



Climate Action Plan 2.0

Wednesday, July 8th, 2020

DRAFT

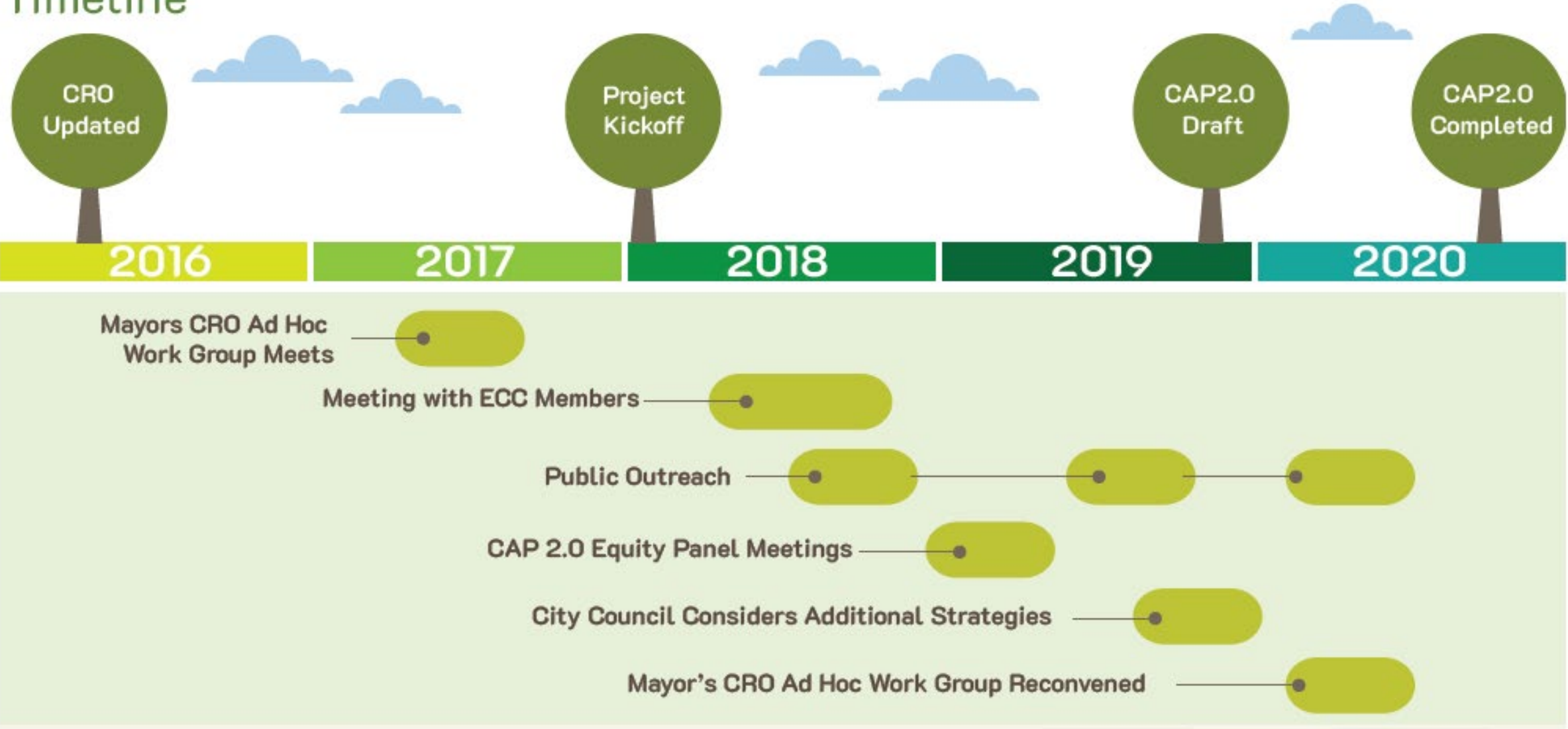
Eugene's Community Climate Action Plan 2.0:

A Roadmap for Eugene's Climate Journey

Summer 2020



Timeline



CAP2.0

Document Sections

- Section 1: Data Driven Roadmap for Climate Action
- Section 2: Commitment to Action – Mitigation and Resiliency Plan
- Section 3: Building our Community Capacity



Thank you Eugene!

- 6 Focus Groups, 40+ Participants
- 6 Student Groups, 200+ Students
- 8 Mayor's CRO Ad Hoc Work Group Meetings, 30+ Members
- 10 Equity Panel Meetings, 8 Members
- 12 ECC Meetings, 60+ Partners
- 14 Community Events, 2,000+ Community Members



What's New?

