# 2019 Q3 Report to California Air Resources Board

Public Version

November 11, 2019

# Contents

# 1. Introduction

Electrify America, LLC is investing $2 billion in financially sustainable business opportunities that advance the use of Zero Emission Vehicle (ZEV) technology, $800 million of which must be spent in California. From its inception early in 2017, Electrify America has moved rapidly to implement the $2 billion ZEV Investment Commitment.

As detailed below, Electrify America's activities in Q3 2019 were focused on commencing full-scale implementation of the Cycle 2 California ZEV Investment Plan. The marketing team launched a new brand-neutral education and awareness campaign titled "Normal Now," while the Green City Initiative deployed additional charging stations, grew car-share programs, and made progress towards transit bus deployment.

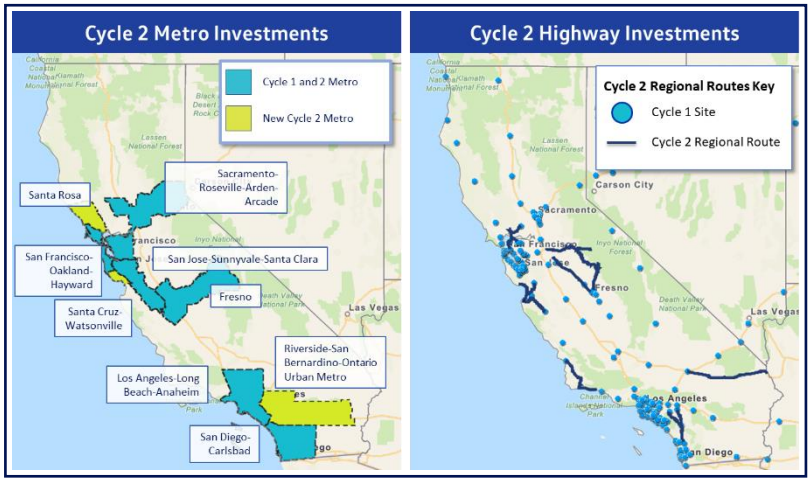
The beginning of Q3 marked the official beginning of Cycle 2. However, Electrify America has continued making a limited and well-defined set of Cycle 1 investments during the second half of 2019 in order to complete the investments specified in the Cycle 1 California ZEV Investment Plan, as supplemented.

Electrify America publishes this quarterly report to share the progress and impact of its Cycle 1 and Cycle 2 investments in California.

# 2. A Network of Electric Vehicle Charging Stations

## 2.1. Introduction

***Figure 1 - California Cycle 2 Charging Infrastructure Maps***




As laid out in the Cycle 2 California ZEV Investment Plan, Electrify America is developing a network of electric vehicle charging stations along highly traveled highway corridors, on critically important regional routes, and in nine carefully selected metropolitan areas during Cycle 2 (Figure 1). The planned network in California will consist of more than a thousand DC fast charging dispensers at hundreds of charging station sites built or under development. The network deploys cutting-edge technology to deliver convenient customer-centric charging, connecting California to the Electrify America national network in 45 other states. Electrify America anticipates that 35% of its business-driven investments within California will be in disadvantaged or low-income communities.[1]

## 2.2. Electrify America's DC Fast Charging Network

Electrify America initiated development of Cycle 2 DC fast charging along high-traffic regional routes and in nine targeted metro areas in California. Target locations (known as "target zones") for each station were identified using Electrify America's proprietary station siting methodology, which projected locations where DC fast charging stations will be most needed by 2022.

### 2.2.1. Acquiring Station Sites in Station Target Zones

Before Electrify America can build a DC fast charging station in any of its carefully selected target zones, it must acquire access to a site to host the station.

In each target zone, Electrify America considers multiple real estate leads, based on their unique attributes, such as availability of three-phase power, site lighting, and access to customer amenities. Throughout the site acquisition process, Electrify America works closely with 16 electric utilities in California to determine efficient locations from a grid perspective with the lowest service connection costs for Electrify America. And to acquire high-quality sites, Electrify America has entered into master agreements with 28 large-scale real estate owners that provide access to sites nationwide,[2] as well as site host agreements with owners of desirable individual properties across California. In Q3 2019,

[1] Electrify America uses definitions for low-income and disadvantaged communities established by the State of California, which are published and mapped by CARB on its "Disadvantaged and Low-income Communities Investments" webpage: https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm

[2] Electrify America's announced real estate partners including Simon Property Group, Walmart, Target Corporation, Brixmor Property Group, Kimco Realty Corporation, Sheetz, Inc., Casey's General Stores, Inc., DDR Corporation, Global Partners LP's Alltown, Kroger, the Save Mart Companies, Federal Realty Investment Trust, Fulcrum Property, ShopCore Properties, ValueRock Realty Partners, The Macerich Company, Washington Prime Group, and Pan-Cal Corporation.

Electrify America focused on Cycle 2 site acquisition, increasing the total number of station sites under contract for Cycle 1 and Cycle 2 to 172.

Electrify America strives to ensure that 35% of its business driven investments are in low-income or disadvantaged California communities. In Q3, Electrify America was able to ensure that more than 35% of all lease-executed DCFC station sites in California were in low-income or disadvantaged communities (Figure 4).

