STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

AMENDED PETITION OF DUKE ENERGY INDIANA, LLC SEEKING (1) APPROVAL OF A PROPOSED ELECTRIC TRANSPORTATION PROGRAM AND AUTHORITY TO DEFER RELATED EXPENSES; (2) APPROVAL OF A PROPOSED ELECTRIC VEHICLE FAST CHARGING (EVFC) TARIFF; AND (3) APPROVAL OF A PROPOSED ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE) TARIFF	)	**CAUSE NO. 45616**

DUKE ENERGY INDIANA, LLC'S SECOND ANNUAL REPORT

Pursuant to the Indiana Utility Regulatory Commission's Order in this Cause on June 1, 2022 ("Final Order"), Duke Energy Indiana, LLC ("Duke Energy Indiana" or the "Company") hereby provides its Second Annual Report for the period October 1, 2023, through September 30, 2024.

I. Residential EV Charging Program

Program Summary

The Residential Electric Vehicle ("EV") Charging program rewards customers with a $50 quarterly credit for charging their EV during off-peak hours while avoiding charging on-peak. The program allowed for up to 500 residential customers to participate on a first-come, first-served basis. Customers were assigned to one of three method groups to test the customers willingness to modify their EV-charging behavior. The method groups are as follows:

- **Baseline Charging** – Credit is received regardless of charging behavior
- **Off-Peak** – Credit paid per kWh of usage for charging between 9PM – 6AM.
- **Peak Avoidance** – Credit is given for charging outside 6AM – 9PM on weekdays.

Customers were eligible for only one incentive per household and must own, lease, or otherwise operate an EV on a regular basis. To enroll, customers had to show proof of installation of a Level 2 EV charger at their residence, proof of ownership of their vehicle, and charge at least once per week on average throughout the month.

Program Status

For marketing purposes, the program is referred to as "Off Peak Credit." While Off-Peak Credit began in October 2022, the Company deliberately delayed marketing at that time. The decision to do so reflected affiliate utility experience in Florida for similar, limited enrollment programs for

which Duke Energy Florida was forced to delay customer participation early in the program recruitment as interest outpaced approved program volume. In hopes of avoiding turning away interested participants because program enrollment limits had been reached, Duke Energy Indiana delayed active marketing campaigns until March of 2023.

The channels that have been most effective in driving page visits and applications have been search ads utilizing EV-related keywords and email. In particular, the results showed the effectiveness of the Company's email campaigns that targeted customers that would find this program relevant, which resulted in a significant increase in enrollments in the third quarter of 2023. As a result, in October 2023, paid and internal marketing efforts were again paused until Q1 2024 due to the increasing number of enrollments.

In January 2024, marketing began additional outreach, however, to avoid exceeding the enrollment cap, the program implemented a Waitlist. The Waitlist was initiated in March of 2024 and collected 209 interested customers. Two months after implementation, the Waitlist application process was removed from the Company portal to avoid exceeding the annual enrollment cap.

Operationally, the program used two methods of detecting EV charging. The first of these is vehicle telematics. Through this method, the Company's third-party program vendor monitored participant EVs for charging sessions both during and outside of off-peak time periods. The second method is AMI meter data analytics. Through this method, Company internal resources analyze meter data for participating customers to detect and measure EV charging load "spikes."

Throughout the life of the program 618 customers were actively enrolled; however, as the program progressed, 130 customers unenrolled for various reasons. Customers in the Baseline and Off-Peak cohorts had 59 and 40 withdraw, respectively, while the Peak Avoidance cohort had only 31 unenrollments.

Some of the unenrollments were the result of participants moving out of the Companies' territory, or customers selling their EV's. Other instances were due to the cost of EV OEM subscriptions. Customers found the incentive was not enough to cover the cost of connecting their OEM platform to participate. Another finding was that customers in the Off-Peak option stated having to charge enough to earn the incentive was an issue for them and seemed counterproductive to saving energy.

At program completion, there were 488 active participants in the program, broken down into method groups as follows:

- **Baseline – 201**
- **Off-Peak (kWh) – 159**
- **Peak Avoidance (Events) – 128**

The Baseline group had a higher allocation of participants than Off Peak and Peak Avoidance. There are two reasons for this. First, the Company allocated initial enrollments to the Baseline cohort, allowing the program to launch more quickly. Second, before the program added AMI meter data analysis to its technology toolkit, certain vehicle manufacturers began to limit third

party access to EV telematics for various reasons. In these cases, such participants were assigned to the Baseline method group.

