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December 20, 2023

### **VIA ELECTRONIC FILING**

Adam J. Teitzman, Commission Clerk Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Duke Energy Florida, LLC's Application for limited proceeding to approve 2021

Settlement Agreement and 2017 second revised and restated settlement agreement;

Docket No. 20170183-EI and 20210016-EI

Dear Mr. Teitzman:

Enclosed for filing on behalf of Duke Energy Florida, LLC ("DEF") is DEF's Electric Vehicle Programs—6<sup>th</sup> Annual Report (December 2023), in accordance with Paragraph 17.f.ii of the 2017 Second Revised and Restated Settlement Agreement, which was approved in Order No. PSC-2017-0451-AS-EU, dated November 20, 2017 and Paragraph 17 of the 2021 Settlement Agreement and approved by Order No. 2021-0202-AS-EI, dated June 4, 2021.

Thank you for your assistance in this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Sincerely,

/s/ Dianne M. Triplett

Dianne M. Triplett

DMT/mw Enclosure

## **CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished via electronic mail to the following this 20<sup>th</sup> day of December, 2023.

/s/ Dianne M. Triplett
Attorney

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December 2023



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## **EXECUTIVE SUMMARY**

## **Program History**

On November 20, 2017, the Florida Public Service Commission ("FPSC") approved the 2017 Second Revised and Restated Settlement Agreement ("2017 RRSSA") with Duke Energy Florida ("DEF") that included a provision to allow DEF to initiate a Pilot Program, known as "Park & Plug" or "P&P," to install, own and operate electric vehicle service equipment ("EVSE") infrastructure within its service territory ("EVSE Pilot"). The FPSC later approved Duke Energy's 2021 Settlement Agreement, which allowed DEF to continue certain aspects of the EVSE Pilot and pursue additional EV programs. This report provides an update on the transition of portions of Park & Plug not continued by the 2021 Settlement agreement as well as deployment of the EV programs authorized by the 2021 Settlement Agreement.

The EV programs that were approved as part of the 2021 Settlement Agreement are the Residential Off-Peak Credit program, the EVSE Commercial and Industrial (C&I) Rebate program and the Park & Plug DCFC Expansion program. The Residential Off-Peak Credit program provides eligible EV drivers a monthly \$10 bill credit for avoiding charging during peak hours. The EVSE C&I Rebate program provides eligible C&I customers rebates for installing EV chargers. Rebate amounts for this program vary by segment. The P&P expansion effort will install up to 100 new DC fast chargers at 50 sites and upgrade up to 50 DC fast chargers at existing locations.

## **Program Status**

### Park & Plug DCFC Expansion

The Park & Plug program is on track to deploy and commission six DCFC sites in 2023, including five new locations and one upgraded site. Hardware deployed to date includes 180 kW chargers, an increase in capacity as compared to the majority of hardware installed in the first phase of deployment. An additional four sites are under construction and another two under contract with more planned in 2023.

A notable achievement for the program in 2023 were an increase in reliability, including the legacy network of Level 2 charging hardware. Typical monthly snapshots of the charger network showed that 95% of units were online and available to the public.

Finally, with the end of the program as outlined in the 2017 RRSSA, the Company also began the transfer of Level 2 assets to site hosts in 2023. As of the writing of this report, 78% of chargers deployed will remain with their current sites to be managed as the site host sees fit, 7% will be removed per the wishes of the site host and another 15% of charging ports were pending the sites hosts decision to retain or remove he hardware.

#### **Residential Off-Peak Credit**

The Florida Off-Peak credit program built upon a strong inaugural year with continued success in 2023. As was the case in 2022, customer participation has once again reached the annual enrollment limit of 1,000 new customers, with an additional 500+ customers on a waitlist anticipating open spots in 2024.

In 2023, the program also saw results in terms of shift in EV charging load. As participants have adapted to the charging guidelines set within the program, on-peak charging has decreased by more than 65% as compared to before program implementation.

#### **EVSE C&I Rebate**

The program launched in January of 2022 and has received forty-five applications. Notably, participation has been limited in part because customers chose not to go on the single rate available to remain eligible for rebates. In response to this, the Company has added additional, eligible rates and developed a comprehensive marketing plan. To date, the program has issued rebates to three customers for twenty-six EVSE totaling \$509,726.

## 2021 SETTLEMENT AGREEMENT

The 2021 Settlement Agreement authorized the Company to deploy three programs, as follows:

- Park & Plug DCFC Expansion
- Residential Off-Peak Credit
- EVSE C&I Rebates

#### Park & Plug DCFC Expansion

Approval for the DCFC Expansion includes \$25 million in capital expenditure to be used to deploy up to fifty new DCFC sites along highway corridor as well as to upgrade current Park & Plug DCFC sites.

