

City of Fort Collins EV Readiness Roadmap Project

EV Readiness Steering Committee Kick-Off Meeting

February 27, 2018 | 2:00p MT

Attendees

Name	Organization
Aaron Iverson	FCMoves
Carrie Frickman	Environmental Services
Annie Freyschlag	Electrification Coalition
Tracy Ochsner	Operations Services
Mark Houdashelt	EV Enthusiast
Aaron Fodge	Colorado State University (CSU)
Becky Karasko	North Front Range Metropolitan Planning Organization (NFRMPO)
Sonu Upadhyay	Utilities
Seth Lorson	TransFort
Pablo Bauleo	Utilities Customer Connections
Cassie Archuleta	Environmental Services – Air Quality
Alan Braslau	Energy Board
Diane Tjalkens	Social Sustainability
Lindsay Ex	Environmental Services
Noah Beals	Planning and Zoning
Nick Heimann	FCMoves
Heidi Wagner	Utilities Customer Connections
Joel Danforth (<i>via phone</i>)	Platte River Power Authority (PRPA)
Stacy Noblet	ICF
Wendy Jaglom	ICF
Abby Brown	ICF
Carrie Ryder	ICF

1. Project Overview

- **Mission:** The roadmap will serve as a planning document to support current and future EV adoption. It will include a vision, goals, and clearly defined roles for City departments, the public sector, and the community.
- **Schedule:** The discovery phase of the project is mostly complete, the assessment phase will take place from February through April, and plan development will be ongoing through September (although all project phases will have significant overlap). There will be four steering committee meetings throughout the project timeline. A draft plan is scheduled to be available for Steering Committee review in August.

2. Findings from Discovery Phase

- City government employees have a high awareness of EVs.
- City documents include EV language; shared EV vocabulary is in place.
- Some key items lack EV and infrastructure language (e.g., parking enforcement, permits).
- What resources/reference documents did the team miss?
 - **ACTION ITEM:** ICF will review the Boulder EV Plan and the Drive Electric Northern Colorado (DENC) website.

3. Discussions of Key Challenges, Barriers & Strategies

- **What factors are driving EV demand?**
 - Gas prices
 - State and federal tax credits
 - Dealership incentives
 - Comparative cost to traditional vehicles – upfront and maintenance
 - Employers as first movers to install EV charging technology (workplace charging)
 - Reduce impact: carbon footprint, air quality (criteria pollutants)
 - Bragging rights/early adoption
 - Increased range
 - Increased total charging infrastructure
 - Dealership engagement
 - Vehicle model availability
 - Visibility of charging stations
 - Convenience of charging at home
 - Corridor charging
- **Current EV adoption:** The perception is that EV adoption is low but growing. The City's charging stations are not heavily used.
 - Is this because there are no EVs in the area or because EVs don't charge at the stations?
 - Two-thirds of the 26 CSU charging stations have multiple charging events per day. More students own EVs, and CSU is considering installing more stations.

