CNCCR EVOLUTION

CHARGER

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August 25, 2023

EV Count of All EV Types from 2016 to 2022 - USA and Top 3 States





Source: US Department of Energy, Alternative Fuels Data Center (https://afdc.energy.gov/vehicle-registration)

Count of EV Chargers from 2015 to 2023 - USA and Top 4 ONCOR. States



Source: US Department of Energy, Alternative Fuels Data Center (<u>https://afdc.energy.gov/fuels/electricity_locat</u> ions.html#/analyze)

EV Network - Texas and Oncor Area - 2016





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Source: US Department of Energy, Alternative Fuels Data Center (<u>https://afdc.energy.gov/fuels/electricity_locat</u> ions.html#/analyze)

EV Network - Texas and Oncor Area - 2023





Source: US Department of Energy, Alternative Fuels Data Center (<u>https://afdc.energy.gov/fuels/electricity_locat</u> ions.html#/analyze)

Torreón

Monterrey

Matamoros

Count of Monthly EV Registrations in Texas





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Investing in Texas: Capital Expenditures



| These capital expenditures are expected to be used for investment in transmission | | | | |
|---|----------------|--|--|--|
| Five Year Total: | \$19.0 billion | | | |
| Proposed 2027 Plan: | \$4.3 billion | | | |
| Proposed 2026 Plan: | \$3.9 billion | | | |
| Proposed 2025 Plan: | \$3.8 billion | | | |
| Proposed 2024 Plan: | \$3.6 billion | | | |
| 2023 Plan: | \$3.4 billion | | | |

and distribution infrastructure, including investments to support system growth, reliability and resiliency.

EVolution Agenda



| Morning SME Session | 9:30 | 9:30 Kickoff Geoff Bailey | | 11:30 | Lessons Learned from LC&I Eric Montoya |
|---------------------------|-------|---|--------------------|-------|---|
| | 9:40 | EV 101 Jennifer Deaton | SME Lunch | 11:50 | Networking SME Lunch |
| | 10:00 | Design and Construction Charles Douglas | | 12:40 | Oncor Trends Jennifer Deaton |
| | 10:20 | Distributed Generation Lateisha Edwards and Andres Rico | es Rico Session | 1:00 | Funding NCTCOG |
| | 10:40 | Break | | 1:30 | Closing Remarks/Survey Jennifer Deaton |
| | 10:50 | Energy Efficiency Josh Emeter | | | |
| | 11:10 | Billing and REPs David Hunt | | | |

New Commercial Construction Process (1 of 2)

Final design and off-site

designs created; CIAC

requirements and FEA

based on geography,

resource availability,

complexity etc.).

contract sent (Time varies



Construction: Customer service installed; Customer calls for city inspection; Meter(s) set.

8

Oncor reviews submission for completeness. (Off-site analysis process)

2

Customer

plans) and

load-sheet.

submits request

and detailed site

(including general

Designer is assigned and a preliminary design is created/ approved by customer.

3

Customer Decision (contracts are good for 30 days).

5

Pre-Construction: Material ordered and crews scheduled. Customer's civil engineering work is inspected.

Customer contract,

easements, funds

returned to Oncor:

estimated completion

ID. Orders XFMR if

date, rate code and ESI

Oncor provides

needed.

6

Important note: Longlead time items cause additional delays.

New Commercial Construction Process (2 of 2)



Delays

Examples like these can reset the process and add significant time:

- Incomplete site plan/load forms
- Changes to load or site plans
- Easement issues
- City permits/requirements
- Delays in customer approval
- Long lead-times due to supply chain variables
- Civil engineering work not complete or inspected
- Weather/Storm restoration

Important Notes

- Oncor's design and construction timelines vary due to variables like geography, resource availability, specific workgroup processes and complexity of on-site, off-site designs.
- Oncor provides time estimates for energizing a facility, but these change based on variables like unknown weather conditions, thirdparty issues (easements/cities) and potential storm restoration efforts.

Additional Considerations



- Padmount XFMR lead times sit @ 47 weeks (as of 06/06/23)
- All 277/480V chargers require service from a padmount XFMR
- Easement exhibit creation is the responsibility of customer through preferred surveyor
- Project costs have averaged between \$30K \$70K
- Each project has an allowable of \$213/kW

Customer New Service Portal



When ready to move forward with your project, please click on the link to submit to Oncor!

Project Submission – Link <u>HERE</u>

All Oncor construction standards documentation are on the webpage

- Electric Service Guidelines (ESG) Link <u>HERE</u>
- DDS4OH Overhead Construction Link <u>HERE</u>
- DDS4UG Underground Construction Link <u>HERE</u>

Limited Availability: Managed EV Charging Study

EVolution



REP Pricing Plans with EV Programs



- Review if your REP has an EV charging plan or incentives What plans are available? What plans do other REPs have available?
- Some REPs support Time of Use Plans Why is that important?
 - Installing EV stations will increase usage
 - Energy usage during off peak hours is typically less expensive than during peak hours
 - Consider charging during off peak hours economical approach
 - Electric Vehicles and charging station charging times can be scheduled

Evaluate energy consumption for your business model (hours of operation) and hourly load requirement including EV Charging Stations

How can EV Fleet Charging Premises Mitigate TDU Charges?



Distribution System Charge

• Since the highest 15-minute kW demand supplied during the monthly billing period is used to bill the Distribution System Charge, try to stage charging so that all chargers aren't operating at the same time.

TCRF

- For premises not billed on 4CP kW, try to stage charging so that all chargers aren't operating at the same time.
- For premises billed on 4CP kW, avoid charging during potential CP periods during the months of June, July, August and September.

Planning for the Addition of Fleet EV Chargers



Points to consider:

- Does the existing electrical infrastructure support the current kW demand and the addition of future kW demand required for fleet charging?
- Will electric infrastructure require an upgrade?
- How do upfront costs compare for upgrading existing facilities to taking a new point of delivery for the chargers?
- Do REP pricing plans support adding load to an existing premise or adding a new point of delivery?