

Partners in Energy

Town of Erie

# Beneficial Electrification Draft Plan Presentation

March 18, 2025



# AGENDA

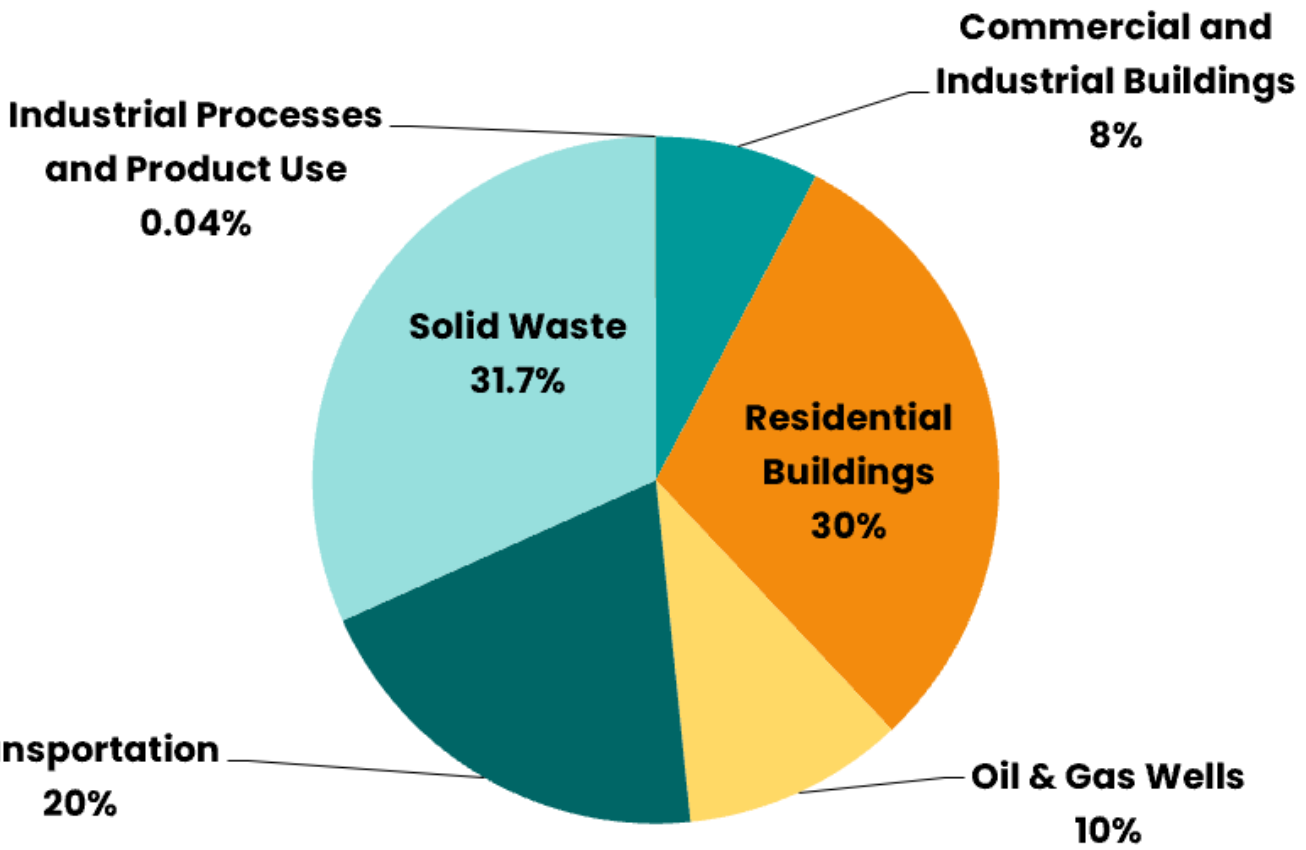
Time	Item
5 min	Beneficial Electrification Overview
5 min	Drivers for Electrification In Erie
5 min	Town of Erie Draft Beneficial Electrification Plan
5 min	Support for Implementation
10 min	Q+A





