



**PUBLIC SERVICE COMPANY OF COLORADO  
2021-2023 TRANSPORTATION ELECTRIFICATION PLAN (TEP)  
QUARTERLY STAKEHOLDER MEETING**

**March 25, 2022**

# AGENDA

- 1. TEP Program Development, Updates, & Timelines**
- 2. Discussion Topics**
  - Charging Equipment Vendor Selection
  - S-EV, DCFC Rate, and PIM Filing
  - DCFC Siting
- 3. 60 Day Notices**
- 4. Wrap Up**



# Goals of TEP Stakeholder Group and Quarterly Meetings

Quarterly schedule – Q1(Mar.), Q2 (June), Q3 (Sept.), Q4 (Dec.)

## ***Process***

Xcel Energy will provide a brief PowerPoint overview of TEP implementation covering:

- Updates
- Expenditures
- Milestones achieved each quarter
- Present on TEP topical areas

## ***Goals***

Quarterly meetings are intended to:

- Foster discussion about programs in-market.
- Gather ideas for continuing to improve the programs and portfolios.
- Discuss whether additional projects and programs are necessary to support transportation electrification in Colorado.

Reporting schedule – October and April each year (semi-annual)

***Does your colleague want to join the TEP Stakeholder Group?***

***Email [patrick.j.murphy@xcelenergy.com](mailto:patrick.j.murphy@xcelenergy.com)***

# **1. TEP PROGRAM DEVELOPMENT, UPDATES, & TIMELINES**

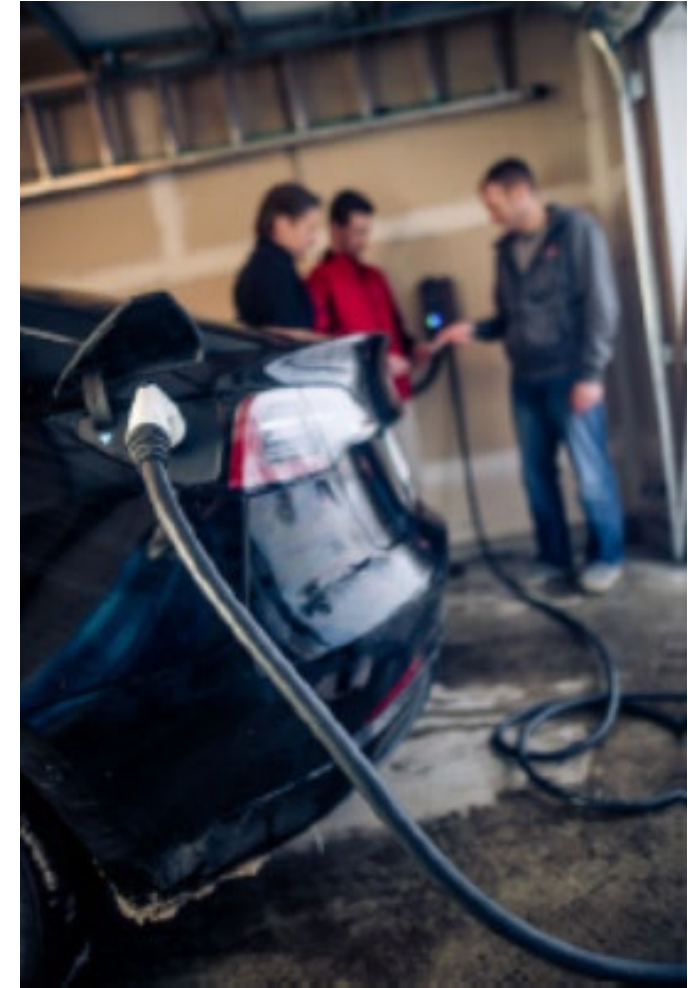
**Equity Programs, Residential Portfolio, MFH Portfolio, Commercial Portfolio, Advisory Services, Partnerships/Research/Innovation (PRI)**



# Residential Home Charging Programs

## EV Accelerate At Home (EVAAH)

- RFP to select partner electricians is complete
- Program Launched in Colorado on August 5th
  - Provides hassle-free installation and maintenance of utility-owned level 2 charger for \$13.29 monthly fee
  - EV static optimization required for 1 year (opt-out for income-qualified customers)
  - As of 3/1/2022:
    - 417 completed installations
    - 252 pending applications
    - \$310,310 capital spend
- EV Charger/Wiring Rebate
  - Up to \$500 market rate or \$1,300 for income-qualified customers
  - Offered to customers installing eligible charging stations
  - As of 3/1/2022:
    - 453 approved applicants (including rebates given through EVAAH; 13 income-qualified)
    - \$216,605 capital spend



