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06.2020
Introducing

Electrify America

Electrify America LLC, the largest open DC fast charging network in the U.S., is investing $2 billion over 10 years in Zero Emission Vehicle (ZEV) infrastructure, education and access. The investment will enable millions of Americans to discover the benefits of electric driving and support the build-out of a nationwide network of workplace, community and highway chargers that are convenient and reliable.

Electrify America expects to install or have under development approximately 800 public charging stations with about 3,500 chargers by December 2021. It is also engaged in marketing efforts to raise consumer awareness of electric vehicles.
Electrify America has more than 2,000 chargers at 438 stations, with plans to complete ~800 stations by end of 2021.

<table>
<thead>
<tr>
<th>2021</th>
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<tbody>
<tr>
<td>45 states + DC</td>
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<tr>
<td>29 large metros</td>
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<tr>
<td>800 Stations</td>
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<tr>
<td>3,500+ DC Fast Chargers</td>
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Station spacing:
- Average: 70 miles
- Maximum: 120 miles

Chargers per site:
- Average: 5
- Minimum: 3-4
- Maximum: 10

Charging speed
- 3 to 20 miles per minute

The majority of “Coming Soon” stations are under construction or construction complete and awaiting utility connection.

As of 2020, 96% of Americans live within 120 miles of an Electrify America station.
At the end of Q1 2020, Electrify America had 109 stations commissioned across California.
Electrify America chargers provide CCS charging capable of 1,000 volts at 350 Amps to deliver 350 kW of high power charging.

Charge power up to 350kW

Liquid-cooled cables

Dual connector

CCS  CHAdeMO

15 inch touch display

Unsurpassed charging power/speed

Miles of range* per minute charged by DCFC power

50 kW  150 kW  350 kW

3  9  20

*Assumes 3.5Miles per kWh

Electrify America also has a commercial grade Level 2 (AC) solution for long dwell times
Non-proprietary Standards

• Consensus growing around CCS Standard:
  GM, Ford, FCA, BMW, VW, Daimler, Kia, Hyundai, Honda, Lucid, Porsche, Audi, Proterra, Fisker, Harley-Davidson all use CCS

• CHAdeMO standard used by Nissan Alliance

• CHAdeMO accounts for a small and declining fraction of charging dispensed at EA stations
Soft costs contribute significantly to overall project costs

A 2020 Rocky Mountain Institute study found that soft costs are “some of the largest and most unpredictable costs that developers of charging networks encounter.”

Key contributors to soft costs:
- Permitting delays
- Utility easement and interconnection delays
- Demand charges

California regulations also increase costs:
- California Building Code requirements
- Division of Measurement Standards charger requirements
- Open Access reporting requirements

https://rmi.org/insight/reducing-ev-charging-infrastructure-costs/
Permitting in California presents a number of challenges; costs and standard durations for projects much higher than National

- Standard Electrify America Scheduled Duration for Permitting
  - National: 46 days
  - California: 73 days

California DCFC stations have **more than 24% higher design, permitting, & construction costs, and 59% longer timelines** than national average due largely to permitting related costs and statewide requirements.

Top 2 Reasons for Permitting Delays:

1. **Extended Zoning Review**
   - The #1 primary cause of delayed projects in California was extended zoning review.

2. **Multiple Rounds of Comments**
   - 77% of delayed projects received multiple rounds of comments, the #2 primary cause of delay.

Average Number of Design Revisions per Site:

- National: 1.53
- California: 2.03

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1. Duration measured in business days.
2. Sample size of 73 projects in California with permitting durations of 70+ days.
Investment Best Practices

- **Real Estate and Permitting:** Focusing on Project Development Progress
  - Increases speed and project success rate

- **Technology**
  - Speed/Power and Standardization
  - Staying ahead with Future-proofing

- **Certainty**
  - Over-subscribed programs create uncertainty
  - Increased application requirements create certainty
  - Rebates create certainty

- **Timely, Expeditious Action**
  - Processing times matter
  - Wait lists: Fast moving industries cannot wait on a list.

*Companies rarely die from moving too fast, and they frequently die from moving too slowly.*

- Reed Hastings, Netflix Inc.
Matthew B. Nelson
Director of Government Affairs
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