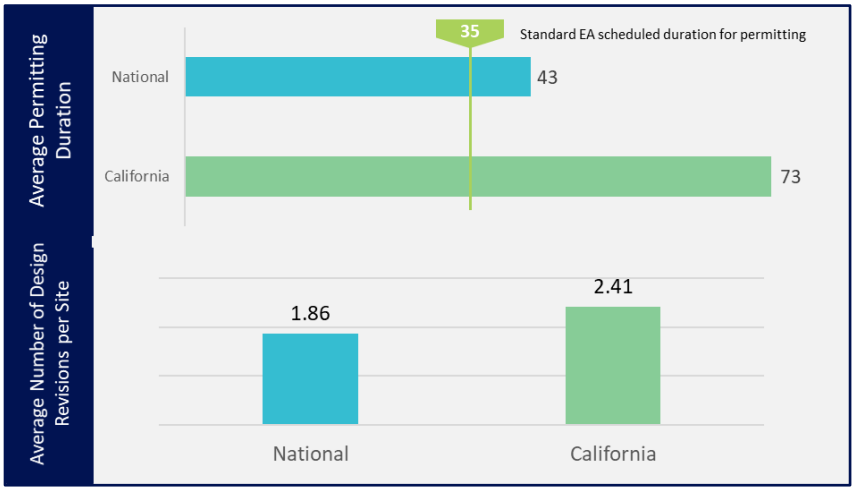
### 2.2.2. Constructing a Network of DC Fast Charging Stations

Electrify America has contracted with Black & Veatch for DC fast charging station permitting, design and installation work in California. This engineering and construction firm, which maintains a regional office in California for all California sites, has managed the installation of more DC fast chargers than any other engineering and construction company in the United States.

Black & Veatch is utilizing a deep and experienced pool of subcontractors throughout California. Furthermore, in order to expand the pool of subcontractors and experienced workers, in 2018 Electrify America worked with Black & Veatch to invite new, qualified local companies to participate in project bids. This outreach has enabled new electrical contracting firms, including those who employ unionized electricians, to subcontract on a significant number of ultra-fast electric vehicle (EV) charging stations.

In Q3, Electrify America and Black & Veatch made progress designing, permitting, and constructing DC fast charging stations. Electrify America continued to encounter challenges and issues, particularly with regard to permitting timeframes. During the quarter, the average time to complete the permitting process for DC fast charging station sites in California grew from 69 to 73 business days – nearly 70% longer than the national average. Permitting processes are also requiring station site redesigns much more frequently in California than in the rest of the nation (Figure 2), which both increases cost and leads to delay.

***Figure 2 - California and National Permitting Durations and Site Revisions***




** Permitting duration as of 9/30/19. Average site revisions as of 6/30/19.*

Electrify America has encountered California jurisdictions either unfamiliar with or unwilling to follow California statute, AB 1236, which requires California cities and counties to expedite EV station permitting, to constrain review to health and safety matters, and to bypass traditional zoning reviews.

Electrify America has engaged with the Newsom Administration to encourage continued state-level engagement and oversight of AB 1236 compliance. The state's Electric Vehicle Charging Station

Permitting Guidebook, staff-level engagement with planning and permitting officials, and state-level tracking of AB 1236 compliance are spreading best practices.

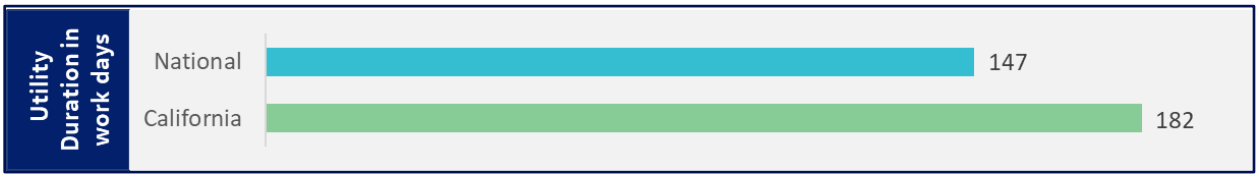
The cost to build Electrify America's ultra-fast charging stations averages more than 20% higher in California than in the rest of the nation. While many factors contribute to station costs, the additional burdens imposed by permitting – including costs to address station design and other aesthetic requests of local jurisdictions – appear to be the primary cause of these additional costs, along with higher labor costs. This higher cost per station necessarily means that California will receive fewer stations per dollar invested by Electrify America.

In Q3, Electrify America also continued to make progress connecting its stations to the electric grid. Similar to permitting, Electrify America has encountered unique challenges with utility new service interconnection processes across the state (Figure 3). The quantity of locations and magnitude of power required at Electrify America's ultra-fast charging station sites requires significant effort from utilities to validate power availability, design utility service, create easements, and schedule construction crews.

In several utility service areas, Electrify America is building at dozens of station sites. In addition to this high number of locations, Electrify America's ultra-fast charging station locations frequently require more than a megawatt of power to be supported by utilities in the parking area of a retail development. In some, but not all, cases, this requires upgrades to the utility's distribution system. To support rapid deployment, in some areas Electrify America has taken on civil work to support upgrades to a utility's distribution system, termed "betterment work," to supplement the utility's crews and support Electrify America's deployment objectives.

As of the end of Q3, Electrify America had completed station construction at 73 sites that were not yet open to the public because they were awaiting the addition of electrical equipment (e.g., transformers), utility inspection, utility energization and commissioning. As of October 31, Electrify America had requested but not received the final engineering design of the interconnection from utility companies at more than 10 station sites. For one additional station site, Electrify America was awaiting finalization of the utility interconnection contract. Finally, 32 station sites had passed final utility inspection and were awaiting energization.

***Figure 3 - California and National Utility Interconnection Timelines***




Despite these challenges, Electrify America and California utilities have worked together to make significant progress on improving processes to better fit the unique needs of DC fast charging providers across the state.