In total, program participants charged 1445.00 MWh, or 93%, during off-peak hours while only charging 119.7 MWh (7%) during peak times. Of the 488 active participants in the program, the majority owned/operated Tesla vehicles by a very large margin. Tesla, being the largest OEM, used 956.63 MWh charging off-peak, and 99.70 MWh on-peak (as of 7/22/24). Additionally, 95% of participants operate battery electric vehicles (BEV) while less than 5% drive plug-in hybrid electric vehicles (PHEV). With PHEV being less prevalent, off-peak charging for this group was 5.53 MWh while on-peak was only 0.83 MWh for a total of 6.36 MWh used as of 7/22/24. Tesla, being the largest OEM, used 956.63 MWh charging off-peak, and 99.70 MWh on-peak (as of 7/22/24).

Customers who followed the charging guidelines were paid, collectively, a total of $86,532.17 in participation incentives.

Results to Date

Figure 1 below compares participant pre-enrollment peak energy usage for EV charging to the post-enrollment period starting in April 2023 and ending in September 2024. For the summer of 2024, on peak energy usage was down to just 8% of overall EV charging, compared to 22% pre-enrollment usage, a reduction of over 60%.

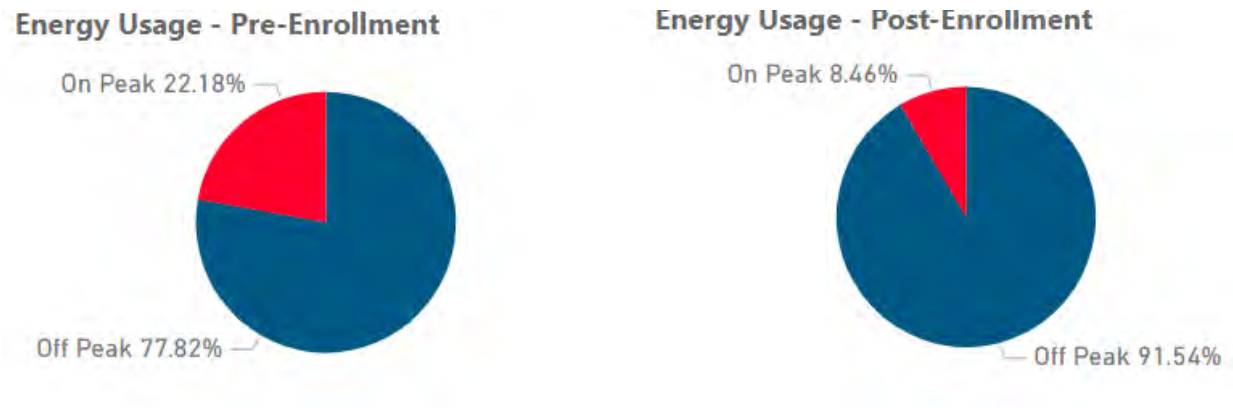

Figure 1. Comparison of Pre-Enrollment to Post-Enrollment On-Peak EV Charging

The program results for the load shape associated with both managed and unmanaged residential EV charging for all three program cohorts is listed below in Figure 2. Generally, participant response to the program is similar for all three cohorts, but the Off Peak and Peak Avoidance method groups have shifted more EV charging load from on-peak to off-peak.

Figure 2. Comparison of Pre-Enrollment to Post-Enrollment EV Charging Load Shapes

Lessons Learned

The Duke Energy Indiana program was innovative as it was designed to measure three different charging methods to determine which motivator would prompt the largest behavioral change. However, program results did not differ substantially between the non-Baseline cohorts. However, there is a notable difference between the Baseline and the other two incentive groups.

The Events "strike method" was found to be the most effective of all three cohorts, with less than 3% of those participants charging during peak hours. This has been consistent throughout the program's duration, showing that a modest incentive with simple peak hours program structure motivates customers to charge off-peak. The Company believes this is the most successful of the methods measured in this program.

Perhaps the most notable among lessons learned is that multiple technologies to measure EV charging are needed. The program intended a "telematics only" approach but the Company found this to be insufficient as instances developed wherein charging information was no longer accessible through connection to the customer's vehicle. The primary reason for this is automotive OEMs restricting third party access to telematics for various reasons. Today, having multiple data analytics methods ensures that participation in the program is unencumbered and that data for all participant types is available.

While informative for purposes of testing, managing three cohorts has proven to be akin to operating three distinct programs. Moreover, the presence of three methods has also been found to be more complex for customers to understand their charging guidelines and incentives. A more simplistic approach – even a "set it and forget it," single cohort method – is likely more appropriate for an at-scale program and would yield benefits in seamless program management, efficiency, and overall customer experience.

