

City & County of Denver

Jan Keleher, Building Electrification Lead Office of Climate Action, Sustainability, and Resiliency



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Why is Denver pursuing electrification?



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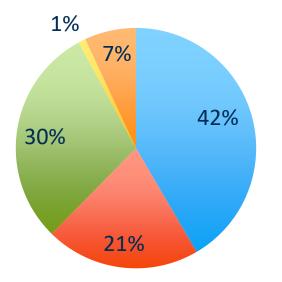
80x50 Goal: Heating Emission Reductions



By 2050, 100% of Heating Emissions must be eliminated



Denver Core Emissions by Source



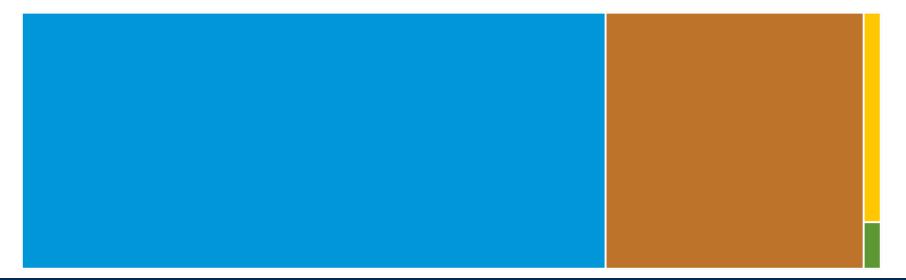
Building Electricity

 Natural Gas (Including Fugitive Emissions) Over 20% of Denver's greenhouse gas emissions come from natural gas burned in homes and buildings



CONNECT WITH US 311 | **POCKETGOV** | **DENVERGOV.ORG** | **DENVER 8 TV f** @DenverCASR | **y** @SustainableDen | **O** @denvercasr 98% of Natural Gas is Used for Space Heating and Hot Water Heating Residential Gas Consumption

Space heating • Water heating • Dryers • Cooking





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Existing Building Electrification Implementation Plan



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Implementation Plan

\$300k Project Budget

Community-Level Focus

Electrifying Existing Buildings



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Strategic Existing Building Electrification Implementation Plan

- 1: Engagement and Communications
- 2: Building Stock Analysis
- 3: Technologies and Workforce
- 4: Electric Grid & Timeline Analysis
- **5: Barriers**

Key Project Tasks

- 6: Incentives & Resources
 - 7: Policy



Task 1: Engagement and Communications

- Informational Interviews
- Community-Led Decisions
- Develop Target Metrics
- Funding Strategy
- Iterative Process Framework

Strategic Existing Building Electrification Implementation Plan



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Interested / Active NGOs: Building Electrification in Colorado

Building Electrification Institute

Climate Nexus

NRDC

Colorado Communities for Climate Action

Conservation Colorado

Environmental Defense Fund

PSR Colorado **Resource** Media RM Sierra Club Colorado SWEEP Western Resource **Advocates**

...and more!

Task 2: Building Stock Analysis

- 10-20 Typologies Analyzed
- Residential & Non-Residential
- Space/Water Heating Focus

Strategic Existing Building Electrification Implementation Plan



Task 3: Technologies and Workforce

- Technology Availability
- Cost-Effectiveness Analysis
- Workforce Trends and Needs
- Mapping Equity Considerations

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Task 4: Electric Grid & Timeline Analysis

- Current and Future Grid Impacts
- GHG Emissions Analysis
- Grid Peak Mitigation Options
- Grid Timeline and Milestones

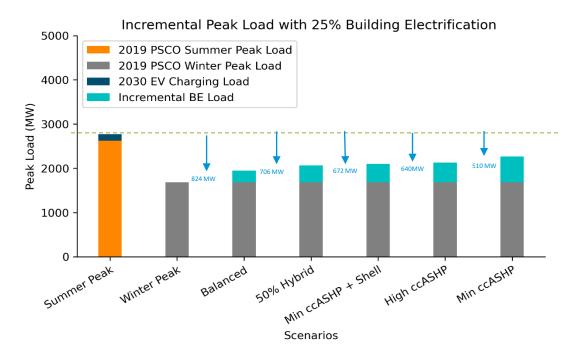
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Incremental Peak Winter Load

25% adoption in early 2030s

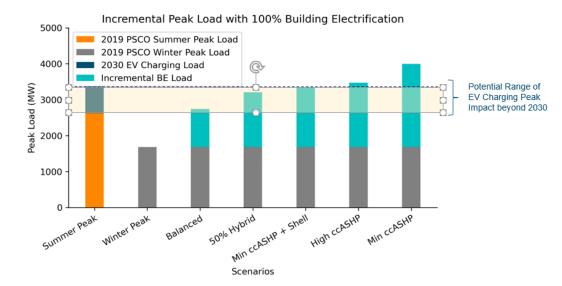




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Incremental Peak Winter Load

100% adoption in 2040-2050





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Tasks 5-6: Barriers, Incentives & Resources

- Identify Key Barriers
 - Incentives Needs Evaluation
 - "Point of Replacement" Analysis
- Messaging Resources

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- Task 7: Policy Visioning

- Policy Examples Survey (Domestic & International)
- Policy Recommendations

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