#### **Residential Off-Peak Credit**

Approval for the Off-Peak Credit program allows the Company to enroll up to 1,000 customers per year for the years 2022-2025. The program pays a \$10 per month bill credits to participating customers, provided that that those customers avoid charging their EV during on-peak hours.

#### **EVSE C&I Rebate**

Approval for the C&I Rebate program enables the Company to pay up to \$28.4 million in rebates to non-residential customers that install separately metered EV charging equipment in any of ten use case categories. Rebates paid are to be booked to a deferred regulatory asset account.

## PARK & PLUG DCFC EXPANSION

#### **Deployment Approach**

DEF is sourcing new site hosts across its territory and, in lieu of securing a turnkey provider, serving as an integrator for EVSE procurement, engineering, electrical installers, and associated sub-contractors. In doing so, the Company can leverage experience in areas such as site suitability review and for strategic purchasing ahead of inflation. To combat supply chain challenges in the current economy the Company ordered chargers for sites planned through 2025. All inventory arrived in 2023.

#### **Data Collection**

All EVSE deployed are presently connected to the Shell Recharge Solutions, ChargeUp or EV Connect communications networks via cellular nodes within each EVSE or via local Wi-Fi connection. The communications network allows data collection and remote management of units (i.e., price configuration, charging load management, and ability to "push" unit software upgrades). The networks' database captures data across the network at both individual unit level and segment level across the entire P&P system.

Park & Plug provides monthly usage reports to site hosts to monitor utilization and inform their decisions to offer charging to drivers as an amenity or at cost to the EV driver.

Data collection is a key component to give visibility into usage and to characterize loads and load shapes to inform utility on methods to better serve EV load. Through the network software DEF has returned key data to help DEF understand:

- Load curves
- Utilization rates of various installations over time
- Unique drivers
- Specifications for DEF infrastructure to support EVSE sites

EV drivers utilize the network via phone apps, which allows users to:

- Find available units to charge
- Enable charging sessions at the charging station
- Pay for sessions (if applicable)
- Have visibility into charging activity for their vehicle
  - View charging sessions in real time
  - O View billed amount, if applicable, for each session
  - View history of charging activity on Park & Plug network

<sup>&</sup>lt;sup>1</sup> DEF established the FPSC approved prevailing GS-1 Flat rate as driver charge for those site hosts that elect to charge drivers for charging sessions. Rate GS-1 is applicable to Level 2 charging sites. For DC fast charging locations, rate FCF-1 is charged as a driver fee.

Other resources that show the P&P stations include Plugshare.com and the Alternative Fuels Data Center station finder on the website for the Department of Energy. DEF has limited ability to update and program third-party EVSE locating information or mobile apps.

## **DCFC Expansion Status**

Thus far, eleven new locations and one upgrade site have been contractually secured. Of those, six are commissioned, four are being constructed and two are in engineering design. The selected locations are along highway corridors with limited EVSE investment. Figure 1 shows the location of currently operating DCFC sites. As noted later in the report, some associated site hosts may not elect to continue with the program into 2024.

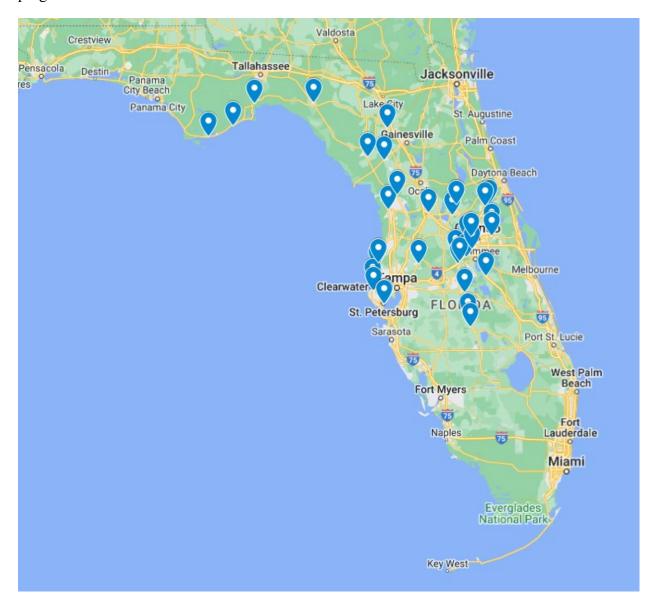


Figure 1. Map of Park & Plug DCFC Locations

P&P continues to connect key evacuation routes and tourism corridors where there was previously no availability of EV fast charging.

