of**  
20 **the EV Portfolio.**

21 A13. AES Indiana proposes the following alternative rates, tariffs, and pricing structures as  
22 part of its EV Portfolio:

23 Residential:

- 24 • Residential Managed Charging: This alternative pricing structure  
25 provides incentives to residential customers for allowing AES Indiana to  
26 curtail their EV charging during peak hours.
- 27 • Off-Peak Incentive: This time-varying pricing structure provides  
28 incentives for customers to self-manage their load during peak hours.



- Rate EVX: AES Indiana proposes to close this tariff to new participants and instead offer new participants the opportunity to participate in the proposed Managed Charging or Off-Peak Incentive offerings.

Commercial, Industrial, and Public:

- C&I Managed Charging: This alternative pricing structure provides incentives to C&I customers for allowing AES Indiana to curtail their EV charging during peak hours.
- Rate EVP: This alternative rate would update AES Indiana's existing Level 2 public charging rate to match current market conditions. This updated rate would be charged to drivers using AES Indiana-owned Level 2 charging infrastructure.
- Rate DCFC: This alternative rate would provide a new, market-based rate that would be charged to drivers using AES Indiana-owned DCFC charging infrastructure.
- Tariff EVSE: This voluntary, participant-funded alternative tariff will provide charging infrastructure to participating customers for a fixed, monthly fee.

**III. STATUTORY OVERVIEW**

**Q14. Does Indiana regulatory policy address EVs and EV charging infrastructure?**

A14. Yes. HEA 1221 was passed and signed into law in March of 2022. HEA 1221 created a new statutory provision, Chapter 43, that allows electric utilities to request approval from the Commission to implement a Public Use EV Pilot Program. Chapter 43 sets forth requirements for these pilot programs (which incorporate the requirements for approval of a pilot program under General Administrative Order 2020-05) and factors for the Commission to consider in approving such a pilot program. Later in my testimony I explain how the Company's request satisfies these requirements.

HEA 1221 also amended the Alternative Utility Regulation statute, Ind. Code ch. 8-1-2.5, to expressly allow the Commission to approve time-varying pricing structures and tariffs, as well as other alternative pricing structures and tariffs. As I discuss below, AES

1 Indiana's proposed alternative rates, tariffs, and pricing structures are just and reasonable  
2 and are in the public interest.

3 In addition, in 2022 the Commission recognized the important role utilities play in  
4 ensuring EV adoption does not adversely impact core system reliability objectives,  
5 explaining:

A. Electric Transportation Program. As the electric vehicle market continues to mature in Indiana, electric vehicles and their interactions with the electric grid present the potential to reach a point where proactive utility action will be necessary to ensure core system reliability objectives are maintained. The efficiency at which a utility grid manager can manage this potential future interaction will be enhanced by early and ongoing efforts to discover information that may assist a utility in designing effective programs and practices to meet these objectives. Understanding the impacts to the electric system, in particular those impacts which flow from customer use and charging behavior, is important for the successful integration of electric vehicles in Indiana. Petitioner's proposed ET Program will help provide some of this information.

6  
7 *Re Duke Energy Indiana, LLC*, Cause No. 45616 at 13 (IURC June 1, 2022). The  
8 proposed EV Portfolio will help AES Indiana understand the impact of EV use on its  
9 electric system and determine how best to encourage beneficial charging behavior.

10 **Q15. Do other legislative efforts support investment in public EV charging**  
11 **infrastructure?**

12 A15. Yes. A prime example is the \$5 billion in federal funding made available through the  
13 National Electric Vehicle Infrastructure ("NEVI") component of the Infrastructure  
14 Investment and Jobs Act ("IIJA") enacted in November of 2021. The aim of the NEVI  
15 program is to expand DCFC infrastructure across U.S. alternative fuel corridors. The  
16 programs contained in AES Indiana's EV Portfolio were designed not to duplicate or  
17 compete with this core objective, but rather provide opportunities for AES Indiana

1 customers to receive value from charging off-peak or otherwise encourage EV adoption  
2 not eligible under NEVI.

3 **Q16. Describe how AES Indiana's proposed EV Portfolio compliments NEVI.**

4 A16. The NEVI formula funding will pay for up to eighty percent (80%) of an eligible DCFC  
5 project's cost but requires a twenty percent (20%) funding match. The rebate funding for  
6 charging infrastructure and make ready work proposed for Public Use EVs in this case  
7 could be used for this match, thereby increasing the likelihood that EV charging  
8 infrastructure is developed. Additionally, the NEVI funding only applies to corridor  
9 DCFC projects open for public use, which provides an opportunity to cost effectively  
10 support infrastructure investment for other public or private customers that deliver goods  
11 and services to the public.

12 **IV. BACKGROUND**

13 **Q17. What is the current state of EV ownership in AES Indiana's service territory?**

14 A17. As of the time of this filing, AES Indiana estimates that there are approximately three  
15 thousand battery electric vehicles in its service territory. As part of this EV portfolio,  
16 AES Indiana is seeking to better understand the number and location of electric vehicles  
17 in its service territory as well as the underlying grid reliability impacts across multiple  
18 customer segments.

19 **Q18. Does AES Indiana offer any programs currently for AES Indiana customers with  
20 electric vehicles?**

21 A18. Yes. AES Indiana has delivered a number of EV services over the last decade.  
22 Beginning in 2011, federal smart grid funding was used to support the installation of

1 public and private EVSE. To accompany the EVSE deployment, the Company proposed  
2 public and private electric vehicle rates that were designed to support adoption of electric  
3 vehicles. In IURC 30-Day Filing No. 2768, the Commission authorized the Company to  
4 implement an EV-specific, time-of-use rate (“Rate EVX”). Additionally, the Company  
5 deployed public charging infrastructure, which included a flat public charging rate (“Rate  
6 EVP”) set at \$2.50 per charging session. In 2018, the Company retrofitted its public  
7 charging stations with more modern EVSE, which allowed customers payment flexibility  
8 and improved AES Indiana’s ability to remotely monitor charging occupancy. Both Rate  
9 EVX and EVP are still in effect today.

10 In April 2014, the Company filed an alternative regulatory plan to support extension of  
11 facilities to BlueIndy, an EV car sharing service that was deployed in the City of  
12 Indianapolis. The Company participated in this project because of the “predicted public,  
13 economic development, and market transformation benefits of the introduction and  
14 accelerated deployment of EV technology and infrastructure.”<sup>1</sup> Throughout the life of  
15 the BlueIndy project, the Company continued learning about the challenges and benefits  
16 of EV infrastructure in an effort to prepare for future increased adoption of EVs.

17 In 2020, AES Indiana launched EV Managed Charging. Currently, slightly more than  
18 100 residential customers have signed up to participate, and early test results indicate that  
19 peak coincident demand impacts average 0.5 kW per household. This type of flexible  
20 demand side resource will be important in the future to preserve system reliability as EV  
21 load increases.

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<sup>1</sup> *Re Indianapolis Power & Light Co.*, Cause No. 44478, Final Order at 3 (IURC Feb. 11, 2015) (citing IPL witness Flora’s testimony).

1 **Q19. Please summarize the rationale for AES Indiana's proposed EV Portfolio.**

2 A19. Electric transportation is accelerating in the state of Indiana. Vehicle manufacturers have  
3 set aggressive targets for EV sales, fuel prices have been at historic highs, and there is  
4 significant state and federal public policy support to build out EV charging infrastructure  
5 – all these factors contribute to growing supply and demand for EVs. AES Indiana has a  
6 unique opportunity to address core system reliability and manage rate impact by shaping  
7 the associated charging energy and demand in a cost-effective manner. I describe the  
8 benefits of AES Indiana's EV Portfolio in more detail later in my testimony.

9 **Q20. Would all of those benefits occur if AES Indiana did not implement the EV**  
10 **Portfolio?**

11 A20. No. AES Indiana is the only entity in a position to manage usage during peaks in a  
12 system-wide manner that would reduce the need for additional system investment. It is  
13 thus important that the Company be involved in EV deployment in its service territory,  
14 and that AES Indiana be able to offer EV programs that mitigate costs by reducing or  
15 delaying system investment to address EV load.

16 **V. AES INDIANA EV PORTFOLIO**

17 **A. Public Use EV Pilot Program**

18 **Q21. Please briefly describe the Public Use EV Pilot Program.**

19 A21. The Public Use EV Pilot Program is a three-year pilot to evaluate the feasibility and  
20 design, including the associated costs and benefits, of a larger scale deployment of the  
21 infrastructure necessary to support Public Use EVs. The Public Use EV Pilot Program  
22 includes proposals to install, own, and operate charging infrastructure or make-ready

1 infrastructure to support Public Use EVs, as well as provide incentives or rebates to  
2 customers to encourage customer investment in Public Use EVs and in associated EVSE.  
3 Projected costs and participation forecasts for each of the Public Use EV Pilot Program  
4 offerings contained herein can be found in Petitioner's Attachment ZE-1 and are further  
5 described later in my testimony.

6 **Q22. Please describe “the need for and goals of” the Public Use EV Pilot Program as**  
7 **required under Chapter 43(b)(1).**

8 A22. The principal goal of the Public Use EV Pilot Program is to better understand and  
9 influence the impact of EV growth on reliability and on the transmission and distribution  
10 system, and to provide programs designed to produce net benefits to AES Indiana  
11 customers. Below, I identify the “need for and goals of” each specific pilot program  
12 component, along with the “objective evaluation criteria that will be used to measure the  
13 success or usefulness” of the pilot program as required by Ind. Code § 8-1-43-8(b).