Source: Shutterstock

# BENEFICIAL ELECTRIFICATION OVERVIEW



**THE PROBLEM:  
BUILDING AND  
TRANSPORTATION  
EMISSIONS MAKE UP  
58% OF TOTAL  
COMMUNITY EMISSIONS**

*Source: Town of Erie 2023 Community and Municipal Greenhouse Gas Emissions Inventory Report*

# THE SOLUTION: ELECTRIFY EFFICIENTLY!

**Beneficial Electrification (BE)...**  
is the replacement of direct fossil fuel use that results in either lower costs, reduced emissions, or more effective use of the power grid.



**Transportation electrification...**  
refers to transitioning fossil-fueled vehicles to ones powered by electricity, such as passenger vehicles or transit.



**Building electrification...**  
refers to transitioning fossil-fueled appliances to ones powered by electricity, such as HVAC or water heating systems.

# BENEFICIAL ELECTRIFICATION HAS MANY BENEFITS.



Direct GHG emissions savings



Improved comfort and performance



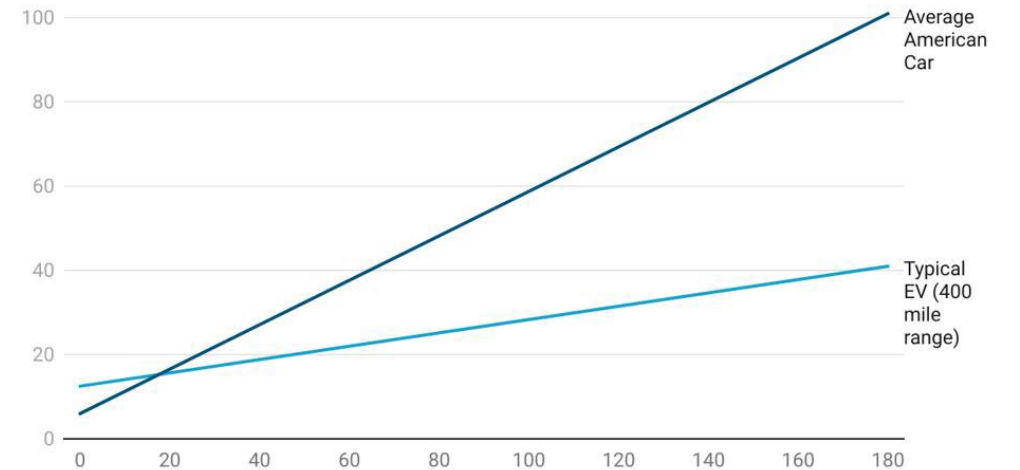
Potential operational cost savings



Air quality benefits

## Lifetime emissions (180,000 miles of use)

Typical American car (404g/mile CO<sub>2</sub>) versus typical EV charged on the global average grid



Tons of CO<sub>2</sub> (Y axis); 1,000s of miles (X axis)  
Chart: Dr James Morris • Created with Datawrapper

Source: [Forbes](#)



Source: Shutterstock

# DRIVERS FOR ELECTRIFICATION IN ERIE

# REGIONAL AND FEDERAL MOMENTUM

- Colorado 2023 EV Plan
- Xcel Energy Transportation Electrification Plan
- Regional Transportation Electrification Plan for Boulder County Communities
- Front Range Beneficial Electrification Network
- \$200 Million Climate Pollution Reduction Grant awarded to DRCOG\*
- \$8 Billion in IRA funding to support home electrification\*

\*Some federal programs are in flux and funding may change.