- US 19/98 Corridor locations include Apalachicola, Crawfordsville, Perry, Crystal River, Dunedin, Carrabelle (Contracted), Chiefland (Contracted), and New Port Richey (Contracted),.
- US 27 Corridor locations include, Sebring, Avon Park, Davenport (at I-4), Cagan's Crossing just south of Clermont, High Springs (Contracted), and Lake Wales (Contracted).
- **I-4 Corridor** locations include Deltona, Celebration, Champions Gate, intersection of US 27 at Davenport, and Orange City (Contracted).
- Florida Turnpike & US 301 locations include Turkey Lake and Canoe Creek service plazas, Wildwood, and City of Zephyrhills,
- **Urban** DCFC locations include Orlando, City of Largo and University of South Florida at St. Petersburg and St. Petersburg Pier.

The Park and Plug team is also currently working to renew existing DCFC site hosts to continue their participation in the P&P program. Sites that do elect to renew for the expansion phase are likely candidates for upgrade. Thus far, sites in Apalachicola, Avon Park, Canoe Creek, Crawfordville, Davenport, Oviedo, Turkey Lake, and Wildwood have elected to renew with the program with eight more indicating intention to continue. Chargers will be removed from Chiefland, Holiday, and Orlando.

Finally, the Park & Plug program is working with hosts of Level 2 charging hardware to transition operation of said hardware to the site host or, at the site host's discretion, remove the hardware and remediate the site. As of early December, hosts had chosen to retain 78% of Level 2 charging ports and operate them themselves while only 7% ports are slated for removal.

## **Program Spend**

Table 1 below details the program expenditures applicable to the DCFC expansion as well as ongoing maintenance for all units for the years 2022 and 2023. Capital costs reflected are for units expected in service as of December 31, 2023 and exclude costs for sites still in progress. In addition to DCFC costs, Operations & Maintenance (O&M) costs include any ongoing maintenance and transition costs for Level 2 chargers through November of 2023.

**Table 1. Park & Plug Program Costs** 

Capital	O&M
\$1.91M	\$2.23M

#### **Operating Statistics of Installed Charger Network**

Given the pending transition of Level 2 chargers, subsequent annual reports will focus solely on the DCFC network. To provide a clearer basis of comparison for future reporting, the 2023 report provides data on Level 2 and DCFC chargers separately.

#### **Level 2 Statistics**

Since the start of 2021, approximately 19,400 unique drivers have used the Park & Plug network of Level 2 chargers. The most popular Level 2 segment was the public segment, which was used by over 14,700 drivers. Workplace and MUD chargers were used by 3,700 and 2,000 unique drivers, respectively. Program data indicates that about 1,000 drivers may have used more than one type of Level 2 charger.

Figure 1 documents the number of charging sessions across the network of Level 2 chargers from these drivers. In addition to 2023 data, 2021 and 2022 data are included for comparison.

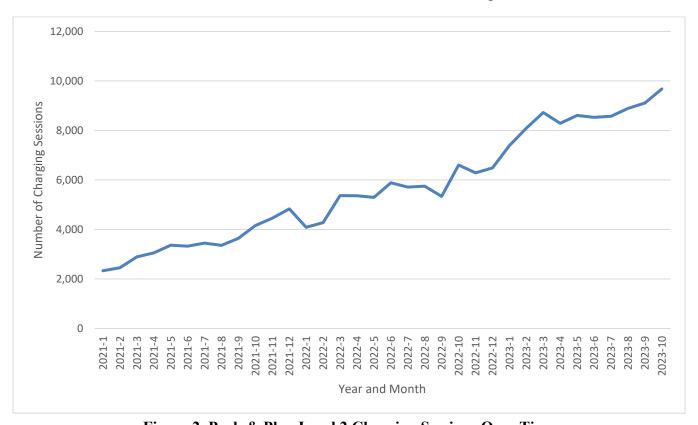


Figure 2. Park & Plug Level 2 Charging Sessions Over Time

Despite not adding additional Level 2 units in the past year, charging sessions have increased significantly indicating that utilization of the installed base of chargers is increasing. In 2022, the highest number of Level 2 charging sessions in any month was just over 6,600. By comparison, the lowest number of charging sessions in a given month 2023 was nearly 7,400 and the maximum near 9,700 through October.

Figure 3 provides the trend of energy dispensed by the Level 2 network dating back to 2021. Unsurprisingly, with increased charging sessions, increasing energy consumption is also observed. In the most recent twelve months shown, over 1.9 million kWh have been dispensed. Assuming an average vehicle efficiency of 3.5 miles per kWh, the Level 2 network has enabled over 6.75 million miles of EV driving.