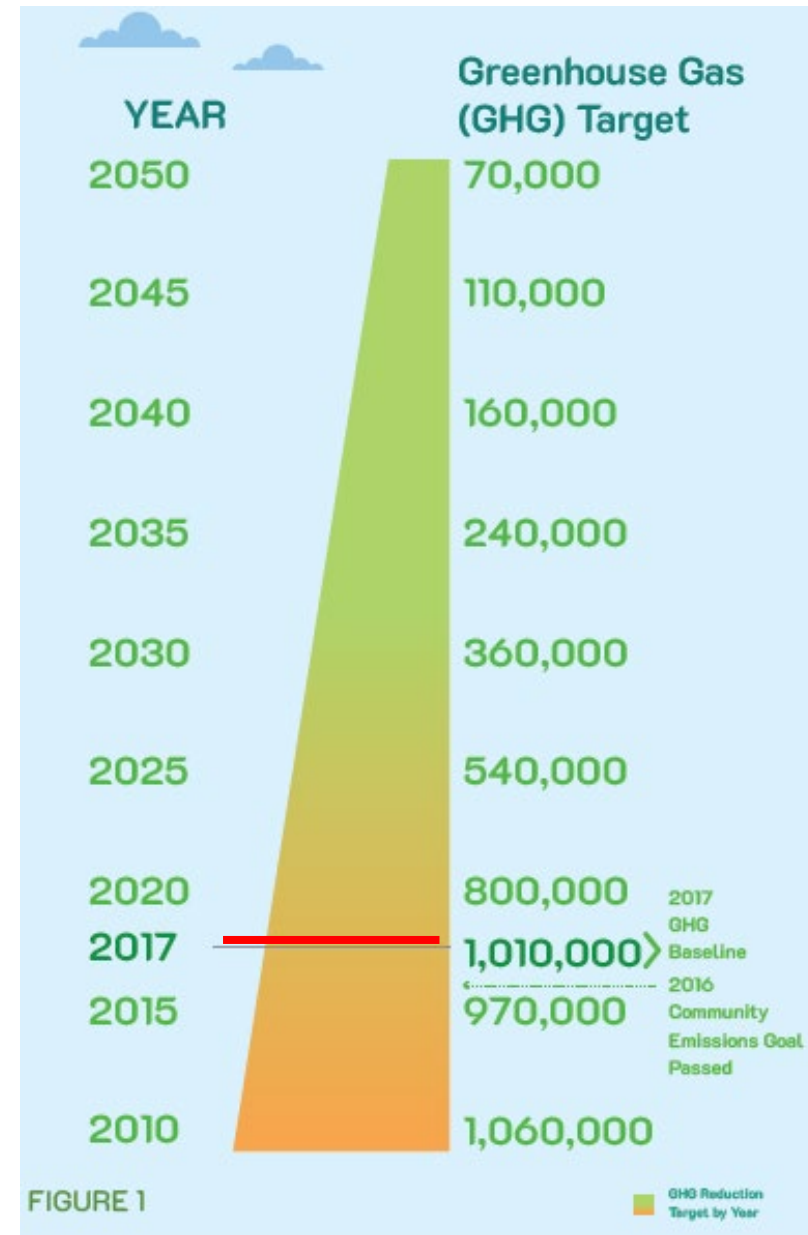


1. More Detail
 - More actions
 - More detailed actions
 - Chapter on consumption-based emissions
2. Additional Topics
 - Focus sections on housing, transportation, and urban forestry
 - Chapter on Actions Individuals Can Take
3. More data including graphs to show the Pathway to the CRO
4. 72 ideas for potential actions from community members
5. Community Engagement Strategy
 - Accountability and reporting
6. Timeline
7. TBL Analysis of all City of Eugene Actions which was reviewed by a subgroup of the Mayor's CRO Ad Hoc Work Group