Finally, the most prominent request from customers is to receive on-bill credits in lieu of the program's pre-paid gift card. Insomuch as the pre-paid gift card allowed the Company to nimbly launch the limited volume program without significant billing system changes, future programs should consider this customer feedback.

Defined Program Metrics

Data for multiple defined program metrics is provided above. These metrics include

- Participant statistics and amount ($) of load management incentives issued
- Proportion of PHEV vs. BEV operated by Duke Energy Indiana customers
- Amount and timing of electricity consumption for residential EV charging (managed and non-managed)
- Managed charging data – established load curves for various participant groups
- What outreach efforts were most successful
- Effectiveness of the data collection technology platform used
- What caused customers to back out, or not continue with program enrollment
- Customer experience and feedback for each program to understand what was done well and what can be improved:

- Patterns of electricity consumption associated with different models and types of EVs:

Additional defined program metrics, for which information is provided below, are as follows:

- Cost of residential EVSE hardware and installation:
- Unforeseen Customer EV charging behaviors
- Customer satisfaction survey results:

Cost of EVSE Hardware & Installation

The average cost of customers' Level 2 charger was most typically in the $300.00 to $600.00 range. Customers generally paid less than $500.00 to have their home chargers installed. A histogram of EVSE hardware and installation costs is provided in Figure 3 below.

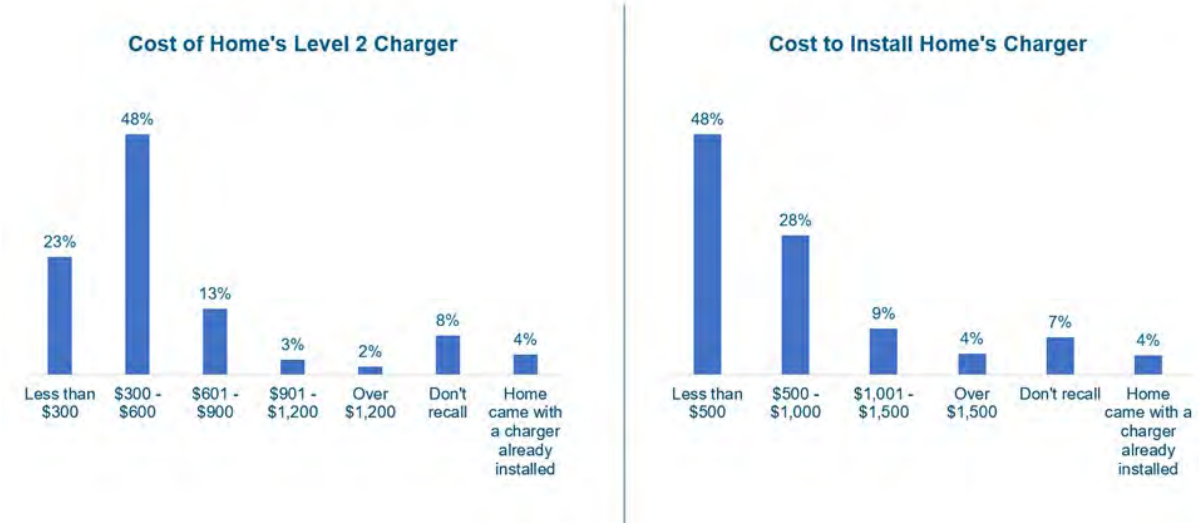

Figure 3. Participant Residential EVSE Hardware & Installation Costs

Unforseen Customer Charging Behaviors

As for unforeseen customer charging, it was found that there were instances of a customer leveraging Level 1 charging rather than the Level 2 required by program guidelines. Level 1 charging does not allow for proper data collection; therefore, the customer's account was identified as Inactive. Interestingly, the customer had Level 2 charging capability but was simply not using it.

Participant Satisfaction Survey Results

An online customer satisfaction survey was completed 15 months into the program. 381 surveys were sent with 92 participants responding. One notable finding was that 87% of the respondents believed that their vehicle charging behavior has changed as a result of participating in the program. Respondents also stated that they rarely use a public EV charger, with less than 71% using them once or less a month. Another insight was that customers in the Baseline and Off-Peak

methods felt there was little to no communication once they entered the program. While this is in line with the program design, a takeaway is that such an approach is a less than pleasant customer experience. Peak-Avoidance participants, however, continued to receive messaging throughout the program demonstrating that customer engagement and program messaging are key contributors to higher satisfaction for the customer.