Regional Transportation Electrification Plan  
for Boulder County Communities  
August 2022



## 2023 COLORADO EV PLAN

March 2023



TRANSPORTATION ELECTRIFICATION PLAN  
SEMI-ANNUAL REPORT  
PROCEEDING NO. 20A-0204E

OCTOBER 1, 2021



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# ALIGNMENT WITH ERIE'S PLANS AND POLICIES

Energy Action Plan (2018)

Sustainability Plan (2019)

Energy Action Plan 2.0 (2021)

2021 IECC Building Codes, Electric Preferred (2023)

EV Procurement Policy (2023)

Climate Emergency Proclamation (2024)

Fleet Electrification (ongoing)

Building Electrification (ongoing)

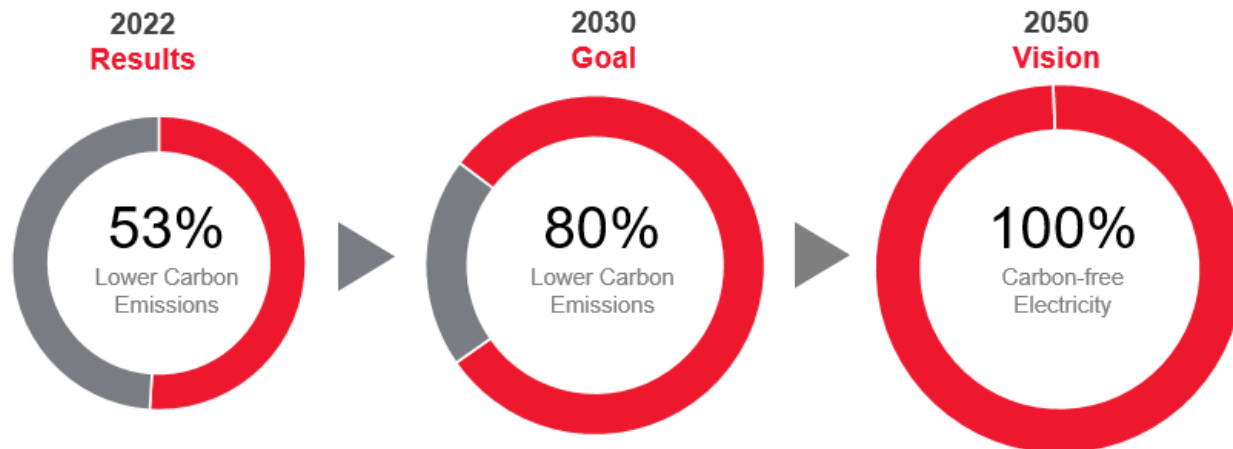
Climate and Sustainability Action Plan Development (2025)



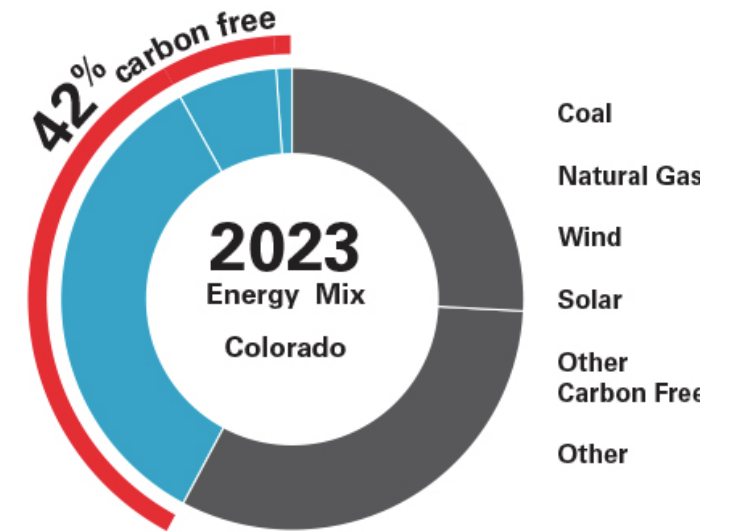
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# XCEL ENERGY CARBON FREE FUTURE

