

# EUGENE CITY COUNCIL

## AGENDA ITEM SUMMARY



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### Work Session: Introduction to a Science-Based Greenhouse Gas Target

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Meeting Date: February 10, 2016  
Department: Central Services  
[www.eugene-or.gov](http://www.eugene-or.gov)

Agenda Item Number: B  
Staff Contact: Matt McRae  
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#### **ISSUE STATEMENT**

This work session is the second in a series of presentations to provide information on a science-based community greenhouse gas reduction goal named in the Climate Recovery Ordinance adopted in July 2014. The purpose of this work session is to provide the council with an overview and scientific basis of the concept of a carbon budget. Subsequent work sessions will address actions outlined in the Climate Recovery Ordinance.

#### **BACKGROUND**

##### **Climate Recovery Ordinance**

Adopted by the council in July 2014, the Climate Recovery Ordinance calls for the City to “propose for adoption by the City Council, a numerical community-wide goal or ‘carbon budget’ for greenhouse gas emission reductions consistent with achieving 350 parts per million of CO<sub>2</sub> in the atmosphere by the year 2100.”

##### **Key Findings from Climate Science**

As presented at a December work session on this topic, greenhouse gas emissions stay in the atmosphere for decades to centuries. Therefore, reducing the emissions in any one year is not the goal, rather, reducing total cumulative emissions is effective. This was the focus of recent global negotiations at COP21 in Paris.

In 2009, world leaders came to an agreement that nations would aim to increase temperatures no more than 2°C in order to avoid the worst effects of climate change. The concern is that somewhere at or near 2°C of warming (above pre-industrial temperatures), natural processes called feedbacks begin to magnify the warming and we lose the ability to avoid runaway climate change.

Based on the climate impacts already occurring, a growing number of scientists suggest that there is great risk of unstoppable warming as we approach 2°C. They suggest keeping CO<sub>2</sub> to 350 ppm to limit temperature rise to safer levels.

Eugene has an opportunity to have a positive impact on warming by reducing emissions consistent with this science.

## **Carbon Budget**

A carbon budget is a total amount of carbon emissions that can be released over time while still remaining within a safe limit – in this case 350 ppm as identified in the ordinance is a concentration that is expected to limit warming to 1.8°F over pre-industrial temperatures.

The budget is based on *total cumulative GHG emissions* released since the beginning of the industrial revolution and extends to the year 2100.

The concept of a science-based carbon budget is informed by a global prescription for capping carbon emissions developed by climate scientists at NASA's Goddard Institute for Space Studies and Columbia University. It has been scaled for Eugene using a methodology that has been peer-reviewed and uses the best information currently available.

## **RELATED CITY POLICIES**

The City maintains a number of policies directly related to community-wide energy consumption including, but not limited to:

- Growth Management Policies
- Green Building Policy (2006)
- Sustainability Resolution (2000)
- Environmental Policy
- Sustainable Practices Resolution (2006)
- Sustainable Procurement Policy (2008)
- Community Climate and Energy Action Plan (2010)
- Internal Climate Action Plan (2009)

## **COUNCIL OPTIONS**

This is an information item only.

## **CITY MANAGER'S RECOMMENDATION**

The City Manager does not have a recommendation at this time.

## **SUGGESTED MOTION**

No motions provided.

## **ATTACHMENTS**

A. Climate Recovery Ordinance

## **FOR MORE INFORMATION**

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