Data for multiple defined program metrics is provided above. These metrics include

- Participant statistics and amount ($) of load management incentives issued
- Proportion of PHEV vs. BEV operated by Duke Energy Indiana customers
- Amount and timing of electricity consumption for residential EV charging (managed and non-managed)
- Managed charging data – established load curves for various participant groups
- What outreach efforts were most successful
- Effectiveness of the data collection technology platform used
- What caused customers to back out, or not continue with program enrollment
- Cost of residential EVSE hardware and installation:
- Unforeseen Customer EV charging behaviors
- Patterns of electricity consumption associated with different models and types of EVs:
- Customer experience and feedback for each program to understand what was done well and what can be improved:
- Customer satisfaction survey results:

Finally, certain defined program metrics are not available at this time and will be included in future reports, to the extent applicable. Those metrics include:

- System impacts of residential EV charging, such as residential transformers with more than one EV charging and other notable grid impacts
- Updated cost effectiveness test values

II. Commercial Rebate Program

Program Summary

The Commercial Charger Rebate program was designed to support the installation of 1,200 electric vehicle supply equipment (EVSE) for commercial customers across the Duke Energy Indiana service territory. Upon acceptance of a customer's application, and verification of proper installation of all EVSE behind a dedicated meter, the participating customer receives a one-time, $500 rebate incentive per EVSE installed.

EVSE incentives were available to commercial entities, public or private, including apartment dwellings, fleets and workplaces. EVSE incentives were allocated to four segments—Public Level 2, Multi-Unit Dwelling Level 2, Workplace Level 2, and Fleet Level 2. Private Fleet customers must own, lease, or otherwise operate on a regular basis, one or more plug-in electric vehicles per installed EVSE. Plug-in vehicles include both PHEVs and BEVs.

Duke Energy Indiana sought to distribute ten percent of public and multi-unit dwelling rebates to customers located in low-to-moderate income census tracts as defined by the 200 percent level of the United States Health and Human Services Poverty Guidelines for 2021.

Applications are considered on a first-come, first-served basis. Initially, a minimum of four EVSE were required per location to be eligible for the program. This requirement was removed in November 2023 to enable more broad participation. A single customer entity is limited to 20 EVSE incentives, regardless of their number of locations. All EVSE must be installed behind a dedicated meter. Customers choose the make and model of EVSE as well as whether to pursue networked or non-networked hardware.

For electric service at the dedicated meters, customers may select any available commercial rate, including time of use rates. Any usage will be billed thereunder.

Program Status and Results to Date

The program began running marketing campaigns actively in April of 2023. The channels that have been most effective in driving page visits and applications during this time have been social media and organic search. Other marketing channels that have been utilized to promote Commercial Charger Rebate include email and business-facing newsletters. In addition, the Company implemented cross-promotional strategies, such as marketing collateral that also featured the Company's Fleet Advisory and Charger Solution (EVSE Tariff) programs. The Company stopped marketing efforts and accepting new applications on September 30, 2024.

To date, there have been 51 applications for the Commercial Charger Rebate program. Of those, three applications have been approved, totaling $3,000 in rebates paid to businesses in Johnson, Hancock, and Jefferson Counties. Table 1 below provides a breakdown in the quantities of approved, networked EVSE by segment as well as rebate amounts.

Table 1. Breakdown of Approved Applications

Eligible segment	Public Level 2	MUD Level 2	Workplace Level 2	Fleet Level 2	Total
Allocation to date	1	2	3	0	6
Approved rebates	$500	$1,000	$1,500	$0	$3,000

In addition, four applications have been pre-approved, totaling $13,500 in rebates. Table 2 below provides a breakdown in the quantities of pre-approved EVSE by program segment as well as pre-approved rebate amounts. Pre-approved applications are tentatively scheduled to be completed before Q1 2025.

Table 2. Breakdown of Pre-Approved Applications

Eligible segment	Public Level 2	MUD Level 2	Workplace Level 2	Fleet Level 2	Total
Allocation to date	0	5	17	5	27
Pre-approved rebates	$0	$2,500	$8,500	$2,500	$13,500

Unfortunately, with the very limited overall participation in the program, zero approved or pre-approved applications are in low-to-moderate income census tracts.

Twenty-two applications were disqualified because they did not meet program requirements. Initially, the majority of those (>75%) were disqualified due to fewer than four EVSE installed per location. Since removal of the four EVSE minimum per location requirement in November 2024, applications were disqualified because applicants had residential accounts or installed EVSE before applying for the program.

Twenty-two applications were withdrawn or cancelled. Of those, approximately half were cancelled by the program manager due to lack of communication from the customer, despite multiple attempts. The remaining customers asked to withdraw their applications for reasons including infrastructure upgrades (i.e., separate meter), EVSE costs, and being "not ready."

Charging Behaviors

As previously mentioned, three applications have been approved with live EVSE on site. The Company has collected initial load shape data for each site. Load curves vary greatly – by charging segment and by individual customer.