14 **Q23. Please describe the *Bi-directional Charging Pilot* program.**

15 A23. The *Bi-directional Charging Pilot* will look to establish a proof of concept for vehicle to  
16 grid integration with customers who operate and/or host Public Use EVs in AES  
17 Indiana's service territory. Potential participants may include customers who operate  
18 electric school buses, electric transit buses, or other electric vehicles providing goods or  
19 services to the public. AES Indiana will install, own, and operate charging and make  
20 ready infrastructure sited at the participating customer's facility, and will manage the bi-  
21 directional flow of energy to and from AES Indiana's distribution system.

1 **Q24. Please describe the need for the *Bi-directional Charging Pilot*.**

2 A24. First, bi-directional charging is simply defined as a battery's ability to both charge and  
3 discharge. The discharge of the battery can flow to a storage device, to a home or  
4 building, or back to the grid. Similar to the bi-directional flow of energy from other  
5 forms of distributed energy (e.g., solar net metering), bi-directional EV charging will  
6 enable vehicle to grid energy flow from the battery back to the utility's distribution  
7 system. Vehicle manufacturers are investing in bi-directional charging capability<sup>2</sup> as of  
8 the time of this filing, so it is therefore important that the Company understand the costs  
9 and implications of this technology on its system.

10 **Q25. What are the goals of the *Bi-directional Charging Pilot* program?**

11 A25. Goals for the *Bi-directional Charging Pilot* program are as follows: (1) to study and  
12 establish requirements as necessary for the make ready infrastructure and charging  
13 equipment for vehicle to grid installations, (2) establish future requirements as necessary  
14 for vehicle to grid interconnection, (3) to collect load profiles for participating customers'  
15 EV charging, and (4) to assess the system impacts and benefits and costs of operating bi-  
16 directional charging on AES Indiana's distribution system. Additionally, this work will  
17 inform the future value of distributed bi-directional EV charging as a grid service.

18 **Q26. What are the objective evaluation criteria for the *Bi-directional Charging Pilot***  
19 **program?**

20 A26. Objective evaluation criteria for the *Bi-directional Charging Pilot* program are as  
21 follows:

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<sup>2</sup> <https://www.cars.com/articles/whats-bidirectional-charging-and-which-evs-offer-it-457608/>

- 1           • Number of participants;
- 2           • Energy (kWh) and demand impacts (kW) on AES Indiana's transmission and
- 3           distribution system;
- 4           • Greenhouse gas ("GHG") emissions reductions;
- 5           • Establishment of charging load profiles for each participating customer;
- 6           • Identification of avoided capacity and avoided transmission and distribution
- 7           system costs from vehicle to grid implementation; and
- 8           • Identification of actual implementation costs for the charging infrastructure and
- 9           make ready work needed to support vehicle to grid.

10 **Q27. Please describe *EVSE Rebates*.**

11 A27. The *EVSE Rebates* program is designed to encourage AES Indiana customers who  
12 operate and/or host Public Use EVs to invest in Level 2 and DCFC equipment. AES  
13 Indiana will provide rebates to offset qualifying customer costs for charging  
14 infrastructure or make-ready infrastructure. As proposed, rebates would be eligible for  
15 both publicly available and private EVSE installations that encourage adoption of Public  
16 Use EVs. To qualify, AES Indiana additionally proposes that the EVSE must be  
17 networked and capable of managed charging, which is described later in my testimony.

18 **Q28. Please describe the need for *EVSE Rebates*.**

19 A28. The *EVSE Rebates* program is needed to encourage customer investment in EV supply  
20 equipment to support Public Use EVs. Additionally, AES Indiana's proposal to require  
21 networked EV charging equipment will provide access to charging load profiles that the



1 Company does not currently have, which will help inform managed charging or other  
2 alternative pricing structures in the future designed to encourage off-peak EV charging.

3 **Q29. What are the goals of the *EVSE Rebates* offering?**

4 A29. Goals for the *EVSE Rebates* offering are as follows: (1) to encourage customer  
5 investment in EV charging infrastructure and offset make ready infrastructure costs, (2)  
6 to better understand customer EVSE installations to inform any necessary changes to  
7 future metering and/or interconnection standards, (3) to collect load profiles for  
8 participating customers' EV charging, and (4) to encourage investment in managed  
9 charging capable EVSE.

10 **Q30. What are the objective evaluation criteria for *EVSE Rebates*?**

11 A30. Objective evaluation criteria for *EVSE Rebates* are as follows:

- 12 • Number of participants;
- 13 • Energy (kWh) and demand impacts (kW) on AES Indiana's transmission and  
14 distribution system;
- 15 • *Managed Charging* enrollment;
- 16 • Establishment of charging load profiles for different customer segments; and
- 17 • Identification of actual implementation costs for the necessary charging  
18 infrastructure and make ready work.

19 **Q31. Please describe *EVSE Rebates for Disadvantaged Communities*.**

20 A31. The *EVSE Rebates for Disadvantaged Communities* program represents AES Indiana's  
21 plan to ensure that EV charging infrastructure be located in an equitable manner as part

1 of the Public Use EV Pilot Program proposal. The Company proposes that the rebate  
2 dollars for this program be reserved for federally designated disadvantaged  
3 communities.<sup>3</sup> Level 2 and DCFC installations in disadvantaged areas would be eligible  
4 for up to 100% of qualifying EV charging infrastructure and make ready infrastructure  
5 costs.

6 **Q32. Why is it important to dedicate funding for disadvantaged communities?**

7 A32. One of the factors for the Commission to consider in approving a Public Use EV Pilot  
8 Program is whether the charging infrastructure to be installed under the pilot program  
9 will be located in an equitable manner that ensures all customers within the service area  
10 have convenient access to the charging infrastructure, including in areas that are  
11 economically distressed or racially or ethnically diverse. Ind. Code § 8-1-2-43-8(b)(5).  
12 Customers and site hosts who install EV charging equipment are often selecting locations  
13 based on criteria they believe to be best suited for EV charging. Site identification based  
14 on proximity to EV adoption, other socioeconomic indicators, traffic patterns, and other  
15 criteria like proximity to amenities can put economically distressed areas in a  
16 disadvantaged position for site selection.

17 **Q33. What are the goals of the *EVSE Rebates for Disadvantaged Communities* program?**

18 A33. Goals for this program are as follows: (1) to encourage equitable investment in EV  
19 charging infrastructure and offset make ready infrastructure costs, (2) to better understand  
20 customer EVSE installations to inform any necessary changes to future metering and/or

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<sup>3</sup> As defined by the Justice 40 Initiative or otherwise defined by census tracts that meet 200% or lower of federal poverty guidelines established during each implementation year.

1 interconnection standards, (3) to collect load profiles for participating customers' EV  
2 charging, and (4) to encourage investment in managed charging capable EVSE.

3 **Q34. What are the objective evaluation criteria for the *EVSE Rebates for Disadvantaged*  
4 *Communities* program?**

5 A34. Objective evaluation criteria for the *EVSE Rebates for Disadvantaged Communities*  
6 program are as follows:

- 7 • Siting within disadvantaged communities;
- 8 • Number of participants;
- 9 • Energy (kWh) and demand impacts (kW) on AES Indiana's transmission and  
10 distribution system;
- 11 • *Managed Charging* enrollment;
- 12 • Establishment of charging load profiles for different customer segments; and
- 13 • Identification of actual implementation costs for the necessary charging  
14 infrastructure and make ready work.

15 **Q35. Please describe the *Fleet Solutions* program?**

16 A35. *Fleet Solutions* will be offered to customers who are interested in transitioning their  
17 existing fleet of traditionally fueled vehicles to Public Use EVs. AES Indiana will  
18 prepare an electric fleet transition plan for participating customers, which will include  
19 make and model review, total cost of ownership analysis, and recommendations on EV  
20 charging infrastructure and make ready work. These planning and advisory services  
21 could be paired with AES Indiana's proposed *EVSE Rebates* program, proposed *Tariff*  
22 *EVSE*, and/or proposed price discounts through *C&I Managed Charging*. *Fleet Solutions*

1 paired with incentives to promote off-peak charging will provide benefits to both  
2 participating and non-participating customers.

3 **Q36. Please describe the need for AES Indiana's proposed *Fleet Solutions* program.**

4 A36. AES Indiana is already receiving requests from customers who are planning to transition  
5 from traditionally fueled fleets to electric fleets. Public Use EV fleets that electrify have  
6 the potential to impact AES Indiana's transmission and distribution system given the  
7 density of EV charging that will be necessary to support fleet charging at a given  
8 location. AES Indiana is interested in working with these customers early on to develop  
9 an electrification plan that supports their fleet's operational requirements. As the  
10 electricity provider, being involved from the beginning is valuable from a planning,  
11 engineering, and load forecasting perspective. Advising customers during the early  
12 planning phase can ensure that Public Use EV charging infrastructure and corresponding  
13 utility make-ready infrastructure (*e.g.*, transformers, conduit, pole risers, conductor, etc.)  
14 is appropriately sized. Public Use EV fleets will vary in size, vehicle type, charging  
15 profile – all of which are variables that will need to be considered on a case-by-case  
16 basis. This program will help AES Indiana better understand these variables and  
17 ultimately how they impact charging load profiles.

18 **Q37. What are the goals of the *Fleet Solutions* program?**

19 A37. Goals for this program are as follows: (1) to encourage Public Use EV fleet electrification  
20 in AES Indiana's service territory, (2) to better understand customer EVSE installations  
21 necessary to support varying fleet operational requirements, (3) to collect load profiles  
22 for participating customers' EV charging, (4) to encourage investment in managed

1 charging capable EV charging infrastructure through the proposed *EVSE Rebates*  
2 program, and (5) to encourage fleet participation in *C&I Managed Charging*.