# Residential Optimization

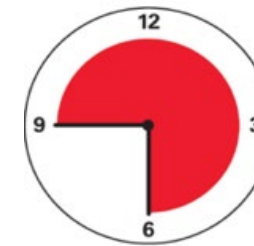
## Optimize Your Charge Program (Static Optimization)

- Program live in CO Aug 2021
  - Customers get \$50 annual bill credit for charging at least 25% of the time during one of Xcel Energy's three off-peak charging schedules.
  - Current participation via eligible Level 2 chargers (Enel X & ChargePoint), we are working to add more participation options in, with Application Program Interface technology from WeaveGrid.
  - 944 total participants as of 3/1/2022, 417 EVAAH, 275 Bring Their Own charger, 252 In Progress



## Charging Perks Pilot (Dynamic Optimization)

- Pilot launch: June 2021 for Tesla; Sept 2021 for GM, Ford, Honda & BMW
- Pilot details
  - Participants receive a \$100 incentive for enrolling, additional incentive at the end of 2021 and 2022 (\$50 for Level 1 charging, \$100 for Level 2 charging)
  - Xcel Energy, along with automakers and evPulse (for Tesla), work together to schedule EV charging when renewables are abundant, and costs are lowest
  - 600 total participant cap, minimum of 50 vehicles per manufacturer planned
- 224 active electric vehicles (participants) as of 3/1/2022



9:00 p.m. – 6:00 a.m.

21:00 - 06:00



12:30 a.m. – 9:30 a.m.

00:30 - 09:30



6:00 a.m. – 3:00 p.m.

06:00 - 15:00



# EV Purchase/Lease Rebate for Income Qualified Customers

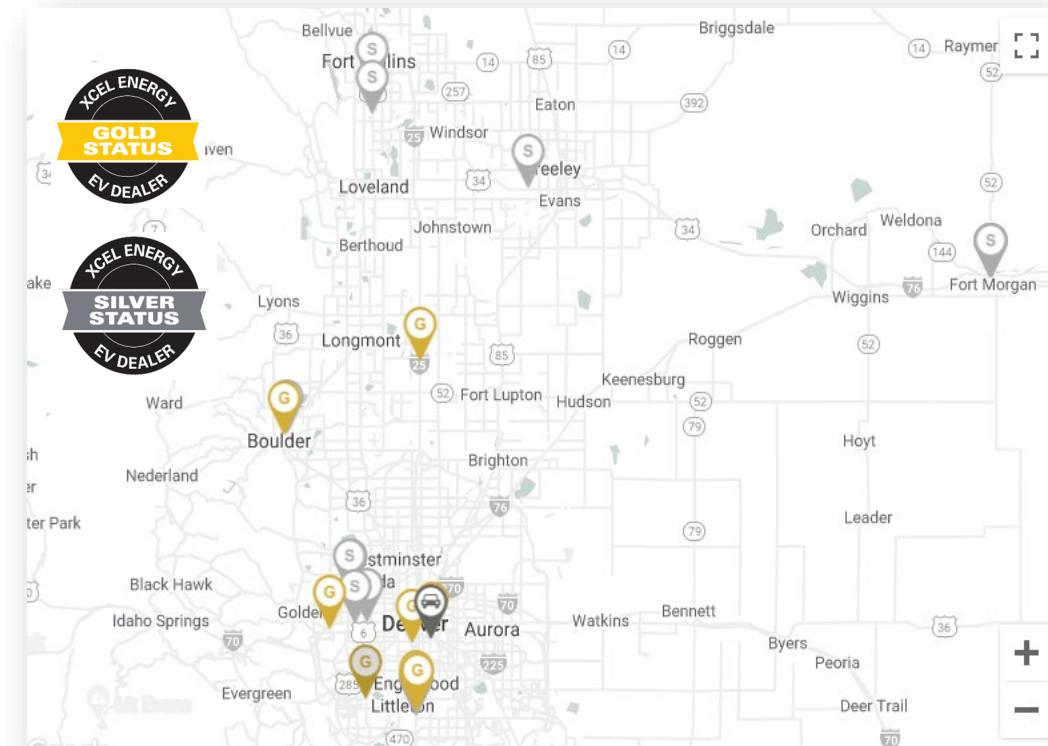
- Income-qualified customers get \$3,000 off a pre-owned EV and \$5,500 off a new EV; maximum MSRP or sale price is \$50,000
- Program live in August, over 75 applications have been received to date
- As of 3/1/2022, 39 rebated EVs (30 New/9 Used) are out on the road because of the rebate; capital spend to date is \$157,300
- Customers can become pre-qualified and get an instant rebate at dealers in our network – or can apply for the rebate after they purchase the car from any dealer, whether in-network or out-of-network
- Continuing to work with partners like GRID Alternatives Colorado, Drive Electric Colorado, SWEEP, Zozo Group, and others on targeted outreach
- Upcoming events:
  - Earth Day and Juneteenth events, Golden EV Round-Up, Five Points Jazz Festival, Summertime Ride & Drives planned.
  - Recent events: Ride & Drive in Garfield County, Denver Home Show, and various webinars with partner organizations