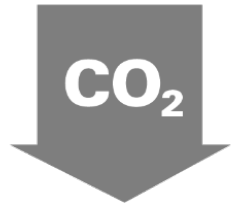
## A Bold Vision for a Carbon-free Future



Company-wide carbon emissions reductions from serving our customers, compared to 2005



***Our Vision is to enable one out of five vehicles in the areas we serve to be electric by 2030 and all vehicles to run on carbon-free electricity or other clean energy by 2050***



**ZERO CARBON ENERGY**

Provide the fueling infrastructure and energy system to run all vehicles on carbon-free electricity or other clean energy



**EASY CHARGING**

All customers can conveniently access affordable EV charging at home or within one mile of home



**ACCESS**

Underserved communities can participate in our programs and the related economic development benefits



**XCEL ENERGY FLEET**

Our entire fleet runs on carbon free electricity or other clean energy



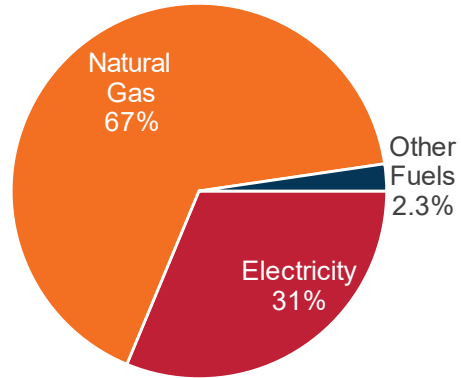
Note that one out of five vehicles being electric by 2030 is the equivalent to at least 1.5 million EVs on our roads



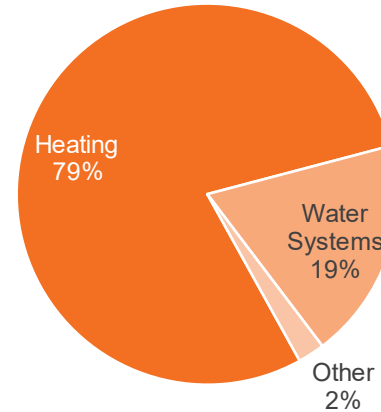
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# OPPORTUNITY FOR ELECTRIFICATION

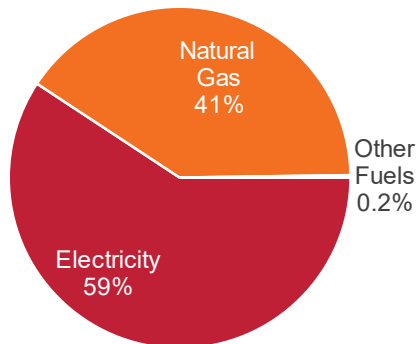
Residential Energy Use, Longmont and Erie Combined (1.23 TWh)



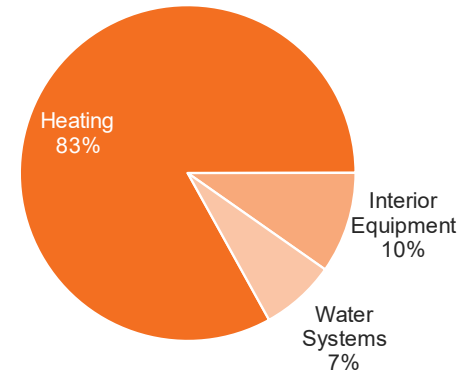
Residential Natural Gas End Use (1.23 TWh)



Commercial Energy Use, Longmont and Erie Combined (1.23 TWh)