3 **Q38. What are the objective evaluation criteria for *Fleet Solutions*?**

4 A38. Objective evaluation criteria for *Fleet solutions* are as follows:

- 5 • Number of participants;
- 6 • Energy (kWh) and demand impacts (kW) on AES Indiana's transmission and  
7 distribution system;
- 8 • Greenhouse gas ("GHG") emissions reductions;
- 9 • *Managed Charging* enrollment;
- 10 • Establishment of charging load profiles for different customer segments; and
- 11 • Identification of actual implementation costs for the necessary charging  
12 infrastructure and make ready work.

13 **Q39. Does the Company have an estimate of all costs of the Public Use EV Pilot Program,**  
14 **"including an estimate of the costs to be borne by participating customers of the**  
15 **electric utility, nonparticipating customers of the electric utility, and the general**  
16 **public, as applicable" as required by Ind. Code § 8-1-43-8(b)(3)?**

17 A39. Yes. As stated above, an estimate of all costs for the Public Use EV Pilot Program are  
18 discussed in the cost section of my testimony below and can be found in Petitioner's  
19 Attachment ZE-1. The manner in which these costs are proposed to be borne by  
20 participating and non-participating customers is provided in the benefit and cost results  
21 described in the testimony of AES Indiana witness Schmidt.

1 **Q40. What is the “timeline for completion or termination” of the Public Use EV Pilot**  
2 **Program (Ind. Code § 8-1-43-8(b)(4))?**

3 A40. The proposed term of the EV Portfolio, including the Public Use EV Pilot Program, is  
4 three years. AES Indiana anticipates that the three-year term will span calendar years  
5 2024 through 2026.

6 **Q41. Please provide “supporting evidence as to why the pilot program is in the public**  
7 **interest, including information as to how participating customers of the electric**  
8 **utility, nonparticipating customers of the electric utility, and the general public may**  
9 **be affected by the pilot program” as required by Ind. Code § 8-1-43-8(b)(6).**

10 A41. AES witness Schmidt provides a benefit to cost analysis with information showing how  
11 the Public Use EV Pilot Program may affect participating customers, non-participating  
12 customers, and the general public. Mr. Schmidt explains that the benefits exceed the  
13 costs for the proposed Public Use EV Pilot Programs. In particular, AES Indiana has  
14 proposed a portfolio that passes the Ratepayer Impact Measure (“RIM”) test. This test  
15 provides an indication of economic efficiency and fairness among participating and non-  
16 participating customers. A full description of the tests performed as well as the benefit to  
17 cost results can be found in AES Indiana witness Schmidt’s testimony.

18 **B. Residential Alternative Rates, Tariffs, and Pricing Structures**

19 **Q42. Please summarize the residential alternative pricing structures that are part of the**  
20 **EV Portfolio.**

21 A42. The residential offerings consist of two different types of EV demand management:  
22 active (“Managed Charging”) and passive (“Off-peak Incentive”). Active load

1 management is akin to other demand response resources and would allow AES Indiana to  
2 curtail an EV charger's output during peak hours. Passive management provides an  
3 inducement to a customer in the form of a price signal that encourages self-managed off-  
4 peak EV charging. Additionally, the Company is proposing to close existing Rate EVX  
5 to new participants in favor of the alternative pricing structures proposed herein.

6 **Q43. Why is the Company proposing different alternative pricing structures for EV**  
7 **demand management?**

8 A43. First, customer preferences vary. Proposing a one-size-fits-all solution is likely to limit  
9 the number of customers willing and able to participate, thereby limiting the benefits of  
10 load management. EV charging load shapes will vary depending on the customer type –  
11 some customers may be better served by active *Residential Managed Charging* in lieu of  
12 the passive *Off-peak Incentive* program, and vice versa. Second, EV charging will result  
13 in significant new load impacts, so the Company is interested in exploring different load  
14 management strategies. Charging an EV at home, for example, can increase energy  
15 consumption (kWh) at a residence by 3,000-4,000 kWh per year, which is approximately  
16 26-35%<sup>4</sup> higher than the average annual usage for a residential customer today.  
17 Furthermore, EV charging impacts customer demand (kW). Level 2 chargers can range  
18 from 8-17 kW<sup>5</sup> in instantaneous demand, which during system peak conditions could  
19 have a significant impact as EV penetration increases.

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<sup>4</sup> Calculated based on AES Indiana's average residential annual usage.

<sup>5</sup> EV chargers offered on AES Indiana's online marketplace or through other AES programs include equipment with output amperage ranging from 32 amps to 70 amps, which equates to 7.7 kW and 16.8 kW respectively at 240V.

1 **Q44. Please describe the *Residential Managed Charging* alternative pricing structure.**

2 A44. *Residential Managed Charging* is active demand response for electric car charging,  
3 where residential customers would be eligible to receive incentives in exchange for AES  
4 Indiana's ability to curtail their EV charging for a limited number of peak hours  
5 throughout the proposed three-year period. Residential customers who elect to  
6 participate will receive a one-time, upfront rebate of \$250 for a qualified Level 2 EV  
7 charger. This one-time rebate will be accompanied by recurring, \$50 annual incentives to  
8 increase the value proposition for the customer and encourage their ongoing participation  
9 (*i.e.*, discourage program opt-outs).

10 **Q45. How many *Residential Managed Charging* event hours per year does AES Indiana**  
11 **anticipate, and for what duration?**

12 A45. AES Indiana projects that it will curtail participant EV charging for thirty-six (36) hours  
13 per year throughout the three-year term. The Company forecasts nine (9) annual  
14 *Residential Managed Charging* events per year, with each event lasting four (4) hours.  
15 These event characteristics reflect assumptions based on what the Company understands  
16 about the managed charging market today but may fluctuate up or down depending on  
17 actual program experience, impacts, and program cost-effectiveness.

18 **Q46. How does the projected number and duration of annual *Residential Managed***  
19 ***Charging* events compare to other AES Indiana demand response programs?**

20 A46. AES Indiana offers a residential Air Conditioning Load Management ("ACLM")  
21 program that curtails air conditioning load using direct load control switches and smart  
22 thermostats. The actual number of annual event hours fluctuates year over year, but the  
23 Company typically plans for three (3) events with each event lasting four (4) hours for a



1 total of twelve (12) annual event hours. ACLM is only operated during the months of  
2 May through September when air conditioning systems are in use, whereas *Residential*  
3 *Managed Charging* may be operated during all twelve (12) months of a calendar year. To  
4 account for the increased ability to call *Residential Managed Charging* events during  
5 summer, winter, and shoulder months, the projected number of annual events was  
6 increased as described above.

7 **Q47. How will *Residential Managed Charging* work?**

8 A47. The qualified Level 2 charger will be installed at the customer's residence and will  
9 communicate with a Demand Response Management System ("DRMS") via the  
10 customer's Wi-Fi network. Each Level 2 charger delivered through *Residential Managed*  
11 *Charging* will have a unique identifier, which will enable residence-specific curtailment  
12 through AES Indiana's DRMS.

13 **Q48. How will customers be able to obtain a qualified Level 2 charger to participate in**  
14 ***Residential Managed Charging*?**

15 A48. Customers will be able to acquire qualified Level 2 chargers in a few ways, making it  
16 easy and convenient to enroll. First, AES Indiana currently offers Level 2 chargers  
17 through its online marketplace.<sup>6</sup> Customers who elect to participate would receive the  
18 rebate discussed above and could bundle the Level 2 charger purchase with installation  
19 services from a licensed contractor. Second, customers who already own a qualifying  
20 Level 2 charger will be able to enroll through a Bring-Your-Own-Device channel.

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<sup>6</sup> [aesindianamarketplace.com/Electric-Vehicle-Chargers/](http://aesindianamarketplace.com/Electric-Vehicle-Chargers/)

1 Customers enrolling through this channel will receive a smaller, one-time enrollment  
2 bonus of \$150 and will also receive the recurring \$50 annual incentive.

3 **Q49. Please describe the *Off-Peak Incentive* alternative pricing structure.**

4 A49. *Off-peak Incentives* will be offered to AES Indiana residential customers who drive an  
5 EV and is designed to modify participating customers' charging behavior by leveraging  
6 the onboard telematics capabilities of qualifying EVSE, one-time EVSE rebates, and  
7 ongoing performance-based incentives.

8 **Q50. How is the recurring *Residential Off-peak Incentive* program designed?**

9 A50. Residential *Off-peak Incentive* customers will receive a one-time \$250 rebate for a  
10 qualified Level 2 charger, and will be eligible to receive a recurring \$0.05 per kWh  
11 incentive for charging during the following off-peak times:

12 **Summer Off-Peak Hours (Months): 10PM-10AM**

13 **Winter Off-Peak Hours (Months): 10PM-6AM**

14 **Q51. What is the justification for the *Off-peak Incentive* amount per kWh?**

15 A51. The recurring, performance-based incentive amount of \$0.05 per kWh was developed to  
16 provide customers an economic inducement to participate in the *Off-peak Incentive*  
17 offering. AES Indiana justified this amount based on the results of the RIM and  
18 Participant Cost Test ("PCT") for the *Off-peak Incentive* program completed by AES  
19 Indiana witness Schmidt. Results for the *Off-peak Incentive* program can be found in the  
20 testimony of AES Indiana witness Schmidt. The PCT is in basic form a simple payback  
21 calculation that takes into consideration a customer's costs to participate in comparison to  
22 the benefits they receive from the program offering. The PCT ratio result for

1 participating residential customers is projected at 2.1, meaning that *Off-peak Incentive*  
2 customers are expected to receive greater benefits throughout the term of the program  
3 than the costs they incur to participate. The PCT ratio result of 2.1 also indicates that the  
4 incentive amount is not too “rich,” meaning that the incentive is properly designed. In  
5 other words, a PCT ratio result where benefits far exceed costs would benefit the  
6 participant but may not be necessary to drive the desired result and would drive down net  
7 benefits for the non-participating customers. The projected RIM result of 1.0 for the *Off-*  
8 *peak Incentive* program also indicates that the program is cost effective for non-  
9 participating customers.