Site 1: Car Dealership

A car dealership installed three workplace level 2 chargers for employee and customer use. As shown in Figure 4, the greatest energy, most consistent usage is during business hours with peaks during the lunch hour and nearing the close of business.

Figure 4. Auto Dealer Workplace Charging Loadshape

Site 2: Apartment Complex

An apartment complex installed two multi-unit dwelling level 2 chargers for resident use. As shown in Figure 5, charging activity increases throughout the day with the greatest peak at approximately 6 p.m. suggesting residents charge their vehicles after returning home from work.

Figure 5. Apartment Complex (MUD) Charging Loadshape

Site 3: Municipality

A municipality installed one public level 2 charger for community use. Peak charging activity occurs in the morning with consistent use throughout the day, as can be seen in Figure 6.

Figure 6. Municipal Public Charging Loadshape

Program Challenges

The Company removed the original program requirement for a minimum of four EVSE at a single location. This proved to be in the best interest of customers as three of four program participants installed fewer than four chargers.

In addition, while rebate amounts were, rightfully, designed with cost-effectiveness and prudency in mind, feedback from potential applicants and market installers of EVSE was that the $500 per charger incentive was often insufficient to tip the scales of a customer's decision to install EVSE – specifically as it relates to the cost of installing a separate, dedicated meter. The following customer quote summarizes this challenge, "Honestly, I don't think we will end up doing it this way because of the (1) extra meter fee every month, (2) additional cost of running a new meter. I don't think the rebate will be even close to offsetting the cost…"

Lessons Learned

The Commercial Charger Rebate program was innovative as it was the first Duke Energy rebate program of its kind in Indiana. The program was designed to support a customer's EV experience by offsetting charging infrastructure and allow the Company to study EV charging behaviors. While the program did offset some costs, ultimately, it was not enough for most customers. Consequently, three customers have participated in the program yielding minimal charging behavior data and grid impacts. Zero active program participants shared feedback when requested in a customer satisfaction survey.

Overall, applicants report seeking a program with higher credit amounts and without a separate metering requirement. In addition, residential customers expressed interest in participating.

Defined Program Metrics

Data for multiple defined program metrics is provided above. These metrics include:

- Participant statistics and amount of incentives issued
- Data regarding the geographic diversity of charging locations
- Whether 10% of incentives were fulfilled for low-income areas
- What percentage of installed stations are networked

- What caused customers to back out, or not continue with program enrollment
- Charging behaviors and system impacts
- Customer experience
- Customer satisfaction survey results

In other cases, defined program metrics are not available:

- System impacts of commercial EV charging
    - Minimal system impacts as four customers participated in the program

III. Electric School Bus Program

Program Summary

The Electric School Bus Program sought to explore the benefits and challenges associated with the addition of electric school buses to the distribution grid. This includes the study of bi-directional power flow from EV School Bus batteries back to the distribution grid. The program provides up to $197,000 in funding per bus for up to six school buses and no more than two buses per school system. Using the available funding, the Company installs and owns bi-directional charging hardware for the participating school system, which is responsible for the operation and maintenance of the charging station. Any funds remaining are applied to the purchase of the electric school bus itself, which the school system owns.

Program Status and Results to Date

At program launch, the Company conducted an awareness campaign that included communication to customer school corporations through account managers and email and telephone outreach. A more focused approach targeted school corporations that met priority selection criteria set for EPA Clean School Bus funding opportunities, as is discussed in more detail below. Notably, customer marketing focused on these EPA criteria align well with the program requirement that at least half of the incentives are to be distributed to participating school corporations with over 30% of students on free or reduced lunches. Additional outreach included collaboration with external stakeholders such as officers at the EPA Region 5 office and the Drive Clean Indiana organization. This included participating in Drive Clean Indiana's Clean School Bus Consortium working meetings and providing a letter of support for the consortium's 2023 EPA Clean School Bus Grant application (pending).

Since program launch, six eligible school corporations have applied to participate. As of this writing, no applications have resulted in applicants securing needed funding nor have any pursued program deployment.

Program Challenges

There have been two primary reasons why potentially interested customers do not commit to the program. The first is lack of sufficient comfort with electric vehicle technology, especially bi-directional charging. Interested customers must overcome a learning curve associated with new

fueling infrastructure for electric school buses. Further, because vehicle-to-grid technology is even more nascent than the EV market at large, school districts can be reluctant to add perceived complexity to their essential mission of transporting students.