- **Group Buys:** The four DENC group buys in 2015-2017 with Nissan were very successful. Without the group buys, the Nissan dealership would sell 1-2 EVs per month, but during the group buy, they sold 50-60 EVs per month. There was not a decrease in the rate of participation in the group buy over time, indicating a persistent, strong demand.
- **Ride and Drives:** DENC conducted EV perception surveys before and after ride and drive events. The surveys showed increased acceptance of EVs after the ride and drive experience.
 - **ACTION ITEM:** Annie Freyschlag will share ride and drive data with Carrie Frickman and Aaron Iverson.
- **What are the challenges/barriers to increased EV adoption and use?**
 - **Access to home charging:** There is limited access to reserved parking in large multi-family dwellings. The Planning Department and Utilities have recently gotten complaints from tenants and landlords about access to charging in rented units (and who should pay for the electricity).
 - **Utility rates:** There needs to be more education about how much it costs to charge a vehicle at home.
 - **Equity:** EVs are still out of reach for most low-income community members. They may not have access to charging at home, and employers may not be willing to invest in workplace charging. While EVs may be less expensive over the lifetime of a vehicle, the high upfront cost is a barrier for individuals living from paycheck to paycheck. The same can be said for small and medium-sized businesses interested in workplace charging.
 - **Messaging:** EVs still have an “elitist” connotation. Messaging should focus on total lifetime costs.
 - **Second vehicle:** Many families in Fort Collins need a vehicle to access the mountains, so EVs are commonly a second vehicle.
 - Battery replacement
 - Public education
 - Dealer education/engagement
 - **Charging times:** It takes longer to charge an EV than fill up a gasoline vehicle.
 - Vehicle service infrastructure (e.g., trained mechanics)
 - Lifecycle impacts, including lithium battery manufacturing
 - Vehicle availability, particularly pick-up trucks, SUVs, and medium- and heavy-duty options
 - Vehicle cost

- **Infrastructure cost:** DC fast charging equipment is expensive, and installation of a charger will most likely require new utility service (\$10,000-\$30,000 one-time cost). Demand charges will also increase operating costs. Level 2 charging infrastructure can be expensive as well; the cost to install the 13 City charging stations was about \$100,000.
- Charging infrastructure visibility (lack of)
- **What opportunities exist to increase EV adoption and use? What are potential strategies or approaches to increase EV adoption and use?**
 - **Car share**, including a program for small businesses, possibly something coordinated with the Chamber of Commerce.
 - **Creating leasing programs** to get EVs in the hands of more low-income families
 - **Fleet vehicles /charging, leading by example:** If the City fleet was electrified to a greater extent, the public could also use the charging infrastructure required to support the vehicles, helping to push pass the adoption tipping point.
 - This also applies to transit vehicles, as battery electric buses are becoming available.
 - **ACTION ITEM:** ICF will follow up with Seth Lorson to provide information about electric bus range and how it compares to the average bus route mileage, as well as charging infrastructure needs.
 - **Employers:** Encourage large corporations that have ambitious clean energy goals to lead by example and help push pass the tipping point by incorporating charging stations in their plans and EVs in their fleet.
 - **Policy:** Change municipal codes to require a certain number of charging stations per multi-family dwelling. Change codes to require a percentage of electrified parking spaces for new commercial construction.
 - **Regional strategies:** Fort Collins has a high number of commuters (influx and outflux); regional coordination will be important to create a charging ecosystem.
 - **California vehicle emissions standards:** Encourage the state legislature to adopt zero emission vehicle (ZEV) standards.
 - **Wireless charging pilot:** A number of universities are looking at inductive charging. As the City moves forward with a roadmap, it could be a good opportunity to be a testing ground for new technology (e.g., electrified buses).
 - **Public/private partnerships**
 - **Decreasing Cost:** Worldwide battery manufacturing capacity is increasing and the cost benefits will eventually impact the market.

- **Demand management:** PRPA is conducting a pilot study on residential EV charging, beginning in August. The pilot will focus on how to charge vehicles at the right time to manage demand.
- **Who should the project team be talking to for additional input on barriers and strategies? What is the best way to engage them?**
 - **Vehicle dealerships.** The easiest way to reach dealerships is through a local nonprofit, such as the Northern Colorado Clean Cities coalition. The Economic Health Office may also have a relationship with local dealerships.
 - **ACTION ITEM:** ICF will follow up with the Clean Cities coordinator as a first step to identify dealership contacts.
 - **Businesses,** including those implementing workplace charging and those interested in workplace charging. The easiest way to reach businesses is through individual points of contact.
 - **ACTION ITEM:** ICF will follow up with Heidi Wagner to identify companies and points of contact.
 - **ACTION ITEM:** The project team will follow up with steering committee members to request additional input on this topic.
- **What resources should we be aware of as we develop strategies and actions?**
 - Boulder EV Plan
 - DENC website
 - **ACTION ITEM:** The project team will follow up with steering committee members to request additional input on this topic.