10 **Q52. Will participants in *Off-peak Incentives* require a separate meter for their EV**  
11 **usage?**

12 A52. No. AES Indiana’s proposal uses the telematics capabilities of qualifying EVSE, which  
13 has the ability to track participants’ charging behavior, including time of use.

14 **Q53. Will customers be able to participate in both *Residential Managed Charging* and**  
15 ***Off-Peak Incentives*?**

16 A53. No. While customers will be able to enroll in either program via similar channels, dual  
17 participation would be prohibited to prevent “double dipping” of rebates and recurring  
18 incentives.

19 **Q54. How does AES Indiana propose to implement the *Residential Managed Charging***  
20 **and *Off-Peak Incentives* alternative pricing structures?**

21 A54. Through a competitive bid process, AES Indiana will seek a turnkey program delivery  
22 contractor(s) to implement outreach and education, participant acquisition and

1 enrollment, qualifying product specification, installation services, rebate and incentive  
2 fulfillment, reporting, and customer service and care.

3 **Q55. Please describe the Company's proposal to close Rate EVX to new participants.**

4 A55. AES Indiana currently offers Rate EVX, which is an EV-specific TOU rate with seasonal  
5 off-peak, mid-peak, and on-peak periods. As part of this EV portfolio, AES Indiana is  
6 proposing to close Rate EVX to new participants and to alternatively deliver the  
7 alternative pricing structures described herein. Proposed tariff edits to Rate EVX are  
8 attached to my testimony as Petitioner's Attachment ZE-3.

9 **Q56. Describe why AES Indiana is proposing to close Rate EVX to new participants in  
10 favor of other alternative pricing structures described in your testimony.**

11 A56. While Rate EVX has been successful in reducing peak charging contribution, customer  
12 investment required to participate in this rate can be cost prohibitive, resulting in lower  
13 than desired program demand and participation. Currently, AES Indiana customers  
14 electing to participate in Rate EVX are required to have stand-alone, separate metering to  
15 isolate electric vehicle charging. As a result of this separate metering requirement, there  
16 are significant costs borne by the customer, which can include electric service panel  
17 upgrades, new meter enclosures, and other miscellaneous costs to run dedicated EVSE  
18 charging circuits. These costs, in addition to the costs for level I or level II EVSE, can  
19 easily surpass \$3,000 before a customer can receive the benefit of the off-peak rate  
20 discounts. As a result, simple payback periods for participants often extend beyond ten  
21 (10) years, presenting an economic barrier to entry and an overall low customer value  
22 proposition.

1 **Q57. What is AES Indiana's proposal for customers currently participating in Rate**  
2 **EVX?**

3 A57. AES Indiana proposes to close Rate EVX to new participation pursuant to a Commission  
4 Order in this Cause. Proposed changes to the applicable tariff are presented in  
5 Petitioner's Attachment ZE-3. While AES Indiana proposes that Rate EVX be closed to  
6 new participation, the Company acknowledges that in many instances participating  
7 customers incurred costs to participate in Rate EVX. AES Indiana believes it is  
8 reasonable and appropriate to continue to provide these customers access to the TOU rate  
9 if they so desire. Legacy Rate EVX participants who have an existing submeter or  
10 separate meter could be targeted with new EVSE through the *Off-peak Incentives* or  
11 *Residential Managed Charging* alternative pricing structures. To the extent the  
12 alternative pricing structures proposal is not approved by the Commission, AES Indiana  
13 requests continuation of the current Rate EVX without the proposed changes.

14 **C. C&I & Public Alternative Rates, Tariffs, and Pricing Structures**

15 **Q58. Please describe the *C&I Managed Charging* alternative pricing structure.**

16 A58. Similar to the *Residential Managed Charging* offering described above, *C&I Managed*  
17 *Charging* is active demand response, where customers would be eligible to receive  
18 incentives in exchange for AES Indiana's ability to curtail their EV charging for a limited  
19 number of peak hours throughout the proposed program period. The proposed incentive  
20 amount is \$50 per EV charging port per year.

21 **Q59. How often does AES Indiana expect to operate *C&I Managed Charging*?**

1 A59. AES Indiana forecasts to operate the same number of events for *C&I Managed Charging*  
2 as proposed above for *Residential Managed Charging*.

3 **Q60. Are there differences between *C&I Managed Charging* and *Residential Managed***  
4 ***Charging*?**

5 A60. Managed Charging across customer segments is largely the same concept, but there are a  
6 few differences. Time of day and duration of the events may vary between customer  
7 segments depending on EV charging load profiles and system peak coincidence.  
8 Additionally, there will be a wider variety of EVSE that will qualify under the *C&I*  
9 *Managed Charging* program. To encourage investment in managed charging capable  
10 EVSE, customers who operate and/or host Public Use EVs will be able to receive rebates  
11 for charging infrastructure and make ready work through AES Indiana's proposed *EVSE*  
12 *Rebates* program.

13 **Q61. Please describe *Tariff EVSE*.**

14 A61. AES Indiana is proposing a separate, stand-alone tariff, *Tariff EVSE*, that would be  
15 available on a voluntary basis to AES Indiana's non-residential customers. A copy of the  
16 proposed *Tariff EVSE* is attached to my testimony as Petitioner's Attachment ZE-6.  
17 Customers who voluntarily elect to participate would pay a fixed, monthly fee for  
18 qualifying AES Indiana owned/operated EVSE. The additional, fixed monthly charge  
19 will be 1.65% of the cost, including equipment, installation, administrative, and projected  
20 maintenance cost, of the EVSE used or ready to be used at the beginning of the monthly  
21 billing period. The term of this EVSE agreement would begin at the time the service is  
22 installed and metered under the customer's name and assigned rate and extend for a

1 period of five (5) years. This agreement may be renewed for successive like terms or  
2 cancelled by either party after fulfillment of an initial five-year term.

3 **Q62. Will non-participating customers pay for any portion of *Tariff EVSE* costs?**

4 A62. No. All costs to deliver *Tariff EVSE* will be borne by the voluntary participant.

5 **Q63. Please describe AES Indiana's Rate EVP.**

6 A63. AES Indiana has offered a Level 2 public charging rate for more than a decade as Rate  
7 EVP. For AES Indiana owned and operated equipment, the rate has remained \$2.50 per  
8 session since inception. AES Indiana is proposing to update Rate EVP to reflect market  
9 pricing for Level 2 charging. Proposed redlines to Rate EVP are attached as Petitioner's  
10 Attachment ZE-4.

11 **Q64. What is the proposed rate?**

12 A64. AES Indiana's proposed Rate EVP is \$0.357 per kilowatt hour. The calculations used to  
13 determine the average per kilowatt hour rate can be found in Petitioner's Attachment ZE-  
14 2.

15 **Q65. How did the Company derive the newly proposed Rate EVP?**

16 A65. AES Indiana used Plugshare<sup>7</sup> to evaluate the average cost of Level 2 public charging in  
17 central Indiana. Plugshare is an online tool that provides location and pricing information  
18 for EV charging stations nationwide. To develop a reasonable, market-reflective rate,  
19 AES Indiana assessed the average price per kilowatt hour of Level 2 chargers by  
20 including: (1) locations accessible to the public 24 hours per day; (2) locations with

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<sup>7</sup> <https://www.plugshare.com/>.

1 published fee information on Plugshare; and (3) locations within Marion or a surrounding  
2 county in Indiana. A number of Level 2 EVSE installations within the area analyzed  
3 offer Level 2 charging at no cost to EV drivers. To reflect the no-cost charging in  
4 proposed Rate EVP, AES Indiana used approved Rate SS (\$0.088592 per kWh) to adjust  
5 the calculated market rate described above. For purposes of calculating the adjusted  
6 market rate, the Company assumed a fifty-fifty split of no-cost charging and charging that  
7 includes a fee structure for the EV driver. Using rate SS reasonably reflects the cost of  
8 energy for these types of Level 2 installations, as the EVSE owner is paying for the  
9 electricity and offering the Level 2 charging at no cost as an amenity to EV drivers. Once  
10 an adjusted price per kilowatt hour was calculated based on the above methodology, the  
11 rate was grossed up to include Indiana sales tax. The full calculation and associated  
12 criteria to establish Rate EVP can be found in Petitioner's Attachment ZE-2.

13 **Q66. How often does AES intend to update Rate EVP?**

14 A66. AES Indiana proposes to update Rate EVP annually based on a new market price  
15 assessment, but more frequent changes may be made as necessary or appropriate to  
16 reflect market conditions. These updates will be made via a 30-day filing.

17 **Q67. Is AES Indiana proposing any new public EV charging rates?**

18 A67. Yes. In addition to the updated Rate EVP, AES Indiana proposes a new Rate DCFC  
19 applicable to users of AES Indiana-owned DCFC charging infrastructure.

20 **Q68. Please describe AES Indiana's proposed Rate DCFC.**

21 A68. AES Indiana is part of a consortium of utilities in the state of Indiana developing a  
22 statewide fast charging network. This project is in part funded with proceeds from the



1 Volkswagen emissions mitigation trust, which were awarded to the utility consortium via  
2 a statewide RFP administered by the Indiana Department of Environmental Management.  
3 As a participating member of the group, AES Indiana will construct, own, operate and  
4 maintain DCFC infrastructure in its service territory for a minimum period of five years.  
5 As proposed, Rate DCFC is what EV drivers will pay to charge their vehicle with AES  
6 Indiana owned and operated DCFC equipment.

