

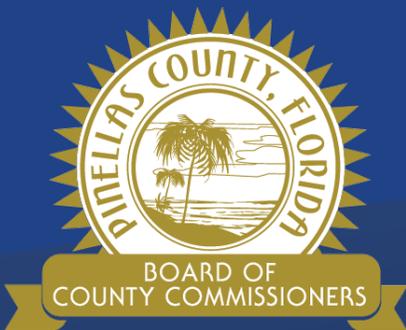
Pinellas County Office of Fleet and Asset Management



Office of Fleet & Asset Management

Robert Mills, Director

March 5, 2026



Our Vision: To Be the Standard for Public Service in America



EV CHARGING TIMELINE



➤ **February 14th, 2019**

County enters into a Site Host Agreement with Duke Energy to participate in the Duke Energy Park & Plug Program. Through this Agreement, the County provided Duke Energy several publicly available host sites for its chargers. Charging was provided to the public at **no cost**. Duke Energy accepted responsibility for Ownership, Maintenance and Network cost.

➤ **December 31st, 2023**

Duke Energy Park & Plug Program comes to an end. Ownership of the 20 public facing EV charging ports was transferred from Duke to the Operating Departments within County. With that transfer, the County accepted responsibility for ownership, maintenance, network, and electricity costs of these stations.

➤ **Current Challenges:**

Many of these public facing chargers have been in place for more than 5 years and are now reaching **end of life**. The decision must be made whether it is in the county's best interest to continue incurring expense associated with their operation & maintenance.

An analysis of charging the public for the use of the EV chargers revealed increased costs and uncertain returns.

EV Charging O&M Strategy Analysis

Future Direction:

- **An analysis of following options conducted:**
 - 1) Maintain current state
 - 2) Discontinue public facing chargers
 - 3) Charge the public for the use of the chargers



Option 1: Maintain Current State

Site Name	USAGE
	Annual kWh
Young-Rainey STAR Center	32,939.85
S County Judicial Complex - 545 1 st Ave N	53,930.98
Palm Harbor Library	71,976.99
IFAS/FL Botanical Gardens - 12520 Ulmerton	23,963.25
315 Court St ²	25,926
County Justice Ctr - 14250 49th St N	158,570.49
PCR Beach Parking-Sand Key	14,647.32
PCR Beach Parking Desoto Park	7,233.09
Total	389,187.97

Facts

- The total cost of operating and maintaining these public facing chargers is currently \$56,600
- Includes: Energy use, software license, maintenance, replacement at failure

Considerations

Ensure all organizations responsible for chargers have **full understanding of O&M** costs and accurately budgeted for each year

ANNUAL O&M COSTS OF OPERATING PUBLIC EV CHARGERS : CURRENT STATE



ANNUAL ENERGY and O&M COSTS OF OPERATING CURRENT STATE							
Site Name	USAGE	ENERGY	REPLACEMENT	# of Ports	NETWORK & MAINTENANCE		Total Annual Costs
	Annual kWh	Energy Cost of Chargers	Est. Replacement cost (all Chargers every 4 years)		Network Charge Per Port / Year ¹	Annual Network Charge ¹	
Young-Rainey STAR Center	32,939.85	\$3,633.27	\$846	2	\$280	\$560	\$5,039.27
S County Judicial Complex - 545 1 st Ave N	53,930.98	\$6,725.19	\$846	2	\$280	\$560	\$8,131.19
Palm Harbor Library	71,976.99	NA ⁴	\$846	2	\$280	\$560	\$1,406.00
IFAS/FL Botanical Gardens - 12520 Ulmerton	23,963.25	\$3,421.95	\$846	2	\$280	\$560	\$4,827.95
315 Court St ²	25,926	\$2,965.93	\$846	2	280 ³	\$280	\$4,091.93
County Justice Ctr - 14250 49th St N	158,570.49	\$20,090.88	\$2,538	6	\$280	\$1,680	\$24,308.88
PCR Beach Parking-Sand Key	14,647.32	\$2,071.13	\$846	2	\$280	\$560	\$3,477.13
PCR Beach Parking Desoto Park	7,233.09	\$3,913.82	\$846	2	\$280	\$560	\$5,319.82
Total	389,187.97	\$42,822.17	\$8,460	20		\$5,320	\$56,602