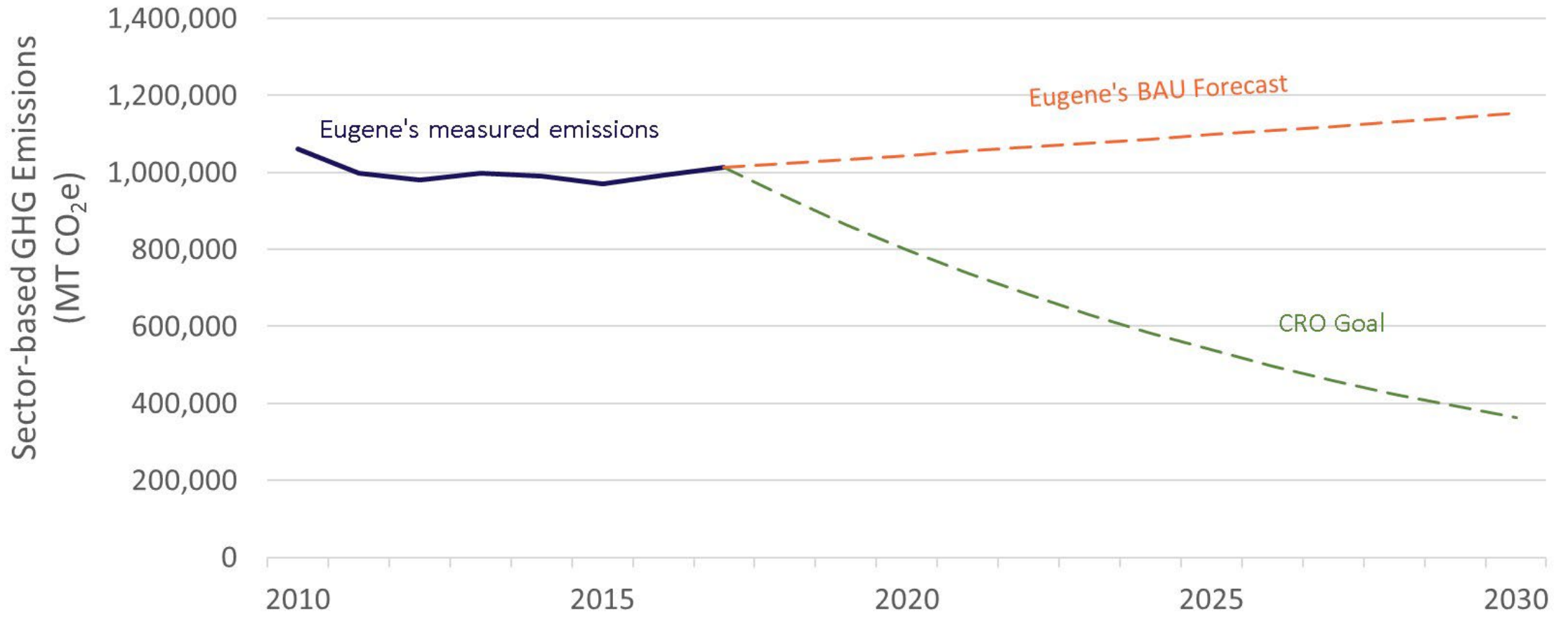


Data-Driven Roadmap to Climate Action

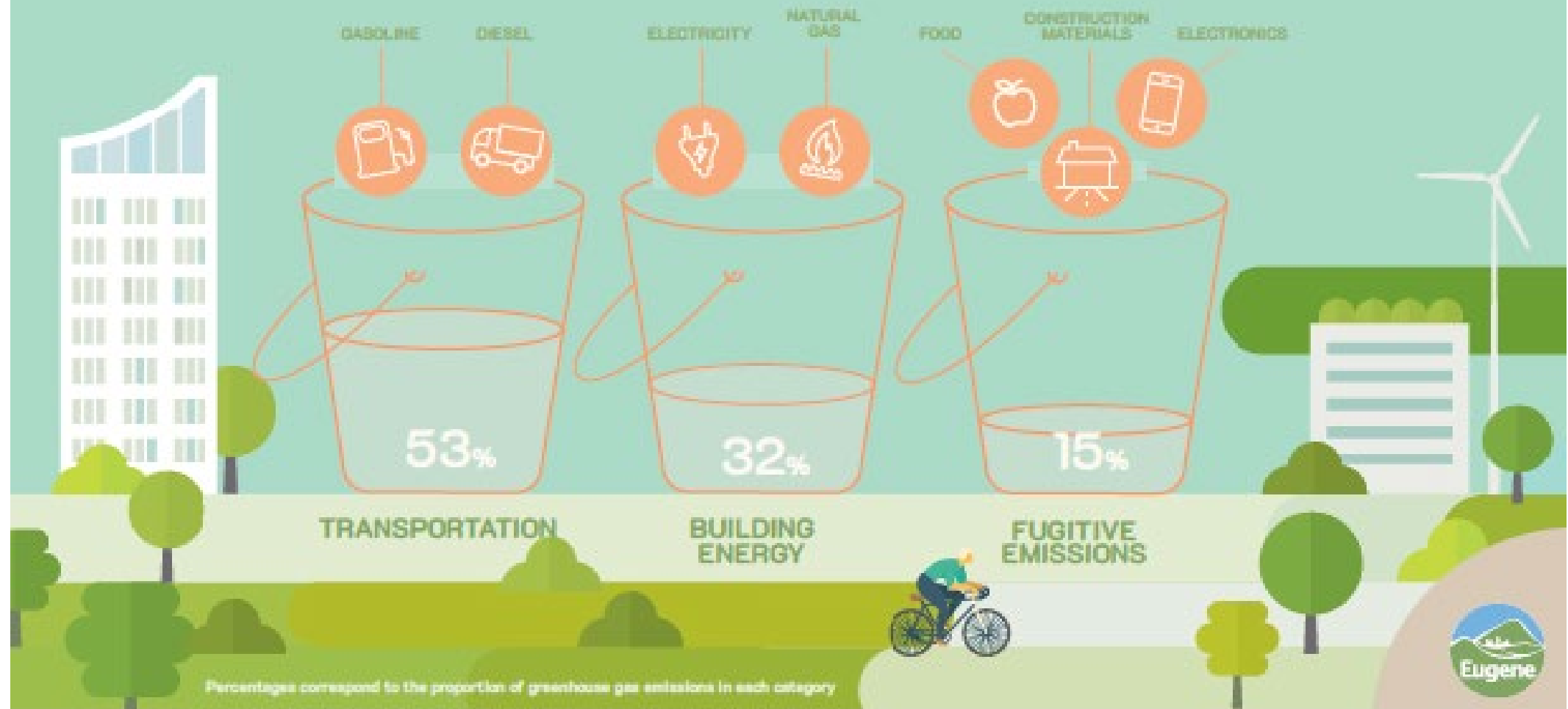
Climate Recovery Thermometer

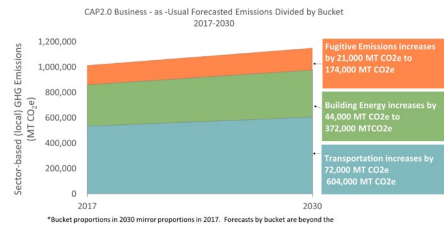
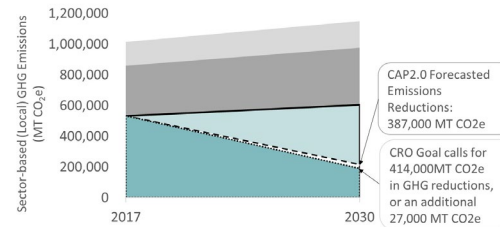
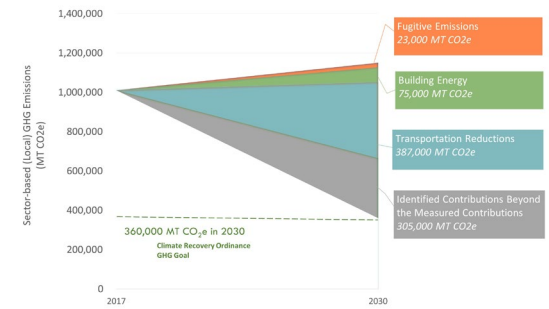


Eugene's Forecasted Business-As-Usual (BAU) Local Emissions compared to the CRO Emissions Goal