In its Q1 2019 Report, Electrify America reported that challenges with permitting and utility interconnections had prompted Electrify America to focus on achieving 100-120 station site construction starts by the end of Q2, with the intention of completing these Cycle 1 investments as quickly as

possible. Electrify America also shared that it has cancelled or placed on long-term hold planned stations in jurisdictions with onerous requirements and lengthy permitting timelines, in order to focus resources on the stations that can feasibly be built. These changes were successful. In Q3, Electrify America had 135 station sites open or permitted and in the construction phase, exceeding the established targets. Stations at 32 sites were open to the public by the end of the quarter.

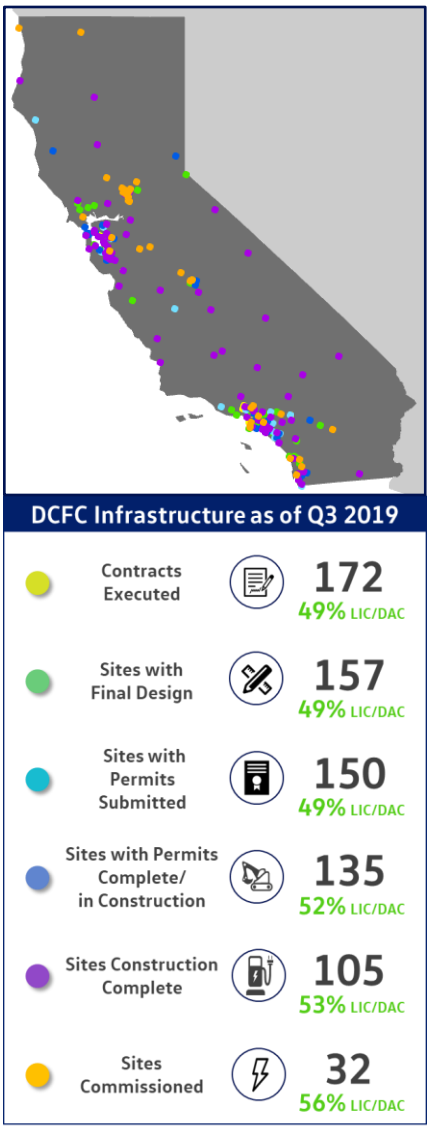
As shown in Figure 4, more than 35% of Electrify America's station sites under development are in disadvantaged and low-income communities.

### 2.2.3. Ultra-fast Electric Vehicle Charger Technology

Electrify America's customer-centric stations use the most advanced technology ever deployed for convenient, fast charging. Early in 2018, Electrify America's charging systems became the first 350 kW chargers with state-of-the-art liquid-cooled cables certified to UL standards, and in late 2018, Popular Science named Electrify America's charging system an award winner for its 2018 "Best of What's New" in the Automotive category.[3]

Highway and regional route stations are equipped with chargers capable of delivering maximum power levels from 150 kW to 350 kW, which are capable of stepping down to lower power levels for vehicles equipped for lower powered DC fast charging. At maximum continuous power, 350 kW chargers are able to deliver approximately 20 miles of range per minute to a vehicle, vastly improving the customer experience and conveniently delivering a high level of power.

***Figure 4 - California Sites and Construction Status***

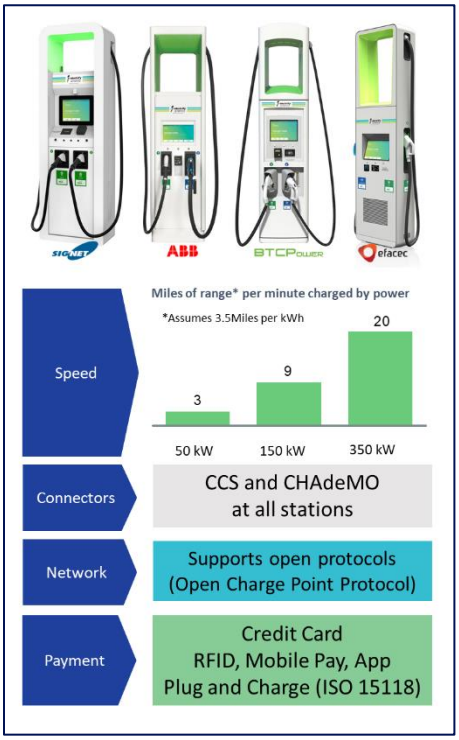



Metro charging stations feature configurations of either three, four or six DC fast chargers, reducing queuing times and providing redundancy in high-utilization urban areas. The majority of metro stations in California feature 150 kW chargers.

Electrify America DC fast charging sites support both the CCS Combo and CHAdeMO connectors, ensuring that all sites are universally compatible with today's electric vehicles. To maximize the ability of customers to use charging stations regardless of which charging network they have joined, Electrify America's networked public stations accept credit and debit card payment, creating an easy customer experience that is the primary goal of most interoperability efforts.

[3] Neither liquid-cooled cables nor 350 kW charging has ever been deployed commercially in the United States. As a result, Electrify America leased a small space for equipment quality control and validation during 2019.