1. Pricing requires a 2-year contract
2. this location has 2 chargers, however only 1 (NovaCharge) has software that allows us to collect usage data. Data assumes energy use the same for both chargers.
3. Only 1 charger (Novacharge) has network/maintenance costs
4. Energy bills paid by library

Option 2: Eliminate Public Facing Chargers



FACTS

- Generally seeing failure around 5-year mark but small data set & highly variable. Warranty for 4 years.
- 4 of the 20 chargers have been down for several months, in 2 cases for almost a year
- All sites with county-owned public facing chargers are within a 5-10 min drive of multiple public facing chargers
- \$56,600 O&M costs avoided annually

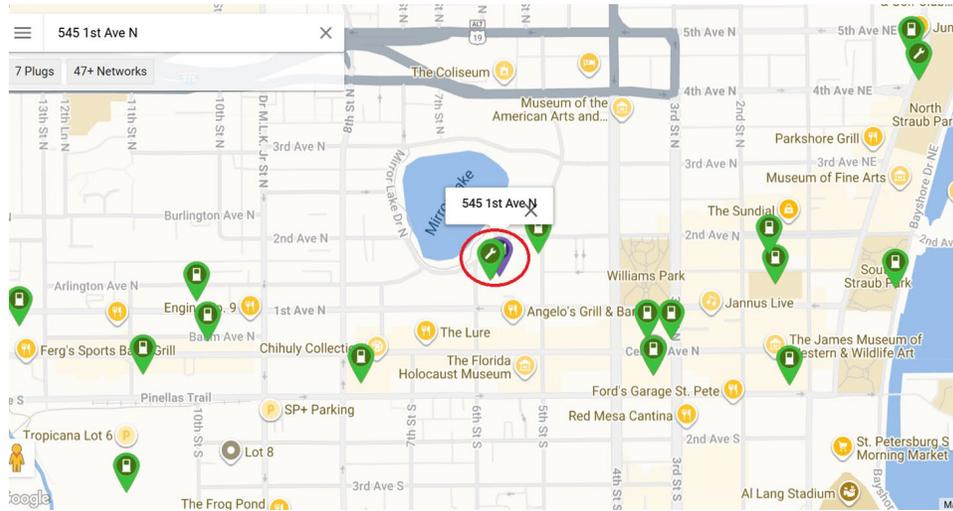
CONSIDERATIONS

- Strong communication plan needed in advance of removal
- Coordinated elimination of all public chargers at one time would address uncertainty, and realizes stronger cost saving gains
- Impacts to public on elimination mitigated by alternative charging stations in close proximity
- Need to ensure removal costs budgeted before initiating

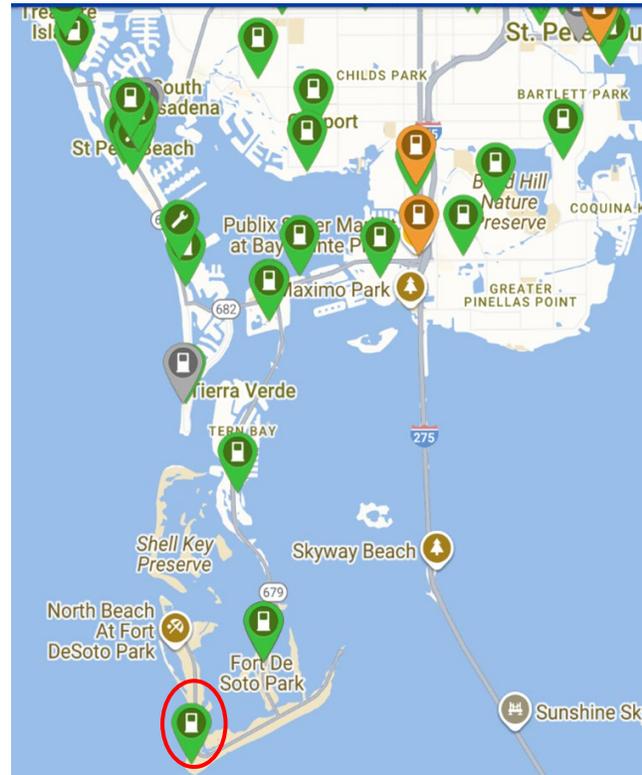
Publicly Available Chargers Outside County's Network