EUGENE'S GREENHOUSE GAS EMISSIONS

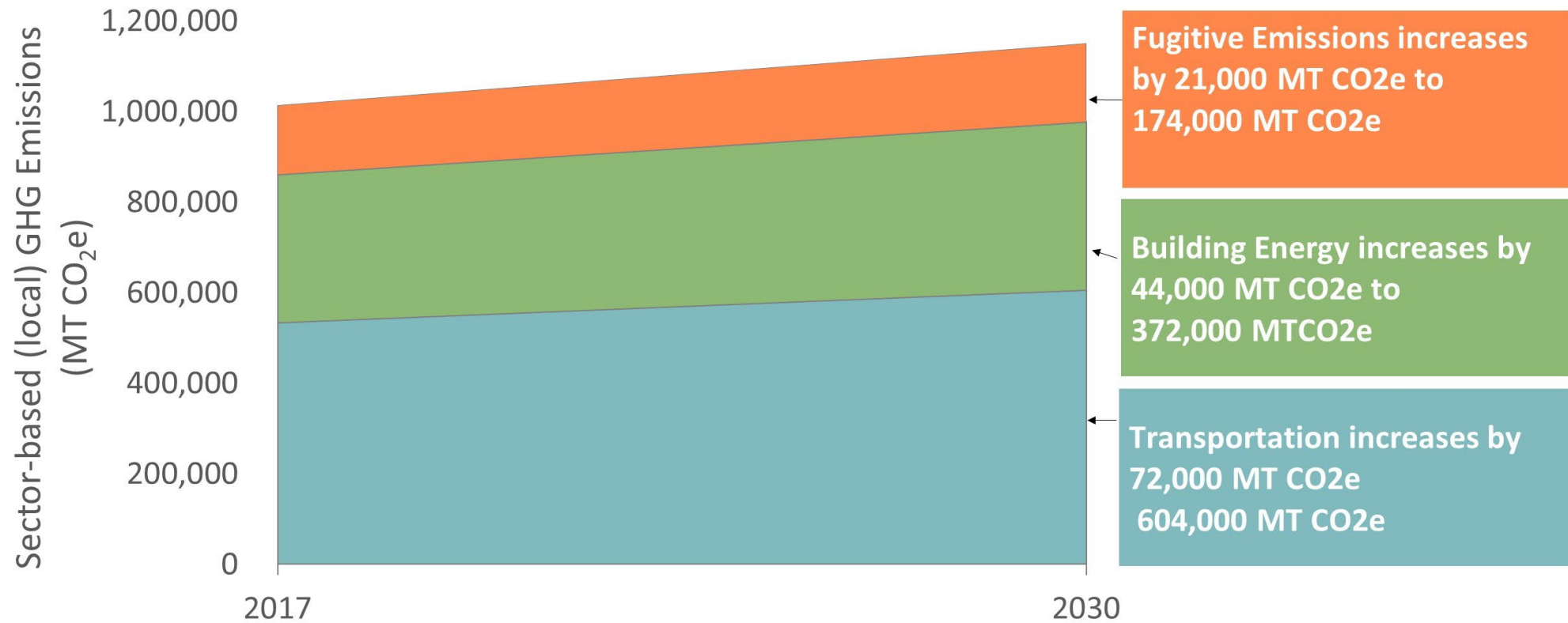




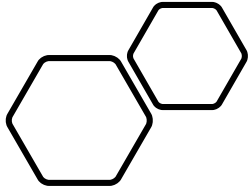
2030 Goal: 790,000 MT CO₂e

Pathway to the CRO

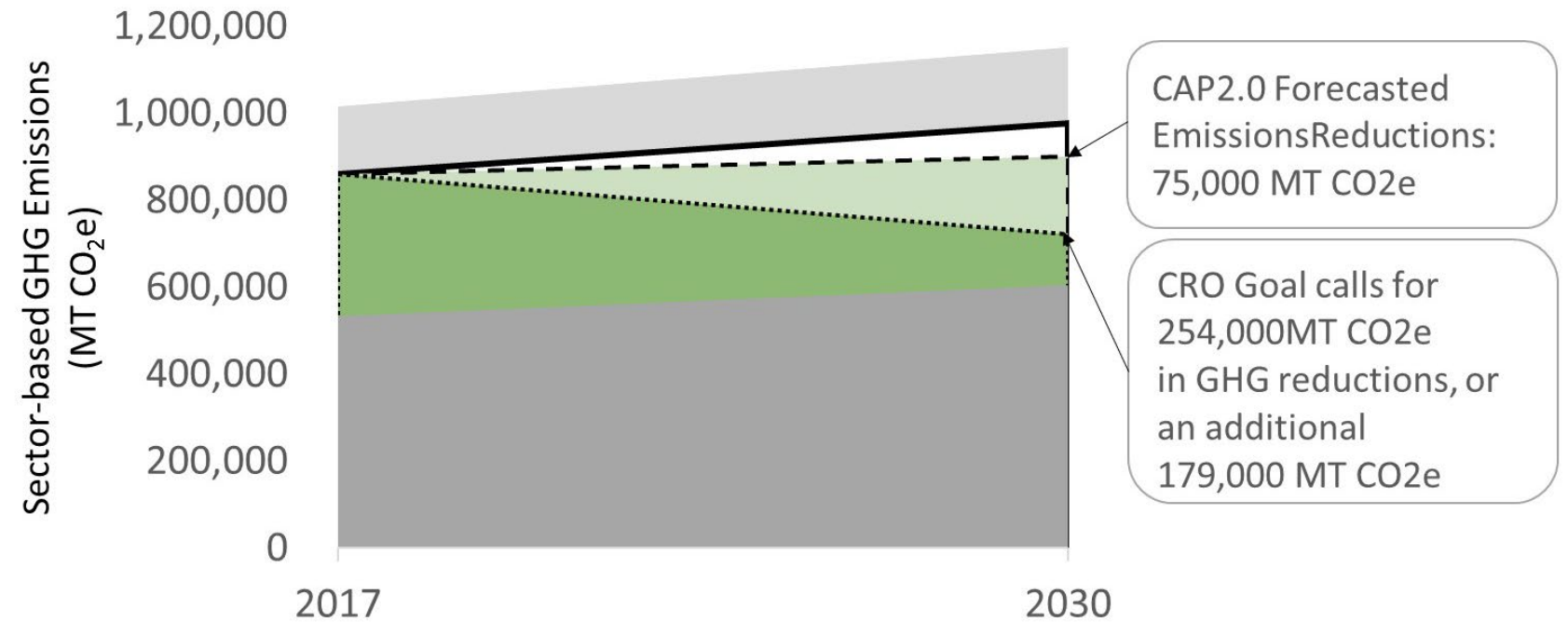
CAP2.0 Business - as -Usual Forecasted Emissions Divided by Bucket
2017-2030



*Bucket proportions in 2030 mirror proportions in 2017. Forecasts by bucket are beyond the