***Figure 5 - Transformational DC Fast Charging Technology***




Electrify America is equipping its networked DC fast chargers using the CCS standard with ISO 15118, and it was announced in January that Electrify America will be the first DC fast charging network in the United States to offer "Plug & Charge" capability at its stations. During Q3, Electrify America and Porsche partnered for the Porsche Taycan global launch event to conduct the first 270 kW charging event in the United States. Using Electrify America's 350 kW charger, the Taycan obtained a 5% to 80% charge in just 22.5 minutes.[4]

In August, Electrify America announced an agreement with San Francisco-based EV fleet charging company Stable Auto to deploy robotic charging solutions for self-driving vehicles in a commercial demonstration in San Francisco. The solution will charge autonomous EVs without human intervention using a robotic arm attached to a 150 kW DC fast charger. The dedicated fleet charging facility will allow self-driving EV fleets to charge with no operators present, ensuring that Electrify America's ultra-fast charging technology is compatible with automated vehicles of the future.[5]

Finally, all Electrify America DC fast charging stations are networked, using open protocols compliant with Open Charge Point Protocol (OCPP) version 1.6 or higher, and support cellular connectivity.[6] These capabilities are managed for Electrify America by Greenlots, which is headquartered in Los Angeles.[7] Electrify America has also exchanged roaming specifications with most U.S. charging networks, and in Q3, Electrify America and EVgo announced an interoperability agreement that will further expand access to EV charging.[8]

[4] "Electrify America's Open Network of Ultra-Fast DC Chargers: First to Charge an 800-Volt Electric Vehicle Battery at 270 Kilowatts." June 3, 2019. https://media.electrifyamerica.com/en-us/releases/75

[5] "Electrify America and Stable Announce Collaboration to Deploy Robotic Fast-Charging Facility for Self-Driving Electric Vehicle Fleets." August 1, 2019. https://media.electrifyamerica.com/en-us/releases/70

[6] Electrify America's public stations will be equipped with back end systems that can use Open Charge Point Interface (OCPI) 2.1 to communicate with other networks and Open InterCharge Protocol (OICP) to be able to connect to roaming platforms, when a business agreement is secured, in a manner that does not require use of any particular firm's intellectual property.

[7] "The network controls are hosted by Amazon Web Service (AWS), which allows a high security standard. Electrify America undertook intensive testing to approve AWS as a safe and secure environment, as well as security audits of Greenlots as part of the licensing of the network. Also, Electrify America selected a vendor to perform architecture reviews and penetration tests to provide data security.

[8] "EVgo, Electrify America Join Forces to Increase EV Public Charging Accessibility Across the U.S." September 9, 2019. https://media.electrifyamerica.com/en-us/releases/74

### 2.2.3.1. Chargers and Equipment Ordered and Delivered

Following an RFP process, Electrify America selected four companies – ABB, BTC Power, Efacec, and Signet – as suppliers of its ultra-fast DC fast chargers during Cycle 1.[9] Electrify America has ordered all of the more than 600 chargers needed in California for Cycle 1. In order to procure the hardware needed to build Cycle 2 ultra-fast charging stations, Electrify America has run a series of competitive solicitations in 2019, and in Q3 Electrify America selected vendors to supply Cycle 2 charging stations. Chargers are scheduled to be delivered to station construction sites upon commencement of construction. By the end of Q3, 484 DC fast chargers had been delivered to construction sites in California.

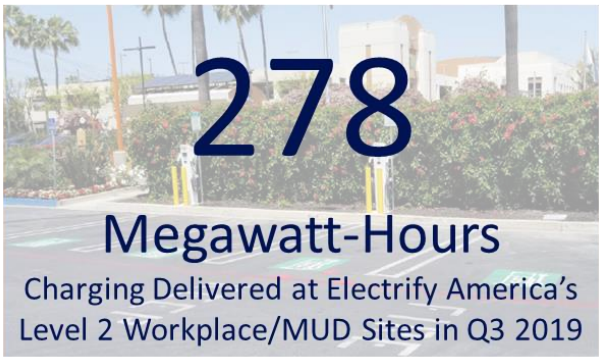
Electrify America also ordered battery storage capacity in order to mitigate high demand charges, reduce on-peak energy charges, and ease grid loads. In Q1, Electrify America announced that it had ordered Tesla batteries for more than 60 station sites in California, totaling more than 20 MWh of behind-the-meter energy storage to be delivered and installed in 2019. During Q3, Electrify America evaluated destinations of battery systems based on site-specific limitations, ongoing changes in utility rates, and utility grid needs. Should utility rates for EV charging be modified to better reflect the cost to serve such demand, the storage systems will continue to provide value by reducing costs and stress on the electric grid during on-peak periods and grid events.

## 2.3. Level 2 Workplace and Multiunit Dwelling Charging Stations

Electrify America targeted six metropolitan areas for community charging station investments in Cycle 1. In these communities, Electrify America and its "turnkey" vendors (EV Connect, Greenlots, and SemaConnect) installed and opened Level 2 (L2) charging stations at workplaces and multiunit dwellings. More than 1,400 charging ports across 236 sites were operational in Q3, with 43% of these stations sites in low-income and disadvantaged communities.

Under standardized site host agreements between Electrify America's vendors and station site hosts (e.g., property developers, office space facility managers, and other real estate site hosts), Electrify America funds all costs of permitting, procuring equipment, constructing and maintaining charging stations. Although this contract structure has not proven to be an economically sustainable investment for Electrify America in Cycle 1, the program provides a truly unique benefit to workplace and residential property owners in California.

***Figure 6 - Charging Delivered at Workplace/MUD Sites***




Electrify America's efforts to request station site proposals from state agencies, local governments, and non-profit entities through the National Outreach Plan process bore tremendous fruit, as 33% of all station sites are at government or non-profit workplaces and housing developments. For example, Electrify America funded stations at

[9] "Designing and Deploying more than 2,000 Ultra-Fast Electric Vehicle Chargers across the U.S., Electrify America Selects ABB, BTC Power, Efacec and Signet as Charging Equipment Suppliers." April 17, 2018. https://media.electrifyamerica.com/en-us/releases/21

more than 30 CalTrans workplaces, and the Catholic Diocese's schools and churches host more than ten stations.