Of greater significance is that program participation relies heavily on the ability of school corporations to secure outside funding above and beyond that provided by the program. Electric school buses and their infrastructure can easily exceed $400,000 in total cost. Considering this challenge, school corporations interested in procuring electric school buses are pursuing additional funding. The most notable source is the EPA Clean School Bus Program, which has conducted the 2022 Clean School Bus Rebate ($867,000,000 awarded), 2023 Clean School Bus Grant ($965,000,000 awarded), and the 2023 Clean School Bus Rebate ($955,000,000,000 awarded). While one customer district was awarded EPA funds, the customer chose not to participate in the V2G program.

Given that interested customers have not been able to secure the complementary funding necessary to participate in the program, the Company seeks to close the program at this time.

Defined Program Metrics

Data for certain defined program metrics is provided above. These metrics include:

- What caused customers to back out, or not continue with program enrollment.

In other cases, defined program metrics are not available due to lack of participation. Those are as follows.

- Impact of the program on EV school bus purchases
- Amount of energy used by an EV School Bus
- Electricity consumption and customer charging behavior
- Average load curves
- Capability for bi-directional power events
- Number of bi-directional events were performed each year
- System impacts of EV School Bus charging and discharging
- Amount of charging performed off-peak
- EV School Bus reliability statistics
- Fuel and maintenance savings
- Emissions reductions
- Distance buses were able to transport students
- Impacts of various EV School Bus applications, such as geographic route differences and weather
- Customer experience and feedback for each program to understand what was done well and what can be improved

IV. Fleet Advisory Program

Program Summary

The Fleet Advisory Program provided a comprehensive analysis for customer fleet operators interested in electrifying their vehicles. The Program was approved for up to 45 consultations, with each fleet analysis budgeted at $12,000. Participation was on a first-come, first-served basis to non-residential Duke Energy Indiana commercial customers operating a fleet.

Program Status and Results to Date

Program outreach began in October 2022 with the Company's Large Account Executives targeting government, school, and commercial & industrial fleet customers. Program enrollments began in March 2023, and the first completed study was delivered in July 2023. The Company continued outreach efforts through its Government and Community Relations Managers, as well as targeted outreach to commercial/industrial customers.

As of October 2024, the Program has enrolled eighteen fleet customers consisting of municipalities, school districts, a university, a communications company, a manufacturer, a large government facility, logistics firm, transit agency, commercial sales fleet, and a tree services provider. These diverse fleets represent over 5,600 vehicles combined including sedans, SUVs, light-duty trucks, medium-duty vocational trucks, transit buses, school buses, heavy-duty trucks, specialized vehicles, and non-road equipment.

All of the eighteen fleets enrolled have received completed studies as of October 2024. Across the completed studies, approximately 3,500 vehicles evaluated had EV-equivalent options available, and over 1,500 were recommended for conversion based on Total Cost of Ownership (TCO) as compared to conventional internal combustion engine (ICE) vehicles. TCO calculations reflect a vehicle's initial capital cost, the capital cost of the EV charging infrastructure, fuel costs, and maintenance cost minus any incentives such as programs, taxes, rebates, etc. TCO savings are cumulative from the time the vehicle is procured until the expected retirement date, which causes the study timeframe to vary based on each individual customer's operations. Table 3 below highlights the TCO savings of the recommended conversions as well as the fuel and maintenance savings amount. The table also provides capital costs premiums associated with the procurement of EVs and associated charging hardware. With regard to these costs, certain analyses produced unexpected results. Specifically, for certain customers, the availability of tax credits, EV and EVSE grants, qualified incentives, and vehicle selections helped with price parity or led to the purchase of EVs being cost favorable as compared to ICE alternatives.