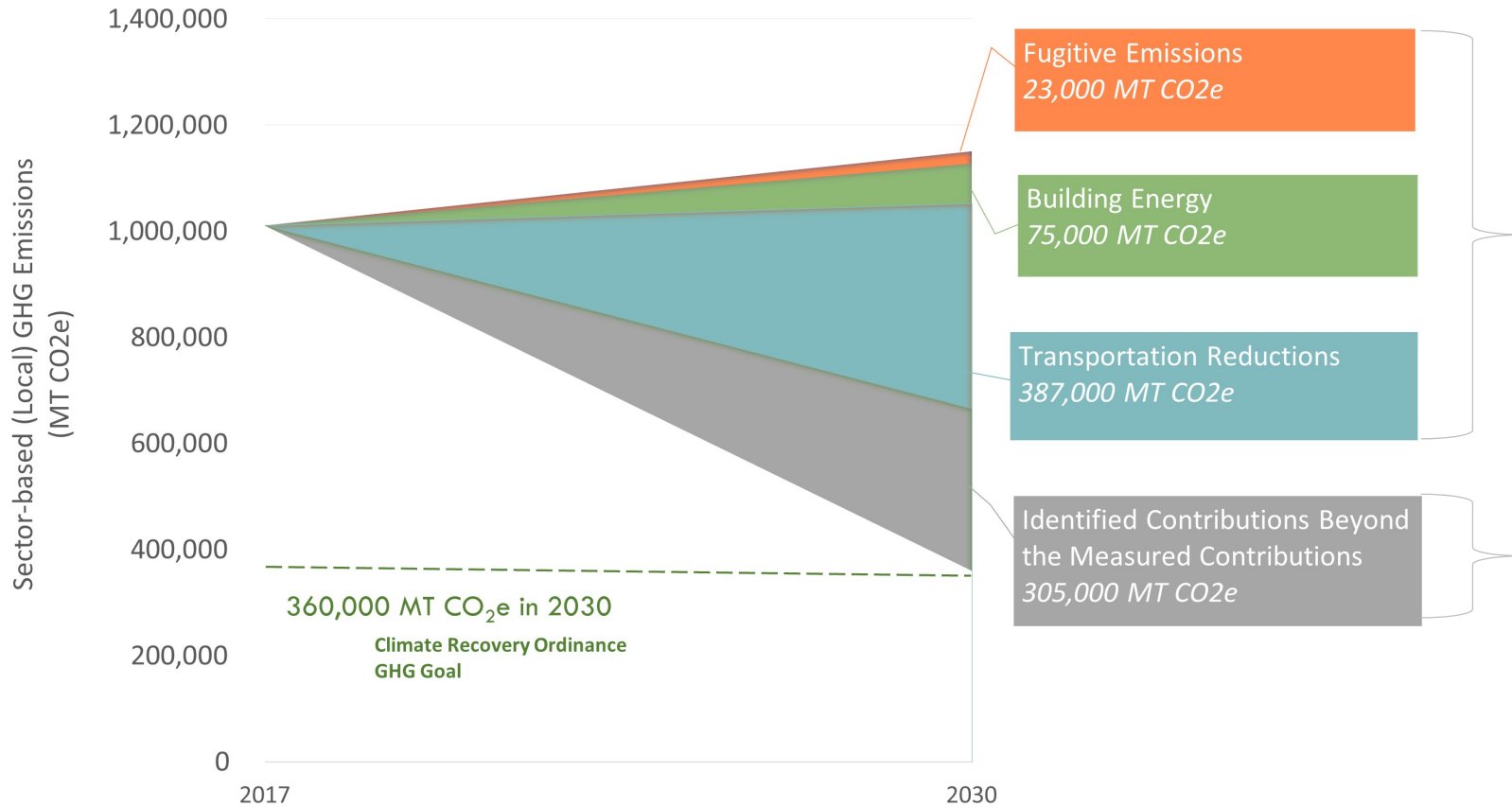


Example of Data by Bucket: Building Energy Measured Contributions



Building Energy Total	MT CO ₂ e
NWN Smart Energy Program (5% participation) (Action 13)	(17,000)
NWN Future Conservation / Energy Efficiency (Action B14)	(15,000)
Oregon Net-Zero Commercial Building Code (Action B23)	(12,300)
Home Energy Score and Commercial Benchmarking (Action B4)	(10,000)
MWMC / NWN Biomethane to natural gas pipeline (Action B15)	(7,000)
Oregon Net-Zero Residential Building Code (Action B23)	(6,400)
EWEB Future Energy Conservation (Action B11)	(2,500)
UO CAP - New/Existing Building Energy Efficiency (B17)	(1,900)
EWEB CAP - Facilities (Action B7)	(1,000)
COE Internal CAP - Facilities (Actions B6-B7)	(1,000)
LCC CAP - Facilities (B16)	(700)
Total Building Energy Reductions	(75,000)

Pathway to the CRO



Measured Contributions
including high impact practices
from Transportation, Building
Energy, and Fugitive Emissions

Identified Contributions Beyond Measured Contributions

- Natural Gas Franchise Agreement
- State and Federal Actions
- Carbon Offsets



Commitment to Action - Mitigation and Resiliency Plan

Guiding Plans and Policies

Transportation

- Transportation System Plan
- Envision Eugene
- Eugene's Electric Vehicle Strategy

Building Energy

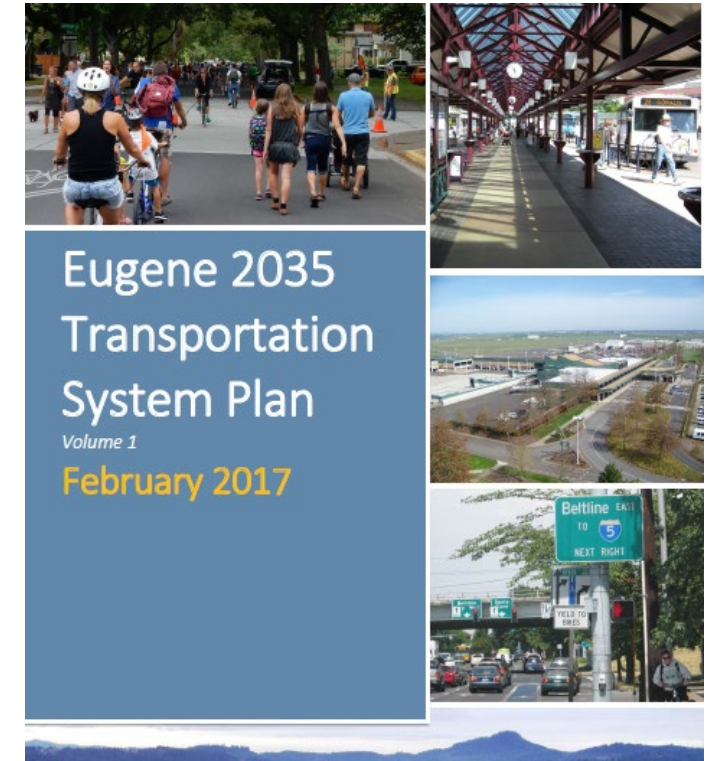
- EWEB's Electricity Supply Plan
- Northwest Natural's Low Carbon Pathway

Fugitive Emissions

- Lane County Solid Waste Management Plan

Resiliency

- Natural Hazards Mitigation Plan



Commitment to Action

- **115** City of Eugene and Eugene Climate Collaborative Actions
- **25** State and Federal Actions
- **41** Equity Panel Recommendations
- **72** Ideas for Potential Actions



Fugitive Emissions

Fugitive emissions come from waste and refrigerant leakage. The largest source of fugitive emissions come from Short Mountain Landfill and the wastewater treatment plants that serve everyone in our community. These emissions combined with fugitive refrigerants comprise about 15% of local GHGs. The fugitive refrigerants come from our cooling of interior spaces as well as keeping food cold to avoid spoilage. While the Montreal Accord began the worldwide transition to lower GHG refrigerants, fugitive emissions from refrigerants are on the rise across the state.

To reduce fugitive emissions in the solid waste system, we need to both reduce the volume of organic waste (mostly food and yard waste) as well as do a better job collecting the gas that is generated from the rotting of food and plant material.

To reduce the loss of refrigerants, we need to encourage our building owners and operators to better maintain their cooling and refrigeration systems to avoid leaks, and whenever possible to choose a refrigerant gas that functions with a lower GWP.

Fugitive Emissions Key Plans and Policies

Lane County Solid Waste Management Plan. Lane County is the state-designated Solid Waste Authority for the Lane County Wasteshed. Through this authority, Lane County developed the Solid Waste Management Plan (SWMP) to align with state recovery goals and priorities and to coordinate solid waste management efforts

between the County, municipalities, industry stakeholders, and other community partners. The plan includes strategies and actions to achieve a variety of goals, including Lane County's goal to divert 63% of waste from the landfill by 2025. Actions F6-F12 provide link back to SWMP. This is not an exhaustive list of the items in the SWMP that will help Eugene achieve its climate goals.