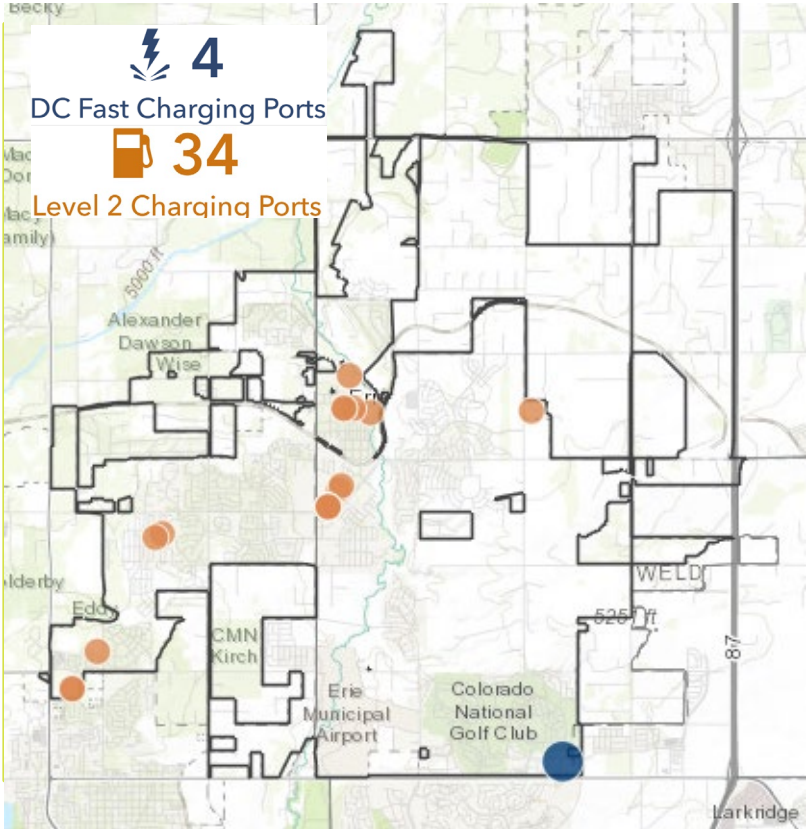
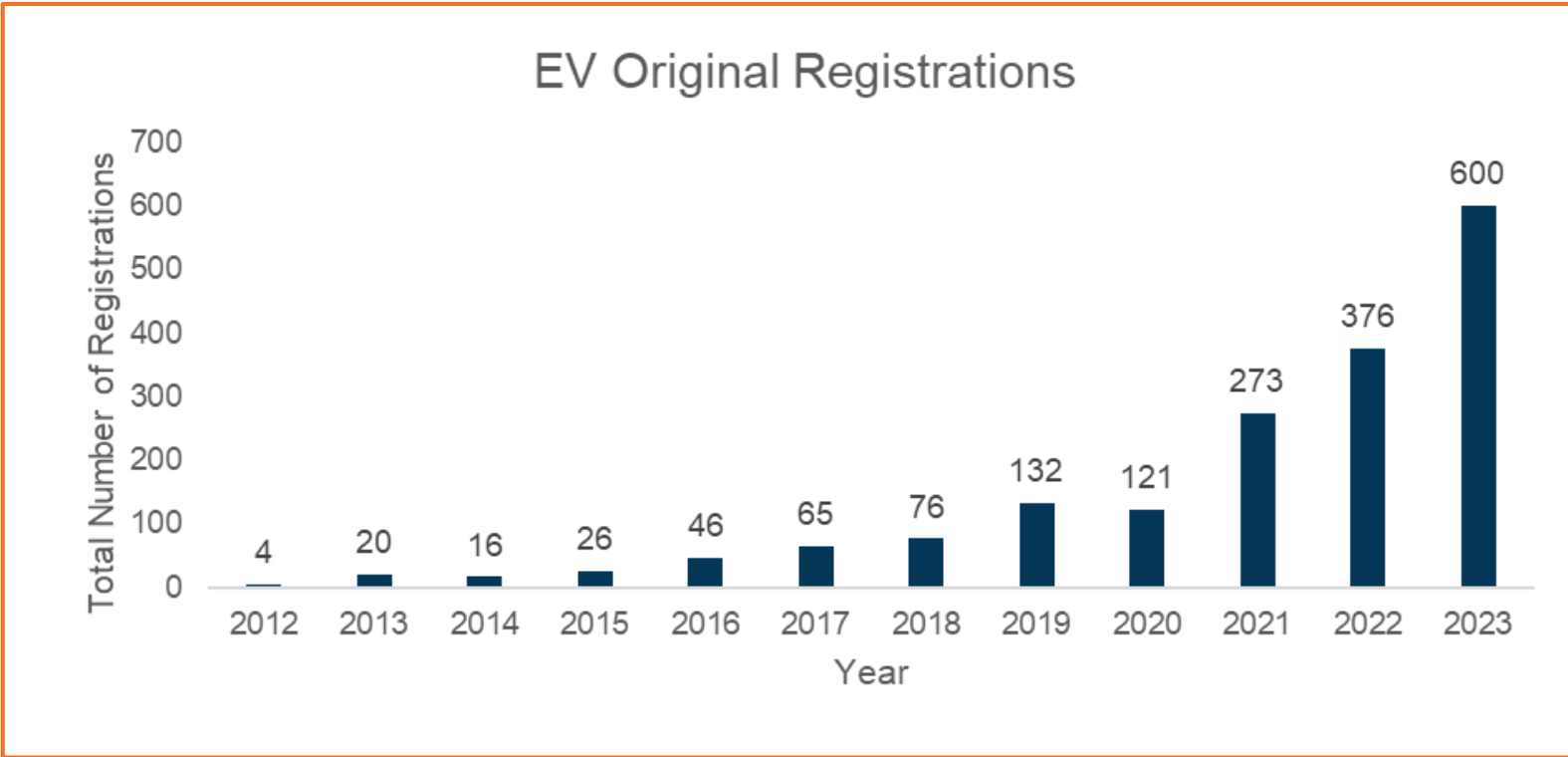