4. Discussion of Roadmap Vision & Goals

Carrie Frickman and Aaron Iverson developed a draft vision and goals for the Steering Committee to react to, based largely on a review of other community readiness plans:

DRAFT Electric Vehicle Vision: The City of Fort Collins, to achieve our Climate Action Plan goals and improve air quality, will support the adoption of electric vehicles in our community. The City will provide this support through education and outreach, developing public charging infrastructure, facilitating private charger installation, efficient grid integration, and ongoing conversion to renewable energy resources.

DRAFT Goal 1: Support electric vehicle adoption with both an equity and triple bottom line lens.

DRAFT Goal 2: Consider electric vehicles as an integrated solution for alternative transportation as part of our community's transportation hierarchy.

DRAFT Goal 3: Establish clear roles and responsibilities in relation to electric vehicles for both the public and private sector.

While the vision can remain high level and aspirational, the (ideally 3-5) goals should:

- Be actionable, measurable, and achievable
- Incorporate local plans and priorities
- Align with and reference relevant regional and state goals
- Consider short-term, medium-term, and long-term timeframes

Discussion:

- **Big picture:**
 - Are these goals specific to the roadmap development process, or to the implementation of the roadmap's recommended actions?
 - How much should the roadmap be reducing barriers? How much should it be pushing/promoting EV technology?
 - Is the roadmap trying to increase EV demand or meet anticipated EV demand?
 - What does success look like?
 - Need to build in some flexibility.
 - The roadmap should be a decision-making document.
- **Target audience:** Should the plan impact Fort Collins residents only, or residents and visitors?
- **Strategic implementation:** The City should implement the highest impact strategies to maximize effectiveness. The City should also be grant-ready in order to take advantage of potential opportunities.
- **Roles:** Departments need clear roles.
- **City fleet:** Should the City fleet have EV adoption goals as well? Or is that too granular for the overall plan goals?
- **Grid impact:** Use EVs as a resource to the grid, for grid stabilization and managing demand.
- **Private sector:** Employers should play a larger role in electrification, through providing public charging, workplace charging, and converting their fleets.
- **Charging infrastructure:**
 - Does the City want to install more charging stations?
 - Should the City install more charging stations?
 - Does "EV-ready" mean having charging stations everywhere? Will this change as more EVs have 300+ mile ranges?
 - One goal is decreased cost of setting up EV charging stations.
- **Success metrics:**
 - *Vehicle miles traveled (VMT):* Could be total electrified miles traveled, or total "displaced" petroleum miles. It is important to ensure that this goal aligns with City VMT reduction goals. VMT would likely be difficult to track/measure.

- *EVs as a percentage of total vehicles:* Based on registration data. This data could be difficult to get.
- *Removal of conventional vehicles:* Based on registration data. This data could be difficult to get.
- *Air quality improvements:* Challenging to set measurable goals because of external factors and the lack of boundaries.

5. Next Steps & Action Items

- **Next meeting:** Possible next meeting dates include April 17, 18, and 19. Steering Committee members will hear more from Carrie and Aaron on this soon.
- **Action items:**
 - The project team will follow up with steering committee members to share meeting notes and the presentation.
 - The project team will follow up with steering committee members to request feedback on the draft vision and goals, suggestions for possible external stakeholders, and additional resources and background documents to consider.
 - Annie Freyshlag, Electrification Coalition, will share DENC ride and drive survey data with Carrie and Aaron.
 - ICF will summarize electric bus range and charging information and share with Seth Lorson, TransFort.
 - ICF will follow up with Northern Colorado Clean Cities to identify dealership contacts.
 - ICF will follow up with Heidi Wagner, Utilities Customer Connections, to identify and reach out to Fort Collins businesses.