City of Eugene Actions

★ **Action F1** COE to operate and promote the Love Food Not Waste commercial food waste collection program. This partnership among local garbage haulers, commercial composters, the City of Eugene and area businesses makes sure that food scraps turn into valuable compost instead of taking up space in our landfill. Business can sign up for Love Food Not Waste through their garbage hauler.

★ **Action F2** COE to operate and promote the Curbside Compost Program. As of October 2019, Eugene customers who have residential garbage service have the option to put food waste in their yard debris bin instead of in the garbage.

Action F3 COE to explore methods to capture biogas from organic waste and use it for renewable transport fuel. By 2025, COE will scope out the potential pathways to implement this action, including cost estimates. (CC Action)

★ ♦ **Action F4** COE to convene community partners who use products with large amounts of

Consumption Emissions

FIGURE 13

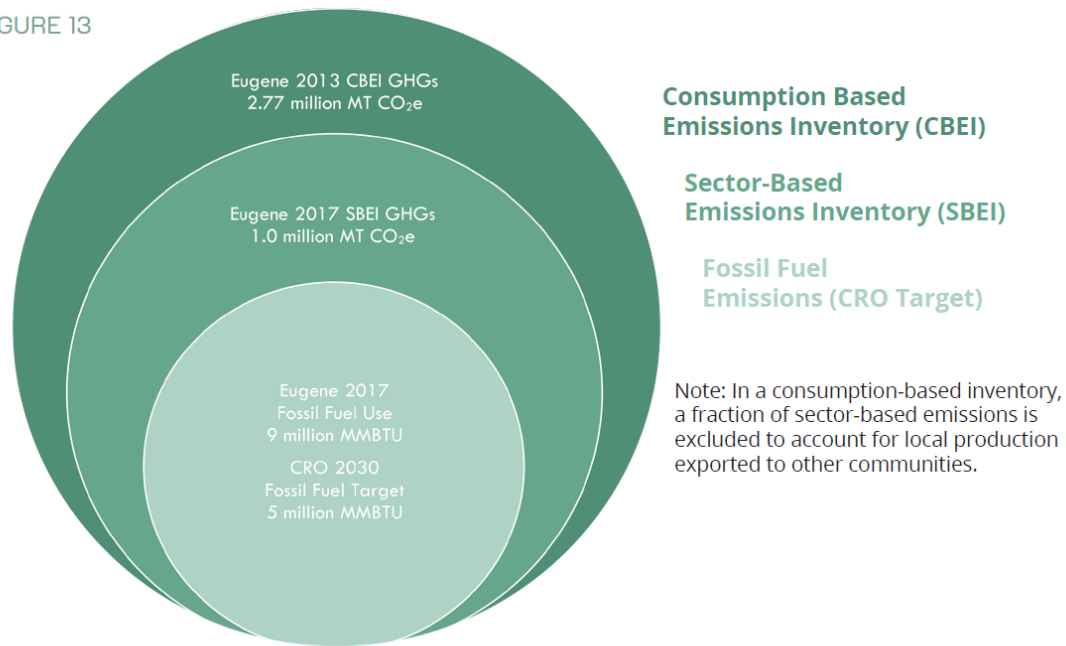


Figure 13: Connecting Fossil Fuel Use, Sector- and Consumption-Based Inventories

FIGURE 16

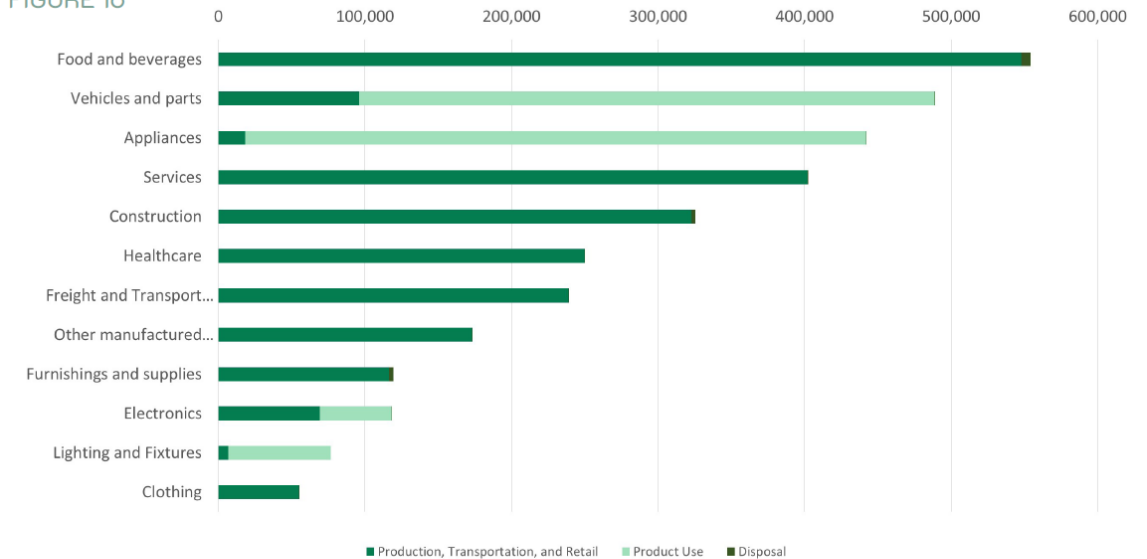


Figure 16: Eugene's Consumption-Based Emissions by Product Type



Housing and Climate Action

Housing policy is a cornerstone of any City's climate policy. Housing stock characteristics like size, affordability, and location relative to transit, jobs, and other amenities all impact residents' environmental impact. Size has multiple impacts including the emissions emitted in creating the building materials and the emissions from energy used to heat and cool the home. Smaller homes tend to have a smaller carbon footprint during construction and use. Other development standards including lot size and parking requirements can reduce the amount of land that's used for housing, creating the opportunity for more housing, and more compact housing. In addition, housing units built close to transit, jobs, and other amenities allow residents to access the community using fewer vehicle trips.

Eugene's Strategies for Compact Development

Eugene has been working to address the affordability and availability of housing for some time, though the public sense of urgency and the desire for a more comprehensive approach associated with this work has recently accelerated in response to the local housing crisis. In fall 2018, the City convened the Housing Tools and Strategies Work Group (HTS Work Group). The HTS Work Group identified housing affordability, availability, and diversity of type as the top housing concerns in the area.