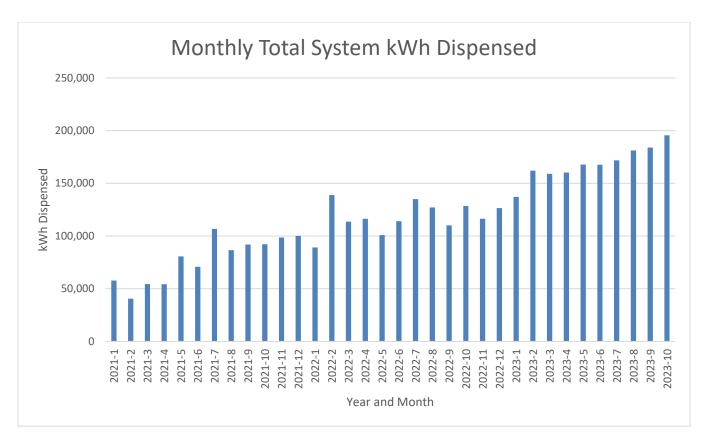


Figure 3. Park & Plug Level 2 kWh Dispensed Over Time

Figure 4 shows the relative trends of charging session growth for different Level 2 use case segments over time. Notably, utilization continues to increase in all segments.

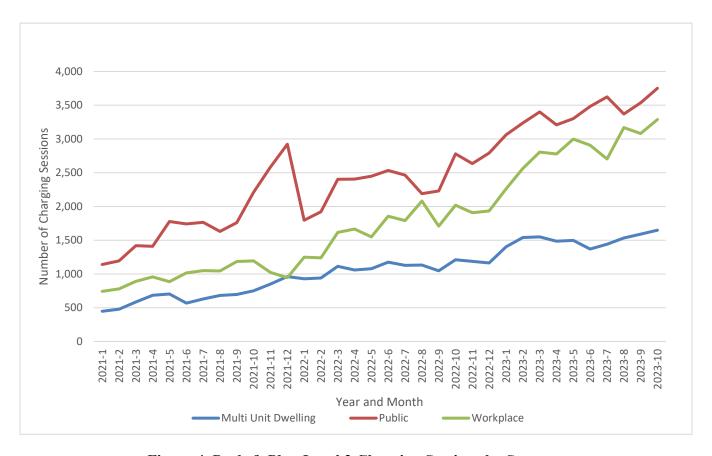


Figure 4. Park & Plug Level 2 Charging Sessions by Segment

Figure 5 displays the hourly load curves shape for Level 2 chargers by use case segment. Because the plot is intended to show relative load shapes, labels and quantification are not provided for the vertical axis. As can be expected by the times when EV drivers are parked in a respective location or are traveling, the segments of Park & Plug demonstrate the following daily load curve trends.

- MUD charging peaks in the evening as residents return home and falls to near zero over night as their EVs become charged
- Public Level 2 charging utilization is highest during normal business and evening dining hours, but significantly lower overnight
- Workplace charging peaks in the morning as drivers arrive to work, plug in, and receive the desired state of charge before the end of the day. This segment presents an opportunity for winter morning peak load management as it is likely that at least some charging could be deferred until later in the day without impacting workers ability to commute in the evening.

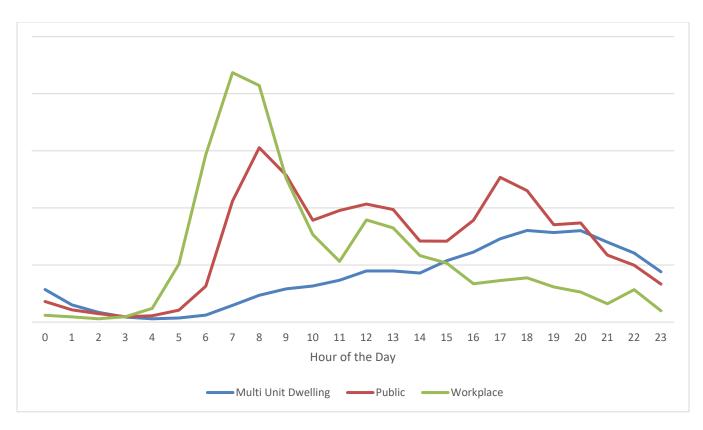


Figure 5. Park & Plug Level 2 Hourly Utilization Load Curves by Segment.

#### **DCFC Statistics**

Since the start of 2021, over 8,100 unique drivers have leveraged the Park & Plug network of DC fast chargers. Figure 6 documents the number of charging sessions across the network of public DCFC for that time period. As expected, utilization of the network continues to increase. In 2022, the highest number of Level 2 charging sessions in any month was just under 3,600. By comparison, the lower number of charging sessions in a given month 2023 was nearly 4,000 and the maximum over 6,500 through October.