7 **Q69. What is the proposed new rate?**

8 A69. AES Indiana proposes a new Rate DCFC based on a per kilowatt hour charging rate of  
9 \$0.357. The calculations used to determine the average per kilowatt hour rate can be  
10 found in Petitioner's Attachment ZE-2.

11 **Q70. How did the Company derive the newly proposed Rate DCFC?**

12 A70. The methodology is similar to that described above for Rate EVP, but does not include an  
13 adjustment for no-cost charging. No adjustment was necessary for DCFC as all locations  
14 meeting the criteria in AES Indiana's service territory include a fee structure. AES  
15 Indiana assessed the average price per kilowatt hour of DCFC by including: (1) locations  
16 accessible to the public 24 hours per day; (2) locations with published fee information on  
17 Plugshare; (3) locations within Marion or a surrounding county in Indiana; (4) locations  
18 with a minimum 50 kW charger output rating. Once an average price per kilowatt hour  
19 was calculated based on these criteria, the rate was grossed up to include Indiana sales  
20 tax. The full calculation and associated criteria to establish Rate DCFC can be found in  
21 Petitioner's Attachment ZE-2.

1 **Q71. How often does AES intend to update Rate DCFC?**

2 A71. AES Indiana proposes to update Rate DCFC annually based on a new market price  
 3 assessment, but more frequent changes may be made as necessary or appropriate to  
 4 reflect market conditions. These updates will be made via a 30-day filing.

5 **VI. EV PORTFOLIO COSTS**

6 **Q72. Please summarize the projected costs to implement the EV Portfolio.**

7 A72. The projected operating and capital costs to implement the services proposed in the EV  
 8 Portfolio include AES Indiana’s program administrative costs, vendor implementation  
 9 fees, charging infrastructure costs, make ready work costs, vendor Software as a Service  
 10 (“SaaS”) fees, and customer rebates and incentives. The program operating and capital  
 11 costs presented in Table ZE-1 below represent a summary of the Company’s projected  
 12 costs to be recovered through AES Indiana’s proposed deferral methodology, as outlined  
 13 by AES Indiana witness Aliff. More detailed cost projections can be found in  
 14 Petitioner’s Attachment ZE-1 and in Petitioner’s Workpaper ZE-1.

15 **Table ZE-1. EV Portfolio Program Costs**

Program Operating and Capital Costs	Y1	Y2	Y3	Total
Residential	\$600,000	\$560,000	\$690,000	\$1,850,000
C&I	\$4,055,000	\$4,585,000	\$5,670,000	\$14,310,000
Total	\$4,655,000	\$5,145,000	\$6,360,000	\$16,160,000

16

17 The operating and capital expenditures presented in Table ZE-2 reflect the Company’s  
 18 projected costs to implement *Tariff EVSE*, which will be recovered via a bill premium,  
 19 *Tariff EVSE*, applicable to participating customers only.

1

**Table ZE-2. Tariff EVSE Capital Costs**

Tariff EVSE	Y1	Y2	Y3	Total
C&I	\$1,850,000	\$3,500,000	\$5,200,000	\$10,550,000
Total	\$1,850,000	\$3,500,000	\$5,200,000	\$10,550,000

2 **Q73. Please describe how the \$16.2 million is budgeted for the two separate parts of AES**  
 3 **Indiana’s proposed EV Portfolio: (1) Public Use EV Pilot Program, and (2)**  
 4 **alternative rates, tariffs and pricing structures.**

5 A73. Of the \$16.2 million in total program operating and capital costs, \$13.5 million is  
 6 projected for the Public Use EV Pilot Program, and \$1.5 million is projected for the  
 7 alternative rates, tariffs, and pricing structures. The balance, \$1.2 million, is budgeted for  
 8 AES Indiana administrative costs. A more detailed breakdown of costs can be found in  
 9 Petitioner’s Attachment ZE-1 and Petitioner’s Workpaper ZE-1.

10 **Q74. How did you prepare the cost estimates included in your testimony?**

11 A74. The projected costs were prepared based on the Company’s experience developing and  
 12 delivering similar customer programs in Indiana and Ohio. If approved, AES Indiana  
 13 will issue a competitive RFP for all services necessary to deliver the EV Portfolio.  
 14 Contracted costs will ultimately be based on the outcome of the RFP but will not exceed  
 15 the total amount approved in this case.

16 **Q75. How does AES Indiana propose to recover the costs of its EV programs?**

17 A75. As discussed by AES Indiana witness Aliff, the Company requests authority to defer,  
 18 with carrying charges, any program operating and capital costs necessary to implement  
 19 the proposed EV Portfolio, with the exception of the Tariff EVSE program. Capital

1 expenditures and operating expenses associated with Tariff EVSE will be funded solely  
2 though the bill premium charged to customers participating in that program.

3 **VII. EV PORTFOLIO BENEFITS**

4 **Q76. Please provide an overview of the benefits of AES Indiana's proposed EV Portfolio.**

5 A76. As the electricity provider serving central Indiana, we see a variety of benefits associated  
6 with supporting increased EV adoption and charging load modification. Increased EV  
7 adoption results in increased contributions to AES Indiana's fixed costs in the form of  
8 new retail rate revenue, which provides an opportunity for future downward pressure on  
9 rates for all customers. New kWh sales on AES Indiana's system spread the Company's  
10 fixed costs over more units of sales, which would be reflected in the cost of service in  
11 (and associates rates established by) a future rate case proceeding. This concept has been  
12 demonstrated in a 2020 report completed by Synapse<sup>8</sup>.

13 At the same time, unmanaged EV load growth would require additional capacity,  
14 transmission and distribution infrastructure investment that could otherwise be delayed or  
15 avoided through EV load management. Accordingly, AES Indiana believes that it is  
16 important to actively influence this incoming load growth such that this new load is  
17 managed for the benefit of customers.

18 All customers stand to benefit from increased flexible demand and reduced emissions  
19 from an accelerated transition away from internal combustion engine vehicles. AES  
20 Indiana witness Schmidt completed a cost and benefit analysis for the services described  
21 herein and describes the results in his testimony.

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<sup>8</sup> [https://www.synapse-energy.com/sites/default/files/EV\\_Impacts\\_June\\_2020\\_18-122.pdf](https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf)

1 **Q77. Do the alternative regulatory practices embodied in the EV Portfolio enhance or**  
2 **maintain the value of the Company's services or property?**

3 A77. Yes. Among other things, to the extent AES Indiana is able to shape this new load such  
4 that charging is accomplished off-peak, this will result in avoided costs for future  
5 capacity, transmission and distribution investment. These avoided costs would result  
6 from peak-coincident demand (kW) reduction, and avoidance of new or higher peaks.

7 **Q78. Please explain how the EV Portfolio and its proposed ratemaking and accounting**  
8 **are designed to promote efficiency in the rendering of retail energy services.**

9 A78. As noted above, AES Indiana has been proactively preparing for EVs for many years.  
10 The EV Portfolio continues these efforts to address infrastructure issues and minimize  
11 adoption hurdles for Public Use EVs, residential and C&I customers, and other  
12 stakeholders, including customers in disadvantaged communities.

13 By engaging with this technology now, we have an opportunity to improve the efficiency  
14 of this technology's use on AES Indiana's system. The knowledge and experience  
15 gained through the EV Portfolio should position us to meet the ongoing needs of this  
16 technology efficiently and reliably. The voluntary, participant-funded nature of the *Tariff*  
17 *EVSE* program and the EV Portfolio cost deferral proposal outlined by AES witness Aliff  
18 also facilitate efficiency by providing a means to manage the rate impact on AES  
19 Indiana's retail rates.

20 **Q79. How will offering the EV Portfolio impact electricity sales?**

21 A79. Industry data shows that the ongoing development of the EV market is expected to  
22 increase electricity sales by approximately 3,000 – 4,000 kWh/vehicle-year for each new  
23 EV introduced. This estimate is based on the typical driving patterns of passenger

1 vehicles today and average EV efficiencies (miles per kWh). As discussed earlier,  
2 managing how and when this load occurs is important to avoid capacity and T&D related  
3 costs that will benefit all of AES Indiana's customers.

4 **Q80. Is there any additional rationale for offering the EV portfolio in AES Indiana's**  
5 **service territory?**

6 A80. Yes. In addition to the monetary benefits, both participating and non-participating AES  
7 Indiana customers will experience the environmental and health benefits associated with  
8 reduced air pollution from the transportation sector. The transition away from internal  
9 combustion engine vehicles in AES Indiana's service territory will provide improvements  
10 to overall air quality. Electric vehicles also require less maintenance than internal  
11 combustion engine vehicles, which can amount to significant cost savings for customers  
12 over the vehicle's useful life. With recent gasoline and diesel prices, average customers  
13 could save upwards of \$2,000 annually in fuel costs by driving an electric vehicle, which  
14 can be increased further through *Managed Charging* or *Off-peak Incentives* offered by  
15 AES Indiana.

16 **VIII. EV PORTFOLIO REPORTING**

17 **Q81. How will AES Indiana measure success of the product and service offerings**  
18 **proposed in the EV Portfolio?**

19 A81. As described throughout my testimony, AES Indiana's EV Portfolio consists of two (2)  
20 parts: (1) the Public Use EV Pilot Program, and (2) alternative rates, tariffs, and pricing  
21 structures.