Commercial Natural Gas End Use (170GWh)



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# A GREAT LANDSCAPE FOR ELECTRIFICATION





Source: Shutterstock

# TOWN OF ERIE BENEFICIAL ELECTRIFICATION PLAN

# WHAT IS PARTNERS IN ENERGY?

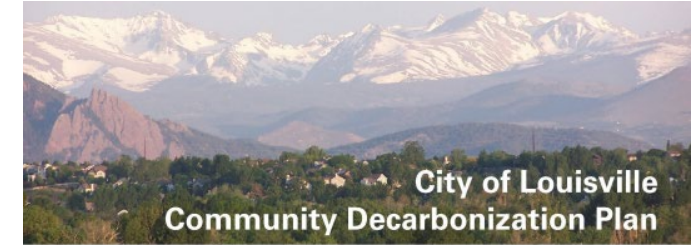
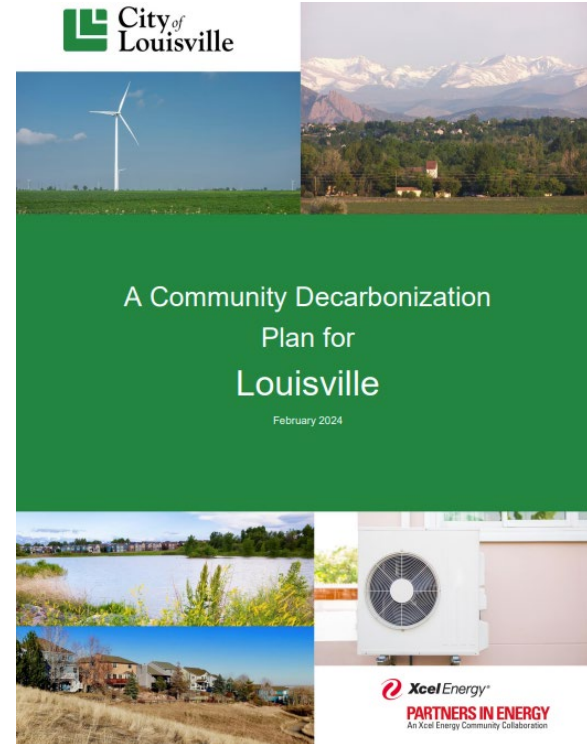
- Two-year collaboration with Xcel Energy to develop and implement **your community's energy plan goals**.
- Opportunity to engage stakeholders, create goals and strategies, and develop a work plan to be successful.