In addition, the City is continuing to implement strategies and actions from the Envision Eugene Recommendation and 2017 Urban Growth Boundary process, including updating the Envision Eugene comprehensive plan. Completing and adopting the housing chapter will be part of the City's process for implementing House Bill (HB) 2001, a law that allows middle housing types in residential areas without significant barriers. Other chapters such as compact development and urban design, community health and livability, natural resources and environment quality, community resilience, and public facilities and services chapters are expected to be completed and adopted within the next five years. The comprehensive plan supports 20-minute neighborhoods, resilience and the City's Triple Bottom Line framework of economic prosperity, social equity and environmental health to reach sustainability goals.

Oregon DEQ studied the emissions impact of the lifecycle of a home, evaluating emissions impacts from extracting materials to build, transportation of materials, construction, occupancy, maintenance and finally demolition. The study found that 80% of a home's emissions over a 70-year lifespan are associated with occupancy. Building smaller not only has a smaller carbon footprint because it uses less materials to build, its benefits also accrue over time as it uses less energy.



Transportation and Climate Action

Transportation projects, programs, and policies are an essential piece of the City of Eugene's climate policy and represent 53% of Eugene's local emissions. Through implementation of the Transportation System Plan (TSP) projects that focus on increasing safety, comfort and convenience for people to walk, bike, and take transit more often we can expect to see a decrease in vehicle miles travelled, greenhouse gas emissions, and air toxins.

By creating a more balanced transportation system that prioritizes active transportation and provides people with safe and healthy choices, we will see more people making those transportation choices. Many people rightfully fear for their lives when sharing a street with vehicles moving close to them, whether they are on foot or bike. Projects like the Amazon Active Transportation Corridor that reallocate the roadway to create a safer space for all road users, encourage safer speeds, and increase the comfort level for vulnerable road users have shown that when we build a better system more people will use it. There are several projects in the TSP that have the potential of providing even more connectivity to our active transportation network, such as a two-way protected bikeway on 13th, an enhanced Neighborhood Greenway system, a protected bikeway connecting the Amazon Path with the Ruth Bascom Riverfront Path, a redesigned Franklin Boulevard, an enhanced frequent transit system, and more than 200 other active transportation projects that make up 92% of all the TSP projects.

Transportation and Equity

Eugene's transportation policies support the provision of complete transportation networks that serve travelers of all ages, abilities, and incomes. Everybody should have safe and efficient access to employment, education, services, and recreation. City policies promote the services and projects that will result in sufficient options to meet these needs and help to ensure that costs and benefits of transportation improvements are shared equitably over time. The City strives to empower community members by working with local residents, businesses, and other stakeholders to cooperatively develop transportation corridors that foster the community's active use and sense of ownership of public rights-of-way.



Managing Eugene's Urban Forest to Help Fight Climate Change

Thanks to the broad spectrum of benefits and ecosystem services that trees provide in a municipal setting, urban forests are widely regarded as critical infrastructure and an essential tool in the battle against climate change. Eugene's urban forest can assist with both climate mitigation and adaptation efforts, and can address many of the underlying causes and unwelcome effects of a changing climate. Eugene's trees and green infrastructure make us more resilient as individuals and a community by:

- playing a primary role in maintaining water, soil and air quality
- buffering extreme summertime temperatures, urban noise, and flooding
- providing essential neighborhood character and wildlife habitat
- helping make our city vibrant and more conducive to active transport and social interaction

While our urban forest is a formidable tool for dealing with the causes and consequences of climate change, it is not immune to the threats of a changing climate:

- extended droughts and flooding
- severe wind/snow/storms
- extreme temperatures
- increasing number of exotic pests and pathogens
- development pressure from a growing population
- catastrophic wildfires

Roughly 75% of Eugene's urban forest is on privately owned land. As such, ensuring our urban forest remains healthy and its benefits are maximized, will require a proactive, collaborative and holistic approach within our entire region. Together we can engage our communities through a clear plan, dedicated resources, and active involvement from all stakeholders (government, academic institutions, NGOs, businesses and property owners).

Urban Trees

The Great Equalizer

The ecosystem services offered by the urban forest can help offset the disproportionate impact of climate change on vulnerable and marginalized populations. Tools such as Canopy Analytics help City leaders identify the intersection of social justice, environmental considerations and economic prosperity in planning for our City's future.

Housing, Transportation, and Urban Forestry Focus section



Building Our Community Capacity



CAP2.0 Community Engagement

Equity Panel

Eugene Climate Collaborative

Mayor's CRO Ad Hoc Work Group

Community Outreach

Community Ideas for Potential Actions



Transportation

- TSP, Active Transportation, and Transit
- Compact Development
- Electric Vehicles
- Parking
- Reduce Delivery Trucks
- Airport and Air Travel