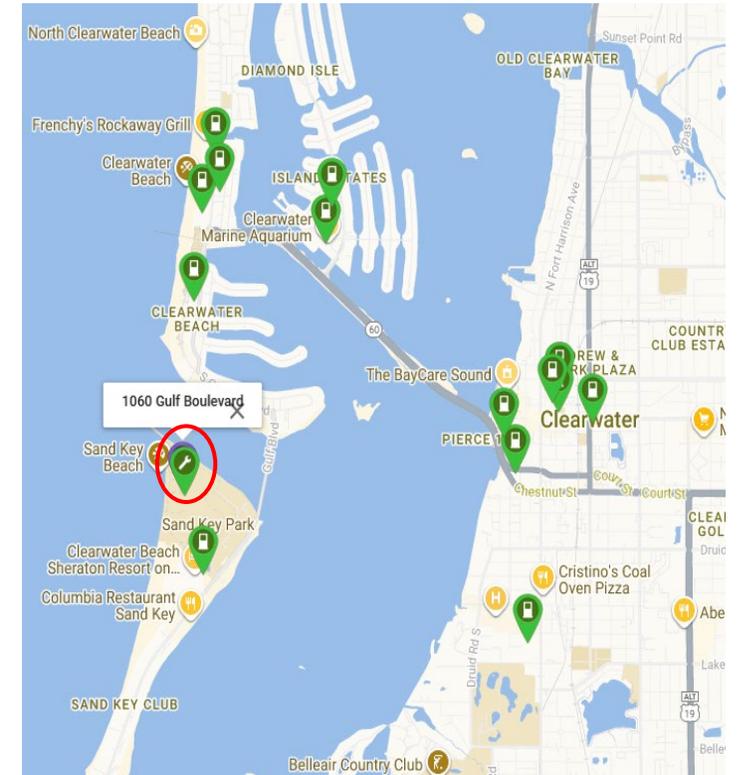
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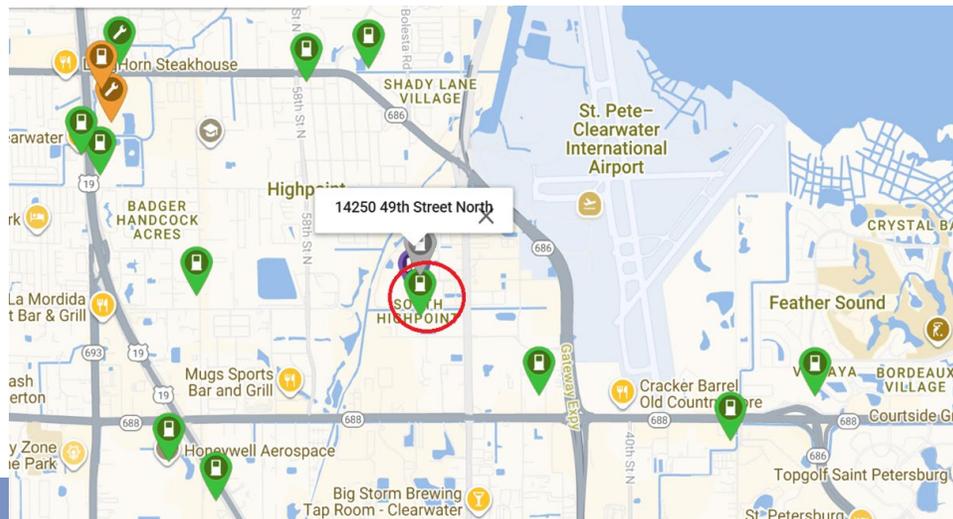
FORT DESOTO



SAND KEY



COUNTY JUDICIAL COMPLEX



Usage Patterns: Public Facing Chargers



Site	# of chargers	Annual kwh	Total Sessions 2025	Unique Users per YR	Avg# of Sessions Per Person per YR
Young Rainey STAR Center	2	32,939.85	1185	38	31
Beach Parking DeSoto Park	2	7,233.09	461	182	3
Beach Parking Sand Key	2	14,647.32	723	322	2
IFAS/Fl Botanical Gardens	2	23,963.25	1079	256	4
County Justice Center	6	158,570.49	3503	131	27
S County Judicial Complex 545 1st Ave N	2	53,930.98	204	76	3
Palm Harbor Library	2	71,976.99	2560	168	15
315 Court St ¹	2	12,963.00	1442	265	5