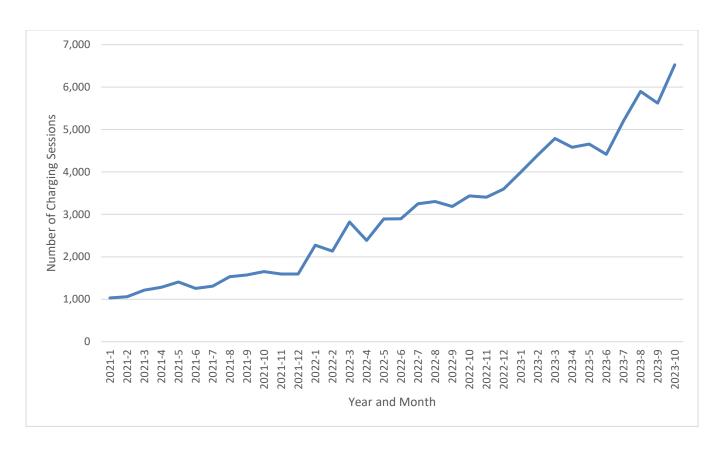


Figure 6. Park & Plug DCFC Charging Sessions Over Time

Figure 7 provides the trend of energy dispensed by the DCFC network dating back to 2021. Again, with increased charging sessions, increasing energy consumption is also observed. In the most recent twelve months shown, nearly 1.5 million kWh have been dispensed. Assuming an average vehicle efficiency of 3.5 miles per kWh, the DCFC network has enabled close to 5.25 million miles of EV driving.

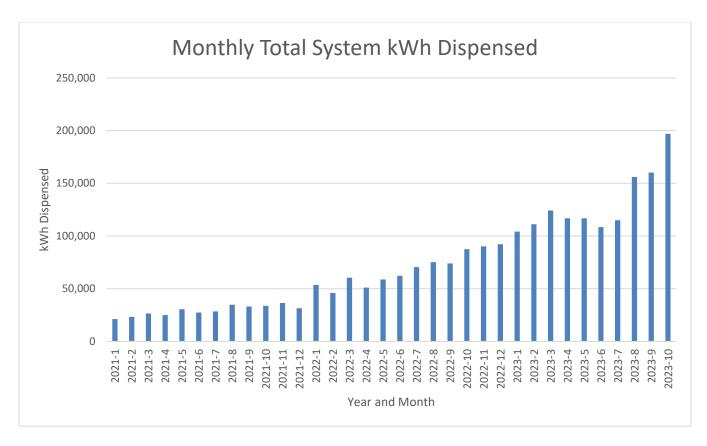


Figure 7. Park & Plug DCFC kWh Dispensed Over Time

Figure 8 displays the hourly load curve shape for DCFC chargers. Because the plot is intended to show relative load shape, labels and quantification are not provided for the vertical axis. DC fast charging is relatively steady during hours when long distance travel is typical. Interestingly, there is some element of charging later in the evening hours as well.

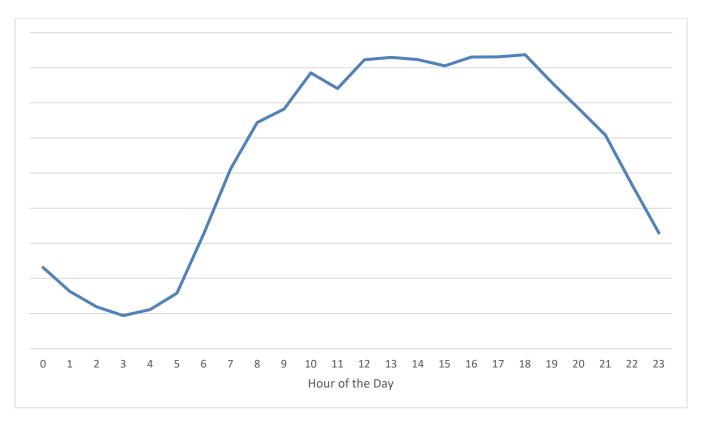


Figure 8. Park & Plug DCFC Hourly Utilization Load Curves

## RESIDENTIAL OFF-PEAK CREDIT

#### **Program Summary**

The DEF Off-Peak Credit program was launched in January of 2022 and is a residential program that incentivizes customers to charge their Electric Vehicles during non-peak demand periods. The program is scheduled to operate for four consecutive years with participation limits capped at 1,000 incremental customers annually. Customers are provided a \$10.00 monthly bill credit for avoiding charging their EV's during peak periods. Participants are allowed to enroll a maximum of two (2) EVs per account and are also permitted to "opt-out" and charge during peak-hours twice in a single month, without forfeiting their credit for that month. The off-peak periods defined for the program are Monday through Friday 10 a.m. to 6 p.m. and 9 p.m. to 5 a.m. as well as holidays and weekends.

To participate in the program, a customer must:

- Be a Duke Energy residential customer in Florida.
- Complete an online application
- Provide proof of a level 2 charger
- Provide a copy of vehicle registration, lease or otherwise operate on a regular basis a plug-in EV
- Submit a picture of EV display showing charging timer set to off-peak period.

