From: Phil Carver <philiphcarver@gmail.com>
Sent: Friday, January 20, 2023 2:03 PM
To: Heather Dimke <HDimke@cityofsalem.net>; citycouncil <citycouncil@cityofsalem.net>; SALEM Manager <MANAGER@cityofsalem.net>; Laurie Dougherty <lauriedougherty@gmail.com>
Subject: Comments for Climate Action Committee 1/23/2023

To: City of Salem Climate Action Committee
From: 350 Salem OR
Philip H. Carver, Ph.D., Co-coordinator

RE: Fossil methane in new homes

The agenda for the Jan. 23, 2023 meeting of the Salem Climate Action Committee has a draft work plan for 2023. The work plan has several useful strategies for implementation from the 183 in the Climate Action Plan (CAP). Although the City took some small actions last year under the CAP, it has done very little of substance to date to meet the greenhouse gas (GHG) emission goals that it adopted in October 2020, over two years ago. The climate crisis is real and cities are in a unique position to address it. There are major initiatives underway at the city, state and federal levels in the U.S. and worldwide.

350 Salem Oregon appreciates the strategies in the 2023 draft work plan to address transportation emissions. One of these (TL 40 - a review of parking minimums for new developments) is part of the required implementation of the Climate Friendly and Equitable Communities rule adopted by the state Land Conservation and Development Commission. The three others (TL19, TL21, T24) show initiative by the City. 350 Salem will be focused on these transportation actions, especially the City's update of its Transportation System Plan.

350 Salem also greatly appreciates including strategy EN 07 (Hire a full time City Climate Action Plan Manager) in the draft work plan.

The second biggest emission sector, electricity, is largely addressed by state law under HB 2021 (2021 session) that requires PGE to reduce its GHG emissions by:

- 80 percent below baseline emissions levels by 2030;
- 90 percent below baseline emissions levels by 2035; and
- 100 percent below baseline emissions levels by 2040.

Emissions from electricity delivered by Salem Electric Coop are already nearly zero. 350 Salem appreciates the inclusion of strategies EN30/EN09 in the draft work plan regarding implementation of the Community Wide Clean Energy Program for PGE customers under HB 2021.

This leaves the third biggest emission sector to be addressed: emissions from fossil fuel use in buildings. This sector was 16 percent of baseline emissions and is growing. The vast majority of these emissions are from burning natural gas (largely methane) in homes. Strategies in the draft work plan to address these emissions are completely inadequate.

350 Salem Oregon is frustrated that the draft Salem Climate Action Plan Committee work plan fails to discuss the crisis of continued construction of new homes that use fossil methane for space and water heating and for cooking. In particular EN 31 is not included in the draft work plan ("Implement policies to reduce natural gas usage, such as requiring all-electric new

construction, prohibiting fossil fuel usage in new construction, and/or banning the use of gas and oil in residential appliances").

Milwaukie and Eugene in Oregon are in the process of banning methane-using appliances in new homes by 2024. Many cities across the U.S. and Washington State and California have essentially banned new fossil methane homes. **At a minimum City staff or its consultants need to produce an issue paper for the CAP Committee to consider this issue.** There is much publicly available information on the topic (see the Milwaulkie resolution in footnote #1 below).

Fossil methane is the predominant fuel for space and water heating in new homes in Oregon. Because homes last for many many decades and because switching fuels in existing homes is difficult and expensive, increasing the number of these homes will make it very unlikely the City will achieve its goal of being carbon neutral by 2050. Lack of action on this problem will also hamper meeting the City's goal of a 50 percent reduction in GHG emission by 2035.

Many studies have shown that all electric homes have comparable first costs and substantially lower operating costs compared to homes fueled with fossil methane. HB 2021 (2021 session) mandates reductions in direct GHG emissions by Portland General Electric (see above), solving the emissions problem for electric homes.

There are also substantial health problems associated with using methane for cooking in homes. While there are steps that households can take to reduce these health risks, many households are not aware of these problems and don't implement these steps. Electric induction stove-tops work better than methane stove-tops and put zero toxic emissions into the home.

In response to these concerns and to rules by the Environmental Quality Commission to reduce GHG emissions, NW Natural Corp. has stated that it may source a portion of its methane from local renewable sources. These are similar to claims made by the airline and long-distance trucking industry about their fuel sources. Any one of these attempts to use biological fuel sources by itself would vastly overwhelm reasonably economic sources of biological materials. Note also that renewable methane has the same GHG emission problems regarding leakage of methane and the same health concerns about cooking with methane.

It's time for the City to take a close look at how to address GHG emissions from new homes.

It is important to note that Time Magazine this month reports that

> *Every year the World Economic Forum (WEF) surveys more than 1,200 global risk experts, policy makers, and industry leaders to measure the weight of looming risks to global finance and stability over the next two and ten years. The WEF releases its Global Risks Report as world leaders and corporate titans convene in Davos for the annual conference to help frame the week's conversations. While energy and food supply chains top today's concerns, largely triggered by the pandemic's lingering effects and conflict in Ukraine, the future fears of the global elite are finally intersecting with those of climate scientists.*

> *Natural disasters and extreme weather events, along with a failure to mitigate climate change, made it into the top five risks for the next two years. Meanwhile, the top six concerns over the next decade involve a climate angle, assuming that number six—large scale involuntary migration—is considered (as it should be) a result of climate change as well as conflict, or indeed conflict caused by climate change.*

350 Salem does not presume that the CAP Committee is ready to adopt EN 31 at this time. But it cannot ignore this elephant in the room if it is serious about the City's GHG emission goals.

1. https://ormswd.synergydcs.com/HPRMWebDrawer/RecordView/9595706
2. https://rmi.org/all-electric-new-homes-a-win-for-the-climate-and-the-economy/
3. https://www.nytimes.com/2023/01/11/well/live/gas-stoves-health-risks.html#:~:text=In%20addition%20to%20asthma%2C%20there,who%20participated%20in%20the%20study.
4. https://apple.news/Ao2NKr1PmRU6PVbix_cIXWg