



# Drive Electric Orlando Final Report

APRIL 2022

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# Foreword

April 2022

The Electrification Coalition is pleased to release our report on the Drive Electric Orlando Rental Pilot. This first-of-its-kind program added electric vehicles (EVs) into the Enterprise rental fleet at Orlando International Airport. As the largest rental car market in the world, Orlando served as a prime destination for testing this nascent technology and for building consumer demand for EVs. Project partners included the U.S. Department of Energy, Clean Cities coalitions, the City of Orlando, and local resorts and theme parks. Together, we incentivized participation in the program by offering various “perks” to Enterprise customers. The program was marketed as “a VIP vacation experience with an extended EV test drive.”

Drive Electric Orlando proved to be ahead of its time, pioneering EV deployment in the rental car setting, identifying and overcoming barriers, and developing a model for similar initiatives. Future programs will benefit substantially from a more mature EV market, including a wider range of available EVs, increased public charging infrastructure, and growing customer familiarity with the technology. The report highlights our program objectives, challenges, successes, lessons learned, and recommendations for future rental car electrification programs.

The Electrification Coalition developed this report following the conclusion of a multi-year project and planned to release it at the 2020 International Rental Car Show in Las Vegas. The arrival of the novel coronavirus upended the release of the report, the auto show, and the everyday lives of all Americans. The travel industry was hard hit by the pandemic. In 2020, many rental car agencies sold off their large portions of their fleets to stay afloat, and they have since faced supply chain shortages and changing travel restrictions.

As rental agencies and car-sharing companies announce plans to electrify, this report and the work it documents are more relevant than ever. Public-sector and philanthropy investments are at an all-time high, and nearly every auto manufacturer has made aggressive commitments to transition away from the internal combustion engine.

The rental car industry is poised to reinvent itself for the better as travel and rental fleets ramp back up. The report presents a snapshot in time from the middle of the last decade. While the world looks very different now, the lessons and recommendations from this pioneering program still ring true. The rental car industry must now take action, and this guide can serve as a roadmap for new programs and progress toward a fully electric transportation future.

# Executive Summary

In 2013, the Electrification Coalition launched Drive Electric Orlando (DEO), based on a simple premise: the best way to get someone to buy an electric vehicle (EV) is to get them to try one.

The goal of the pilot program was to promote consumer adoption of EVs by giving travelers a unique opportunity for an extended test drive experience in Orlando, Florida. By September 2014, DEO had established an impressive partnership of theme parks, hotels, automakers, and rental car providers to create a seamless rental car experience.

In 2015, the U.S. Department of Energy's (DOE's) Clean Cities program awarded a grant to the Florida Energy Office, which contracted with the Electrification Coalition and the Central Florida Clean Cities Coalition to support a robust outreach initiative. This funding allowed project partners to grow the reach of DEO by connecting with key consumer groups such as leisure, business, and conference visitors.

At the program's inception, the U.S. market share of electric passenger cars had quadrupled (from 0.14% to 0.62%) in two years. While market share was still less than 1%, EVs were poised for significant growth as more EV models were emerging, costs were falling, and battery capacity was increasing. In the time since the program was founded, the EV market has continued to expand, with the 1 millionth EV sold in October 2018; this was also the first month that EVs surpassed 3% of all new vehicle sales.

Orlando, with more than 60 million business and vacation visitors each year, is one of the top visitor destinations in the country and was uniquely positioned to host this first-of-its-kind EV rental car program. The DEO program had the potential to dramatically scale awareness and demand for EVs by giving consumers the opportunity to experience an EV in a fun, easy way over several days. Orlando also offers a warm climate and flat terrain where EV performance would be comparable to that of conventional vehicles. Many of the most popular destinations are close enough to the airport to be easily reachable on a single charge, and the city boasted more than 300 EV charging stations, many of them free.

The DEO team partnered with top Orlando travel and tourism destinations to provide incentives for EV renters – in addition to the many inherent benefits EVs offer, from a quiet ride to not having to pay for gasoline. Many hotels offered free valet parking and free charging for EV rentals. Several top attractions at the Walt Disney World Resort and Universal Studios Florida provided preferred parking and charging, as well as a VIP Pass for the GM Test Track at EPCOT. EV renters through the DEO program also received three free months of CLEARLane Access, and a discounted annual renewal rate, to skip airport lines.

During the program's first two years, DEO focused on building regional partnerships that would support the successful use of EVs and help expand program reach. In 2016, DEO partnered with a marketing and communications firm with expertise in EV adoption to develop a targeted consumer marketing campaign. Together, DEO and the firm created a

consumer-friendly website and a suite of digital ads and collateral materials to broadcast the benefits of renting electric in Orlando.

In 2017-2018, DEO launched “test-phase” targeted marketing campaigns in Central Florida, Georgia, New York, Rhode Island, and Washington, D.C., to drive consumers to the website to rent an EV for their Orlando trip. The DEO team sought to give renters a seamless experience from the moment of booking through vehicle pickup at the airport. Enterprise Rent-A-Car offered plug-in hybrid electric vehicles at its Orlando International Airport location, where renters were provided brief tutorials on the operation of the vehicles, as well as free use of charging stations throughout Orlando via a pre-paid ChargePoint key fob.

The targeted marketing campaign succeeded in driving consumers to the website. There was clearly strong interest in renting EVs while vacationing in Orlando, particularly among New Yorkers. And results from a December 2018 consumer questionnaire validated the DEO hypothesis that hands-on experience with an EV would increase a consumer’s likelihood of purchasing one. Forty-two percent of renters said their DEO experience “significantly influenced” their considerations related to future vehicle purchases; another 25% said their DEO experience had “some influence.”

As we expected when rolling out a new technology, the DEO team identified many challenges and obstacles, including lack of familiarity with the technology among customers and rental car industry workers; a relatively small number of available EV models, especially those meeting the cargo needs of families on vacation; logistical challenges associated with the small number of units in the pilot project; and customer anxiety about range of available models. None of these challenges are insurmountable, and technology has since advanced to make many of them moot. But rental car companies should review the barriers identified by DEO to proactively develop and implement appropriate policies and practices to ensure efficient operations and strong consumer satisfaction. The DEO extended test drive program yielded valuable insights into how to develop a robust EV rental program and can serve as a roadmap for successful follow-up efforts in Orlando and other markets.

This report serves as a guide for future initiatives and the rental car industry at-large. It presents lessons and recommendations from the groundbreaking program, including:

- Renting an EV can have a substantial positive impact on a consumer’s attitude toward and interest in the technology. Two-thirds of EV renters surveyed indicated that their experience with Drive Electric Orlando made them more likely to purchase an EV as their next car.
- Incentives were valuable tools to attract program participants. By providing a variety of perks, such as VIP parking and free charging, program stakeholders generated more robust participation in the EV rental car programs.
- As rental car companies incorporate EVs into their fleets, they must be proactive in overcoming certain barriers associated with the transition to a new technology. Companies need to plan for staff training, onsite charging at rental centers and customer education on EV operation and charging.

# Project History

## Timeline



**2011-2012:** The genesis of the DEO program occurred in summer 2011- 2012, when the City of Orlando hosted the annual U.S. Conference of Mayors convention. Based on Orlando's environment and infrastructure, Securing America's Future Energy and the Electrification Coalition asked if they could provide a couple of EVs to the convention for mayors to test drive.



**2013:** Building on the success of the informal EV test drive at the U.S. Conference of Mayors annual convention, the EC convened a group of community and industry leaders and explored the opportunities to create a formal EV rental program in Orlando, secure partner commitment and identify next steps. Orlando Mayor Buddy Dyer convened a meeting with 75 key stakeholders, including elected officials, representatives from the Central Florida Partnership, Disney World, Sea World and Universal Studios; and representatives from the hotel industry.

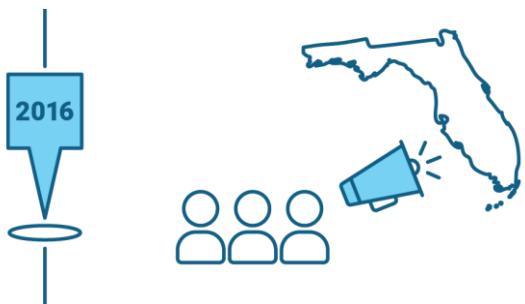


**2014:** The coalition began to secure commitments and solidify the program plan. Enterprise Rent-A-Car committed to supplying the initial fleet of vehicles for the project, originally all Nissan LEAFs. The program was focused on building out the infrastructure that was essential for a successful pilot, including educating stakeholders so they would be strong partners; getting incentive commitments from hotels and attractions to attract renters; and encouraging the installation of charging stations at the theme parks, so cars could be charged throughout their trip. DEO hosted a major launch event for approximately 500 people in the fall of 2014.