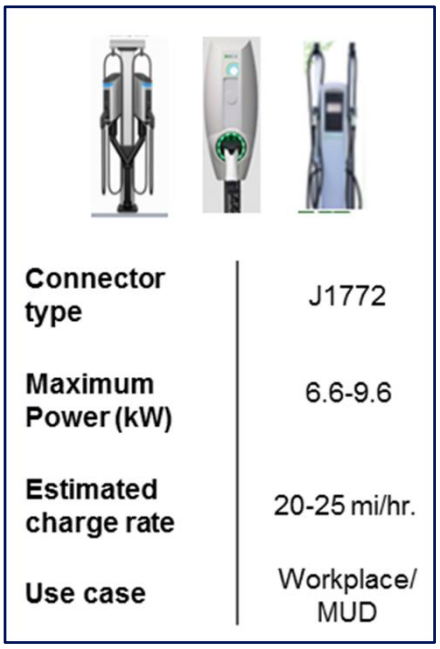
In Q3, Electrify America saw a substantial increase in the use of the program's Level 2 workplace and multiunit dwelling stations, which delivered approximately 278 MWh to vehicles during the quarter.

### 2.3.1. Charger Technology

Electrify America-funded workplace and MUD charging stations typically have four to six Level 2 chargers, each with a minimum power level of 6.6 kW (Figure 7). The chargers provide 20 to 25 miles of driving range per hour of charging using the non-proprietary SAE J1772 connector, which can be used with all electric vehicles in the United States.

Electrify America's L2 vendors own, operate, and maintain their own electronic data networks in support of L2 chargers installed and operated on behalf of Electrify America, as well as those installed independently of the program's efforts. Electrify America owns the data from these charging stations. The chargers installed under this program will be on vendors' networks, and will be able to connect and interoperate with Electrify America's network.

***Figure 7 - Level 2 Charger Technology***



# 3. Brand-Neutral Education and Awareness

## 3.1. Brand-Neutral ZEV Education and Awareness Media Campaign

In Q3, Electrify America launched its new $17 million Cycle 2 education and awareness campaign in California to educate consumers about the reasons to purchase a ZEV. As stated in the Cycle 2 ZEV Investment Plan, Electrify America committed to "boost ZEV adoption through informing mainstream car buyers on the key benefits offered by ZEVs in a brand-neutral manner." Based on the 2017 New Vehicle Experience Study that found that drivers identify performance (handling and cornering) and comfort (ride quality and quiet interior) as two of the top four 'Extremely Important' characteristics when shopping for a vehicle, "the Cycle 2 efforts to drive ZEV adoption will focus on four messaging pillars around ZEVs: performance, range, product spectrum, and charging infrastructure."

***Figure 8 - "Normal Now" Spanish-Language Mobile Landing Page***


The education and awareness efforts include brand-neutral digital and paid search campaigns in all California media markets, and a bilingual landing page (www.NormalNow.com) that – through a humorous presentation that shows how technology matures and becomes mainstream – provides an overview of the benefits of both battery electric and hydrogen fuel cell electric ZEVs, with links to third-party websites containing robust content for users (Figure 8).

### 3.1.1. Normal Now

In Q3, Electrify America kicked off a multifaceted digital campaign with the launch of its new brand-neutral informational website – www.NormalNow.com – as well as online videos, streaming TV ads, digital banner ads, social media ads, paid search, and streaming audio and podcast.

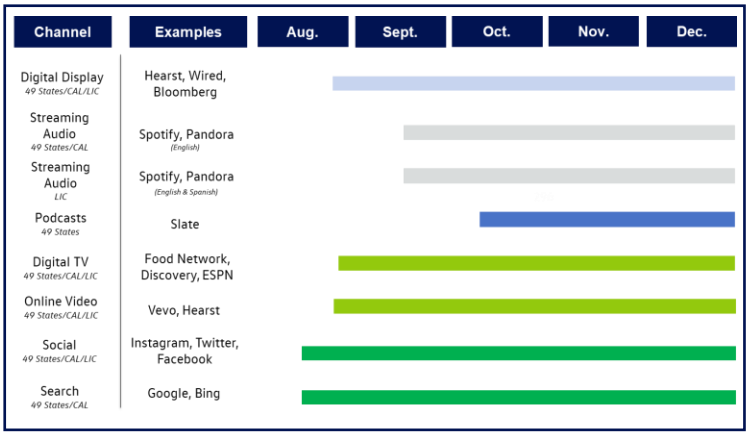
The "Normal Now" campaign, developed by San Francisco-based communications firm Eleven, aims to introduce and normalize zero-emission vehicles (ZEV) for the vast majority of Americans who are not aware of or have never considered switching to a zero-emission vehicle. Through comical 15 second videos, GIFs and still images, the "Normal Now" campaign draws comparisons between "new technology" of the past - including cell phones, smart watches and online dating - and what is assuredly the transportation method of the future. The campaign explores how scary previous forms of "new technology" were at first and reinforces that - just like EVs - while they may have seemed weird at first, they're normal now.

***Figure 9 - Example of "Normal Now" Digital Advertisement***


Researchers have identified functional concerns about EVs, like range anxiety,

charge time and cost, as reasons why car buyers wouldn't drive electric; however, the Normal Now campaign is inspired by the insight that there is actually a deeper, more emotional set of barriers standing in the way of ZEV consideration and adoption. Specifically, the Normal Now campaign is designed to address the public's fear of change and lack of exposure to EVs in pop culture, which is making people view electric vehicles as too different from what they're used to. The campaign strives to normalize EVs. This brand-neutral campaign will run in California through December 2021. During Q3, the campaign focused on digital media channels, as shown in Figure 10.