# EV Dealer Network (Advisory Services)

- Our voluntary network of local dealer partners was launched in March 2021
- We offer in-showroom tools and resources to help customers save and get set to charge at home
- Network has organically grown across Xcel Energy's footprint to include 53 dealers, with 25 of them in CO
- Our network has sold over 1200 EVs since its March launch, with over 700 sold in CO
- Dealers in our network have been trained to offer our EV Rebate to our income-qualified customers
  - To date, customers have received a code to get the instant rebate and 8 have redeemed it in-network for an EV purchase or lease





# Multi-Family Housing (MFH) Programs

## EV Supply Infrastructure (EVSI) as of 3/1/2022

- Multifamily Housing – Shared Parking EVSI has received 23 applications for customer sites that supports 114 ports.
- Multifamily Housing – Assigned Parking EVSI has received 20 applications for customer sites that supports 239 ports.

## Rebates

- Helping EVSI applicants and others apply for the rebate
  - As of 3/1/2022 there are no applicants
  - New Construction Rebate
  - Income-Qualified and Higher Emissions Community Rebates (working with Energy Outreach Colorado)

## Advisory Services

- As of 03/01/22, 179 MFH leads received



# Commercial TEP Programs

As of 3/1/2022:

## Fleet EVSI

- Received 16 applications for customer sites that supports 120 ports

## Workplace EVSI

- Received 32 applications for customer sites that supports 146 ports

## Primary General EV Pilot

- Received 2 applications for customer sites that supports 34 ports

## Community Charging Hubs

- Received 1 application for customer sites that supports 4 ports

## Public EVSI

- Received 28 applications for customer sites that supports 167 ports



## Advisory Services Leads

- 48 Fleet
- 105 Public Charging
- 31 Community Charging Hubs
- 86 Workplace
- 21 Small Business

# School Buses

## School Bus Rebate Program

- Launched in October 2021
  - Held 4 webinars across the territory
  - Continuous account management outreach
  - Presentation with USGBC CO
- Intakes are occurring
  - 4 customers have submitted intake forms for participation School Bus Rebate program. They are currently enrolled in FEAP vehicle suitability assessment (required)
    - Will take 3-6 months to review data for vehicle suitability assessment and RFP process
    - Grant applications will run in parallel with RFP process

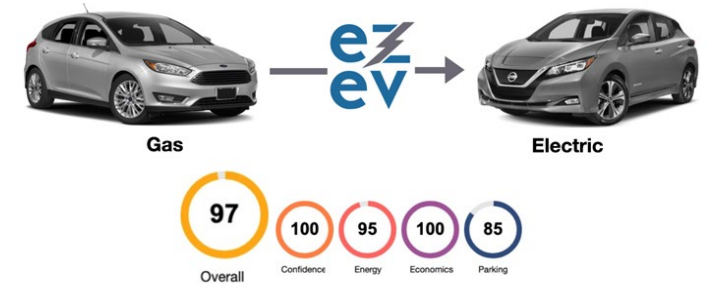
Funds Available	(Fund up to 7 buses)
Rebate per Bus (Max.)	\$275,000
Buses Funded YTD	0