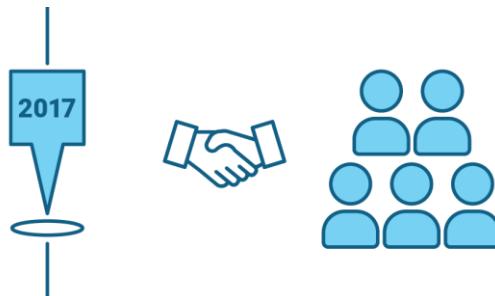
**2015:** The first iteration of the project ran with a mostly volunteer coalition effort and included testing, piloting, and working on proof of concept. The DEO program ran into hurdles, including the small number of cars in the program, consumers' wariness of driving all-electric vehicles, and difficulties reaching tourists among the vast array of Orlando travel-related marketing.

In order to expand the program, DEO applied for a U.S. Department of Energy grant with the Florida Office of Energy. Florida's Office of Energy, with the EC and the Central Florida Clean Cities Coalition, was awarded a grant of slightly more than \$300,000 from the U.S. Department of Energy's Clean Cities program to relaunch DEO. Enterprise switched its EV fleet to the Chevy Volt and DEO relaunched the program as Phase 2. The Volts started to rent.



**2016:** After defining Phase 2 of the program with the Department of Energy and the Florida Department of Energy, the next stage of funding was released. This infusion of resources allowed DEO to hire a marketing and advertising team,

including Brink Communications, to promote the Volt in Orlando feeder markets across the US. Both Disney and Universal installed charging stations at their theme parks and added the perk of free, front-row charging.



**2017:** The Clean Cities Coalitions in five key Orlando feeder markets joined the DEO team as partners for local marketing and promotion. DEO program leaders wanted to leverage the community and partner engagement of local Clean Cities Coalitions into a multi-region, coordinated, grassroots marketing effort. The intent was to use these coalitions as a local marketing influence and a familiar expert voice on EVs, as well as to connect EV renters to local EV adoption efforts.

## **Phase 1 Summary**

When DEO launched in 2013, the program established an impressive collection of partnerships with theme parks, hotels, automakers, and one of the nation's top rental car providers to help create a seamless rental car experience. With more than 50 partners representing Orlando's top tourism and community leaders—including Visit Orlando, Walt Disney World, Universal Orlando Resort, and the Orange County Convention Center—the City of Orlando and DEO hoped to kick-start a new American transportation future that is cleaner, cheaper, and reduces our country's dependence on oil. The original rental fleet was composed of Nissan LEAFs, available for rental at the Enterprise Rent-A-Car location at Orlando International Airport.

## **Phase 2 Summary**

While the early years of the DEO program relied solely on Nissan LEAFs, DEO replaced and expanded the fleet with 20 Chevy Volts in 2015. A plug-in hybrid (PHEV), the Volt runs on both electricity and gasoline. The 2015 model deployed in the Enterprise fleet could travel about 40 miles on battery power alone before seamlessly switching to gas power for longer trips. For more distant trips, the 2015 Volt had a total combined range of 382 miles. The 2019 Volt has improved to 53 miles of all-electric range and 420 miles with a full charge and a full tank of gas.

In this second phase of the program, DEO also sought to increase awareness of the program among travelers to Orlando. During this phase, DEO engaged Brink Communications of Portland, Ore., a firm with deep experience developing behavior change campaigns for consumer adoption of EVs.

### **The firm was tasked with four goals:**

1. Create strong demand for EV rental bookings
2. Increase the number of EVs rented through the DEO program
3. Create renter follow-up marketing that would help convert renters to owners
4. Increase broad public awareness of the benefits of EVs and the opportunity to rent one while visiting Orlando

Additionally, DEO engaged Clean Cities Coalition partners in Georgia, New York, Rhode Island, Washington, D.C., and Central Florida to promote the program using their community presence in their local markets, through consumer outreach and social media promotion. Clean Cities Coalitions collaborate with federal agencies, fuel providers, industry associations, equipment manufacturers, and large companies whose vehicle fleets operate in multiple states to reduce our dependence on oil.

# Conceptual Framework

During early market introduction, there were three perceived core barriers to widespread adoption of EVs: the technology cost's impact on battery/range; recharging infrastructure availability; and consumer acceptance.

DEO was launched to address the third barrier by providing an opportunity for consumers to experience the thrill of driving electric. By utilizing DEO's EV rental network, Orlando visitors had the opportunity to become familiar with the capabilities and benefits of EVs, ultimately increasing the likelihood that they will purchase their own EV in the future. While geographically limited to the Orlando area, the program provided an opportunity for broad exposure and impact, with 60 million visitors to Orlando every year.

To accomplish this goal, DEO sought to harness the power of its greatest asset—the Orlando tourism industry—to introduce car rental customers to EVs.

## The Risk-Reward Framework

Understanding the psychology behind consumers' response to behavior change marketing is critical. Testing an unknown technology in an unfamiliar location is likely to be perceived as a risk—and consumers are only likely to take on risks if the perceived rewards outweigh the perceived risks.

The following considerations influence the likelihood that a consumer will respond to the marketing of a new or "risky" product or service:

- **Ease:** Consumers are much more likely to complete tasks that have a small number of simple steps. There is significant drop-off with each additional step that consumers are required to take from initial interest to final conversion. To this end, Enterprise created a streamlined process so that EV rentals did not require additional steps in the process with consumers at the rental car counter.
- **Privacy:** Consumers are hesitant to share contact information and worry about spam. They are less likely to opt in to a program that requires them to share a lot of personal information upfront. The DEO team simplified the visitor experience on the Plug-in Perks website by requiring visitors to provide only a simple email address before taking them to the Enterprise website.
- **Security:** Consumers are wary of sharing financial information online with an unfamiliar source. They are more likely to buy online if they know and trust the vendor. To this end, financial information was only required when visitors completed the rental on Enterprise Rent-A-Car's trusted website, helping to overcome this concern.
- **Trust:** Similarly, consumers are more likely to respond to information received from a trusted source and/or credible testimonials from "peer" consumers than from an organization or person they have not heard of. DEO's relationship with local Clean Cities Coordinators, who promoted the program, helped negate this barrier.

- **Value:** As noted above, consumers must believe they are investing in an experience where the benefits outweigh the perceived risk. The airline, theme park and hotel perks offered through this program added perceived value to their vacation experience.
- **Familiarity:** Consumers are more likely to opt in if they are comfortable and familiar with the product being advertised. While the car rental process is widely familiar, electric vehicle rental is new territory for many. DEO built partnerships with trusted and familiar brands to overcome this barrier.

Cognizant of the need for the rewards to outweigh the risks for consumers, DEO sought to build a program rich with rewards such as preferred parking and free charging at theme parks, free valet parking and charging at hotels, the opportunity to bypass lines at Orlando International Airport, VIP passes to EPCOT's Test Track and free charging at 300 stations in the metro region.

## Audience Analysis

For the marketing campaign, DEO identified the targeted early adopters in five key markets that are the largest feeders into the Orlando tourism market: Central Florida, Georgia, New York, Rhode Island, and Washington, D.C. To ground the program marketing, fictitious personas were created to represent the different user types that would be most likely to rent an EV through DEO.

### DEO's Early Adopters fictitious personas:



**The DeLorme Family, Philadelphia, PA:** Rebecca DeLorme (35) learned about the DEO program when a coworker shared the program's website on Facebook. She commutes nearly 65 miles each day to and from her home in Philadelphia and has been considering an EV to replace her now 9-year-old Ford Explorer. When she shares the site with her husband, Carter (39) they begin to see the benefit of combining their plan to fulfill their son's 11th birthday wish to go to The Wizarding World of Harry Potter with the opportunity to do an extended test drive through DEO to learn what living with an EV looks like.



**The Gutierrez Family, Washington DC:** Melissa (41) and Ernesto Gutierrez (38) live in the Logan Circle neighborhood of Washington, D.C. with their two kids, Erica (8) and Lyle (4). Melissa manages a non-profit focused on funding women's health clinics in urban areas and Ernesto works for the Department of Education in IT. They make a decent living but look for ways to maximize every dollar. Lyle and Erica have been dying to go to Orlando to see Disney World for the past three years. Melissa finds an article in the Washington Post's travel section which highlights the EV Orlando project. The savings intrigue

her as much as the opportunity to rent an EV and to vacation without further polluting the environment.



**Andrew Nash, Atlanta, GA:** Andrew Nash (33) runs a small solar power consulting firm outside of Atlanta, Georgia. He started his business because he believes that we need to move away from fossil fuels and do all we can to curb global warming. He is interested in attending the Renewable Energy World International Conference in Orlando. While researching the conference and the costs of travel on the conference's website, he notices the EV Orlando travel package. He appreciates the program's focus on the environment and alignment to his values. The added savings certainly don't hurt!

