




Building Energy Resolution Discussion

November 1, 2022

Natalie Rogers
Climate and Natural Resource Manager

Peter Passarelli
Public Works Director



An aerial photograph of a suburban residential neighborhood. The houses are mostly single-story with grey roofs, surrounded by green lawns and trees. In the background, there are rolling hills and a forested area under a clear blue sky with some light clouds. A semi-transparent white rectangular box is overlaid on the center of the image, containing the text.

None of the resolutions or programs require existing residential or commercial gas customers to change anything.

Timeline



- Oct 2018 – CAP Adopted
- Jan 2020 – Climate Emergency Declaration
 - By 2035, net-zero emissions from building fuels
- Jan 2022 – First introduction of building energy resolutions
- July 2022 – Informational presentation from NW Natural and Climate Solutions
- Sept 2022 – Three separate resolutions introduced
 - City-owned building requirements for retrofits/upgrades
 - Existing buildings voluntary programs and strategies
 - New Construction mandates

Terms and Definitions



Decarbonization : the reduction in carbon dioxide emissions.

Carbon-free energy: Energy that creates no emissions when it is generated (electricity) or used or consumed (other fuels)

Electrification: The transition from fossil fuels to electricity

“Green” Hydrogen: hydrogen gas produced from electrolysis of water using carbon-free electricity

“Blue” Hydrogen: hydrogen gas produced from methane gas, steam and another catalyst

Methane/Natural Gas: Interchangeable terms. Natural gas is a marketing term for methane gas product.

Renewable Natural Gas: A methane gas product that is collected as a biproduct of approved biosolids processing. Equivalent chemical composition and emissions as non-renewable gas products.

RTU – Roof Top Unit

City-owned Buildings



As drafted:

- Establishes decarbonization requirements over time or with triggering event
 - Building purchase/renovations/donation/sale
 - Threshold ~\$50k
- Directs staff to perform a feasibility study by Jan 1, 2024

Staff response:

- City-owned building estimate ~\$2.32M
 - Service upgrade cost TBD
- Recommendation to increase thresholds
 - \$200k reno, \$500k sale/purchase
 - If repair >50% asset value, pursue electrification
 - July 1, 2024 effective date
- Schedule feasibility deadline by June 30, 2024

BUILDING:	2022 ESTIMATE:
CITY HALL	\$683,000*
40 TH AND HARVEY CAMPUS	\$200,000
PUBLIC SAFETY BUILDING**	\$313,000*
ADVANTIS BUILDING	\$250,000*
JOHNSON CREEK CAMPUS	\$428,000*
JC – Front Building	\$260k
JC – PW Operations	\$128k
JC – Pole Barn	\$10k
JC – Sign Shop	\$30k
MILWAUKIE CENTER	\$448,000*
*Service upgrades required	

Question: donation of buildings?

Existing Buildings



VOLUNTARY ONLY! No requirements for existing buildings to change!

As drafted:

- Incentivizes and promotes voluntary electrification programs
 - From discussion: programs should have economic value
- **No requirements for existing buildings to change**
- Directs staff to develop strategic plan and timeline

Staff response:

- Similar goals and programs called for in existing CAP
- Community engagement to tailor programs to audiences needed
- Focus on weatherization, resiliency and economic incentives would provide benefits to many community members, address largest emitters
- Climate fund essential in being able to offer these programs

New-Construction Buildings



As drafted:

- Recognizes benefits of building decarbonization/electrification
- Prevents new-construction buildings from connecting to fuel-gas infrastructure by February 15, 2024

Staff response:

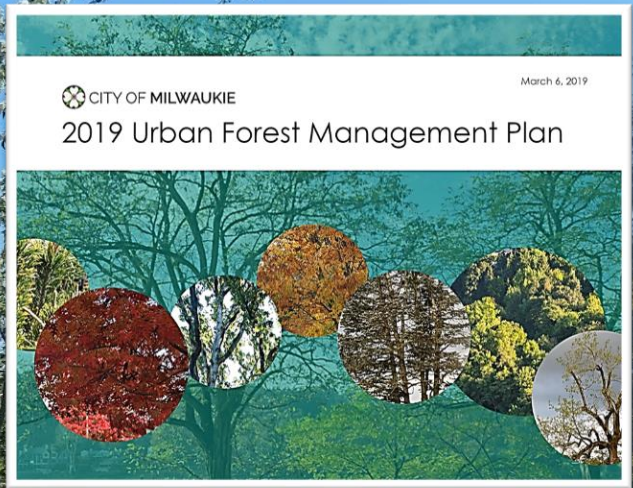
- City of Eugene staff presenting code language at Eugene 11/15 Council Session
 - Low-rise residential buildings
 - Phased approach for commercial/industrial w/ more engagement
 - Wait to see what language is presented
- Legal/code unknowns, potential costs
 - Climate funds could be used but need to balance other programming

Interested in learning more?
Milwaukieclimateaction.com

Thank you!

Natalie Rogers
503-786-7668

RogersN@milwaukieoregon.gov



CITY OF MILWAUKIE