# Advisory Services – Fleet Electrification

## Fleet Electrification Advisory Program

- Update on Fleet Assessments:
  - 11 applicants currently participating
  - 5 have completed a full assessment
  - Expected another 11-13 to complete by year-end
  - Covers all fleet market segments
- 155 vehicles analyzed, Class 1-8 (including heavy-duty vehicles)
- Intakes continue on a rolling basis
- Plan to scope and pilot an advisory tool for Account Managers to help support rate suitability, suggestions on the timing/staggering of charging, and carbon impact estimates



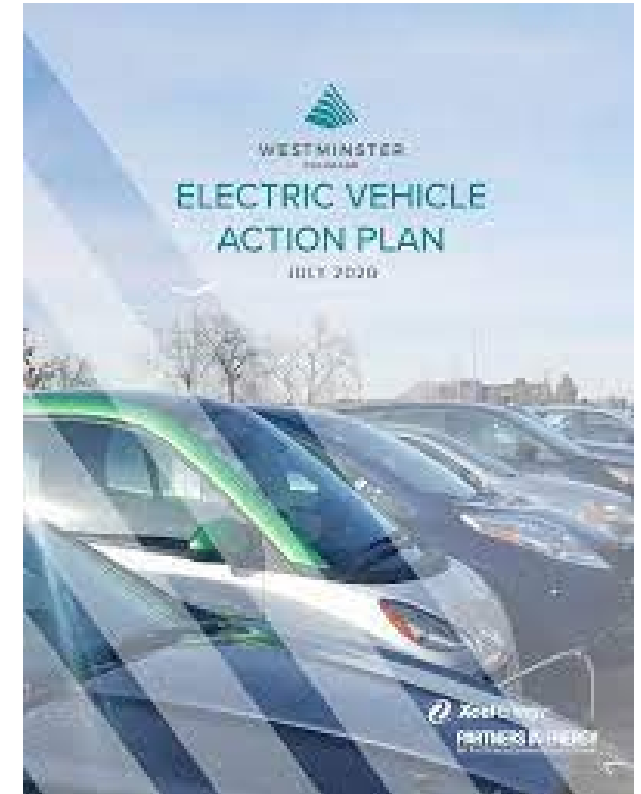
# Advisory Services – Communities

## Standard Community EV Planning

- Xcel Energy's Partners in Energy program
  - Community EV plan development at no cost
- Interest in EV planning remains strong
  - 3 community plans complete
  - 6 community plans under development
  - Boulder County Regional plan under development
  - 5 communities preparing to launch plan development
- Next round of applications due July 15, 2022

## Higher Emission Community (HEC) EV Planning

- Offering launched December 2021.
- Exploring opportunities to incorporate HECs in current Partners in Energy communities into broader planning efforts
- Partners in Energy is developing support for new candidates to apply for HEC designation



# Higher Emissions Communities (HEC) New Designations

## Process and Partners in Energy Support

- Customers or communities may propose a new community be considered an HEC, demonstrating that it meets HEC attributes
- Application coaching/support is available through Partners in Energy and Energy Outreach Colorado (in Spanish)
- Applications accepted on a rolling basis, new designations determined quarterly via 60-Day Notice Process
- Application cutoff for this review round is March 31, 2022
  - Late April 60-Day Notice be issued if applications are received
  - Next round of applications will be due June 30, 2022 in order to be considered for a July 60-Day Notice

### **Application Links**

[English Application](#)

[Spanish Application](#)

Housed on [EV Equity Web Page](#)

### **Points of Contact**

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## **2. DISCUSSION TOPICS**

**Charging Equipment Vendor Selection; S-EV, DCFC Rate, and PIM Filing;  
DCFC Siting**





# Charging Equipment and Vendor Selection Process

- Competitive solicitation (RFP) completed in 2021 to select Charging Equipment vendors
- Evolving EV space presents need to quickly add Charging Equipment options
  - Meeting baseline technical & safety standards, interoperability, cyber-security, and smart charging capabilities
  - Priced competitively as compared to existing vendors and equipment available for Customer's to select from today, as applicable
  - Provides additional, incremental Customer benefit or value
- Planning for a rolling process for Equipment and Vendor additions