# Marketing Campaign

DEO strategically marketed the extended test drive program to early adopters, including environmentally conscious families and individuals already planning a trip to Orlando.

The marketing plan for DEO used targeted digital advertising to drive consumers to the DEO website. Channels included social media, digital ads, and search engine marketing. DEO also leveraged Clean Cities Coalition partners to post and share tailored content to their regional audiences.

Throughout each campaign, budget and resources were shifted from less effective channels to more effective ones, and new channels were added to test performance. Creative messaging was also measured and tested using split-tests.

To maintain maximum effectiveness and cost efficiency, pixels were placed on the DEO website to track results and key performance indicators (KPIs). Pixels are small snippets of code installed in the HTML of a website. When users take certain actions like load a page, click a button, or scroll, the pixel code “fires” allowing DEO to retarget certain users and better understand their utilization of the website.

*“DEO’s Facebook content gives me something to send out to my stakeholders who may not be seeing it. I’m repackaging it and putting in some notes about ‘Hey, if you’re headed to Orlando, have you looked at X’ or ‘Have you seen the perks?’ I try to put something in there that would say ‘Maybe I should open this [link] and take a look.’ ... It’s given me fresh material almost on a weekly basis to use.”*

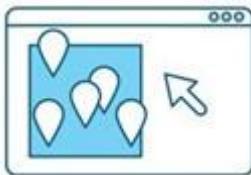
# Website

The DEO website—pluginperks.com—was created to house all information related to the program and lead consumers to the Enterprise portal to reserve an EV.

## Features include:

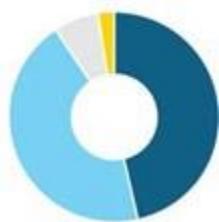
- Innovative, responsive design
- Concise statement of benefits
- Easy access navigation
- Links to partner websites and DEO's social media pages

## Website Analytics



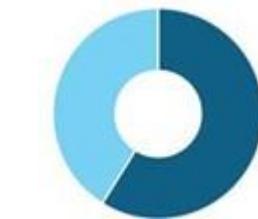
### Top Pages Visited:

- Homepage
- Find A Charging Station
- VIP
- Plug-in Perks



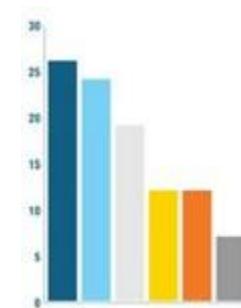
### Top Sources

- Direct/Digital Ads (40%)
- Google/Organic (38%)
- Google Adwords (6%)
- Facebook (2%)



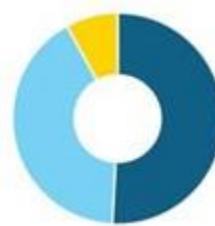
### Audience: Gender

- 59% male
- 41% female



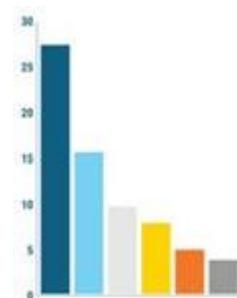
### Audience: Age

- 26% age 35–44
- 24% age 25–34
- 19% age 45–54
- 12% age 55–64
- 12% age 18–24
- 7% age 65+



### Device Used to Access Website

- 51% Desktop
- 41% Mobile
- 8% Tablet



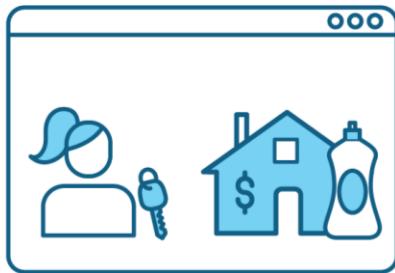
### State

- 28% Florida
- 16% Massachusetts
- 10% New York
- 8% Illinois
- 5% California
- 4% New Jersey

# Paid Media Plan

DEO implemented digital advertising campaigns throughout the program, each with a specific media plan to optimize traffic to the website and encourage users to rent an EV.

The KPI for each campaign was the number of clicks from the landing page on DEO's website to the Enterprise website.



## Target Audience

- Families with kids ages 2–15
- Household income of \$100k+
- Own or are considering the purchase of an EV/Hybrid
- Environmentally conscious, use sustainable products

## Geography

- New York City
- Washington D.C.
- Rhode Island
- Georgia
- Central Florida

## Channels

Given the goals of the campaigns, several digital tactics were utilized simultaneously, with each visible across all devices. The tactics were designed to reach the target audience throughout their day on any website accessed via their desktop, tablet, or mobile phone, both inside and outside the work environment. These digital targets allowed DEO to communicate to its core audience in an environment uncluttered by competitors:

- **Behavioral Targeting:** Reaching consumers based on their behavior online through the sites they visit and actions they take on them. DEO efficiently and effectively reached the core target audience through their online behaviors.
- **Programmatic Targeting:** Buying digital advertising space and automatically using data to decide which ads to buy and how much to pay for them.

- **Custom Sites:** Placing ads on hand-picked local and national sites based on a combination of analytic and audience research. This tactic targets sites that would interest the core audience.
- **Contextual Targeting:** Delivering a message on sites with a specific topic or endemic category. For this campaign, custom keywords related to car rentals in Orlando were used.
- **Paid Social Media:** Delivering pinpoint targeting to residents in the territory with highly relevant messages.
- **Pay-Per-Click:** Using a list of keywords to position DEO in a top paid position on Google's search results.
- **Retargeting:** Driving continued engagement from the most qualified audiences by remarketing to those users who have visited the DEO website.

# Paid Media Campaigns

## 2016 Paid Media Results

The first digital marketing campaign ran in October and November of 2016. The campaign focused on display advertisements as well as search engine optimization, and targeted three regions: New York, Boston, and Chicago.

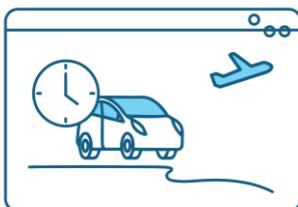
## 2016 Display Results

The 2016 display portion of the campaign ended with 3,573 clicks on 2,840,564 impressions for a 0.13% click-through rate, which is above the Travel and Hospitality industry average of 0.10%. From a regional standpoint, New York performed best across the board. For this campaign, retargeting visitors to the website was the best performing tactic and had an overall click-through rate of 1.26%.

## 2016 Search Engine Marketing Results

The 2016 Search Engine Marketing (SEM) portion ended with 1,769 clicks on 347,647 impressions for a click-through rate of .51%. The Travel and Hospitality industry average click-through-rate is 1.80%.

The top performing keywords were:

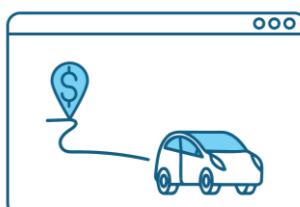


### Auto rental

2,757 impressions

24 clicks

0.87% click-through rate

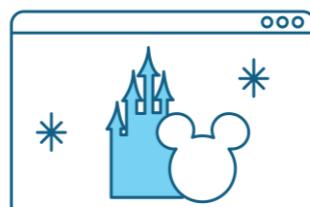


### Discount rental cars

2,317 impressions

16 clicks

0.69% click-through rate



### Walt Disney Resort

1,434 impressions

12 clicks

0.84% click-through rate

## 2018 Paid Media Results

A second digital marketing campaign was executed in the summer of 2018. The target audience for the campaign included families with kids ages 2-15 who own or are considering the purchase of an EV/hybrid.

## 2018 Display Results

The 2018 display portion of the campaign ended with 497 clicks on 623,503 impressions for a 0.08% click-through rate, which is slightly below the Travel and Hospitality industry average of 0.10%.

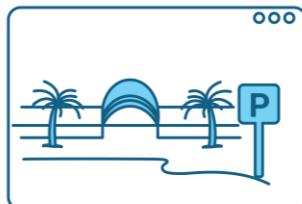
## 2018 Search Engine Marketing Results

The 2018 SEM portion ended with 3,203 clicks on 29,804 impressions for a click-through rate of 10.75%—far outperforming the industry average of 1.80% and previous campaign click-through rates. This growth can be attributed to the addition of keywords focused on parking at various theme parks and the Orlando Convention Center, all of which were the top performing keywords of the campaign and averaged a 13.74% click-through rate.

**The top performing keywords were:**



**Universal Studios parking**  
18,951 impressions  
2,805 clicks  
14.80% click-through rate



**Orlando Convention Center parking**  
749 impressions  
107 clicks  
14.29% click-through rate



**Disney World parking**  
2,078  
83 clicks  
3.99% click-through rate

# Social Media Plan

DEO used social media—specifically Facebook—to reach its target audience and strategic goals. To foster engagement and likes, organic posts related to perks, local events, and EV facts were scheduled weekly. Over the course of the program, the organic Facebook page following rose steadily.