Building Energy

- Building Electrification
- Natural Gas
- Other Building Energy Actions

Fugitive Emissions

Consumption

- Food
- Concrete
- Plastics
- Reduce Consumption

Resiliency

Additional Actions

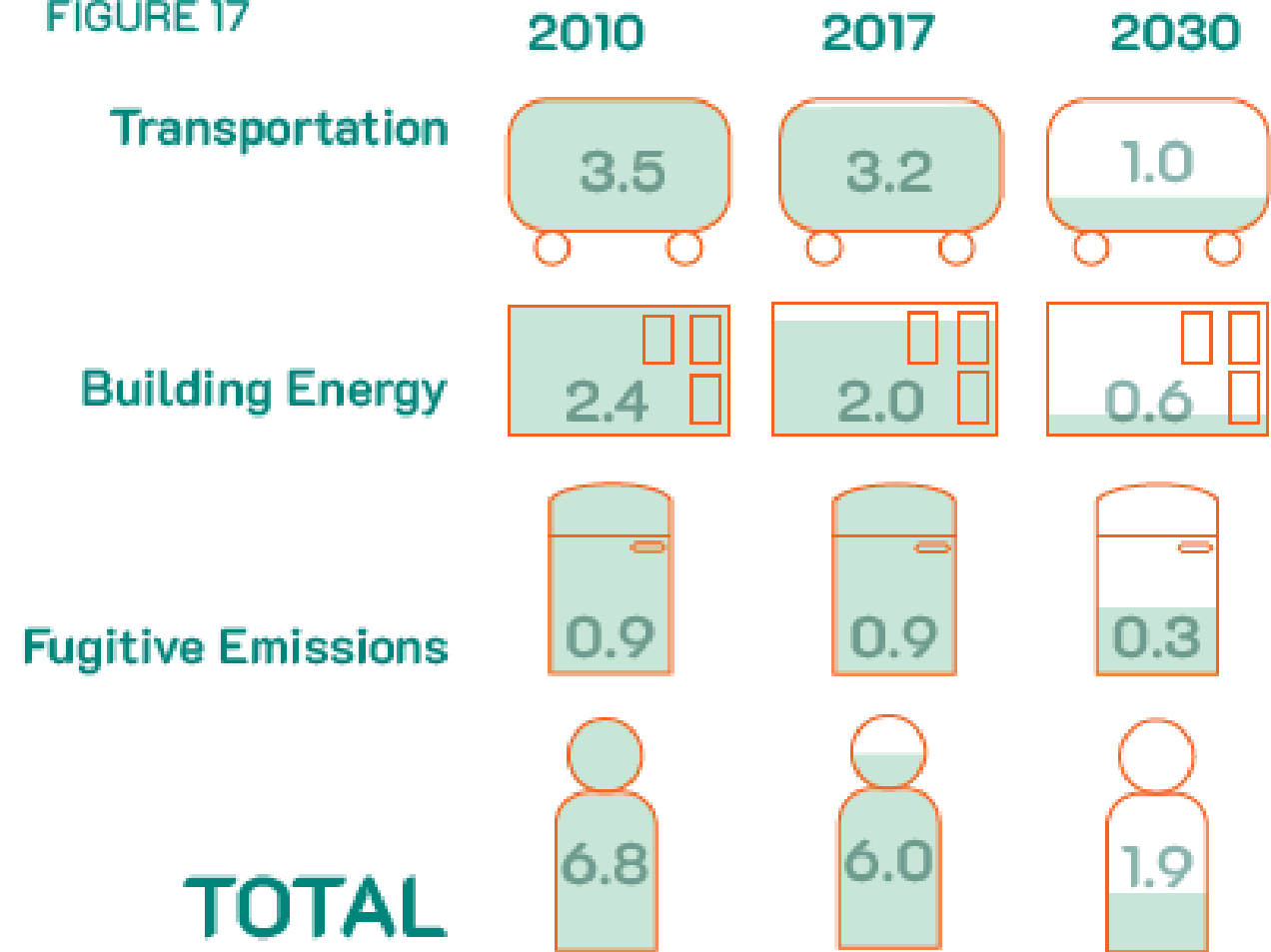
- Fossil Fuel
- Community Engagement
- Economic Development

Individuals Taking Action

- Calculate your Carbon Footprint
- Walk, roll, bike, or take the bus
- Telecommute
- Use LED light bulbs
- Make a meal plan
- Repair and Reuse
- Shop second-hand
- Create a supply kit

Per Capita Reductions

FIGURE 17



Community Engagement Moving Forward

1. Reconvene the Equity Panel
2. Sustainability Commission and other Citizen Advisory Committees
3. Individual, Household, and Neighborhood Action Campaign
4. Eugene Climate Collaborative
5. Sustainability Business Engagement Strategy
6. Reporting and Accountability



Updated Appendices

- Triple Bottom Line Analysis
- Timeline of City of Eugene and Eugene Climate Collaborative Actions
- Mayor's CRO Ad Hoc Work Group Meeting Materials
- Community Ideas for Potential Actions Survey Results

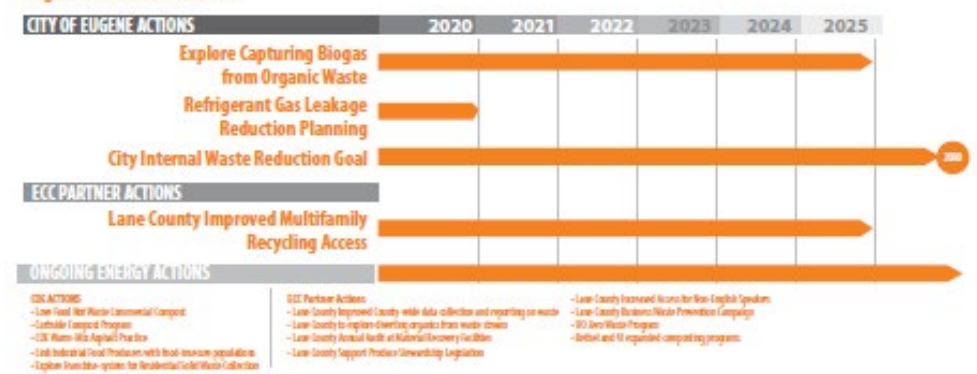
City of Eugene Actions – Taking a Closer Look

The table below provides a detailed look at every City of Eugene action in the plan. Note – some actions were added to this draft as it was going to publication. Those actions are included in Chapters 5 and 6, and will be added to this table before final publication of the CAP2.0. Comments regarding equity were provided by a subgroup of the Mayor's CRO Ad Hoc Work Group evaluating these actions. Per these comments, an equity lens should be applied as implementation strategies for all actions are being designed.

City of Eugene Triple Bottom Line Actions - Transportation

[illegible]

Fugitive Emissions Actions



CAP2.0 Next Steps

July 13 – Public Forum

July 15 – City Council Work Session

July 27 – Public Forum

July 29 - City Council Work Session



City-Wide CRO Implementation

- Public Works -
Transportation System Plan,
EV Strategy
- Planning and Development -
Envision Eugene, Waste
Prevention Program
- Central Services - Natural
Hazards Mitigation Plan,
Intergovernmental Relations,
Facilities
- Library, Recreation and
Cultural Services – Fix-it
Fairs, Bike Safety Classes
- Fire and Police – Fleet and
Facilities Improvements



Sustainability Program

CAP2.0 Implementation

Community Engagement

- Reconvene Equity Panel
- Continue to staff Sustainability Commission
- Continue to convene Eugene Climate Collaborative
- Launch Communications and Behavior Change Campaign
- Develop Sustainable Business Engagement Strategy
- Develop CAP2.0 Dashboard
- Develop the new

CAP2.0 Annual Report

- Update GHG Inventories

Additional CAP2.0 Actions from City Council

- Northwest Natural Franchise Agreement
- Home Energy Score/Commercial Benchmarking Programs
- Energy Efficiency Program Options
- Align TSP with CRO Goals
- Electric Vehicle Strategy Implementation

- Reduce Refrigerant Loss
- Capture Biogas from Organic Waste
- State and Federal Actions

City of Eugene Internal Climate Action Plan

- Continue to convene Internal Climate Teams
- Continue to consult on projects in fleet, facilities, fire, and other areas to align with CRO
- Purchase offsets to meet City of Eugene operational ghg reduction CRO goal