# S-EV / DCFC Rates / Equity PIM Proceeding

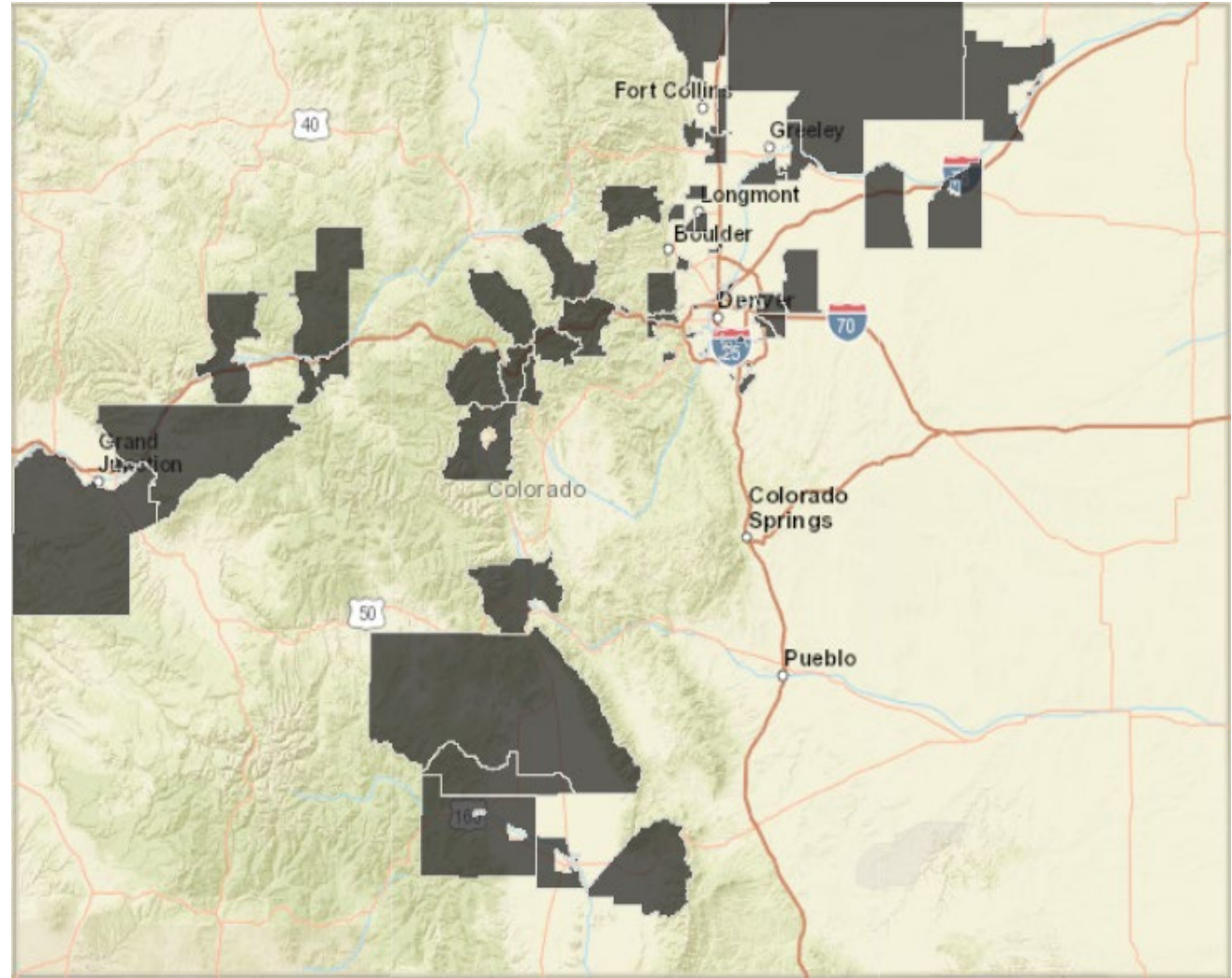
Party	S-EV / S-EV-CPP		Equity PIM		DCFC Rates	
	Rates	On-Peak Period	Per-Port Incentives	Advisory Services Incentives	“Connector”	“Market”
Public Service (Rebuttal)	Low demand charge / reduced cost of service	2-10pm	\$1.45m, no min threshold	\$50,000	\$0.15 - \$0.35 / kWh	\$0.35 - \$0.45 / kWh
Staff (Answer)	Rates based on current S-EV cost of service	2-10pm	\$1.4m + 80% min threshold	Reject	Reject	Align with S-EV on-peak period
UCA (Answer)	Approve	NA	\$1.4m + 100% min threshold, other changes	Reject	Reject	NA
CEO (Answer)	Approve	NA	\$1.4m + 80% min threshold, other changes	Change some and reduce to \$85,000	Reject	\$0.42 - \$0.55 / kWh
EV / Charging Companies (Answer)	Approve (all)	3-7pm (Electrify America)	25% min threshold (ChargePnt.)	NA	NA	Align with S-EV on-peak period, \$0.39 - \$0.65 / kWh
WRA (Answer)	NA	NA	Award changes	\$75,000	NA	NA