## Social Media Goals

1. Encourage people to rent a Chevy Volt in Orlando and drive traffic to [pluginperks.com](http://pluginperks.com)
2. Engage with Volt renters and encourage them to share their stories with the #PlugInPerks hashtag
3. Create a record of content that complements coinciding ad campaigns and builds a recognizable brand
4. Build awareness of DEO among key audiences
5. Become a part of the conversation about travel and Orlando by engaging with key influencers



# Clean Cities Coalition Partnership

To add value and context to the partnership, DEO leveraged the power of four local Clean Cities Coalitions to supplement the national marketing campaign.

The involvement of the Clean Cities Coalitions (CCC) capitalized on each CCC's ability to tailor marketing to its specific geography in the following geographic regions: New York, NY; Rhode Island and New England; Washington, D.C.; and Georgia.

## Their scope of work in supporting DEO included:

1. Placing DEO content and logo on coalition websites
2. Adding DEO content to coalition newsletters
3. Posting blog posts about DEO
4. Sending information about DEO in direct emails to stakeholders
5. Circulating DEO information at public events, such as stakeholder meetings and Ride and Drives
6. Including DEO information in public presentations
7. Gathering qualitative feedback on DEO from stakeholders

DEO created a toolkit for the Clean Cities Coalitions to utilize for social media and other promotions. Social media suggestions were included in the toolkit, expanding DEO's collective reach by thousands. DEO provided the coalitions with example posts to schedule on Facebook and Twitter, along with tips and tricks for social media success.

While the Clean Cities Coalitions were successful in orchestrating a well-recognized campaign amongst their stakeholders and sphere of influence within the alternative fuel community, many coordinators of these groups expressed that broader community outreach and engagement was challenging outside of public events.

## Hashtags

Hashtags used by both DEO and the Clean Cities Coalitions included:

- #CleanCities
- #DriveElectricOrlando
- #PlugInPerks
- #EV
- #ElectricVehicles



# Renter Feedback

DEO provided scaled consumer education and vehicle demonstration to allow visitors to Orlando to experience the benefits of EVs with the intent to increase the acceptance and deployment of driving electric.

In December 2018, DEO sought feedback from renters on their experiences with the program and the [pluginperks.com](http://pluginperks.com) website. The scope of the audience was limited to visitors to the website because DEO renter data is proprietary information of the rental car agency.

DEO sent a series of three emails to 1,247 website visitors. Among the 55 individuals who provided feedback, 12 rented electric vehicles through DEO/[pluginperks.com](http://pluginperks.com) and 43 had visited the website, but ultimately did not rent.

The results of the December 2018 consumer questionnaire validate the DEO hypothesis that experiencing an electric vehicle would influence the purchase, or purchase consideration, of an EV.

In the 2018 questionnaire, 42 percent of renters indicated their DEO EV driving experience was a *significant influence* on their post-DEO EV purchase or purchase consideration; another 25% said their DEO experience led to *some influence*. Given that almost all renters (92%) had either *purchased an EV post-DEO* or *planned purchase of an EV in the next five years*, the above findings speak to the value of DEO's role in their EV purchase decisions.

## Other key findings from renters include:



Seventy-five percent positively rated their overall EV rental and driving experiences with DEO.



100% of renters positively rated ease of charging through DEO, both for finding and using charging stations and for understanding how to charge their EVs.



Nearly all had good experiences with returning the EV to the rental car agency (92% positive ratings) and performance (speed, acceleration, handling, etc.) of electric vehicle (83% positive ratings).



DEO rental features with the lowest ratings—although still more positive than negative—included getting the electric vehicle at the rental car agency and reservation process on website (58% positive and 42% negative ratings, respectively)



Primary factors that raised concerns when considering whether to purchase an EV, each expressed by roughly half of renters, were concerns about where to charge and price of the vehicle.



Renters most commonly cited ability to skip the gas station, lower cost of ownership over time, green/environmental considerations, and quiet as primary factors influencing their decisions to purchase or strongly consider purchasing an EV (as opposed to a gas-powered vehicle).



One in four renters said they had no concerns.

## Non-Renters Insights

The questionnaire also provided DEO with valuable insight from non-renters. Vehicle availability was the key reason consumers ended up not renting from DEO. In all, 63% percent of those who ended up not renting through DEO declined due to lack of EV availability. Other perceived barriers cited among all non-renters included cost of renting an electric vehicle (21%) and concern about charging availability (19%).

# Partner Feedback

The following pages summarize the feedback from 14 phone interviews with DEO partners in February and March 2018 regarding their experiences with the program. Interviews ranged in length from 25 to 75 minutes and respondents received no compensation for their time.

The interviewed partners represented a range of perspectives on DEO, and included representatives from the Electrification Coalition, the Florida Department of Energy, General Motors, Enterprise Rent-A-Car, Align Public Strategies, Brink Communications, and all five Orlando feeder-market Clean Cities Coalitions. More information on the individuals interviewed is available in the Appendix.



# Program Impacts

## Incentives and perks

Project partners lauded the program incentives, labeling them helpful, attractive, and unique.

*"I really like the fact that the program highlights preferential parking options, discounts—things that make the idea of driving, especially in a place like Orlando where it's not a tremendous amount of fun to drive, really sound like a much more enjoyable experience."*

## Strategic partnerships

DEO enjoyed strategic partnerships with a strong and varied range of organizations that aided in developing the program and creating incentives for travelers. These included theme parks, hoteliers, and hospitality brands; charging station installations at Disney World, EPCOT, Animal Kingdom, and Universal Studios; a strategic alignment with the Orange County Convention Center; and renter access to a CLEAR pass for efficient airport security navigation.

This is further borne out by DEO's partnership with the Clean Cities Coalitions in the top U.S. feeder markets. The Coalitions were recruited to follow up with their contacts to determine whether they were considering driving electric post-EV rental in Orlando (a goal that proved unattainable).

*"We've had the support on the ground (for engaging the broader Orlando community). That includes the titans of the tourism industry, to figure out their roles, develop a plan for how they would engage in the project, and how do they support something like this."*

## Commitment, cooperation of DEO team

Many respondents praised the DEO team for its commitment to the program and for cooperation among partners. They noted that the partners have no extrinsic incentives and that they are operating solely on goodwill and an interest in the goals of the program.

*"I think the objective is great; I think it was managed and organized very well. [DEO] did a great job of promotion and engaging local stakeholders like the mayor and Visit Orlando, local tourism groups...They did an excellent job connecting to the rental car company and making sure they had the educational materials and so on. I think these are all strong suits of the program."*

*"Everybody at Drive Electric Orlando has been fantastic to work with. The spirit behind what was trying to be accomplished was quickly communicated and understood by all the parties involved, that we're trying to get folks to have exposure to this vehicle technology that otherwise wouldn't. The driving force behind that is what I think everybody was passionate about. That was the most exciting part of the program."*

## Enterprise Rent-A-Car's commitment

Several partners made a point of praising Enterprise's commitment to the program, its role as a willing partner, and its efforts to ensure smooth program operations. They noted that Enterprise continues to make significant investments in the program such as the continued acquisition of vehicles and ongoing maintenance.

## Tertiary benefits of program

DEO and its partners and stakeholders have reaped several tertiary benefits from the program, including the following:

- DEO engaged the community of Orlando through many channels and in many ways.
- The program helped to engage the feeder-city communities in the mission of incorporating EV trials into tourism experiences.
- Enterprise's increasing engagement in the program has driven its efforts with major corporate partners to figure out ways to incorporate EVs into corporate fleets.
- Program partners learned about the benefits and limitations of the all-electric car in a rental car setting in an unfamiliar market.
- A few program partners gained experience working with big companies to install charging infrastructure.
- Other emerging technologies can and have used the concept of DEO to introduce their own programs for their own products.
- The City of Orlando continues to be a leader on transportation issues, identifying ways to incorporate EVs and continuing to expand its charging station network.
- Orlando Mayor Buddy Dyer continues to be a very committed advocate for EV adoption.

*"The (program's) impact may be different and still significant, even if it wasn't exactly the impact we thought it would have."*

## Program materials, toolkit

Clean Cities Coalitions coordinators routinely applauded the execution and content of the program materials and toolkit. They found them to be professional, visually appealing, easy to use and understand, and self-explanatory. One

noted the potential for integrating some DEO content into their other Clean Cities Coalitions programs.