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# DELIVERABLE: BENEFICIAL ELECTRIFICATION PLAN

- The aspirational vision for Erie's beneficial electrification future
- Baseline conditions to inform beneficial electrification actions
- Measurable beneficial electrification goals
- A strategic short-term approach to achieving goals
- Measurable targets to evaluate progress



## About this Plan

This Community Decarbonization Plan was developed in collaboration with Xcel Energy Partners in Energy. This plan focuses on decarbonizing Louisville's energy supply, improving the efficiency of and electrifying existing buildings, and increasing the adoption of electric vehicles (EV).

The City of Louisville recruited nine stakeholders with diverse community perspectives to inform the contents of this plan. Stakeholders met over the course of seven months and provided input through four in-person workshops and one stakeholder survey. Additionally, City staff sought plan feedback through a community survey.

## Louisville's Vision & Goal for Community Decarbonization

A plan's vision defines a community's desired future state. It can also serve as a "north star," helping to guide action and prioritize resources. The stakeholder team collectively defined the following vision.

### Vision

Louisville will take a measured, equitable approach to reducing carbon emissions from the building, energy supply, and transportation sectors.

### Goal

The City of Louisville will reduce energy-related emissions 60% below 2016 levels by 2030 and will be carbon-neutral by 2050.

## How Are We Going to Get There

The stakeholder team identified the following strategies to implement over the next 18-months. These strategies focus on addressing low-hanging fruit and laying the groundwork for future, high-impact action. Louisville will need to take additional actions beyond this 18-month implementation period to achieve their 2030 and 2050 goals.

### Decarbonizing Our Residential Sector

- R-1 Single-Family Homeowner Engagement
- R-2 Rental and Multifamily Engagement
- R-3 Mobile Home Engagement

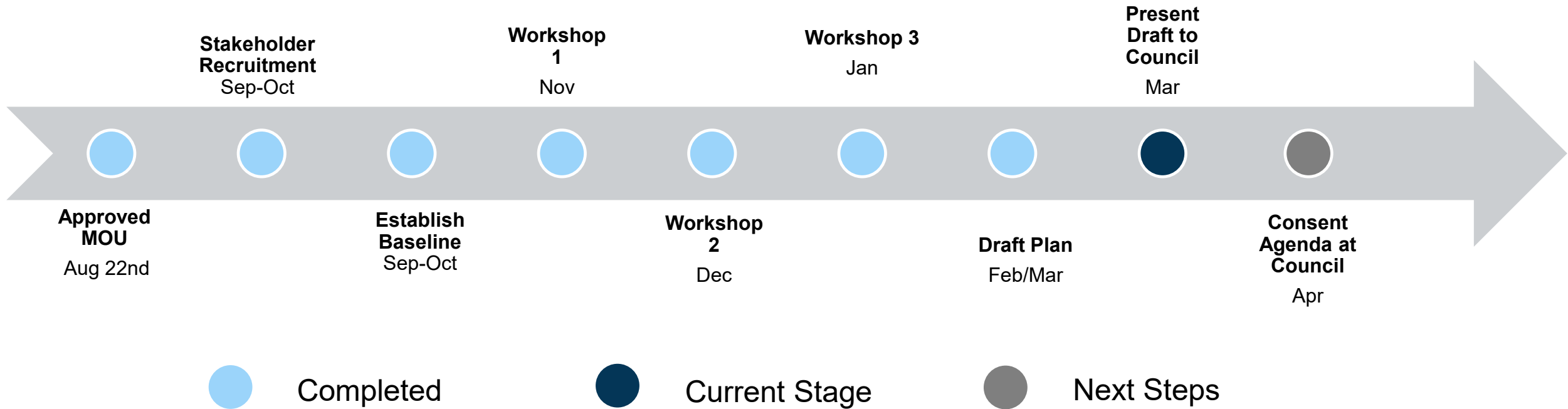
### Decarbonizing Our Commercial and Industrial Sector