*Note: Settlement negotiations in progress.*

# Public Service DCFC Program

## Overview of process to date:

- Conducted analysis with Guidehouse
- Used 10-mile and 2-mile buffers for Connector and Market stations, respectively (to try to build in even more space from existing DCFC)
- Resulted in a list of potential sites ranked by charging needs
- CT Team consolidated this list by:
  - Removing the top 20% highest traffic Market Stations
  - Adding several HECs and rural areas
  - Aggregated the sites to ~80 census tracts across our service area
- Result was a consolidated list of census tracts shown in the map where we have started outreach



# Xcel Energy Owned DCFC Siting

Siting Analysis provides a high-level overview of eligibility potential by location. Applicants will undergo detailed reviews once applications are received

## Siting Analysis

Identifying eligible market and connector station locations (mapping exercise)

Aggregated sites to identify census tracts with the highest need for outreach purposes

## Application Reviews

Confirm site eligibility (distance from other chargers)

Prioritize connector stations

Higher weighting within HECs

Site readiness (access to 3-phase power, costs, space availability, public access, etc)

Proximity to amenities

ADA accessibility

### **3. 60/90 DAY NOTICES**

**Process, Schedule, Upcoming Notices**

# 60/90 Day Notices

## Process

- Proposal: Notices will be filed in the month following each quarterly stakeholder meeting
  - i.e., January, April, July, October

## Pending/Upcoming notices

- EV Load Disaggregation Demonstration Project Notice
- Boulder County Fire Recovery Notice

## Summaries filed

- The Company will provide a written summary of input submitted through the 60/90 Day Notice process and what feedback was incorporated, or not, and why
- The Company will file this information into Proceeding No. 20A-0204E

# PRI Portfolio Update

- DCFC + Storage 60 Day Summary Report filed March 23, 2022.
- EV Load Disaggregation 60 Day Notice to be issued April 2022.
- Preparing to launch:
  - Electric Car Sharing for Underserved Communities Pilot
  - Residential Resiliency and Managed Charging Project
  - Municipal Refuse Fleet Electrification Pilot
  - Electrify Paratransit Mobility Pilot
  - V2X and Resilience Project



# Electric Vehicle (EV) Load Disaggregation (“EV Load Disag.”)

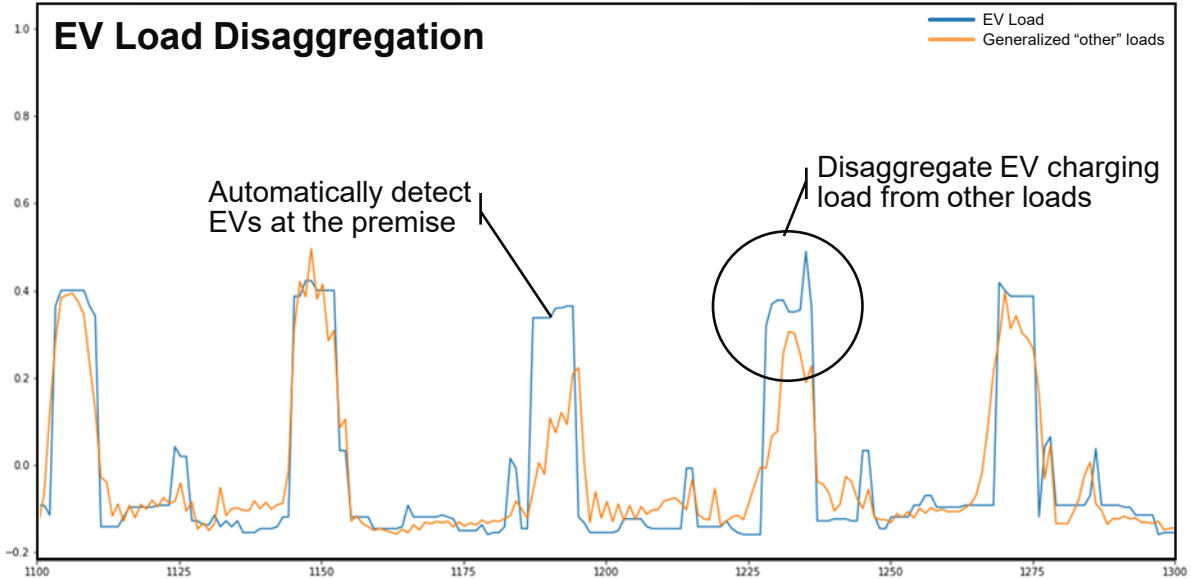
Automatically identify EVs, and disaggregate their load to inform system & customer benefits