***Figure 10 - Media Channels for Brand-Neutral Campaign***




End of quarter results for media impressions are shown in the table below. During Q3, Electrify America and its media agency bought digital media by specific zip codes, in order to ensure that 35% of all media spending occurred in low-income and disadvantaged communities. Electrify America is also continuing to run both English and Spanish advertising.

The table below illustrates how these channels accomplished a total of over 24 million impressions (i.e., listeners and viewers) in California during the third quarter.

| Total Q3 Impressions by Channel | California Non-LIC/DAC | California LIC/DAC | Total Brand-Neutral Impressions |
|---|---|---|---|
| **Media Type** | **Impressions** | | |
| TV | N/A | N/A | N/A |
| Streaming Audio | 287,983 | 569,864 | 857,847 |
| Search | 332,836 | 33,378 | 336,214 |
| Digital/Video | 7,524,256 | 2,069,326 | 9,593,582 |
| Social | 6,513,709 | 6,786,751 | 13,300,460 |
| OOH | N/A | N/A | N/A |
| **TOTAL** | **14,658,784** | **9,459,319** | **24,118,103** |

To facilitate even greater impact and increase the total number of impressions in collaboration with others, Electrify America has made the Normal Now creative content available to third parties. More than 200 different entities have downloaded the Normal Now Campaign Toolkit and are able to deploy the content in their own efforts to build EV adoption.

Electrify America also continued its collaboration with Veloz. Electrify America contributed significantly to the "Kicking Gas" ZEV education and awareness campaign earlier in 2019, and Electrify America has continued to highlight this campaign's results in multiple venues. Consistent with past agreements, Veloz has agreed to raise funds to match Electrify America's commitment in the future.

The Kicking Gas campaign will run through the end of 2019 using digital billboard displays along major commuting corridors in Northern and Southern California, paid social media placement on Facebook and Instagram, search placement on Google, YouTube and Bing, and digital display banners. 35% of the media buy will be targeted towards low-income and disadvantaged communities.

### 3.1.2. Low-Income and Disadvantaged Community Outreach Investments

In the Cycle 2 California ZEV Investment Plan, Electrify America committed $2-3 million to seek partnerships with entities with particular access and credibility within California's disadvantaged and low-income communities.

In October 2018, Electrify America contracted with six Community-Based Organizations (CBOs) for work to support Electrify America's mission of providing education campaigns to low-income and disadvantaged communities in the State of California. The projects, which ran through Q2 2019, were highly successful.

In Q3, Electrify America extended the work of one of these organizations: Valley Clean Air Now (Valley CAN). The project – which helps consumers in low-income and disadvantaged communities upgrade to an electric vehicle via the Clean Cars 4 All vehicle replacement program – has demonstrated strong growth of ZEV sales in disadvantaged and low income communities. In Q3, Valley CAN implemented two key program improvements:

- Clean Car Community Clinics were held twice weekly in smaller rural communities throughout the San Joaquin Valley; and
- ZEV Ride & Drives were held at all biweekly Tune In & Tune Up smog repair events.

Valley CAN also worked with the Valley Air District in Q3 to develop an expedited customer approval process for Clean Cars 4 All which should eliminate the six-week wait time for preapproval and allow for vehicle transactions to be completed one week after a customer submits their application. Additional accomplishments for Valley CAN are highlighted in the following table.

| Organization | Description | Third Quarter Accomplishments |
|---|---|---|
| valley CAN "clean air now"<br>Valley Clean Air Now (Valley CAN) | Valley CAN, based in Sacramento, is a public charity committed to quantifiably improving air quality in California's San Joaquin Valley, a region with some of the worst air quality and most severe poverty in the nation. | • 292 Clean Cars 4 All transactions completed in Q3 (compared to 293 in Q2)<br>• 659 customers attended 18 Clean Car Community Clinics<br>• Workplace event held in Lost Hills with Wonderful Company had strong turnout; additional events at their other facilities are being planned<br>• Workplace event held at the Outlets at Tejon, which was promoted to all of the agriculture and logistics companies based around Tejon Ranch<br>• UCLA Luskin Center report on Clean Car Community Clinics to be issued in October |

### 3.1.3. Sponsorships

The Cycle 2 California ZEV Investment Plan states that "there may be occasions where it would be reasonable for Electrify America to further education and awareness of ZEVs … by supporting the programs, activities, or events of an industry or non-profit organization." Using the criteria specified in the Cycle 2 California ZEV Investment Plan for identifying these occasions, Electrify America chose to sponsor the following brand-neutral education and awareness activities in Q3:

| Organization | Description | Third Quarter Accomplishments |
|---|---|---|
| Plug In America | Electrify America worked with Plug-in-America to help sponsor 5 ride & drive events for the National Drive Electric week, which took place on Sept 14th-22nd 2019. | • Hosted five ride and drives at the following locations: Chatsworth, Davis, Mammoth Lakes, Palm Desert and Richmond<br>• Total of 407 ride and drives<br>• Estimated over 2,300 in attendance at the events<br>• Of participants surveyed[10]:<br>  • **92%** said that their **impression of EVs is "better"** after driving one<br>  • **58%** said that an **EV drives and handles better** than a gas car<br>  • **85%** said that they are **"likely" or "definitely" going to buy/lease an EV** if get a new car in the next two years |

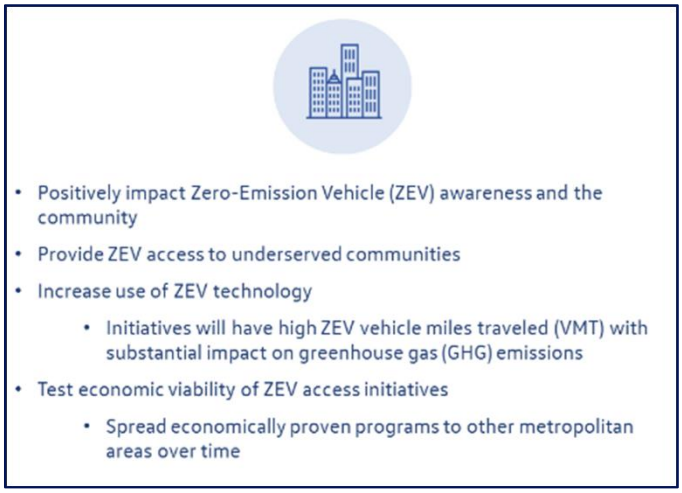
[10] Survey results include feedback from participants from ten Plug In America Ride and Drives sponsored by Electrify America, five of which were in California.