## Ad response, click-through

Consumers' interest in DEO's online ads was, in part, illustrated by the strong click-through rates the ads earned. DEO's 2016 display ads had a 0.13% click-through rate, compared to the Travel and Hospitality industry average of 0.10%. DEO's 2018 SEM portion a 10.75 click-through rate—far outperforming the industry average of 1.80% and previous campaign click-through rates.

## Public/private partnership

Overall, DEO partners felt the partnership between public and private elements was a success.

*"This was an excellent example of a public-private partnership, a merging of public dollars and private business trying to check off the problem of EV awareness. That's really positive."*

*"Everybody still recognizes this as an opportunity, they are really committed and passionate and continue to be so. Even if there are some things where we're still learning, we're still making it possible for an EV to be a rental car. It's the future, so it's good that companies like Enterprise and other places are figuring it out now."*

*"I think [the program] was an excellent example of creatively connecting a federal grant to an awareness program in the industry. It is an excellent example of really trying to get these EVs front and center for customers."*

# Challenges Within the Program

## Communications

While they applauded the program materials and toolkit, several Clean Cities Coalitions coordinators struggled to determine where and how to use them to market EV rentals to sustainable travelers in their local markets. They were anxious to get the information into the hands of people who would be interested yet found challenges with how to make people more aware of DEO. Because most coordinators' roles focus on fleet and policy change, their primary expertise lies outside of the marketing and promotion environment.

The Clean Cities Coalitions coordinators expressed interest in learning how to connect with tourism-connected entities such as media representatives and travel agencies, and in identifying appropriate events at which to staff DEO tables.

*"I can see that getting a wider audience would be a challenge in addition to trying to reach our stakeholders who are already probably pushing for greener alternatives to normal rental cars."*

*"I realize I'm not getting out of my normal sphere of influence. I need to, because I need to get to Ma and Pa and Junior and Sally who are going to go to Orlando for spring break. They don't know about this (program). How do I communicate this to them?"*

## Inconsistent vehicle availability

Some potential DEO renters shared with program partners that they could not always see that Enterprise offered electric vehicles. This inconsistency likely hindered later conversion from consumers who saw a DEO ad and tried to visit the site later to rent but could no longer see EVs displayed on the website.

## Difficulty tracking data

Lack of rental data limited Clean Cities Coalitions coordinators' and other DEO partners' ability to monitor the success of their DEO marketing efforts, either for rental conversions from the Coalition cities or for post-rental EV lease/purchase. Lack of insights into the success of the program in Orlando also left Clean Cities Coalitions coordinators to rely on limited consumer feedback to assess their DEO-related social media campaigns.

*"When people stopped by our booth, we'd say 'Hey, if you're going to Orlando, just grab a pamphlet. ... There's this great thing that's happening there. You can rent a Chevy Volt and have all these perks.' They were receptive, but you don't know if they booked their trip or were actually thinking of going, so I don't know how that went down when they got to Orlando."*



### Program design constraints

Most of the marketing firm's programmatic recommendations at the first meeting with the DEO team in Florida were deemed infeasible. Some ideas had already been explored; some were described as impossible due to issues for partners; and others were subject to funding constraints.

As a result, the marketing campaign was designed to work around significant program limitations, rather than implementing best practices in consumer marketing.

*"Each step to reverse-engineer around the constraints of the program dramatically and negatively impacted the rental conversion rate."*

### Difficulty achieving high initial expectations

Several partners entered the DEO program with expectations of outcomes that failed to materialize. Assumptions that it would take little effort to get consumers excited about the opportunity to try out EVs during travel proved to be false.

### Lack of full-time project staffing on the ground

Several team members noted the lack of a full-time project staff person on the ground to facilitate the training of valets, meet with partners, and check charging stations. The absence of a person in this role contributed to continuity glitches and program perks not being consistently available to renters.

### Difficulty tracking status of charging stations

While DEO's partners offer a robust network of charging station posts at hotels and theme parks, keeping track of which ones are operational and receiving regular maintenance is hard. Particularly early in the program—and later as additional attractions and hotels added charging infrastructure—finding the personnel to monitor the charging stations' functionality presented a challenge.

# Best-Practice Opportunities

## Excitement and acceleration of purchase interest

Attention to the project has elevated exposure to EVs in both national and regional ways. Consumers have reached out via Facebook and email to program partners asking for a program like DEO. They like the idea of trying out an electric vehicle rental as a low-cost or free way to experience a new technology prior to purchase.

*"It's not like they are committing to (buying) a brand-new car, they're just renting. Looking at it like that could bring a lot more people into electric cars. It would be more accessible to people."*

*"In general, there is always, and continues to be, a lot of excitement around the concept. This idea that you can take sort of a small fleet of electric vehicles and give people the VIP rental experience, that then gives them an extended test drive, continues to be a concept that people think is exciting."*

## Perks beyond environmental benefits

One interviewee noted that the incentives of the program increase its appeal to a broad tourist audience.

*"The fact that it's not predicated entirely on trying to attract people who are already looking for an eco-bent or for a green alternative, that has to be one of the strengths of the program. A lot of the people who will ultimately take up the project, or at least participate in it, are people for whom*

*the green benefits are maybe ancillary. ... Just the general benefits, in terms of 'Hey, here are all these really terrible aspects of when you have to drive a car in a fairly congested area; here's how we'll make them a heck of a lot better and also easier on your wallet.' I appreciate that there was that focus as much as there was a focus on 'It's also a lot better for the environment.'"*

## Increased range for all-electric vehicles

At the time that DEO started, the range for the all-electric Nissan LEAF was about 75-80 miles per charge. Although that range would have easily transported tourism visitors to and from the main Orlando attractions, which are mostly 10-12 miles from the Orlando airport, their skepticism at the time outweighed their interest.

The improved all-electric vehicle driving distance per charge for most EVs may allay potential drivers' concerns about running to zero in an all-electric vehicle.

Rental car companies that opt to provide longer-range all-electric vehicles would improve rental experiences by providing thorough staff training and renter education, including information on how and where to charge the vehicles.

*"It's a little different scenario now; we now have (all-electric) vehicles going 200 miles rather than 70 miles, so [running out of charge] might not be a problem, particularly in a place like Orlando or Anaheim."*

# Challenges for Expansion

## EV availability issues

Many interviewees noted difficulties and issues associated with the limited availability of program vehicles from approximately August to Thanksgiving of 2017.

Virtually all respondents who raised this issue took care to emphasize their recognition that the availability gap was a natural part of Enterprise's business cycle, and that Enterprise operated in good faith and was a valuable, willing program partner.

*"I think [a period of unavailable electric vehicles is] definitely something that can be anticipated as a very likely event just because of the way the rental vehicle industry operates."*

The Clean Cities Coalitions, which had joined the DEO program not long before the work stoppage, found themselves having to wait for the program to resume before they could roll out their nascent program marketing efforts.

*"We got off to a slow start because of the lack of availability of cars in Orlando. We sort of had to be restrained for a while from trying to promote the program when we learned there weren't any EVs for rent in Orlando. That had a dampening effect."*

*"We missed the run-up to the Christmas break season due to the hold in getting the cars in service in Orlando at Enterprise and then the communication to start promoting the program again. By mid-December, we were too late to get the word out to potential customers."*

The EV availability gap gave pause to some stakeholders who were interested in increasing outreach of the DEO program; they wondered whether the greater interest spurred by additional promotion would coincide with another period with no electric vehicles.

## Challenges with existing business models

The business model for rental car companies presents an inherent challenge. It is a company's job to ensure that every single vehicle in its inventory is rented as often as possible. Electric vehicles require additional charging turnaround to be ready for the next consumer arriving to rent them; there are no substitutes other than another EV. With the small EV presence in most rental fleets, this often means there are no other options. If a customer booked a Corolla and must be upgraded to a Camry, the rental car staff can do that; with an EV, there is no other vehicle, so when somebody makes a reservation for that vehicle, they are essentially taking that vehicle out of inventory. If a customer books an EV for a week but requests to switch to a combustion vehicle day-of, that electric vehicle sits idle for the week, because it was reserved.

Fully charging an all-electric EV at a rental facility leaves the vehicle out of commission for several hours. While the electric charge time for an extended-range vehicle is comparable to that of an all-electric vehicle, the rental facility can rely on filling the gas tank on the extended-range vehicle as backup for a quicker, but less-than-full electric charge, thus permitting speedier rental to the next customer. This collapsed turnaround time

is crucial in a fleet with very few EVs. The positive business case elements for EVs in a rental car application are further explored in the Recommendations section of this report.