1 For the Public Use EV Pilot Program, success will be measured by the objective  
2 evaluation criteria listed in my testimony for each proposed program. Objective  
3 evaluation criteria will be tracked at the program level, and results will be provided in an  
4 annual report to keep the Commission and other stakeholders informed of the status of  
5 the Public Use EV Pilot Program.

6 For the second part of AES Indiana's EV Portfolio, alternative rates, tariffs, and pricing  
7 structures, success will be measured by the number of program participants and  
8 associated impacts where applicable. For example, success in *Managed Charging* and  
9 *Off-peak Incentives* will consider the extent to which participating customers' charging  
10 consumption occurs during off-peak hours. Additionally, increased levels of customer  
11 satisfaction and experience are always objectives for AES Indiana. The Company, in  
12 partnership with its implementation contractors, will routinely survey customers and  
13 measure customer satisfaction. AES Indiana will submit results in the same annual report  
14 described above to keep the Commission and other stakeholders informed of the total EV  
15 Portfolio's success. AES Indiana proposes that the annual report be filed in this Cause  
16 within three months of close of each program year.

17 **Q82. Please describe the metrics AES Indiana will include in its annual report for the**  
18 **proposed alternatives rates, tariffs, and pricing structures.**

19 A82. The Company will, at a minimum, include the following metrics in its annual report for  
20 the alternative rates, tariffs, and pricing structures:

- 21 1. Participation for each proposed program in this EV Portfolio.
- 22 2. Peak coincident impacts for applicable programs.
- 23 3. Annual curtailment event characteristics for applicable programs.

4. Expenditures for each proposed program in this EV Portfolio.
5. Customer satisfaction trends for applicable programs.
6. Cost effectiveness results for applicable programs.

**IX. CONCLUSION**

**Q83. Please summarize why AES Indiana's EV Portfolio proposal is in the public interest and should be approved.**

A83. The EV Portfolio, including the proposed cost recovery, is necessary for these programs to become a reality and result in significant community and customer benefits. AES Indiana is in a unique position to offer and manage the EV programs, because if properly managed, the programs will reduce the need for future investments on AES Indiana's system.

The ARP statute recognizes that the "public interest" is served by the Commission declining to impose traditional regulation and instead adopting alternative procedures to address technological change and associated operating conditions. This is particularly the case where, as here, the application of traditional regulation would deter such technological advancement and where alternative regulation would advance it for the benefit of customers, the community, the state of Indiana, and the utility.

Approval of the EV Portfolio furthers the continuing goal of the Commission in the provision of safe, adequate, efficient and economic retail energy services. Approval of the EV Portfolio also facilitates an environment that serves the public interest, whereby AES Indiana consumers will have access to state-of-the-art technology and energy services.



1 As I noted above, both state and federal policy recognize the need for infrastructure  
2 investment and make-ready work to enable the widespread adoption of EVs for both  
3 private and public use. The recent enactment of Chapter 43 underscores the Legislature's  
4 interest in utilities engaging proactively in this area, and this serves the public interest.  
5 The Commission has likewise recognized and approved utility efforts that include the  
6 limited deployment of EV charging infrastructure and related offerings.

7 The EV Portfolio balances the public interest in having electric facilities to meet the  
8 community's current and future needs for electricity, including the need for electricity to  
9 serve the developing EV charging technology reliably and efficiently, with the utility's  
10 need for cost recovery and our customers' interest in the continued provision of safe,  
11 reliable, and cost effective electric service. Accordingly, based on the testimony  
12 presented in this case, my opinion is that the EV Portfolio serves the public interest and  
13 should be approved by the Commission.

14 **Q84. Will AES Indiana publish notice of its proposed ARP?**

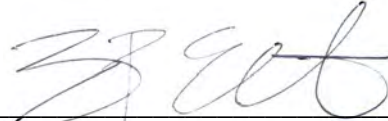
15 A84. Yes. The proofs of publication will be filed once they are available and included with my  
16 testimony as Petitioner's Attachment ZE-7.

17 **Q85. Does this conclude your pre-filed direct testimony?**

18 A85. Yes, it does.

## VERIFICATION

I, Zac Elliot, Portfolio Lead, Electrification for AES US Services, LLC, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

A handwritten signature in black ink, appearing to read 'Zac Elliot', written over a horizontal line.

Zac Elliot

Dated: January 27, 2023

## Budget Summary

Public Use EV Pilot Program	Y1	Y2	Y3	Total
Bi-directional Charging Pilot	\$610,000	\$610,000	\$610,000	\$1,830,000
EVSE Rebates	\$1,650,000	\$1,800,000	\$2,100,000	\$5,550,000
EVSE Rebates for Disadvantaged Communities	\$490,000	\$610,000	\$780,000	\$1,880,000
Fleet Solutions	\$1,000,000	\$1,300,000	\$1,900,000	\$4,200,000
Subtotal A.	\$3,750,000	\$4,320,000	\$5,390,000	\$13,460,000

Alternative Rates, Tariffs, Pricing Structures	Y1	Y2	Y3	Total
Residential Managed Charging	\$175,000	\$155,000	\$220,000	\$550,000
Off-Peak Incentive	\$175,000	\$155,000	\$220,000	\$550,000
C&I Managed Charging	\$155,000	\$115,000	\$130,000	\$400,000
Rate EVP	\$0	\$0	\$0	\$0
Rate DCFC	\$0	\$0	\$0	\$0
Subtotal B.	\$505,000	\$425,000	\$570,000	\$1,500,000

AES Admin, Outreach, Evaluation	Y1	Y2	Y3	Total
Residential	\$250,000	\$250,000	\$250,000	\$750,000
C&I	\$150,000	\$150,000	\$150,000	\$450,000
Subtotal C.	\$400,000	\$400,000	\$400,000	\$1,200,000

Total Program Operating and Capital Costs	Y1	Y2	Y3	Total
Residential	\$600,000	\$560,000	\$690,000	\$1,850,000
C&I	\$4,055,000	\$4,585,000	\$5,670,000	\$14,310,000
Total (A + B + C)	\$4,655,000	\$5,145,000	\$6,360,000	\$16,160,000

Tariff EVSE*	Y1	Y2	Y3	Total
C&I	\$1,850,000	\$3,500,000	\$5,200,000	\$10,550,000
Subtotal D.	\$1,850,000	\$3,500,000	\$5,200,000	\$10,550,000

\*Participant only funded; excluded from Total Program Operating and Capital Costs

## EV Portfolio Participation and Budgets

### Residential Managed Charging

	Y1	Y2	Y3	Total
Projected Participation	100	300	500	900
Projected Rebate Budget	\$20,000	\$60,000	\$100,000	\$180,000
Projected Incentive Budget	\$5,000	\$20,000	\$45,000	\$70,000
Projected Admin Budget	\$150,000	\$75,000	\$75,000	\$300,000
<b>Total Budget</b>	<b>\$175,000</b>	<b>\$155,000</b>	<b>\$220,000</b>	<b>\$550,000</b>

### Off-Peak Incentive

	Y1	Y2	Y3	Total
Projected Participation	100	300	500	900
Projected Rebate Budget	\$20,000	\$60,000	\$100,000	\$180,000
Projected Incentive Budget	\$5,000	\$20,000	\$45,000	\$70,000
Projected Admin Budget	\$150,000	\$75,000	\$75,000	\$300,000
<b>Total Budget</b>	<b>\$175,000</b>	<b>\$155,000</b>	<b>\$220,000</b>	<b>\$550,000</b>

Res Outreach/Labor/Eval	\$250,000	\$250,000	\$250,000	\$750,000
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### C&I Managed Charging

	Y1	Y2	Y3	Total
Projected Participation (ports)	100	200	300	600
Projected Rebate Budget	\$0	\$0	\$0	\$0
Projected Incentive Budget	\$5,000	\$15,000	\$30,000	\$50,000
Projected Admin Budget	\$150,000	\$100,000	\$100,000	\$350,000
<b>Total Budget</b>	<b>\$155,000</b>	<b>\$115,000</b>	<b>\$130,000</b>	<b>\$400,000</b>

### EVSE Rebates

	Y1	Y2	Y3	Total
Projected Participation	88	100	118	306
Projected Rebate Budget	\$1,500,000	\$1,700,000	\$2,000,000	\$5,200,000
Projected Admin Budget	\$150,000	\$100,000	\$100,000	\$350,000
<b>Total Budget</b>	<b>\$1,650,000</b>	<b>\$1,800,000</b>	<b>\$2,100,000</b>	<b>\$5,550,000</b>

**EVSE Rebates for Disadvantaged Communities**

	2023	Y2	Y3	Total
Projected Participation	20	30	40	90
Projected Rebate Budget	\$340,000	\$510,000	\$680,000	\$1,530,000
Projected Admin Budget	\$150,000	\$100,000	\$100,000	\$350,000
<b>Total Budget</b>	<b>\$490,000</b>	<b>\$610,000</b>	<b>\$780,000</b>	<b>\$1,880,000</b>

**Bi-directional Charging Pilot**

	Y1	Y2	Y3	Total
Projected Participation	1	1	1	3
Projected Equipment Budget	\$400,000	\$400,000	\$400,000	\$1,200,000
Projected Installation Budget	\$150,000	\$150,000	\$150,000	\$450,000
Projected Admin Budget	\$60,000	\$60,000	\$60,000	\$180,000
<b>Total Budget</b>	<b>\$610,000</b>	<b>\$610,000</b>	<b>\$610,000</b>	<b>\$1,830,000</b>