- B-1 Business Research
- B-2 Business Advisement





# PLANNING TIMELINE



# DRAFT VISION AND GOAL FRAMEWORK

Erie's pursuit of electrification will take informed and thoughtful approaches to electrification, ensuring accessible, cost-effective, and realistic solutions, with education and community engagement at the heart of our efforts.

## Community Goals

- For the residential and commercial energy use sector, achieve no-net-increase in emissions by 2030 and 100% net-zero greenhouse gas emissions by 2050, compared to 2023 levels.
- Achieve 30% vehicles on the road in Erie zip codes to zero emissions by 2030.

## Municipal Goal

- For the municipal energy use sector, 100% net-zero energy emissions by 2030



# DRAFT FOCUS AREAS AND STRATEGIES

## Existing Residential

R-1 Encourage single-family households to get a home energy audit through Town-led incentives and education

R-2 Connect single family homeowners with information to support them along their electrification journey

## Existing Commercial and Institutional

C-1 Conduct foundational research

C-2 Support small and medium businesses along electrification journey

## New Construction

NC-1 Identify opportunities to update building codes to align with Erie's electrification goals

NC-2 Work with horizontal developers (e.g., no gas infrastructure) and/or builders to create pathways for offering energy efficient, all-electric buildings

## Town-Led Efforts

T-1 Serve as a convener for electrification information and resources

T-2 Decarbonize Town of Erie Fleet

T-3 Decarbonize Town of Erie Facilities



# DRAFT TARGETS

## 2025 Targets

Item	Target
Home Energy Audits	58 (15% increase from 2023)
Heat Pump Installations	≥ 5 installs
Electrification Pilot Project	1 to 5 properties complete a space or water heating electrification project
Xcel Energy New Construction Program Participation	At least one residential and one commercial new development participant
New All-Electric Facility	1

## Longer-Term Targets

Item	Target
Residential Natural Gas Use in Existing Buildings (by 2030)	Reduction of 300,000 therms (140 homes per year)
Energy Codes (early 2026)	Adopt IECC 2024 code
Residential Energy Use of New Construction	Reduction of 300,000 therms from Erie's forecasted baseline of energy use.
Municipal Light-Duty Fleet (by 2030)	Electrify 50% of all light duty vehicles
Municipal Light-Duty Fleet	Install adequate fleet-specific charging to support light duty vehicle electrification.
Energy Efficient Buildings or Energy Design Assistance	Enroll all municipal developments and redevelopments in Xcel Energy territory
Municipal Building Energy (by 2030)	Net-zero energy use





# SUPPORT FOR IMPLEMENTATION

# Grid Readiness



**Key Context:** Electrification at a progressive pace



**Who's In Charge:** Xcel Energy System Planning and Strategy Team



**What's the Process:** Cyclical annual planning process to ensure adequate capacity of distribution system



**Communication is Key:** Information from customers helps improve planning

# REBATES AND INCENTIVES FOR ELECTRIFICATION

## Who Offers Resources

- Federal Government (IRA)
- State Government (CEO)
- Regional Government (Decarbonize DRCOG)
- Utilities (Xcel Energy and United Power)
- Local Government (Town of Erie and Boulder County)

## What Resources Are Offered

- Energy audits
- Weatherization incentives
- Building electrification incentives
- Electric vehicle (EV) incentives
- EV charging incentives
- Rooftop solar incentives



Support to help connect the right audience to the right resources will be a first step in implementation!



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QUESTIONS?