Multifamily EV Charging Webinar

August 2023
EV Market Trends

- **Tipping point in EV sales**...
  - National EV sales market share: 6%
  - Virginia EV sales market share: 8%

- **Automakers are committing to more EV models**...
  - Targeting up to 50% EV sales by 2030
  - Phasing out ICEV by 2035

- **Federal policies provide EV incentives**...
  - Infrastructure and vehicle tax incentives
  - Generational grant opportunities

- **State policy will drive EV adoption**...
  - More EV sales
  - ICEV phase out

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Virginia EV Adoption and Forecasts

- **2022:** 66,000 EVs
- **2030:** 500k EVs
- **2050:** 4.3M EVs

*As of December 2022*
Charging Infrastructure 101

DOMINION ENERGY VIRGINIA UTILITY INFRASTRUCTURE → ELECTRIC METER → EV SUPPLY INFRASTRUCTURE (EVSI) → EV SUPPLY EQUIPMENT (EVSE)

“Make-Ready”

“Charger”
Charging Station 101

Level 1

VOLTAGE: 120V 1-Phase AC
AMPS: 12-16 Amps
CHARGING LOAD: 1.4-1.9 kW
CHARGING TIME: 3-5 Miles per Hour

Level 2

VOLTAGE: 208V or 240V 1-Phase AC
AMPS: 12-80 Amps
CHARGING LOAD: 2.5-19.2 kW
CHARGING TIME: 12-60 Miles per Hour

DC Fast Charge

VOLTAGE: 208V or 480V 3-Phase AC
AMPS: >100 Amps
CHARGING LOAD: 50-350 kW
CHARGING TIME: 10%-80% in ~30 Minutes
Multi-Family Charging Benefits

- Attract and retain residents by providing a valuable amenity
- Differentiate your property
- Support clean transportation in your community
Multi-Family Charging Challenges

- Education
- Technical Complexity
- Cost
- Stakeholder Engagement
- Parking
Multi-Family EV Charging Steps

Step 1: Decide on a location for your stations

- Parking scenarios at a multi-family community include on-street, garage, parking deck, parking lot, driveway, and carport.

  Considerations:
  - How many chargers do I need?
  - Will the chargers be exposed to the elements?
  - Who has access?
Multi-Family EV Charging Steps

Step 2: Assess your electrical access

- Consult with the electric utility and electrician to determine existing capacity

  — Common area metering:
    - May be more cost effective
    - Property owner owns the charging station.
    - Difficult to allocate costs
    - Does not require assigned parking.

  — Dedicated metering:
    - EV-installed
    - EV-ready
## Multi-Family EV Charging Steps

### Step 3: Select your charging equipment

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2 Ready</th>
<th>Level 2 Station Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>120V/20A outlet with dedicated circuit</td>
<td>240V/40A outlet with dedicated circuit</td>
<td>240V/40A service with dedicated circuit</td>
<td></td>
</tr>
<tr>
<td>Use existing outlets (cord and connectors provided with vehicles)</td>
<td>Resident buys and installs station and takes it with them when they leave</td>
<td>Hardwired charging station installed by property owner/manager</td>
<td></td>
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<tr>
<td>Slowest charge time (5 miles/hour of charging)</td>
<td>Faster charge time (10-20 miles/hour of charging)</td>
<td>Faster charge time (10-20 miles/hour of charging)</td>
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### Considerations:
- Data needs?
- Cord management?
- Wall or pedestal mounted?
- Single or dual port?
Multi-Family EV Charging Steps

Step 4: Prepare for installation

**Using an existing outlet (Level 1)**

- Confirm electrical capacity and safety
- Contact your electric utility
- Purchase outlet-compatible equipment (if needed)
- Plug in and start charging

**Installing a station or outlet (Level 1 or 2)**

- Contact electrician or contractor
- Develop installation plan (includes developing site plan and contacting electric utility)
- Obtain necessary permits
- Install equipment
Multi-Family EV Charging Steps

Step 5: Develop policies and etiquette guidelines

- Develop Policies and etiquette guidelines:
  - Rules are needed to ensure the charging stations are properly used by residents and guests.

- Considerations
  - Who has access to the chargers?
  - What if non-EV drivers use the space?
  - Parking duration?
  - Are drivers allowed to unplug other vehicles?
  - Stations notifications?
Multi-Family EV Charging Steps

**Step 6: Promote the stations**

- Promote the stations and educate residents:
  - Advertise the new amenity
  - Give live demos and workshops
  - Publish charging etiquette, ground rules, and pricing online
  - Add stations to PlugShare (www.plugshare.com)
Dominion Energy Can Help You Lead the Charge

We're paving the way for electric vehicles and charging possibilities in your area including easy options, expanded access, and trusted expertise along the way.

Experience

- Expert education and guidance for EV charging
- Smart charging programs and incentives
- 300+ charging stations for our workplaces and fleet
- Nation’s largest electric school bus program with DCFC charging

Solutions to make it easier to charge at home, at work, and on the go
Dominion Energy *Level 2 Charging* Program

- **Smart**
  Guides, interactive tools, calculators, programs, and incentives to support electrification

- **Convenient**
  Monthly on-bill payments reduce upfront costs for EV charging infrastructure

- **Equitable**
  No-cost charging solutions available to eligible customers in underserved areas

- **Flexible**
  EV charging hardware and software options to meet specific customer needs
Resources

- Multifamily EV Charging Guide
- Resident EV Interest Polls
- Federal Incentives & Tax Credits

DE Program Resources
- Charging on the Go website
- Charging on the Go handout
- Participation Guide
- EV Interest Form
Q&A