**Fleet Solutions**

	Y1	Y2	Y3	Total
Projected Participation (# of customers)	15	20	30	65
Projected Participation (# ports)	375	500	750	1625
Projected SaaS Costs	\$100,000	\$100,000	\$100,000	\$300,000
Projected Report Costs	\$750,000	\$1,000,000	\$1,500,000	\$3,250,000
Projected Implementation Costs	\$150,000	\$200,000	\$300,000	\$650,000
<b>Total Budget</b>	<b>\$1,000,000</b>	<b>\$1,300,000</b>	<b>\$1,900,000</b>	<b>\$4,200,000</b>

**Tariff EVSE**

	Y1	Y2	Y3	Total
Projected Participation	50	100	150	300
Projected Equip Budget	\$850,000	\$1,700,000	\$2,550,000	\$5,100,000
Projected Install Budget	\$850,000	\$1,700,000	\$2,550,000	\$5,100,000
Projected Admin Budget	\$150,000	\$100,000	\$100,000	\$350,000
<b>Total Budget</b>	<b>\$1,850,000</b>	<b>\$3,500,000</b>	<b>\$5,200,000</b>	<b>\$10,550,000</b>
C&I Outreach/Labor/Eval	\$150,000	\$150,000	\$150,000	\$450,000

EV Charging Market Rate Assessment - Rate DCFC

Location	Address	Max Output (kW)	Cost Per Minute	kWh per minute	Cost per kWh
Fashion Mall	8702 Keystone Crossing, Indianapolis, IN 46240	50	\$0.30	0.833	\$0.36
Meijer	8375 E 96th Street, Indianapolis, Indiana, 46256, US	150	NA	2.500	\$0.43
Walmart	4650 South Emerson Avenue, Indianapolis, Indiana, 46203, US	150	NA	2.500	\$0.43
Chase Bank	14801 Thatcher Ln, Carmel, IN 46032, USA	50	\$0.30	0.833	\$0.36
IMPA	11610 N College Ave, Carmel 46032	50	0.05	0.833	\$0.06
Hamilton Town Center	13901 Town Center Blvd, Noblesville, IN 46060, USA	50	\$0.30	0.833	\$0.36

**Assumptions**

Source: Plugshare

Based on DCFC stations with a minimum 50 kW charger rating

DCFC locations identified in central Indiana (Marion and surrounding counties)

All locations open to public 24/7

Excludes Tesla Superchargers

A Average in central Indiana	\$0.333
B Sales Tax (7%)	\$0.023
<b>Total Average Rate (A+B)</b>	<b>\$0.357</b>

EV Charging Market Rate Assessment - Rate EVP

Location	Address	Max Output (kW)	Cost Per Minute	kWh per minute	Cost per kWh
Rolls Royce	2355 S Tibbs Ave, Indianapolis, IN 46241, USA	6.6	\$0.01	0.110	\$0.08
Airport	7800 Col H Weir Cook Memorial Dr, Indianapolis, IN, 46241	8	\$0.15	0.133	\$1.13
Greenwood Park Mall	611 E County Line Rd, Greenwood, IN 46142, USA	7	\$0.03	0.117	\$0.29
Penrose	530 Massachusetts Ave, Indianapolis, IN 46204, USA	6.6	\$0.13	0.110	\$1.21
Market Tower	139 N Illinois St, Indianapolis, IN 46204, USA	6.48	\$0.17	0.108	\$1.54
Circle Centre Mall - Moon Garage	49 W Maryland St Indianapolis, IN 46204, USA	7	\$0.04	0.110	\$0.36 \$5 per hour idling fee
Indianapolis Public Library - Eagle Brar	3905 Moller Rd, Indianapolis 46254	6.48	NA	NA	\$0.40
Greenfield Area Chamber of Commerce	6 W South St, Greenfield 46140	6.48	\$0.01	0.108	\$0.08 \$10 per hour idling fee
Kohls	9895 N Michigan Rd, Carmel 46032	6.48	\$0.02	0.108	\$0.19
Mercedes Benz Of Indianapolis	4000 E 96th St, Indianapolis 46240	6.48	\$0.17	0.108	\$1.54
Fashion Mall	8702 Keystone Crossing, Indianapolis, IN 46240, USA	6.6	\$0.02	0.110	\$0.18
Castleton Square Mall	6020 E 82nd St, Indianapolis 46250	6.48	\$0.04	0.108	\$0.37
YMCA	2120 Intelliplex Dr, Shelbyville 46176	6.48	\$0.02	0.108	\$0.15
<b>Assumptions</b>				A Average in central Indiana	\$0.579
Source: Plugshare				B Rate SS	\$0.089
Based on publicly available level 2 stations				C (A+B)/2: Average Rate	\$0.334
Locations identified in central Indiana				D Sales Tax (7%)	\$0.023
Locations had to have pricing information publicized on Plugshare				Total (C+D)	\$0.357

Indianapolis Power & Light Company I.U.R.C. No. E-18  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

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Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

~~1st Revised Original~~ No. 130  
Superseding  
Original No. 130

RATE EVX  
TIME OF USE SERVICE  
FOR ELECTRIC VEHICLE CHARGING ON CUSTOMER PREMISES

AVAILABILITY:

This Rate is closed and not available for service to additional Customers after the effective date of this tariff but remains in effect for current Rate EVX Customers. Available to Customers concurrently served under any of the following retail electric rates: Rate RS, Rate SS, Rate SH, or Rate SL, exclusively for charging of such Customers' licensed electric vehicles (EVs) using electricity provided by the Company at locations on such Customers' premises within the Company's assigned utility service area. Participation is voluntary. Energy consumption metered and billed under this tariff shall be used exclusively for charging electric vehicles.

The Company reserves the right to periodically interrupt service to test demand response strategies and system results. The Company does not anticipate receiving demand response revenues or providing monetary credits to Customers at this time.

EQUIPMENT-NEW CUSTOMERS:

Customers who receive service under this rate on or after January 1, 2013 are New Customers.

New Customers shall be responsible for procuring, paying for, installing, and owning the EV charging equipment, a meter base, a dedicated 40 amp circuit, and any additional necessary equipment. New Customer procured EV charging equipment must meet UL listing standards. Meter base must be installed outside of premise with 4 ft. of clearance and unrestricted access. Such installations must conform to current National Electric Code (NEC) specifications. Charging may only be accomplished using an SAE approved J1772 plug.

The Company will procure, pay for, install, own and maintain a meter.

EQUIPMENT-EXISTING CUSTOMERS:

Customers who received service under this rate prior to January 1, 2013 are Existing Customers.

The Company maintains ownership of EV charging equipment and separate metering equipment that the Company installed in Customer Premises for Existing Customers.

If, during the term of this rate, the Existing Customer requests removal and relocation of the charging equipment and meter within the Company's service territory, the Existing Customer shall pay all costs associated with removal and relocation of the charging equipment.

METERING AND BILLING:

EV charging service will be separately metered and identified on the bill in accordance with the Company's applicable rate schedule. Should interval gaps occur, consumption will be billed at the appropriate off-peak rate.

CHARACTER OF SERVICE:

Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company.

RATE:

The Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Effective April 7, 2021, 2023

Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

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Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

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Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

1st Revised No. 130  
Superseding  
Original No. 130

RATE EVX  
TIME OF USE SERVICE  
FOR ELECTRIC VEHICLE CHARGING ON CUSTOMER PREMISES

AVAILABILITY:

This Rate is closed and not available for service to additional Customers after the effective date of this tariff but remains in effect for current Rate EVX Customers. Available to Customers concurrently served under any of the following retail electric rates: Rate RS, Rate SS, Rate SH, or Rate SL, exclusively for charging of such Customers' licensed electric vehicles (EVs) using electricity provided by the Company at locations on such Customers' premises within the Company's assigned utility service area. Participation is voluntary. Energy consumption metered and billed under this tariff shall be used exclusively for charging electric vehicles.

The Company reserves the right to periodically interrupt service to test demand response strategies and system results. The Company does not anticipate receiving demand response revenues or providing monetary credits to Customers at this time.

EQUIPMENT-NEW CUSTOMERS:

Customers who receive service under this rate on or after January 1, 2013 are New Customers.

New Customers shall be responsible for procuring, paying for, installing, and owning the EV charging equipment, a meter base, a dedicated 40 amp circuit, and any additional necessary equipment. New Customer procured EV charging equipment must meet UL listing standards. Meter base must be installed outside of premise with 4 ft. of clearance and unrestricted access. Such installations must conform to current National Electric Code (NEC) specifications. Charging may only be accomplished using an SAE approved J1772 plug.

The Company will procure, pay for, install, own and maintain a meter.

EQUIPMENT-EXISTING CUSTOMERS:

Customers who received service under this rate prior to January 1, 2013 are Existing Customers.

The Company maintains ownership of EV charging equipment and separate metering equipment that the Company installed in Customer Premises for Existing Customers.

If, during the term of this rate, the Existing Customer requests removal and relocation of the charging equipment and meter within the Company's service territory, the Existing Customer shall pay all costs associated with removal and relocation of the charging equipment.

METERING AND BILLING:

EV charging service will be separately metered and identified on the bill in accordance with the Company's applicable rate schedule. Should interval gaps occur, consumption will be billed at the appropriate off-peak rate.

CHARACTER OF SERVICE:

Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company.

RATE:

The Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Effective \_\_\_\_\_, 2023

Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

~~2nd-3rd~~ Revised No. 140  
Superseding  
~~1st-2nd~~ Revised No. 140

RATE EVP  
ELECTRIC VEHICLE CHARGING ON PUBLIC/PRIVATE PREMISES

AVAILABILITY:

Available to Customers charging their electric vehicles (EVs) at certain AES Indiana (“the Company”) owned and operated level 2 public charging facilities located within the Company’s assigned utility service area. Such public charging facilities may be located at hotels, museums, public parking facilities, city right of way, retail locations, or any other locations subject to an agreement with the property owner.etc. Participation is voluntary. Energy consumption billed under this rate shall be used exclusively for charging licensed electric vehicles.