*"If you rent an EV and show up, and the EV is not [fully charged] or [even] available, that's a harder thing to fix immediately than if you rent a subcompact and there's not any subcompacts available; they can just give you a standard car."*

### Consumer hesitation

Despite the extensive charging station infrastructure in Orlando, the shift from driving a familiar gas-powered vehicle to driving an unfamiliar all-electric vehicle proved too great a leap for many. Several efforts to mitigate consumers' fears were undertaken, including providing maps of the Orlando charging station ecosystem; showing that a full LEAF charge would easily transport them from the airport to Orlando attractions; and recruiting AAA to provide a free on-demand emergency EV charger unit for LEAFs.

Enterprise's switch to the range-extended Chevy Volt provided a gas safety net that eased consumers' concerns to a degree.

*"Even though we had a really robust network of charging stations, the all-electric was just a big culture shock for people who had never driven an EV. Travel is already pretty stressful, people are out of their element, so they want to have that (gas) backup."*

Many potential DEO participants booked an EV through the program—either all-electric or range-extended—but canceled or switched to a combustion vehicle at the counter on rental day. More than 50% of those who had reserved an EV would either switch to a combustion vehicle at the

last moment, or not show up at all. There is a high no-show rate for rental car customers across all classes of vehicles.

*"What we found was that even when people rented the car, they got to the counter and they got scared. The idea that 'I'm in a new place, I'm in Orlando, I've never been here before, I don't know how far things are...' More than 50% of the renters would get to the counter and say 'Ah, just give me something else.'"*

### Variations in regional inventory of EVs

DEO has a long-term objective of increasing program participants' likelihood of considering an EV purchase for their next passenger car. However, the program has no influence over EV availability across US markets, in that a participant from one geographic area may have more EV purchase options than another.

*"If you're going to look at replicating the program someplace, it needs to be in a market that has access to a variety of different types of EVs. The East Coast just doesn't get the same cars that the West Coast does. You have a limited number of EVs that are even available to Florida. There are three times as many models available in markets like California and on the West Coast."*

### Early challenges with technology transition in the rental market

While Enterprise made continued effort and direct investments to support the DEO program, the early stages of integrating EVs into the training and knowledge of the field operations staff proved to be challenging — as would likely be the case for any rental car company and has been so for car dealerships and other parts of the light-duty vehicle ecosystem. During the early stages of a technology shift, staff

may not have direct personal or professional experience with the unique characteristics of the new technology. Customer service staff and field managers do not require deep expertise about EVs (or any vehicles) to rent them, but they do need sufficient background to be comfortable answering customers' questions and to ensure them that the EV will meet their travel needs. Customers, understandably, will have more questions about EVs than they would a comparable conventional vehicle. As EV adoption becomes more widespread, staff and consumers will have more direct experience. But during this transition, rental companies should integrate EV operation into staff training and development.

*"You deal with high turnover rates at the rental car companies. I think that this is a little more labor-intensive or a concierge kind of service in the midst of a very big business that's operating. That's the challenge."*

*"I'm sure the valet there today is not the valet that was there in 2013 when we started. There's probably been a little bit of changeover since then. If it's something you deal with 10 times a day, you're going to be really good at it and know the exact answer; if it's something that you deal with once every 10 months, you might have questions about 'How did I handle that last time?'"*

### **Small number of program vehicles**

Respondents noted the inherent difficulty in retaining DEO program knowledge given that the partner organizations (hotels, theme parks, rental car facilities) had limited experience being around program vehicles and EVs in general, thus further limiting their staff's ability to master DEO program protocol.

*"With something like 40,000 available hotel rooms in the Orlando region, if you're renting 6-15 (EVs), the number of times they're going to see an EV as the rental car that shows up is pretty small... If I'm a valet person, I might have gotten a mention about it, but then if I don't see one for a month, then suddenly it's an EV, you might forget about what the system is that the hotel or the resort has committed to."*

*"We're talking about 15 cars under the Enterprise banner in Orlando alone in a sea of 30,000 cars... The analogy that we used was it's like McDonalds cranking out millions of cheeseburgers, then somebody comes along and says 'Hey, I'd like to sell fettucine Alfredo here, 15 bowls of it in a universe of 2 million hamburgers.'"*

### **Difficulty tracking post-DEO rental EV purchase**

DEO partners faced a challenge in tracking EV purchases from customers who had rented EVs through the program, despite initial expectations that this would be easy to accomplish. Data on customer information and purchase behavior was not readily available. In addition, the capture territory is effectively the entire United States.

*"The challenge there is it's hard to connect with consumers once they've rented the vehicle and use that as a way to directly attribute sales, even though we had some. And we know we had some."*

### **Piecemeal incentive availability**

While DEO scored impressive perks from its strategic partners to encourage program participation, most of the incentives were available or applicable only at certain properties and venues. Even within

categories, rewards are not consistent. For example, only some Orlando hotels and attractions offer EV benefits through DEO. While this is understandable from a business perspective, the patchwork nature of incentive availability hampered the ability to market incentives to potential DEO renters.

*"The challenge of this and many other programs, even EV incentives across the country: it's such a patchwork, and it's hard to communicate a patchwork of incentives to consumers. You can't just say 'Every hotel in Orlando offers free charging and free overnight parking if you bring an EV.'"*

### **High upfront capital expenditure for rental car partners**

The expenditure required for a potential rental car company to acquire and maintain the electric vehicles used in the program is not insignificant. DEO was fortunate to partner with Enterprise, given its willingness to assist the program in every way it could, including through capital investment. While the long-term cost of ownership for an EV fleet may result in both improved resiliency and savings from reduced fuel and maintenance expenditures, similar programs in the future may face greater challenges in finding one or more rental car partners willing to make the initial investment (which could reach millions of dollars) to facilitate EV acquisition, maintenance, and rental.

*"The biggest hurdle, obviously, was getting the rental cars committed from somebody. At the end of the day, the ask of everybody else was fairly benign, but the ask of a rental car company to go out and purchase 15-45 EVs; it's a multimillion-dollar expenditure in some cases."*

### **Need for larger-capacity EVs for theme-park tourist target market**

DEO program vehicles are often too small for families on a theme park vacation with their kids, gear, and suitcases. Adding larger EVs to the DEO rental fleet might increase program participation by those who would otherwise opt for a larger combustion vehicle.

*"When you look at families that are going to the theme park ... and seeing the hordes of people waiting to get on the tram, a Chevy Volt is too small. You're talking about people with more than two kids, they've got five strollers, suitcases —they need a bigger car."*



# Recommendations for Increasing the Impact of an EV Rental Program

DEO extended test drive program provided valuable insight into how to increase the impact of an EV rental program and demonstrated that the program was a worthy investment in raising visibility and awareness for the benefits of EVs. Below are recommendations from DEO partners:

## Create enhanced incentives for rentals.

Travelers' risk thresholds are low. The mere appeal of a new technology—and the willingness to try it while on vacation—proved to be insufficient to motivate people to rent EVs. To aid the cause of EV adoption, the solution must mitigate the risk and increase the incentives. The focus should be “get more” (more fun and free time, lower cost) rather than “try new.”



A couple of DEO team members advocated securing an ironclad partnership with an attraction that would offer program participants exclusive perks they could not get elsewhere. The attraction would ideally develop and administer its own program and use its brand equity to capitalize on its own loyal customer base. As an example, a theme park could offer a green tourism package, including an EV rental and features such as carbon offsets for air travel to the destination, free park admission, front-row parking and free charging.

*“You’re in a headwind immediately by just suggesting an EV; people just don’t know much about them. Enterprise did a wonderful job of preparing and educating renters, but you’ve really got a select market there that you’ll be able to convince this is the car they want to rent.”*

## Use contests to increase rentals.

Similar to incentives, school-related contests could be an effective tactic for enticing consumers to take an extended EV test drive. For example, parents could be given a free week of EV extended test drive when their kids complete an energy-related contest or school project.

## Build and cultivate diverse program partnerships.

Strong collaboration between private businesses and public-sector entities is necessary to create a seamless experience for EV renters in which the rewards outweigh the risks. Involving partners during project development allows for program design that includes meaningful incentives for the consumer and is also easy to manage and implement for the employees on the ground.

These partnerships with community players could also create opportunities for rental car brands to **explore novel financing models for their EV investments**. One such model might involve contracting with municipalities and state fleets as end-users for a rental car brand's EVs. At the end of the holding period, government fleets would act as local guaranteed purchasers. Developing relationships like these would help reduce the risk of initial investment by the rental car brand, increase financial certainty for both the brand and municipal motor pools, and encourage buy-in from other community partners that can see the rental car brand making EV-related commitments in their local area.

Strategic partnerships proved crucial for a program like DEO, not only with big-name partners such as Universal Studios and Disney, but with city and county leadership looking for ways to differentiate their communities. This also extends to feeder communities marketing the program. The program requires involvement from all these players; it cannot run itself.