# 4. Green City Initiative

## 4.1. Introduction

The goals of Electrify America's Green City Initiative are to increase ZEV awareness; provide ZEV access to underserved, low-income and disadvantaged communities; increase use of ZEV technology to maximize ZEV miles traveled while reducing greenhouse gas emissions; and test the economic viability of ZEV access initiatives. In the third quarter of 2019 there was continued progress across all Green City investment pillars.

***Figure 11 - Green City Goals and Impacts***




## 4.2. Car-Sharing and Ride-Hailing Services

Two car-share service vendors – GIG Car Share, a wholly-owned subsidiary of the American Automobile Association (AAA), and Envoy Technology, Inc., a California-based startup – provided car-share services in Sacramento and continued outreach to build awareness and utilization during Q3.

### GIG Car Share:

GIG Car Share continued to operate the largest all-electric car-share program in the United States, providing access to ZEVs in Sacramento unlike any other community in the Nation. The free-floating fleet of 260 long-range battery electric vehicles traveled nearly 300,000 miles over more than 33,000 separate trips.

As the service was fully deployed earlier in 2019, GIG focused its efforts in Q3 on building awareness of the service in the community. The highlights of this marketing effort include:

- Attendees of the closing night concert during the Wide Open Walls art festival received a free concert ticket if they signed up for GIG and took a trip using a specific promo code. This activation drove a record number of sign-ups.
- GIG worked with local Sacramento social media influencers to demonstrate use cases (e.g., how to take a road trip with an EV) to raise brand awareness and drive sign-ups.
- To encourage day-long use, GIG launched a specific landing page to help educate drivers and inspire longer trips and offered pricing promotions ($59/day for trips in GIG EVs).

### Envoy:

In Q3, Envoy expanded its footprint to include nine additional properties. By the end of the quarter, Envoy was operating at 32 Green City-invested sites with 63 vehicles and 64 Level 2 charging stations. Envoy stations showed varying levels of utilization, with eight locations exceeding 10% utilization. Program highlights for the quarter included:

- To promote increased vehicle utilization in Q3, Envoy released a free drive time code to building residents. This promotion resulted in increased customer enrollment, ridership, accrual of "electric-miles," and program exposure.
- Envoy continued its discussions with transportation network companies (TNCs) to allow residents of Envoy locations to use their property's Envoy vehicles to drive for those TNCs. A number of Envoy vehicles are already being used accordingly.
- Envoy continued expanding its service in low-income and disadvantaged communities, targeting a benchmark of 73% of properties in these areas when the service is fully launched. Of the nine Envoy properties launched in Q3, six are in low-income and disadvantaged communities.
- Envoy enlisted local property residents in its Sacramento locations to serve as "Envoy Ambassadors." In Q3, nine Envoy Ambassadors helped educate neighbors about Envoy's service and EVs in general. These ambassadors increase awareness, user adoption, help maintain the vehicles (e.g., plugging in chargers, tracking vehicle damage, etc.), and they had a demonstrable impact on enrollment and utilization at their corresponding properties.

Additional information on the utilization of car-sharing services is presented in the appendix.

## 4.3. ZEV Shuttle / Bus

In Q3, progress continued towards the launch of two services: a bus service from Davis to Sacramento jointly provided by Sacramento Regional Transit (SacRT) and Yolo County Transportation District (YCTD); and an on-demand, micro-shuttle service in the Franklin Boulevard region proposed by Franklin Neighborhood Development Corporation and operated by SacRT.

***Figure 12 - SacRT Franklin Boulevard Shuttle***


For the UC Davis-Sacramento route, the twelve Proterra E2 Catalyst buses proceeded in two production tranches during Q3 2019, with delivery of all buses expected in Q4. Electrify America also monitored the efforts by SacRT, YCTD and UC Davis to finalize the service route and frequency, urging all parties to deploy more frequent and rider-friendly service.

The three GreenPower EV Star shuttles to be used for the Franklin Boulevard on-demand service are expected to be shipped from GreenPower's plant in Porterville, California, in early to mid-December 2019.