EQUIPMENT:

The Company will own and operate the public charging equipment and will install, own and operate any necessary metering equipment subject to a lease agreement with the owners of the property on which public charging equipment is located. Customer’s charging system in the electric vehicle must meet applicable standards. Further, Customers must take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of the Customers’ charging system in the electric vehicle.

METERING AND BILLING:

EV charging service will be billed and paid for at the point of service prior to charging by means of credit, debit, ~~or~~ pre-paid cards/accounts, and other mobile payment options, as determined by the Company, at rates specified in this rate schedule. The charging service will be metered separately.

CHARACTER OF SERVICE:

Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company. Service provided includes use of the charging equipment, electricity needed per session, and the convenience of charging in a public location.

RATE:

During the term of this rate, the ~~initial service charge is a flat fee of \$2.50 per charging session~~ charge will be \$0.357 per kilowatt hour. The Company may seek authority to change this rate periodically based on market conditions, if approved by the Indiana Utility Regulatory Commission.

STANDARD CONTRACT RIDERS APPLICABLE:

NONE

PAYMENT:

This rate requires Customers to prepay for the voluntary service provided pursuant to this tariff by means of credit, debit, ~~or~~ pre-paid cards-only/accounts, and other mobile payment options, as determined by the Company. Payment must be made before charging service is rendered.

TERM:

The term for this rate begins with the date of approval by the Commission and ends when an updated rate is approved by the Commission.

RULES:

Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Effective April 7, 2021, 2023

Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

3rd Revised No. 140  
Superseding  
2nd Revised No. 140

RATE EVP  
ELECTRIC VEHICLE CHARGING ON PUBLIC/PRIVATE PREMISES

AVAILABILITY:

Available to Customers charging their electric vehicles (EVs) at certain AES Indiana (“the Company”) owned and operated level 2 public charging facilities located within the Company’s assigned utility service area. Such public charging facilities may be located at hotels, museums, public parking facilities, city right of way, retail locations, or any other locations subject to an agreement with the property owner. Participation is voluntary. Energy consumption billed under this rate shall be used exclusively for charging licensed electric vehicles.

EQUIPMENT:

The Company will own and operate the public charging equipment and will install, own and operate any necessary metering equipment subject to a lease agreement with the owners of the property on which public charging equipment is located. Customer’s charging system in the electric vehicle must meet applicable standards. Further, Customers must take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of the Customers’ charging system in the electric vehicle.

METERING AND BILLING:

EV charging service will be billed and paid for at the point of service prior to charging by means of credit, debit pre-paid accounts, and other mobile payment options, as determined by the Company, at rates specified in this rate schedule. The charging service will be metered separately.

CHARACTER OF SERVICE:

Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company. Service provided includes use of the charging equipment, electricity needed per session, and the convenience of charging in a public location.

RATE:

During the term of this rate, the charge will be \$0.357 per kilowatt hour. The Company may seek authority to change this rate periodically based on market conditions, if approved by the Indiana Utility Regulatory Commission.

STANDARD CONTRACT RIDERS APPLICABLE:

NONE

PAYMENT:

This rate requires Customers to prepay for the voluntary service provided pursuant to this tariff by means of credit, debit, pre-paid accounts, and other mobile payment options, as determined by the Company. Payment must be made before charging service is rendered.

TERM:

The term for this rate begins with the date of approval by the Commission and ends when an updated rate is approved by the Commission.

RULES:

Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Effective \_\_\_\_\_, 2023

Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

Original No. 140.1

RATE DCFC  
ELECTRIC VEHICLE CHARGING RATE FOR PUBLICLY AVAILABLE,  
AES INDIANA OWNED AND OPERATED DIRECT CURRENT FAST CHARGING EQUIPMENT

AVAILABILITY:

Available to Customers charging their electric vehicles (EVs) at certain AES Indiana (“the Company”) owned and operated Direct Current Fast Charging (“DCFC”) public charging facilities located within the Company’s assigned utility service area. Such public charging facilities may be located at hotels, museums, public parking facilities, city right of way, retail locations, or any other locations subject to an agreement with the property owner. Energy consumption billed under this rate shall be used exclusively for charging EVs.

EQUIPMENT:

The Company will own and operate the publicly available DCFC and will install, own and operate any necessary metering equipment subject to a lease agreement with the owners of the property on which public charging equipment is located. Customer’s charging system in the electric vehicle must meet applicable standards. Further, Customers must take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of the Customers’ charging system in the electric vehicle.

METERING AND BILLING:

EV charging service will be billed and paid for at the point of service by means of credit/debit, pre-paid accounts, and other mobile payment options, as determined by the Company, at rates specified in this rate schedule. The DCFC equipment will be separately metered.

CHARACTER OF SERVICE:

Sixty cycle alternating current energy, ordinarily delivered and measured at 208 volts three-phase, or 480 volts three-phase, at the option of the Company. Service provided includes use of the charging equipment, electricity needed per session, and the convenience of charging in a public location.

RATE:

During the term of this rate, the charge will be \$0.357 per kilowatt hour. The Company may seek authority to change this rate periodically based on market conditions, if approved by the Indiana Utility Regulatory Commission.

STANDARD CONTRACT RIDERS APPLICABLE:

NONE

PAYMENT:

This rate requires Customers to pay for the voluntary service provided pursuant to this tariff by means of credit, debit, pre-paid accounts, or other mobile payment options, as determined by the Company.

TERM:

The term for this rate begins with the date of approval by the Commission and ends when an updated rate is approved by the Commission.

RULES:

Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Effective\_\_\_\_\_, 2023



Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

Original No. 140.2

TARIFF EVSE  
ADDITIONAL CHARGE FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT  
FURNISHED BY THE COMPANY TO CUSTOMER  
(APPLICABLE TO RATES SS, SH, SL, PL, CSC, AND HL)

PURPOSE

This tariff sheet provides the terms, conditions and fees for eligible customers who request to have Electric Vehicle Supply Equipment (EVSE) installed at one or more of their facilities

APPLICABLE

Available to non-residential customers served under a valid AES Indiana rate. Applicable to rates SS, SH, SL, PL, CSC, and HL).

DESCRIPTION OF SERVICE

An eligible customer may request that the Company furnish and install EVSE not deemed by AES Indiana (hereinafter called "the Company") necessary for normal service. The Company will furnish and install such facilities provided that the Company has no engineering, legal, regulatory, or safety reason for not making such installation.

CHARGES

A monthly charge of one and sixty-five hundredths per cent (1.65%) of the total cost, including installation and administrative cost, of the equipment used or ready to be used at the beginning of the monthly billing period.

TERMS OF THE SERVICE AGREEMENT

- a. **Equipment Eligibility:** EVSE is available for networked or non-networked Level 2 and/or Direct Current Fast Charging ("DCFC") EVSE. Networked EVSE may be eligible for additional incentives or tariffs designed to assist customers in charging during off-peak hours (e.g. Managed Charging).
- b. **Contracting:** Customers will enter into a separate contract with the Company. The term of this contract shall begin at the time the EVSE is commissioned for operation and extend for a minimum period of five (5) years. This agreement will be automatically renewed for successive like terms after the initial 5 year period. The agreement will contain an inventory of equipment and costs that act as the basis for calculating the monthly bill premium.
- c. **Termination:** With sixty (60) days written notice, this agreement may be terminated by either party without penalty after the initial five (5) year term is complete without late or missed payments.
- d. **Early termination:** A customer may provide sixty (60) days written notice to terminate the agreement early. In the event of an early termination request, customer shall be responsible to pay in full the remaining pro-rated balance of the EVSE equipment, administrative and installation costs incurred by the Company.
- e. **Ownership:** The Company will own, operate, and maintain the EVSE installed.

Indianapolis Power & Light Company  
d/b/a AES Indiana  
One Monument Circle, Indianapolis, Indiana

I.U.R.C. No. E-18

Original No. 140.3

TARIFF EVSE (continued)

f. **Transfer of Ownership:** After completion of the initial five (5) year term, the customer may request that the Company transfer ownership of the EVSE and any associated equipment. Provided that the customer requests ownership of the EVSE, the Customer shall be fully responsible for the ongoing operation and maintenance of the equipment and shall hold the Company harmless once ownership has been transferred to the Customer.

g. **Make Ready Work:** To participate in Rate EVSE, customers may need to upgrade their electrical service on the customer side of the meter and/or may require additional distribution system investment on the Company's side of the meter. Any necessary electrical work on the customer's side of the meter may, at the customer's request, be included in the installation and equipment chargers included in the monthly bill premium. Any necessary electrical work on the Company's side of the meter will follow AES Indiana's Line Extension Policy. Any customer contribution in aid of construction required by the Company's Line Extension policy may additionally be included in the monthly bill premium.

h. **EVSE Additions, Moves, or Removals:** Customer may request that the Company add, move, or remove EVSE and other supplemental equipment throughout the term of the Agreement. Inventories of equipment will be revised whenever changes occur in the field to reflect additions, moves, and/or removals based on the current installed cost as determined by the Company. These changes will result in a revision to the monthly charge. All inventories will be reviewed for unbilled additions or removals at least every five (5) years, for the purpose of assuring the billing inventories are current.

RULES & REGULATIONS:

All Distribution Service of the Company is rendered under and subject to the Rules and Regulations contained within this tariff and any terms and conditions set forth in any Service Agreement between the Company and the Customer.

Petitioner's Attachment ZE-7  
(Proofs of Publication)  
[WILL BE FILED ONCE RECEIVED]

Petitioner's Attachment ZE-8  
(VERIFIED PETITION)  
[NOT REPRODUCED HEREIN]