Table 3. Customer TCO Savings of Fleet Vehicles Recommended for EV Conversion

Industry	On-Road Vehicles	EVs Recom-mended	Lifetime TCO Savings	Capital Cost Difference	Fuel Savings	Maint. Savings	CO2/GHG Metric Tons
Government	465	118	$ 3,594,505	$ 287,196	$ 1,655,381	$ 1,651,928	12,483
Manufacturing	42	27	$ 60,229	$ (116,332)	$ 92,461	$ 84,100	437
Municipality	444	85	$ 4,179,515	$ 3,782,124	$ 314,319	$ 83,072	2,085
Municipality	459	278	$ 17,507,887	$ (1,410,366)	$ 2,294,564	$ 16,623,689	12,419
Utility	97	78	$ 4,393,105	$ 666,478	$ 1,049,464	$ 2,677,163	3,548
Municipality	131	47	$ 2,489,989	$ 170,235	$ 1,695,454	$ 624,300	5,723
School District	53	30	$ 1,097,893	$ (533,713)	$ 637,134	$ 994,472	3,397
Communications	89	29	$ 302,848	$ 51,077	$ 133,959	$ 117,812	582
Tree Service	59	16	$ 555,268	$ 359,876	$ 152,200	$ 43,192	720
Municipality	378	66	$ 538,289	$ (442,926)	$ 614,832	$ 366,383	4,169
Municipality	173	64	$ 1,832,280	$ 840,578	$ 574,612	$ 416,910	2,710
University	571	351	$ 4,077,922	$ (260,850)	$ 2,758,838	$ 1,579,934	20,758
School District	257	94	$ 4,458,042	$ (440,955)	$ 2,495,376	$ 2,403,621	13,177
Logistics Firm	41	10	$ (901,457)	$ (1,091,094)	$ 158,478	$ 31,159	701
Transit Agency	69	64	$ 5,630,512	$ 1,150,726	$ 2,835,553	$ 1,644,233	14,554
Sales Fleet	176	140	$ 1,660,387	$ 642,635	$ 142,505	$ 875,247	5,534
Municipality	156	52	$ 366,443	$ (353,450)	$ 407,763	$ 312,130	1,448
School District	16	7	$ 504,152	$ 9,932	$ 228,151	$ 266,069	611
Total	3,676	1,556	$ 52,347,809	$ 3,311,351	$ 18,241,044	$30,795,414	105,083

Each fleet advisory study evaluates how much time vehicles have to charge when idle to determine what level and rate of charging would be required. The studies include information on different types of chargers and inform fleets of the benefits and drawbacks of each style. The Company informed fleets of the benefits of charging management, which includes the use of off-peak hours to reduce energy costs, by including an example showing the difference in price for charging a vehicle based on timing using a standard commercial electric rate. Fleets are also made aware that a specific review of their rate is available upon further request through a Duke Energy liaison and would be further evaluated at the time of project initiation.

The site assessment section of the study provides the customer with estimated incremental power demand and annual kWh across their usage at the sites. This utilizes the customer fleet profile/habits to determine the optimal charger level and rate to reduce additional load and cost requirements. The information is summarized in a table in the final report delivered to the customer at the completion of the study to help with further analysis that could reduce the number of chargers. See Table 4 for a sample site load impact study showing the estimated effects of adding chargers to different sites based on customer data.

Table 4. Sample Site Load Impact Study

Charging Site	L2 (QTY)	DCFC (QTY)	Estimated Total Power Demand (kW)	Estimated Maximum Power Demand (kW)	Estimated Site EVSE Hardware and Installation Costs
Main Office	6	0	60	81	$18,611
Office B	16	2	171	237	$175,000
Park 1	3	2	127	241	$125,000
TOTAL	**25**	**4**	**358**	**559**	**$318,611**

Each study also evaluates where the vehicles are parked to provide the fleets with site specific impact analysis to determine how the charging loads could affect the locations. For example, a local municipal utility was found to need over 60 chargers at their main office requiring over 600 kW of load. Three other facilities would require only 4-9 chargers each and loads of roughly 40-100 kW. Fleets can use these numbers to determine what upgrades may be needed to their current infrastructure at their depot locations.

To that end, the Company also plans to use this information to screen the customer locations for any capacity constraints or significant system upgrades that would occur as a result of a given fleet committing to large scale conversion to electric vehicles. To date, while a handful of fleets have electrified on a very limited scale, no fleets within the study have made such a large-scale commitment to electrification of their fleet. Individual fleet study insights on system upgrade needs may also be leveraged to predict any clustering effect of fleet electrification and to ensure grid readiness of the impacted circuit(s). There is one such case of a customer being in a cluster of other fleets where capacity is limited for future electrification growth. In this case, the Company is pursuing upgrades to this cluster area due to information from other customers that are electrifying their fleets, but not for the Fleet Advisory participant due to that customer's lack of commitment to electrification. Table 5 illustrates the expected load impacts for each study.

Table 5. Actual Study Load Impact Results

Fleet Type	On-Road Vehicles	EVs Recommended	Expected EVSE Demand (kW)
Government	465	118	1,648
Manufacturing	42	27	297
Municipality	444	85	935
Municipality	459	278	3,047
Utility	131	47	573
School	53	30	370
Utility	97	78	803
Communications	89	29	352
Tree Service	59	16	38
Municipality	378	66	723
Municipality	173	64	747
University	571	351	2,320
School	257	94	1,034
Distribution	41	10	347
Transit	69	64	4,605
Sales Fleet	176	140	1,540
Municipality	156	52	592
School	16	7	77
Totals	3,676	1,556	20,048

To date, the company is aware of two fleets that have implemented an EV into their fleet and another that installed EVSE in anticipation of purchasing EVs. Due to the forward-looking nature of the study and because current year procurements are generally already planned, many fleets chose to begin their analysis in fiscal years 2024 & 2025. Additionally, one fleet has expressed that it likely cannot pursue the recommendations for their fleet due to budget issues delaying any vehicle procurement. Several fleets have expressed interest in taking advantage of other EV programs provided by the Company as they ultimately pursue electric fleet vehicles, but none have acted on that interest as of yet.