• Not be on a TOU rate.

The Off-Peak program uses a third-party implementation vendor to help validate that the participant is a Duke Energy Florida customer, process applications, review documentation, track customer charging via vehicle telematics or load disaggregation, and provide customer care services.

For the EV charging data gathering functionality, the program utilizes two methods for detecting EV charging. These are vehicle telematics and AMI Disaggregation. Through the vehicle telematics method, the Company's third-party program vendor monitors participant EVs for charging via the vehicle's on-board communications system. The second method used is AMI meter data analytics. With this method, our third-party vendor analyzes data through the customers meter to detect and measure EV charging load "spikes." Both methods gather charging data during peak periods as well as off-peak time periods.

#### **Program Status**

As the program continues to build on its success from 2022, it has again nearly reached its annual incremental participation limit of 1,000 new customers.

As of the writing of this report, there are 1916 customers actively participating with over 250 additional customer applications in progress, but not complete. Of those EV drivers, 95% drive Battery Electric Vehicles (BEV's) while 5% drive Plug-in Hybrid Electric Vehicles (PHEV).

To date, very little marketing has been necessary to achieve participation targets. In fact, in both 2022 and 2023, the program implemented a waitlist to. In 2022, the waitlist was implemented early in the third quarter, while in 2023 the waitlist was once again implemented in July.

At this time, there are over 350 prospective participants on the waitlist. The program is on target to reach the yearly annual participation allotment, and any customer on the waitlist at year end will be contacted in 2024 for new openings.

#### **Load Shift Results**

In addition to successfully meeting the targeted goals, the program has also been successful in shifting 65% of customers charging on-peak to off-peak time periods. Prior to the implementation of the program, nearly 18% of the energy customers used to charge their EVs was consumed during on-peak hours. Today, only 6% of energy consumed by participants to charge their EVs occurs during peak hours. This result demonstrates customers' willingness to adapt their behaviors for a small incentive within a simple program structure. Figure 9 below graphically depicts the shift in on peak charging behavior by program participants.

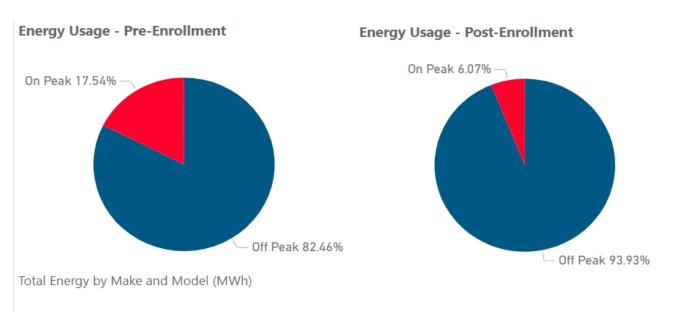


Figure 9. Off Peak Credit Pre- & Post-Enrollment Energy Usage Comparison

## **Program Spend**

Table 2 provides program costs from January 2022 through November 2023. Implementation costs (O&M) include labor, program implementation costs – including vendor and start-up costs – m and any limited marketing.

**Table 2. Program Spend to Date** 

O&M	<b>Customer Credits</b>
\$670k	\$223k

#### **Lessons Learned:**

The most notable result of the program is that customers are willing to alter their EV charging behaviors in exchange for a modest incentive. Additionally, the simplicity of the program has been praised as most customers have adopted a "set it and forget it" approach to scheduling their charger or their EV itself to charge only during pre-set time windows.

Another takeaway is that multiple data sourcing and analytics methods are necessary to ensure customer participation is not disrupted. In the early stages of the program, telematics was utilized as the data collection method as AMI meter data analytics methods were developed by the program vendor. As the program progressed, it was met with challenges as automotive OEMs began restricting third-party access to telematics data. Additionally, some customers have been unwilling to grant telematics-based data access. Having the ability to obtain charging data from various channels has eliminated these challenges.

## **EVSE C&I REBATES**

### **Program Summary**

The Commercial Charger Rebate program was designed to support the installation of \$28.5 million in electric vehicle supply equipment (EVSE) rebates for commercial customers across the Duke Energy Florida (DEF) 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 rebate per EVSE installed.

EVSE incentives are available to commercial entities, public or private, including municipalities, schools, apartment dwellings, government fleets and workplace fleets. EVSE incentives are available for the following ten use cases

- Public Level 2
- Multi-Unit Dwelling Level 2
- Workplace Level 2
- Fleet Level 2
- Public DCFC
- School Bus DCFC
- Transit Bus DCFC
- Fleet DCFC
- Forklift
- eTRU (electric truck refrigeration unit).

Rebate amounts vary by segment. 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.