*"There needs to be engagement, buy-in from a variety of actors—city leadership, county leadership, community leadership—because they're creating a bit of community differentiation: 'We want to be the future of transportation, we want to be the future of what our tourism transportation looks like.' I think communities that have tourism as a revenue generator are always looking for those things that can set them apart."*

*"The more stakeholders you can get involved early on is extremely key. It can't be just a municipality and the car rental company alone, it can't be just another agency and the car rental company alone. It really needs to be promoted within the community itself with other stakeholders, such as hotels, theme parks, other folks that can really drive the attention to the program to fuel bookings as well as completed rentals."*

### **Define partners' roles and level of involvement to maximize program success.**

This DEO pilot project has provided numerous valuable insights into the involvement required of program partners and stakeholders. Project leads for new programs should be realistic in outlining the required levels of commitment and involvement to potential program partners, which will in turn enable a more enjoyable rental experience for consumers.

**Invest in a comprehensive rental car partnership.** Consumer loyalty is important to rental car brands, and customers. As a result, the rental car partner is critical to the success of a program like DEO. In an ideal program design, the rental car company would have a written agreement that ensures a seamless experience for the renter and clear guidelines for the rental agency, including:



#### **Online promotion:**

The rental car company should feature and promote the opportunity to rent an electric vehicle on its rental portal. Building a separate brand where customers can rent

the vehicle reduces the likelihood that the customer will rent a vehicle, simply because it is not a trusted name. However, brand-name rental car companies have built trust with their customer base and are

more likely to persuade customers to try something new.

#### **On-site marketing:**

When the customer arrives to rent a vehicle, car rental staff should offer on-site promotions or incentives to rent an electric vehicle instead. Discounts could be provided on site to increase the rewards for going electric.

#### **Increase the EV fleet:**

In an ideal scenario, the rental car partner would use analytics to build an inventory for EV rentals that would minimize the periods during which the cars are not available.



#### **Improve rental car company staff training:**

The development of a vigorous training curriculum for the rental car company staff is key to address turnover and loss of project detail recall.

*"Rental car staff have high turnover. They get promoted, they move to other parts of the organization, so it's good to figure out a training that can be baked into the initial onboarding process, and then some set of tools that get connected to the overall rental car experience."*

A checklist for the rental car agency allows any staff person renting an EV to go

through the checklist and know what they need to cover with the customer.

*"Does the person know how to plug it in? Do they know where the cable is to plug it in? Do they know where the stations are, and how to find stations? Those are all things that can be a little challenging to a consumer if they've never driven an EV, or it can feel intimidating."*

#### **Expand and standardize renter education:**

Ensuring that EV renters are fully informed and understand the operation of and charging availability for their rental vehicle will increase their confidence and reduce concerns such as range anxiety. This education can unfold throughout the consumer experience (starting prior to booking) and include follow-up from the rental car company before the customer arrives to pick up their EV. Consumers would arrive for rental EV pickup better informed at a time when they are already juggling travel-related logistics and would be less likely to switch to a combustion vehicle at the last minute.

*"If the right set of materials is developed, the right training, the right local infrastructure, in many ways the consumer almost doesn't have to think about anything; they just get to have the experience."*

*"Handholding (for customers) is a pretty key insight. You've got to close the loop and make sure that's closed. This is still too new, still too fresh; tourists have suitcases, kids crying. It's just trying to get in the middle of that to make that as smooth as possible."*

#### **Pre- and post-rental survey, marketing and analysis:**

The rental car agency plays a key role in helping the program gather data critical to

determining if the program is effective. At the rental counter, there is an opportunity to gather basic information on the customer's experience with EVs prior to the rental. When they return the vehicle, the company can incentivize customers to

complete a short survey about their experience during the program. Afterward, the rental car company can connect customers with local dealers where they can buy an EV and ask that they inform the program if they make a purchase.

### **Implement regular communications among all DEO partners to share learnings and best practices.**

Establishing a Q&A session during periodic calls among all DEO partners would help Clean Cities Coalitions coordinators, who were relatively new to the project, learn about other members' program-related activities and tips they have not yet considered. This will help them maximize the effectiveness of their outreach campaigns in their own communities.

*"Make sure [there is] frequent communication about what's going on, sharing experiences among those who are doing what I'm trying to do."*

### **Partner with the influencers in the city's tourism bureau and travel industry.**

The local tourism bureau and professionals from the travel industry are natural partners for promoting and facilitating EV rental programs such as DEO. Partners could include travel bloggers and travel agents.

*"If you're going to expand the program, a good place to start is to find the organization in the city that is responsible for promoting tourism in that city, then try to somehow incorporate this program into that one."*

### **Obtain support and program promotion from local executives.**

DEO secured testimonials from CEOs in Orlando who drove the Volt, a promotional tool replicable in other cities considering a similar program.



*"When somebody like Disney World puts out a PSA that says 'Go rent an electric vehicle,' that executive-level validation and promotion goes a long way."*

### **Boost promotion of the program in green and eco-conscious organizations and events.**

To reach the program's target market of environmentally engaged consumers, DEO partners could promote the program at relevant events such as green festivals, solar energy groups, electric utilities and energy-related conferences.

*"We do a lot of education and outreach at events. We have a very active solar group here in town, we have done ride and drive events at the solar group, so that's another opportunity for us to have materials there."*

### **Have a full-time local program staff person on the ground.**

A dedicated local staff person overseeing activities and events on the ground associated with a program such as DEO would facilitate numerous program elements, such as checking on charging stations, training hotel staff, meeting with resorts, and delivering incentives.

### **Celebrate milestones/employee incentives.**

Create opportunities to publicly celebrate milestones with participating destinations and hotels to keep partners engaged and invested in the program's success. Milestone celebrations such as an employee party for reaching 5,000 EV rentals, could be paired with a hotel and theme park employee incentive program to acknowledge valets for successfully implementing parking benefits and charging of EVs. These types of incentives would help to keep employees motivated and ensure that the perks, such as free valet parking, are consistently offered and delivered to customers.

### **Solidify process to ensure reservations turn into rentals.**

Reducing the proportion of EV reservations that turn into no-shows or switches to combustion vehicles will require rental car company engagement and follow-up prior to the reservation date. Interventions could include actions such as sending maps to EV renters a few days prior to the rental date and providing them with advance information on what to expect during their EV rental.

Reaching out to consumers with information about driving and charging their intended rental electric vehicle is challenging and expensive for rental car companies. In addition, their companies' centralized structure impedes consumer engagement from outside groups.

### **Grow inventory and increase EV models to attract more customers.**

The number of electric vehicle models has increased substantially over the course of the DEO program. Incorporating more makes and models into the program fleet would offer potential customers more options, such as larger vehicles more suitable for families. This would likely increase program participation. Working with multiple rental car company partners would eliminate restrictions caused by single sourcing.



*"When we started, there were two models of EVs available... There's just this sort of sea change in the number of models available, and awareness and understanding of how the vehicles work, that makes this a lot easier to implement moving forward because there will be lot more awareness and acceptance."*

While easier said than done, multiplying the inventory of available EVs would alleviate some of DEO's challenges (as identified earlier under "Challenges for Expansion") regarding the small number of program vehicles. Doing so would necessitate participation from several

rental car companies, given the significant investment in EV purchase and maintenance for their rental fleets.

With a larger number of EVs available, consumers would have greater assurance that one would be ready and charged at the time of rental pickup. Greater utilization of EVs would allow rental car company staff to master the protocol for charging and turning around each vehicle.

### **Expand rental car partners.**

Competition and choice would greatly enhance the opportunities for more customers to experience EV rentals. An ideal program would include two or more rental car companies competing for the opportunity to attract sustainably minded customers for an extended test drive experience.



*“Hopefully if you’re expanding this program, it would probably involve different rental companies or a broader segment of the rental car industry so we could assess who else is out there, who offers them and how we can include them in the program. It’s difficult to have only one rental car agency that might not be the preference to a traveler, then when you find out even if they’re interested, there are only eight potential cars to rent, that definitely limits the market.”*

### **Support cutting-edge airport and facility charging infrastructure.**

According to some program partners, the outlook for charging infrastructure is looking better all the time. Facility construction and remodeling provide opportunities to incorporate the latest charging infrastructure for rental car companies going into those spaces, thus creating charging options to support rental car companies incorporating EVs into their fleet.

Rental car companies need a means of charging vehicles at the rental return location rather than at the offsite turnaround location where vehicles are cleaned and prepared for the next rental. Offering fast charging on site for quicker EV rental turnaround is key. However, the space requirements for charging stations present a challenge for rental car companies, particularly at airports, due to the necessary infrastructure investment in what may be leased space.

### **Encourage airport facilities to incentivize rental car company inventory of EVs.**

Airports and other facilities cannot dictate to rental car companies which vehicles to add to their fleets. However, they could offer them incentives—such as convenient charging infrastructure—and encourage them to maintain a certain percentage of EVs in their fleet at airport rental facilities.