Feedback surveys have been sent to the fleets that have completed studies. The survey includes questions on participant's satisfaction with the program, how the study would impact plans to electrify, and their timeline to electrify. Of the eighteen fleets for which the advisory study has been completed, four have provided feedback thus far. The feedback provided indicated the fleets were satisfied with the study and that the information the study provided was helpful in guiding future plans for fleet purchases. Certain fleets have shown interest in the program but later declined enrollment stating that they did not have time for active participation in the study or that they felt current vehicle offerings did not fit their needs. The Company is confident that as electrification trends continue and technology improves these customers, and many others, would be interested in the continuation of this program. To date, the program has not had any customers back out or discontinue progress once they were enrolled.

As the program comes to a close, the Company recognizes that the next few years may lead to greater electrified fleet adoption than the last two years. Thus, the Company sees value in continuing this program or a similar program that provides further insight into fleet demand while also helping fleet customers understand the utility, environmental, and operational benefits of electrifying certain vehicle types.

Defined Program Metrics

Data for multiple defined program metrics is provided above. These metrics include:

- Various result summaries from different customer consultations
- Potential operational savings from fuel and maintenance cost reductions
- Number of participants that also utilized additional ET Program incentives (thus far)
- What caused customers to back out, or not continue with program enrollment
- Customer experience and feedback for each program to understand what was done well and what can be improved (thus far)
- Potential opportunities and benefits of charging management
- Number of customers that converted their fleets to EV (thus far)
- Reasons provided by customers not converting their fleets to EV
- Costs and benefits of incremental load with given customer profiles

V. Education and Outreach

General Education & Outreach

Education and Outreach includes program-specific marketing and outreach as well as general EV education and outreach. Program-specific marketing efforts are described in the program-specific sections of this report provided above.

In terms of general EV education, the Company has driven consistent traffic to its educational webpage through channels such as organic search, paid search, and email. Of those channels, organic and paid search have driven the most traffic to the Company's educational content over the course of the last year. The Company has also encouraged EV education by leveraging its experiential assets at large events in Indiana. This provides the Company an opportunity to engage and educate the public about EVs.

General education campaigns are targeted to a broad audience in Indiana with the goal of positioning both the Company's educational website and its suite of programs. The Company's website is intended as a source of information for customers that have not yet made the decision to purchase an EV. Naturally, the Company's programs are presented as solutions for customers as they move toward decision to purchase an EV. General EV education campaigns will continue into 2025 with a similar channel mix.

VI. Supply Chain Related Challenges

Fortunately, while supply chain constraints certainly remain a challenge for the industry at large, the Company has not encountered any supply chain issues specific to the four programs associated with this report.

Respectfully submitted,

DUKE ENERGY INDIANA, LLC

By: _____
Counsel for Duke Energy Indiana, LLC

Andrew J. Wells, Attorney No. 29545-49
Elizabeth A. Heneghan, Attorney No. 24942-49
Duke Energy Business Services LLC
1000 East Main Street
Plainfield, Indiana 46168
Telephone: (317) 838-1318
Facsimile: (317) 991-1273
Andrew.wells@duke-energy.com
beth.heneghan@duke-energy.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing was electronically delivered this 31st day of October 2023 to:

T. Jason Haas
Office of Utility Consumer Counselor
115 W. Washington Street
Suite 1500 South
Indianapolis, IN 46204
thaas@oucc.IN.gov
infomgt@oucc.IN.gov

Jennifer A. Washburn
Reagan Kurtz
Citizens Action Coalition
1915 West 18th Street, Suite C
Indianapolis, IN 46202
jwashburn@citact.org
rkurtz@citact.org

David T. McGimpsey
DENTONS BINGHAM GREENEBAUM LLP
212 W. 6th Street
Jasper, IN 47546
david.mcgimpsey@dentons.com

Counsel for Duke Energy Indiana, LLC

Andrew J. Wells, Attorney No. 29545-49
Elizabeth A. Heneghan, Attorney No. 24942-49
Duke Energy Business Services LLC
1000 East Main Street
Plainfield, Indiana 46168
Telephone: (317) 838-1318
Facsimile: (317) 991-1273
Andrew.wells@duke-energy.com
beth.heneghan@duke-energy.com