DEF seeks to distribute 10 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. All EVSE must be installed behind a dedicated meter. Customers seeking to install multiple charging segments can use multiple separate meters for each charging segment or choose to submeter each charging segment. 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 rates GST, GSD, or GSDT. Rates GSD and GSDT were proved to be more advantageous for some customers and were added as eligible rates to drive customer participation. Any usage will be billed thereunder.

### **Program Status & Results to Date**

To combat a slow start in 2022, program marketing ramped up in 2023. In addition to updating program specific webpages, including addition of a checklist for prospective applicant reference, the Company implemented the following marketing tactics

- Paid internet search
- Paid social media
- Targeted emails to Municipalities and Multi Unit Dwellings
- Duke Energy non-residential newsletter promotion
- Small & Medium Business Welcome Series Emails
- Duke Energy homepage banner
- Cross-promotional webinar

To date, there have been forty-five applications for the Commercial Charger Rebate program. Of those, three (3) applications have been fulfilled with live EVSE on site totaling \$509,726 in rebates. Table 3 provides a breakdown in the quantities of pre-approved EVSE by program segment as well as pre-approved rebate amounts. In addition, nine (9) applications have been pre-approved, totaling \$218,402 in rebates. One (1) application site is located in a low-to-moderate census tract. Table 3 below provides a breakdown in the quantities of pre-approved EVSE by program segment as well as pre-approved rebate amounts.

Table 3. Completed C&I Rebate Applications by Use Case

Eligible Segment	<b>EVSE Quantity</b>	<b>Completed Rebates</b>
Fleet DCFC	-	-
Transit Bus DCFC	-	-
School Bus DCFC	24	\$501,336
Public DCFC	2	\$8,390
Forklift	-	-
eTRU	-	-
Fleet Level 2	-	-
Public Level 2	-	-
Workplace Level 2	-	-
MUD Level 2	-	-
Total	26	\$509,726

Table 4. Pre-Approved C&I Rebate Applications by Use Case

Eligible Segment	<b>EVSE Quantity</b>	<b>Pre-Approved Rebates</b>
Fleet DCFC	3	\$106,800
Transit Bus DCFC	-	-
School Bus DCFC	3	\$62,667
Public DCFC	6	\$25,170
Forklift	-	-
eTRU	-	-
Fleet Level 2	5	\$5,875
Public Level 2	16	\$10,032
Workplace Level 2	9	\$3,906
MUD Level 2	13	\$3,952
Total	55	\$218,402

Twenty-six (26) applications have been withdrawn. Of those, approximately half of customer applications were withdrawn by the program manager because they did not respond to communication from Duke Energy, despite multiple attempts. The remaining customers asked to withdraw their site applications for reasons including behind-the-meter infrastructure costs, EVSE costs, and being "not ready." Table 5 below provides a breakdown in the quantities of withdrawn EVSE by program segment as well as withdrawn rebate amounts.

Table 5. Withdrawn C&I Rebate Applications by Use Case

Eligible Segment	<b>EVSE Quantity</b>	Rebate Amounts
Fleet DCFC	-	-
Transit Bus DCFC	-	-
School Bus DCFC	-	-
Public DCFC	15	\$62,925
Forklift	-	-
eTRU	-	-
Fleet Level 2	2	\$2,350
Public Level 2	35	\$21,945
Workplace Level 2	15	\$6,510
MUD Level 2	13	\$3,952
Total	80	\$97,682

Six (6) applications have been disqualified for failing to meet program requirements. Of those, half were disqualified for installing EVSE prior to submitting a program application, as the program is not

retroactive. Table 6 below provides a breakdown in the quantities of withdrawn EVSE by program segment as well as withdrawn rebate amounts.

**Table 6. Breakdown of Disqualified Applications** 

Eligible Segment	<b>EVSE Quantity</b>	Rebate Amounts
Fleet DCFC	-	-
Transit Bus DCFC	-	-
School Bus DCFC	-	-
Public DCFC	-	-
Forklift	-	-
eTRU	-	-
Fleet Level 2	13	\$15,275
Public Level 2	2	\$1,254
Workplace Level 2	8	\$3,472
MUD Level 2	2	\$608
Total	25	\$20,609

## **Program Spend**

Table 7 below provides a breakdown of program spend to date. Implementation costs (O&M) include labor, program implementation costs – including vendor costs – and marketing.

**Table 7. Program Spend to Date** 

O&M	<b>Customer Rebates</b>
\$292k	\$509k

#### **Program Challenges**

#### **Eligible Rates**

Rate GST-1 was selected, with cost-effectiveness and prudency in mind, as the only eligible rate for EVSE to take service for this program. Feedback from prospective applicants indicated this rate is less advantageous for customers seeking to install EVSE. To combat this issue and increase the opportunity for participation in the program, the Company has decided to include rates GSD and GSDT as additional eligible rates for EVSE to take service. Both rates are cost-effective and are expected to drive customer participation. Moreover, the additional rates will better enable the program to deliver the desired program metrics.

