

Reduce Climate Pollution and Air Pollution Through Best Practices, and Emphasizing Electrification

Building energy use accounts for over 2/3 of the community emissions inventory; vehicle transportation emissions account for 25%; small engines (such as lawn and garden equipment) contribute to both local greenhouse gas (GHG) emissions and the formation of ozone air pollution; and the North Front Range is in a severe non-attainment for ozone under the Clean Air Act. Without significantly reducing emissions from these sectors, it will be impossible to improve air quality and meet Council-adopted climate goals.

Work Plan Items:

The long-range vision and goals for this priority are established primarily in City Plan and Our Climate Future Plan, but also has impacts on outcomes of other plans, including the Housing Strategic plan, Water Efficiency Plan and others. The following is a compilation of achievable, short-term goals to advance these plans during this Council term. It incorporates work already in progress.

1. Electrification of Buildings

- Description:
 - Continue and enhance existing economic based programs:
 - Incentive programs: Efficiency Works suite of programs, Customer Renewable programs, Epic Homes and Efficiency Works incentive programs.
 - Financing efforts: Improve Epic Loans Financing program, consider navigator for federal and state funding efforts, strategic allocation of 2050 tax funds
 - Adopt regulatory policies and enhance implementation resources
 - Building Performance standards for energy use in existing buildings
 - Zero Carbon building code for new construction
 - Continue and enhance existing behavioral and education efforts
 - Support Healthy Homes Program and collaboration
 - Further develop and fund infrastructure-based efforts:
 - Complete Utilities distribution impacts study and electrification risk evaluation.
 - Development of Virtual Power Plant through enrollment of distributed energy resources and support of enhanced hardware and software systems.
 - Leading by example: Consideration of Municipal operations and CIP
- Resources Required:
 - Existing methods to increase building and transportation electrification can be accelerated/scaled (e.g., more technical resources and incentives for building owners to improve buildings and equipment, vehicle fleet conversions, etc.)
 - Consideration should be given for specific projects and initiatives through various funding options including BFO process and state and federal options.
 - Incremental staffing resources will be evaluated on a project level basis and will follow City administrative processes for approval.

- Community Engagement and Outreach:
 - Considering the broad audience and stage of development for efforts, community engagement tactics will vary. Community engagement often focuses on education on the individual and community benefits of building electrification.
 - Expand educational and economic strategies encouraging electrification of buildings, transportation, and small engines.
- Deliverable/Council Action/Council Role:
 - Council can contribute by supporting economic, behavioral, and infrastructure initiatives underway.
 - The OCF council roadmap has several regulatory focused initiatives requiring Council consideration.
- Next Steps:
 - Staff are seeking Council support for several strategies underway as identified above.
 - Identify City, state, federal resources for electrification efforts; work with local partners to align and leverage resources for community.
 - Develop long-term funding strategy for climate portion of 2050 Tax revenue to invest in community prosperity while reducing climate pollution and air pollution.
- Timeline:
 - This council priority aligns well with existing work underway across several Service Areas within the City.
 - Adopt and enhance regulatory policies – Building Performance Standards for existing building energy use (Q2 2024 – Q3 2024).
 - Adopt and support 2030 Zero Carbon building code strategy for new construction (Q3 2024 - Q2 2025).
 - Advance Utilities infrastructure study and electrification risk evaluation (Q1 2024 – Q4 2025).

2. Electrification of Transportation/Fleet Vehicles

- Description:
 - Complete update to EV Readiness Roadmap to highlight community barriers to and opportunities for EV adoption and alternative transportation resources.
 - Complete Phase 1 of SMART Grant with Panasonic Corporation and OPTONY consulting to inform municipal EV charging infrastructure needs.
 - Continued enrollment of EVs in Peak Partners Smart Charging program.
 - Continued replacement/purchase of electric fleet vehicles.
- Resources Required:
 - Existing methods to increase transportation electrification can be accelerated/scaled (e.g., more technical resources and incentives for infrastructure improvements and equipment, vehicle fleet conversions, etc.).
 - Infrastructure improvements within Utilities to support enhanced electrification.
 - Continued exploration of external and local funding sources.
- Community Engagement and Outreach:
 - TBD by EVRR/SMART grant projects.
 - Continued promotion of Utilities’ Peak Partners Smart Charging Program.
 - Continued internal and external outreach and education efforts.

- Deliverable/Council Action/Council Role:
 - EVRR/SMART grant strategies
 - Continued support from Council on implementation strategies
- Next Step:
 - Evaluate findings of EVRR/SMART grant projects
- Timeline:
 - EVRR completion in Q4 2024
 - Phase 1 of SMART grant completion Q4 2024
 - Phase 2 of SMART grant implementation application Q4 2024

3. **Electrification of Small Engine Equipment**

- Description:
 - Continue electric conversion of City-owned, gas-powered landscaping equipment.
 - Develop internal compliance strategy related to CDPHE-APCD Regulation 29 (restriction on qualifying gas-powered landscaping equipment during ozone season, beginning 2025).
- Resources Required:
 - Comprehensive inventory of City-owned small engine equipment.
 - Additional funding to accelerate purchases and for grant matches.
- Community Engagement and Outreach:
 - Share electrification journey story with community and other agencies.
 - Exploration of development of zero-emission landscaping zones.
- Deliverable/Council Action/Council Role:
 - Continued Council support for air quality and electrification initiatives.
 - Additional funding could accelerate purchasing plan.
- Next Step:
 - Continued replacement of gas-powered landscaping equipment and utility task vehicles (UTVs).
 - Complete landscaping equipment inventory.
- Timeline:
 - Purchases are on-going until existing funding is depleted.
 - Regulation 29 compliance strategy development by Q2 2025.

Department Lead and Partners: Lead/Accountable: Our Climate Future Executive Steering Committee; Coordination: Sustainability Services/OCF Staff; Partners: Utilities (Energy Services), Natural Areas, Parks, Operation Services and FC Moves

Current Work Underway:

Electrification of Buildings:

- Enhance incentive and educational based initiatives for building electrification, grid flexibility and Healthy Homes efforts
- Identify and advance support for under resourced buildings

- Enhance Financing Efforts: Improve Epic Loans Financing program, consider navigator for federal and state funding efforts.

Electrification of Transportation/Fleet Vehicles:

- Electrification of fleet vehicles.
- Peak Partners Smart Charging Program enrollment.

Conversion of Small Engine Equipment:

- Continued replacement of gas-powered landscaping equipment, currently 85% electric.
- Exploration of external funding sources.

Challenges:

- Ambitious adopted goals for climate pollution (GHG) reduction require significant effort from City and community.
- Need for balance of City “levers” to achieve goals (i.e., economic, behavioral, regulatory and infrastructure).
 - Unlikely City will be able to achieve climate goals with *economic* and *behavioral* levers alone
 - Increasing need for updated *infrastructure* and *regulatory* strategies (e.g., Building Performance Standards [BPS], advancing Zero Carbon building code, etc.).
- EV charging infrastructure development at multi-family developments and workplace.
 - Including access to reliable parking, billing, sufficient power supply, and ownership concerns.
- Meeting 2025 deadline for compliance with CDPHE Regulation 29 requires organizational coordination and resourcing.
 - Reg. 29 restricts summertime use of gasoline-powered lawn and garden equipment by local governments and contracted companies.

Tradeoffs:

- Staff time allocation to new projects vs. ongoing projects and programs.