1. This location has 2 chargers. However, only 1 (Nova Charge) has software that allows us to collect usage data. Therefore, data is representative of 1 charger only

Higher Sessions/Person & Lower Unique Users

- STAR Center
- County Justice Center
- Palm Harbor Library

A Small Fraction of Users Represent a Large %age of Sessions

- STAR Center: 8 people = 80% of Sessions
- County Justice Center: 11 people = 48% of Sessions.
- Palm Harbor Library: 2 people = 45% of Sessions

Large Population of Unique Users & Low Sessions/Person

- Sand Key
- 315 Court
- IFAS/Botanical Gardens
- DeSoto

Option 3: Charge Public for Use of EV Chargers



Facts

- O&M Costs Increase: \$56,600 ➡ \$63,000K
Due to increase software fees for charging platform and increased maintenance fees to minimize downtime
- Bench-marked fee structure of other municipalities:
It is possible but not guaranteed costs can be recovered with fee structure similar to other municipalities.
- Fee of \$0.25/kwh and \$5/hour idling fee after 2 hours could provide \$87,567 in revenue **IF** usage patterns do not change.

Considerations

- Two sites with highest income potential also have the highest potential to see use changes, or concern over charging for use.
 - County Justice Center (49th St N)
 - Palm Harbor Library
 - STAR
- Other sites may also have changes in use once no longer free

ANNUAL O&M COSTS OF OPERATING PUBLIC EV CHARGERS : FEE BASED



ANNUAL ENERGY and O&M COSTS OF OPERATING FEE-BASED EV CHARGING STATIONS

Site Name	ENERGY	REPLACEMENT	# of Ports	NETWORK		MAINTENANCE (Level 2 OR 3)			TOTAL ANNUAL COSTS - WITH LEVEL 2 MAINT	TOTAL ANNUAL COSTS - WITH LEVEL 3 MAINT
	Energy Cost of Chargers	Est. Replacement cost (all Chargers every 4 years) ¹		Network Charge Per Port / Year ²	Total Site Network Charge/Year ²	Level 2 Maint: Total Site Charge_12 Port Min / Year ³	Level 3 Maint Per Port / Year ³	Level 3 Maint: Total Site Charge / Year ³		
Young-Rainey STAR Center	\$3,633.27	\$846	2	\$300	\$600	\$2,499.00	\$299	\$598	\$5,495.77	\$5,677.27
S County Judicial Complex - 545 1 st Ave N	\$6,725.19	\$846	2	\$300	\$600		\$299	\$598	\$8,587.69	\$8,769.19
Palm Harbor Library	NA	\$846	2	\$300	\$600		\$299	\$598	\$1,862.50	\$2,044.00
County Justice Ctr - 14250 49th St N	\$20,090.88	\$2,538	6	\$300	\$1,800		\$299	\$1,794	\$25,678.38	\$26,222.88
315 Court St	\$2,965.93	\$846	2	\$300	\$600	\$2,499.00	\$299	\$598	\$5,036.68	\$5,009.93
IFAS/FL Botanical Gardens - 12520 Ulmerton	\$3,421.95	\$846	2	\$300	\$600		\$299	\$598	\$5,492.70	\$5,465.95
PCR Beach Parking-Sand Key	\$2,071.13	\$846	2	\$300	\$600		\$299	\$598	\$4,141.88	\$4,115.13
PCR Beach Parking Desoto Park	\$3,913.82	\$846	2	\$300	\$600		\$299	\$598	\$5,984.57	\$5,957.82
Total	\$42,822.17	\$8,460	20		\$6,000	\$4,998	\$5,980	\$62,280.17	\$63,262.17	

1. **Replacement Costs:** In the absence of O&M costs from responsible business units, maintenance costs are an estimate of full replacement of all stations per location every 4 years.

Figure based on \$1,692/charger divided by 4 for annual maintenance cost. \$1692 covers cost of charger ONLY and not network or maintenance costs.

2. Pricing requires a 3 or 4-year contract

3. Pricing requires a 4-year contract

Summary



- Most of the EV charging station have been in service for approximately 5 years and likely reaching the End of Life soon.

- An analysis of following options conducted:
 - 1) Maintain current state
 - 2) Discontinue public facing chargers
 - 3) Charge the public for the use of the chargers

Thank You



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