## Outcomes / Partners / Scope / Equity

*Demonstrate automated EV Load detection, and disag. to understand and quantify the impacts and benefits to the grid and customers using AMI and Distributed Intelligence (DI) data*

- 1. Outcomes:** (a) Demo. automatic EV charging detection & load disag. Compare AMI (15min) & Distributed Intelligence (DI) (1 sec) data; (b) quantify customer & grid impacts / benefits using the data; (c) test / inform future ability to influence charging behavior to drive customer and operational cost savings, increase lower CO2 energy resource use; (d) produce MVP grid analytics & customer tools
- 2. Partners:** 3<sup>rd</sup> party to generalize non-EV-data. Measure and verify.
- 3. Scope:** ~100 known EV Owners & ~100 additional participants for roughly 6-18 months. Develop a software tool. Customers “opt. in” to this study
- 4. Equity:** Recruit EV participants from the low-income EV rebate program. Considering providing high program incentive level for these customers. Use the outcomes of the study to ensure power quality and reliability in a continually equitable and robust way.

Milestones	Timeline
CO TEP Stakeholder Meeting review of project	March 25, 22
60-day notice filing due	April 26, 22
PUC Approval to proceed	July 11, 22
Launch pilot	Q4 2022
Pilot duration	2023 (12+ months)



Illustrative example of EV Load Disaggregation: Oracle example using AMI meter data with 15 min sampling increments | <https://www.oracle.com/a/ocom/docs/industries/utilities/oua-ami-based-ev-detection-disaggregation.pdf>

## Costs

Approx. \$1 - \$2.5M

- Capital – Development of a minimum viable product (MVP) software tool / module for the automatic detection, and disaggregation of the EV load, and generalization of other loads.
- OM – Program management, and educational and outreach materials to inform technical and non-technical audiences on the benefits and impacts of the EV Load Disaggregation.

## PRI Objectives Met

Ease of EV Charging	Lower system costs / Increase EV charging benefits	Gain new Insights / Stimulate Innovation	Promote, Accelerate & Deploy	Promote Equity
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# Boulder County Fire Recovery

- Boulder County Fire Recovery 60 Day Notice to be filed in April 2022.
- The Company joined the Boulder County Transportation Committee for Fire Recovery that consists of Boulder County, Colorado Energy Office, SWEEP, Town of Superior, and Xcel Energy. It is estimated that 1,000 vehicles were destroyed by the fires.
- The Company proposes expanding TEP programs to best assist with recovery efforts. Updates include:
  - Expanding the electric vehicle (“EV”) purchase and lease rebates to all residential and commercial customers impacted by the Marshall Fire.



## **4. WRAP UP**

**Next Meeting June 2022**

# Colorado TEP Evaluation and Reporting

The Company conducted a competitive sourcing event for a third-party vendor to execute CO TEP 2021-2023 Evaluation and Reporting. After reviewing the responsive proposals, based on qualifications and value, we selected a single team to complete both tasks.

Opinion Dynamics will lead an evaluation of Public Service of Colorado's 2021-2023 TEP designed to

1. Provide regular updates to interested stakeholders in Colorado on how TEP programs are performing against KPIs and
2. Deliver insights to inform program improvements to be made over the course of the 2021-2023 TEP and to inform the direction future TEPs.

Note: Next TEP semi-annual report to be filed April 1, 2022.

# Additional Contact Information

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# APPENDIX

# CO TEP Estimated Budget and Actual Spend

	2021	2022	2023	Total
CO TEP Estimated Budgets	\$23,354,000	\$37,429,000	\$47,583,000	\$108,366,000
April 1, 2022 Actual Spend	-	\$6,996,203	-	-