## **Volume of Withdrawn Applications**

As previously noted, (26) applications, or 60%, of applications have been withdrawn by the customer or program manager. Of those about half noted they withdrew their application because their site was "not ready." To limit premature applications in the future, the Company is developing a checklist to guide customers through action items that should be completed before submitting an application.

#### **Charging Behaviors**

As previously mentioned, three (3) applications have been approved with live EVSE on site totaling \$509,726 in rebates. The Company has collected initial load shape data for each site. Load curves vary greatly—by charging segment and individual customer.

#### Site 1: Convenience Store

As shown by Figure 10, a convenience store with two (2) public DCFC has the greatest, most consistent energy usage between 9:30 a.m. and 7:30 p.m. Notably, this result is consistent with observations from the Park & Plug DCFC network.

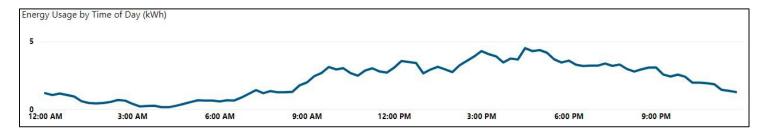


Figure 10. Hourly Convenience Store Energy Usage – December 2022 to November 2023

#### Site 2: School System A

School System A, with (20) school bus DCFC, has the greatest energy usage between 9 a.m. and 11 a.m., after students have been dropped off at school in the morning. This suggests that this school does not perform significant charging after picking students up from school in the afternoons.

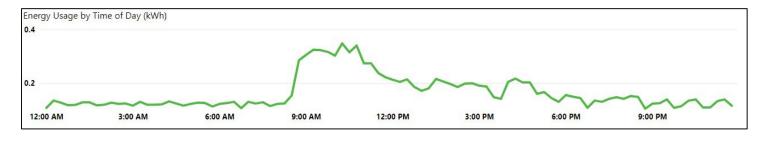


Figure 11. Hourly School (A) Bus Energy Usage – August 2023 to November 2023

Site 3: School System B

By contrast, School System B, with (4) school bus DCFC, has shown a different consistent usage pattern. Clear peaks can be observed mid-morning and again late afternoon to early evening, reflecting charging after both morning and afternoon student transportation.

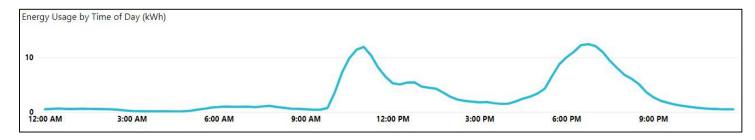


Figure 12. Hourly School (B) Bus Energy Use – August 2023 to November 2023

## **EDUCATION & OUTREACH**

## **General EV Advertising**

The Company maintained a focus on general EV education in 2023. New materials were delivered through various advertising channels from May through December. Those channels include the following.

- Connected TV- Awareness and reach driver— delivered high impressions and video completion rates are close to 100%
- Paid Search- •Continues to drive a steady amount of traffic to the website
- You Tube-Effective awareness channel—most customers searching for EV information are visiting You Tube as a source of information on the topic
- Targeted Digital Ads (Plugshare/KBB)- Customers using these apps & sites are actively searching for EV related info and charging information.
- Social Media- Awareness and engagement channel- continues to be a successful tactic with clicks back to webpage(s) and allows for insight into customer sentiment in real time

Q2 and Q3 marketing focused on the message of "EVs can fit into your life," while Q4 messaging was refreshed to focus on the convenience and cost savings enabled by EV ownership. Figure 13 below provides a snapshot of marketing collateral deployed by the Company.



Figure 13. Example Education & Outreach Collateral

#### **Education Events in 2023**

The EV Garage is an interactive, experiential trailer that travels around the Duke Energy footprint to events and provides the general public with the opportunity to understand EV charging in their homes and on the road. The Garage has Level 1, Level 2, and Fast Charger examples, plus an EV savings calculator, EV selector tool, interactive public charging maps, and is staffed by knowledgeable personnel. The experience fosters conversation and answers commonly asked questions about charging an EV while highlighting relevant programs that the Company offers. Costs associated with this asset are not borne by DEF rate payers.

The EV Garage was on site at the Arnold Palmer Invitational in Orlando in January 2023. Of the 100,000 in attendance, it is estimated that 50,000 event goers saw the EV Garage. Nearly 1,900 individuals engaged with personnel at the EV Garage, 307 completed a guided tour and survey.

A virtual tour of the EV Garage is available on You Tube: <u>Tour the Duke Energy EV Garage</u>.