*“That could be a really big role that airports could take on in encouraging rental car companies to have more EVs in their fleet.”*

## **Expand EV trial opportunities.**

Myriad opportunities exist for inserting EVs into existing consumer channels, particularly “electric day trips” for both business and leisure. Identifying where those day trips are happening and working with those partners to promote electric vehicle rentals would extend the scope of EV trials. Partnering with programs such as Kayak and Google Flights that bundle transportation and lodging is another potential strategy to enter consumer channels.

In cities where driving rental cars is more challenging, such as New York City and Washington, D.C., visitors could get a glimpse of EV capabilities by riding in EVs offered by taxi companies and ridesharing organizations.

## **Create satellite EV rental counters and offer courtesy EVs to capture business travelers.**

A couple of DEO partners felt that the program was better suited for business use than for families on vacation and recommended reaching out to business travelers with those vehicles.

*“Specifically in the Orlando market, the convention industry is a huge potential market. Everybody focuses on the theme parks and such, but Orlando is the #2 destination for conventions in the United States. Tie that to the business community and that market associated with that, that would be lucrative and an attractive market.”*



Offering rental or even courtesy EVs for day trips from the convention center and business-oriented hotels is one potential benefit for a business traveler EV trial.

*“For somebody who needs to get from the airport to their meeting fast, they don’t want to wait to rent a car, but they do want to rent a car to get around town while they’re there.”*

Incentives for business travelers renting EVs could also include expedited airport security clearance, skipping the line at rental counters in favor of direct vehicle pickup, and free valet and charging at business-oriented hotels.

## **Add satellite EV rental locations for electric day-trippers who don’t rent at the airport.**

While some visitors may primarily use theme park or hotel transport during their vacation, they may want to take a day trip to an attraction a couple of hours away. Increasing opportunities for them to rent an EV for the day is another means of expanding EV trials.

*“A lot of the theme parks, especially Disney, their visitors don’t even see anything outside of the airport until they get to Disney. They get on a bus, and they go to the theme park. If they want to explore beyond Disney, they would have to rent a car or take a taxi. I don’t know if having a satellite location to be able to rent a car would be helpful for that segment.”*

## **Encourage companies/governments to include EVs as a vehicle class in contracts with rental car companies.**

Employees of many corporations and government entities find it difficult to rent EVs for business travel because EVs are not included as a sanctioned class of rental vehicles in their organization's rental car company contract. Encouraging the procurement personnel—and appealing to sustainability managers—to add EVs as a rental vehicle category would open a huge new EV rental market. This market signal would encourage rental car companies to add to their EV fleets, thus helping the goal of increased EV rental availability.

*| “If more corporations are asking in their rental car contracts ... to have EVs be an option, more EVs would be available in the rental car fleets.”*

## **Galvanize green infrastructure away from primary attractions for day-trippers.**

DEO participants may augment their EV driving experiences by taking their rental vehicle “on the road” out of Orlando. The availability of a robust charging infrastructure in other areas of Florida would make such day trips—whether by single-day renters or by DEO-participant theme-park tourists—more feasible and predictable. New EV drivers need assurances that they will be able to charge the vehicle wherever they go.



*| “You’re trying to promote the attributes of EVs, and if the first thing they experience is they are running low on a charge, and there’s nowhere to charge it (outside of Orlando), that isn’t positive messaging.”*

## **Persuade the city hosting a new DEO-styled program to invest in the program.**

Emphasizing that the city overall can benefit from the program, not just the top tourist destinations, might inspire the city to invest in the program.

Orlando has a vested interest in getting people to go outside Disney World, which was likely a factor in its support of DEO. Promoting the program as a means of encouraging tourists to spend extra time exploring the area would yield wide-ranging benefits to the city.

## **Address consumers’ lower perceived risk of driving a plug-in hybrid EV.**

While the increased range of all-electric vehicles may spur consumers’ re-entry into DEO and similar programs, program members should bear in mind that the security of gas backup will remain a selling point for consumers.

Some plug-in hybrid renters may never participate in the vehicle charging process; however, they are still experiencing the high-tech benefits of driving at least part of the time on electric power.

Encouraging the rental car company to show plug-in hybrid renters at the time of rental how to use the electric power would inspire some renters to try driving electric.

### **Implement procedures to eliminate pauses in program marketing.**

While program vehicle availability rests in the hands of the rental car company rather than the DEO team, all partners should work together to find ways to eliminate vehicle availability gaps and to keep the program moving forward. Clear communication among all parties is key to minimizing the impact of availability gaps.

Respondents remarked that momentum is also key for this program, and that rebuilding momentum is challenging after a period where the program stopped for a period to transition to a new fleet of EVs.

Maintaining consistency of vehicle inventory and process is challenging. Consumers and program partners alike will benefit from having a well-established and consistent process from the beginning.



# Conclusion: The Impact of Drive Electric Orlando

The goal of Drive Electric Orlando was to promote consumer adoption of EVs by giving travelers a unique opportunity for an extended test drive experience in Orlando, Florida.

Through DEO's website ([pluginperks.com](http://pluginperks.com)), digital ads, and collateral materials, the program piqued Orlando visitors' interest in driving electric during their vacations. DEO experienced some success and yielded learnings to be applied to future rental programs, including roll-out in additional markets.

Other key impact areas for DEO include establishing incentives and perks through strategic partnerships with local partners in Orlando; building a DEO team to lead an effective public-private partnership between government agencies, for-profit companies and non-governmental organizations; the ground-breaking involvement of Enterprise, the rental car company's first foray into the EV space; the demonstrated success of online ads, with above average click-through rates, to capture the interest of travellers; ongoing tertiary benefits to DEO which will live on after the funding period has concluded, which include the City of Orlando's EV leadership nationwide as well as Enterprise's continued willingness to rent EVs to their customers; and readily available program materials and toolkits to continue to promote DEO, which can also be repurposed for future EV rental markets. Weakness of the program—including a lack of opportunities for CCC coordinators to market outside of their coalitions' sphere of influence, tracking issues for consumer participation and charging station status, and inconsistent EV availability—can be remedied in potential future manifestations of the program.

DEO's campaigns increased consumers' willingness to rent an EV for the first time during their Orlando vacations by facilitating key measures enabling behavior change, including ease, privacy, security, trust, value, and familiarity. The DEO marketing campaign successfully implemented the [pluginperks.com](http://pluginperks.com) website and maximized reach of the paid media plan through several digital tactics. The involvement of the Clean Cities Coalitions capitalized on each CCC's ability to tailor marketing to its specific geography.

Feedback from partners in DEO suggest adding future value in the program by identifying ways to overcome challenges, including consumer hesitation, lack of EV expertise among front-line staff, and difficulties tracking post-rental EV purchases.



Recommendations for future EV rental programs include increasing vehicle rentals through enhanced incentives and other creative outreach; broadening EV rental availability by deepening the relationship between DEO and Enterprise, as well as adding other rental car companies and models; adding a full-time local program staff person on the ground; supporting cutting-edge airport and facility charging infrastructure; creating satellite EV rental locations to offer courtesy EVs to capture business travelers and for electric day-trippers who don't rent at the airport; and encouraging companies/governments to include EVs as a vehicle class in contracts with rental car companies.



In December 2018, DEO sought renter feedback to assess whether the program influenced their interest in purchasing an EV. The results validated the DEO hypothesis that experiencing an EV positively affected renter perceptions. In all, 67% of those who completed the questionnaire indicated that their experience with DEO influenced their interest in the purchase or purchase consideration of an EV. This project has also shed light on the multiple value propositions that exist for EVs within a rental car fleet to help operators lower fueling and maintenance costs and find end-users to buy EVs once they rotate out of the fleet.

DEO provided scaled consumer education and vehicle demonstrations to allow visitors to Orlando to experience the benefits of EVs with the intent to increase the acceptance and deployment of driving electric.

# Appendix

## Drive Electric Orlando – Organizations Interviewed

Align Public Strategies  
Orlando, FL

Brink Communications  
Portland, OR

Clean Cities-Georgia  
Atlanta, GA

Electrification Coalition  
Washington D.C.

Empire Clean Cities  
New York, NY

Enterprise Rent-A-Car  
Orlando, FL

Florida Clean Cities  
Cocoa, FL

Florida Department of Energy  
Tallahassee, FL

General Motors  
Orlando, FL

Greater Washington Region Clean  
Cities Coalition  
Washington, DC

Impact Consulting  
Ft. Collins, CO

Rhode Island Clean Cities  
Kingston, RI

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Drive Electric Orlando is a project  
of the [Electrification Coalition](#) in  
partnership with Securing  
America's Future Energy

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**Electrification Coalition**

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