Electric Vehicle Readiness Roadmap

EV Readiness Steering Committee Meeting #4

Draft Roadmap Feedback

Sub-bullets are taken verbatim from sticky notes.

- **Outreach and Education**
  - Train fleet managers on how to finance and convert fleets
  - Sales training for City staff and ClimateWise businesses
  - Do EV outreach and fun events with kids in Poudre School District. If kids get jazzed about EVs, they may influence parents' purchase decisions
  - Integrate "outreach to key audiences" with transportation demand management (TDM) outreach (if City ever funds a TDM outreach person)
  - Original equipment manufacturer (OEM) engagement to ensure availability of more EV models
  - Dealership engagement: "EV friendly" certification and feature on City EV site
  - Add education for vehicle sales personnel (management, sales staff, etc.)
  - Need to work with auto dealers to promote EVs and educate car buyers
  - Add "make EV website"
  - Integrate real time map (app) of charging stations in Fort Collins
  - More emphasis on EV sales and purchasing
  - Less focus on charging and charging infrastructure
  - Is Drive Electric Northern Colorado (DENC) the right partner for the website (longevity)?
  - Rental cars? How many? Include these businesses in education? Incentivize/get help with charging stations.
- **Incentives**
  - Important to cut/reduce sales tax until EVs reach price parity with internal combustion engine (ICE) vehicles
  - Need to suggest sources of funding
  - Frame discussion around budgeting needs?
  - Discuss "sponsors" to add to incentive capacity?
  - Can we add any incentives the City can provide beyond "recognize"?
  - ClimateWise should also include badges for promoting EV use by employees and for businesses that purchase EVs
  - Economic Health is a key partner on incentives, especially anything to do with businesses
  - Why should charging stations be private?
  - Provide information on charging stations: can they turn a profit? What adoption level would be required? Incentive ideas?

- Call out the Clean Energy Credit Union, a Colorado-based credit union that provides loans for EVs
- Incentives are awfully important
- City Utilities rebate for EV purchase and in-home charger installation
- Site EV car share parking in city right-of-way

- **Policies**
  - City should support state legislation on zero-emission vehicles (ZEVs)
  - City should support state legislation allowing utilities to rate-base charging station investment
  - "Leveraging existing resources" – City's existing work for traffic code – what happened?
  - Engage stakeholders in policy updates – education on timeline for changes to code
  - Include permitting for business/commercial charging?
  - What are the best practices for parking policies for EV charging in right-of-way? (e.g., timed/paid, responsibility, maintenance, enforcement)
  - EV parking rules need to suggest how to address equity issues
- **Leading by Example**
  - Need to include charging infrastructure for buses – how does this differ from needs for personal vehicles
  - Replace fleet vehicles with EVs as appropriate/feasible
  - Add charging stations to South Transit Center
  - More quantitative targets/more alignment with the goals for municipal fleet?
  - Add how Fort Collins Purchasing can lead the way, like "buy electric" mandate for new City vehicles
  - What challenges exist for EV buses? What strategies should be implemented?
  - Install additional charging at Civic Center parking garage for City employees
  - Install charging stations at MAX stations utilized by City staff
  - Did the Workplace Charging Challenge result in any EV sales?
  - Research/pursue feasibility of retrofitting buses from gas/compressed natural gas to electric
  - Does "install EV charging for municipal fleet" include buses? If so, then Transfort should be a partner
- **Emerging Technology**
  - Need to explore autonomous EV requirements/services and how this changes charging
  - Life-cycle assessments and re-use of batteries
  - Need to explore/document cyber-security requirements for municipal charging
  - Also track market trends – used EVs, battery end-of-life issues (e.g., replacement cost), manufacturers losing federal tax credit
  - Experiment with inductive charging on fixed transit route(s)
  - Need a wireless charging demonstration on MAX bus lines in coordination with PRPA
  - Pursue living labs: opportunity to integrate living lab concept with mobility hubs and innovation zones which are concepts being used in City Plan scenarios
  - Explore partnership with transportation network companies (TNCs) like Lyft for hub charging stations
  - Demonstration project using old EV batteries for stationary renewable energy storage

- **City and Regional Planning**
  - Identify EV corridors in City Plan update
  - Work with Lyft and Uber to get more EVs into their rotations
  - May be included in other plans but seems to miss standardizing or generalizing pay networks (e.g., ChargePoint/credit card)
  - Facilitate peer-to-peer car sharing of EVs for residents
  - Facilitate program for people to be able to charge vehicles at other private residences with solar energy
  - Should also look at Airbnb-like car-sharing and charger-sharing services
  - Site fast charging stations on the way out of town in obvious locations
  - Incorporate Colorado Department of Transportation's Alternative Fuels Corridors into the regional coordination piece
  - Regional coordination should be high impact (e.g., ZEV standards)
  - Does car sharing include Uber and Lyft?
- **Utilities**
  - Need to address how time-of-day electric rates will impact charging habits (additional education for workplace chargers)
  - Distribution infrastructure – one output from smart charge pilot may be map to feeder/transformer
  - Smart grid opportunities: PRPA is testing smart chargers for a pilot program in 2019
  - Add CSU as a partner for all utility strategies
  - Waive permit fees for EV charging (home/commercial)
  - What about offering reduced mortgage interest rates (for renewable energy and EVs)? Or exemption from tiered electricity rates
  - Rates should be designed to incentivize emission reductions and grid services from EVs
  - Based on the current PRPA grid mix, EV emissions are about 6,000 CO2 pounds (lbs)/year (vs. 11,000 lbs for gasoline). Increasing renewables improves this ratio.
  - Consider that a good charging location may have conflict with other non-electric utilities (especially in the right-of-way); potentially increasing budget on upgrading distribution
  - Yay for actions increasing renewable energy for EVs
  - Afraid that adjusting utility rates could cause issues with perceived favoritism for those customers. Metered independently? Who is responsible for rate enforcement? Utilities don't generally get registration data.
  - Rates seem more like a local utility effort as opposed to a PRPA item. But some collaboration is helpful but seems covered in the City planning/regional efforts.
- **Everything Else**
  - Need a way to rank all of the strategies
  - Demand analysis needs to be more Fort Collins centric; less coverage of other towns
  - More pictures
  - PDF 1-2 page flyer that summarizes/highlights the plan. Can be used in presentations/for public consumption
  - Would like MUD defined and consistency in using multi-family vs. MUD
  - Strategies need more quantifiable information (i.e., lbs CO2 savings)
  - Metrics overall could be clearer (and stronger?)
  - Glossary of acronyms, key terms

- TMD should be mentioned in Executive Summary
- Maybe highlight the CNCA game changer report
- Oversight of for-profit charging stations to prevent price-gouging when have benefit of time of day, location, etc.
- Give examples of what low/medium/high means. Low staff/effort: can be done with existing staff; medium staff/effort: 1-5 FTE; high staff/effort: needs 5+ FTE. Low budget can be done with existing resources; medium budget needs less than $X million; high budget needs more than $X million. Put impact in terms of ranges of carbon reduction.