## 4.4. Disadvantaged and Low-Income Impact

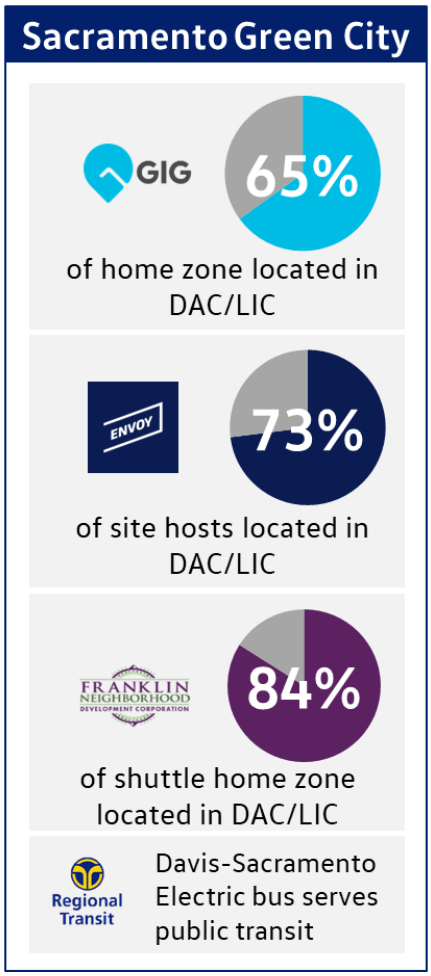
The Electrify America Green City Initiative has prioritized investments that increase access to ZEV technology in low-income and disadvantaged communities in Sacramento. GIG Car Share has an approximately 13 sq. mile "Home Zone" operations area, in which 65% of served census tracts are designated as low-income or disadvantaged communities.

Envoy continues to focus on low-income and disadvantaged communities, and has achieved a key benchmark of 73% of the properties planned for the program being located in these areas. Of the nine Envoy properties launched in Q3, six are in low-income or disadvantaged communities. In total, Envoy had launched at 24 properties in low-income or disadvantaged communities by the end of Q3.

The Sacramento Air Quality Management District (AQMD) RideHail VISA program is designed to help community residents to travel throughout the Sacramento Region. Every month, a fixed amount of $125 is transferred to members' custom VISA card for daily transportation needs, including car-share vehicles. The program allows members to choose their preferred vendors, including GIG, Lyft, Jump Bike and Uber. In Q3 2019, $60.25 was spent using the GIG service. According to Breathe California, which manages the Our Community CarShare program on behalf of AQMD, 140 of the 445 program members signed up for the VISA Mobility program. AQMD is looking to expand to additional communities next year.

The two ZEV shuttle/bus services will also operate in low-income and disadvantaged communities. The Davis-Sacramento public transit route will serve stops in low-income and disadvantaged communities. And of the census tracts served by the Franklin Blvd shuttle service, 84% are low-income or disadvantaged communities. These percentages are illustrated in Figure 13.

***Figure 13 - Green City Project Impact on Low-Income and Disadvantaged Communities***




## 4.5. Infrastructure

Electrify America continued to build and open DC fast charging stations in the Sacramento market – consistent with Electrify America's plan to provide Sacramento with the highest per-capita density of Electrify America's DC fast chargers in the nation. Electrify America invested in both public charging stations and in charging infrastructure to support the Sacramento-Davis bus route and Franklin Boulevard shuttle service.

Electrify America had completed public charging stations at eleven Sacramento sites by the end of Q3, providing 46 DC fast chargers to the public, including eight charging stations at the Sacramento Airport in a unique collaboration with Sacramento County. For the bus and shuttle charging infrastructure, Electrify America continued design, permitting and construction of charging stations at the bus yards of SacRT and YCTD, as well as in-line charging stations at both of UC Davis's campuses.

## 4.6. Green City Marketing

3fold Communications continued the "Sac-to-Zero" education and awareness campaign in Q3. The campaign is an umbrella of all Electrify America services in the Sacramento Region, and it deploys events and media, including social media channels under the Sac-to-Zero tagline.

During the quarter, 3fold held four Sac-to-Zero events and activities, engaging nearly 4,000 individuals. The activities included community-based events, such as farmers' markets, and all four events took place in low-income or disadvantaged communities. At the events, Sac-to-Zero staff were available to answer questions and engage participants regarding Electrify America's investments in Sacramento, and most events featured vehicles from Envoy or GIG Car Share.

***Figure 14 - Green City Outreach Event***

One of the quarter's most successful events was the Wide Open Walls Mural Festival, for which GIG served as the Official Mobility Partner, providing complimentary access to GIG vehicles for artists, organizers and volunteers. GIG also partnered with artists to transform several vehicles into "Art GIGs" by painting the hoods of the cars during live events. This level of community support created positive press, brand awareness, social media engagement, and record trip activity in August.

To build awareness, 3fold also continued to invest in digital marketing through Sac-to-Zero.com and Sac-to-Zero Social Media Channels (Facebook & Instagram). The campaign was particularly active on Facebook, recording 11.6 million impressions during the quarter.

## 4.7. Problems, Concerns and Lessons Learned

The Green City Initiative made major strides in Q3. As Electrify America commenced Cycle 2 investments, there were a number of lessons learned from Green City activities.

In Q3, Electrify America continued to work with stakeholders – including Sacramento Regional Transit, Yolo County Transit, UC Davis, and the City of Sacramento – to ensure that the shuttle service offered between Davis and Sacramento meets rider needs and is consistent with the service proposed to Electrify America. One key element examined by the stakeholders in Q3 was the peak route frequency schedule. The original service concept offered to Electrify America was for 15-minute peak frequency, and Electrify America's investment in vehicles and charging stations is designed to provide that service level. However, stakeholders responsible for funding operational costs associated with that frequency level have not succeeded in securing the necessary funding, and there remained a gap in funding necessary to provide for 20-minute peak frequency at the end of Q3. Stakeholders are now jointly seeking additional funds to achieve that peak frequency level.

SacRT and SMUD have also experienced significant delays in permitting the charging station at SacRT's yard in Sacramento, which is causing a delay in the construction and commissioning of this station. The delay presents a potential barrier to bus testing, which is currently scheduled to begin as soon as the buses arrive in Sacramento. To address this risk, Electrify America has engaged directly with the Governor's office to seek support for station permitting, and Electrify America has also verified that bus testing will be feasible using the Sacramento Airport charging station if necessary.