

# Accelerate Neighborhood Climate Action

Moving Closer to a Sustainable Future



[AccelerateClimateAction.org](https://AccelerateClimateAction.org)

# Your Presenters Today



Parry Burnap  
Professional Sustainability  
Advocate



Richard Wagner  
Professor of Meteorology  
Metro State University



Sunny Walker  
Senior Facilitator with SunWalker  
Enterprises



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# Who is ANCA?

- Our goal: to create shared, place-based climate action on a block-by-block, neighborhood-by-neighborhood level.



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# What has ANCA been up to?

- 4 Neighborhood Climate Action Forums
  - South City Park
  - Cheesman Park
  - Congress Park
  - Greater Park Hill



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# Climate Reality

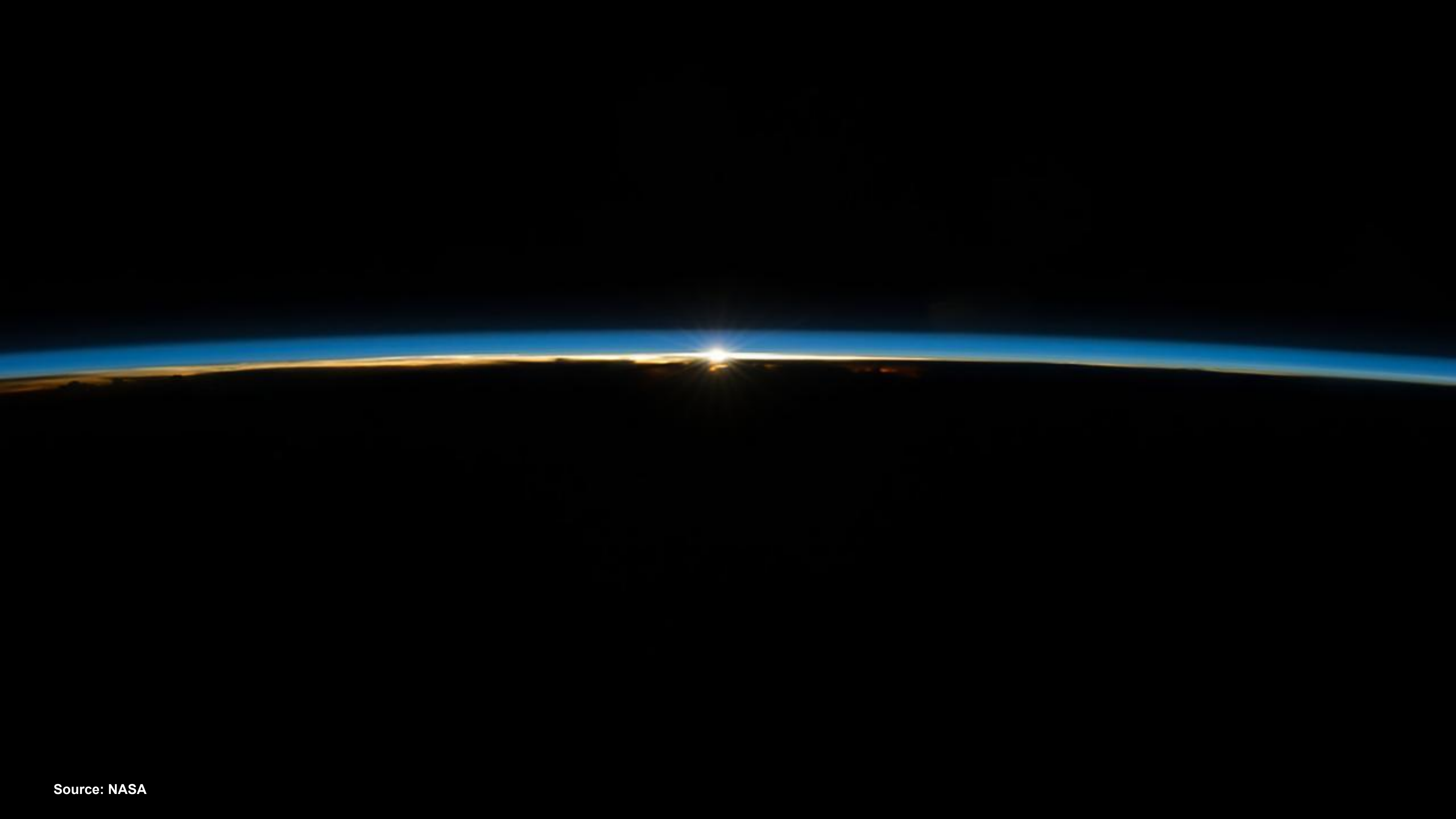
The Science



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Photo: NASA

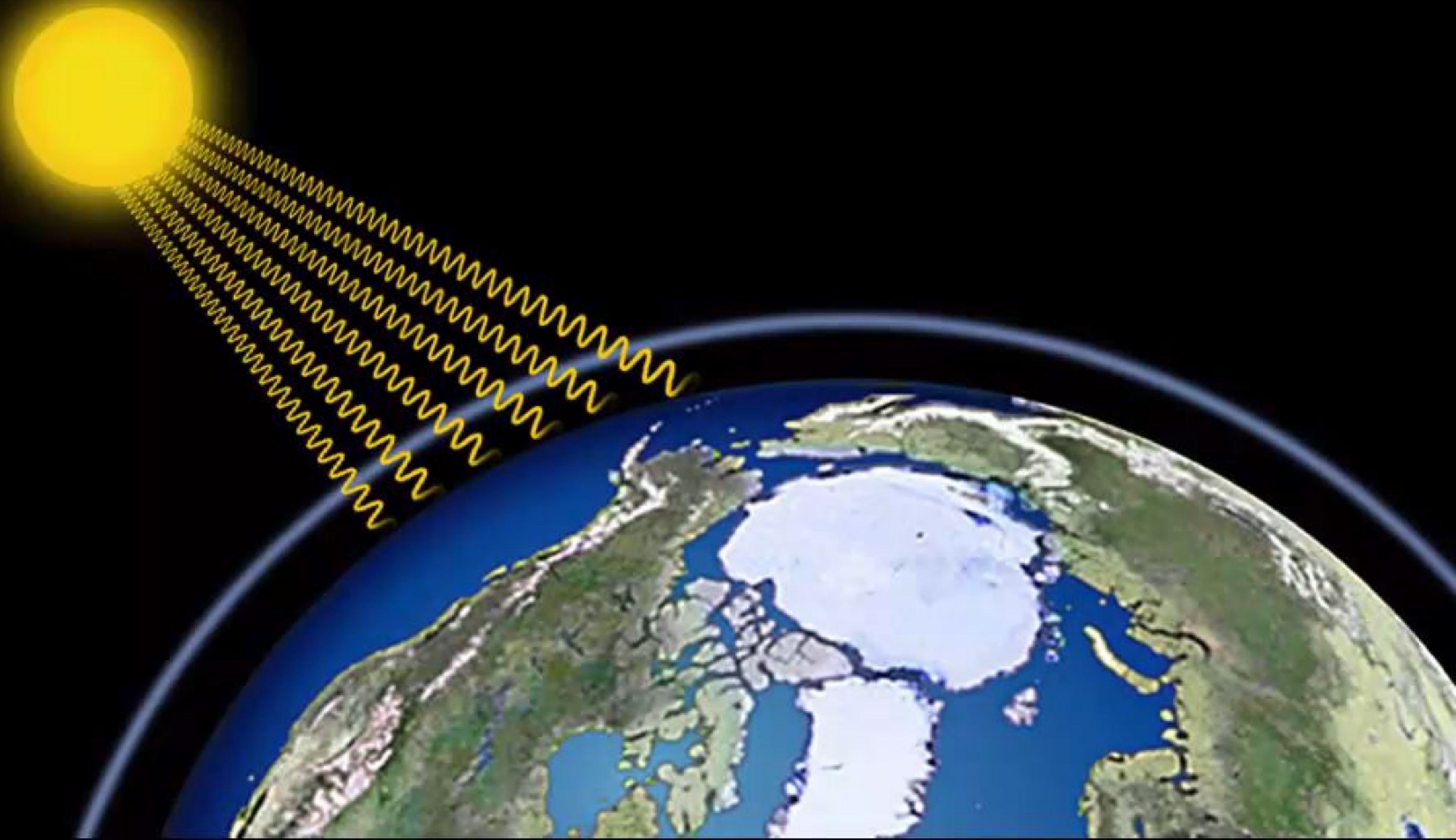


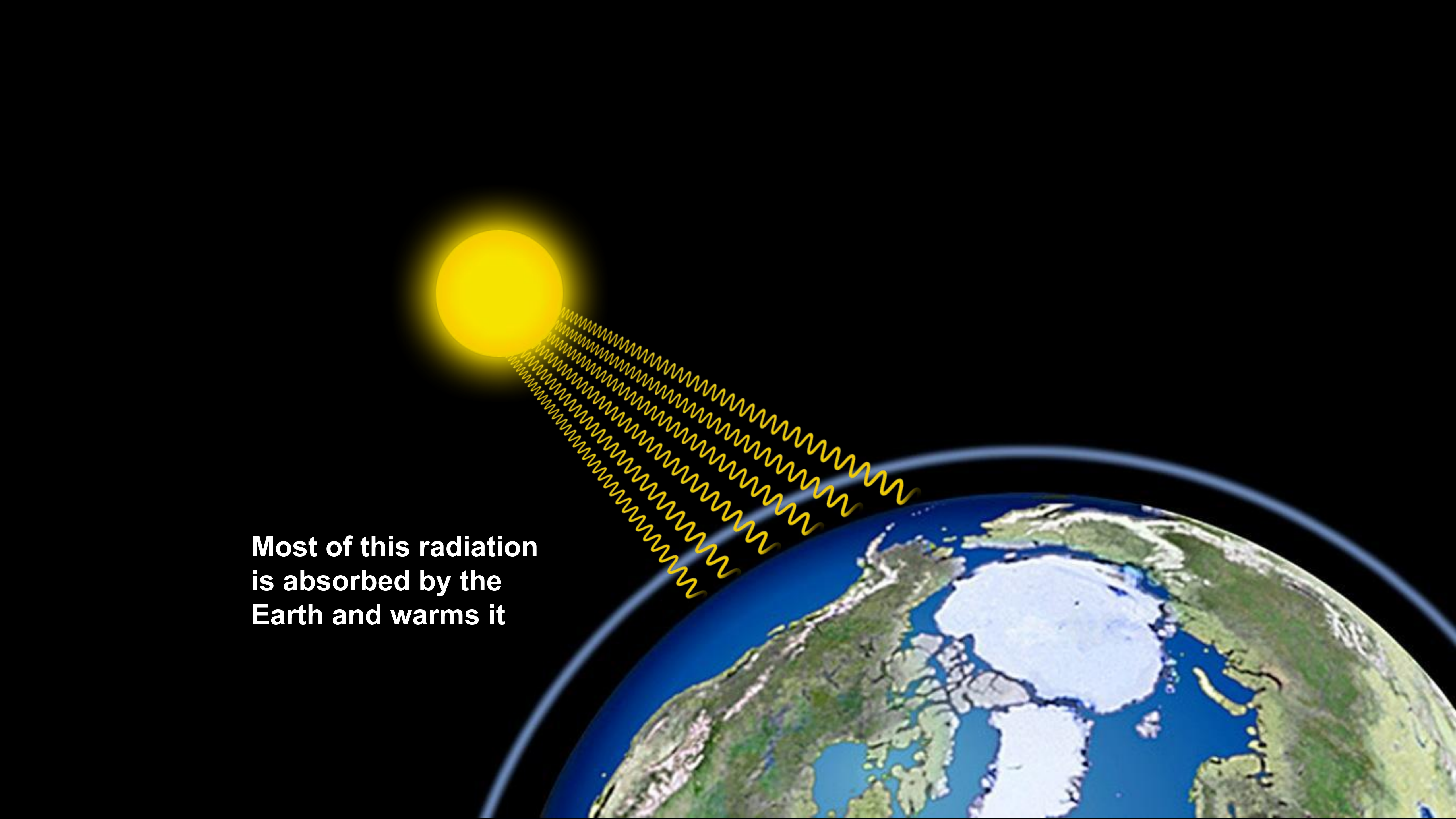
Source: NASA

**We are Dumping 110 Million Tons of Manmade Global Warming Pollution into the Atmosphere every 24 Hours**

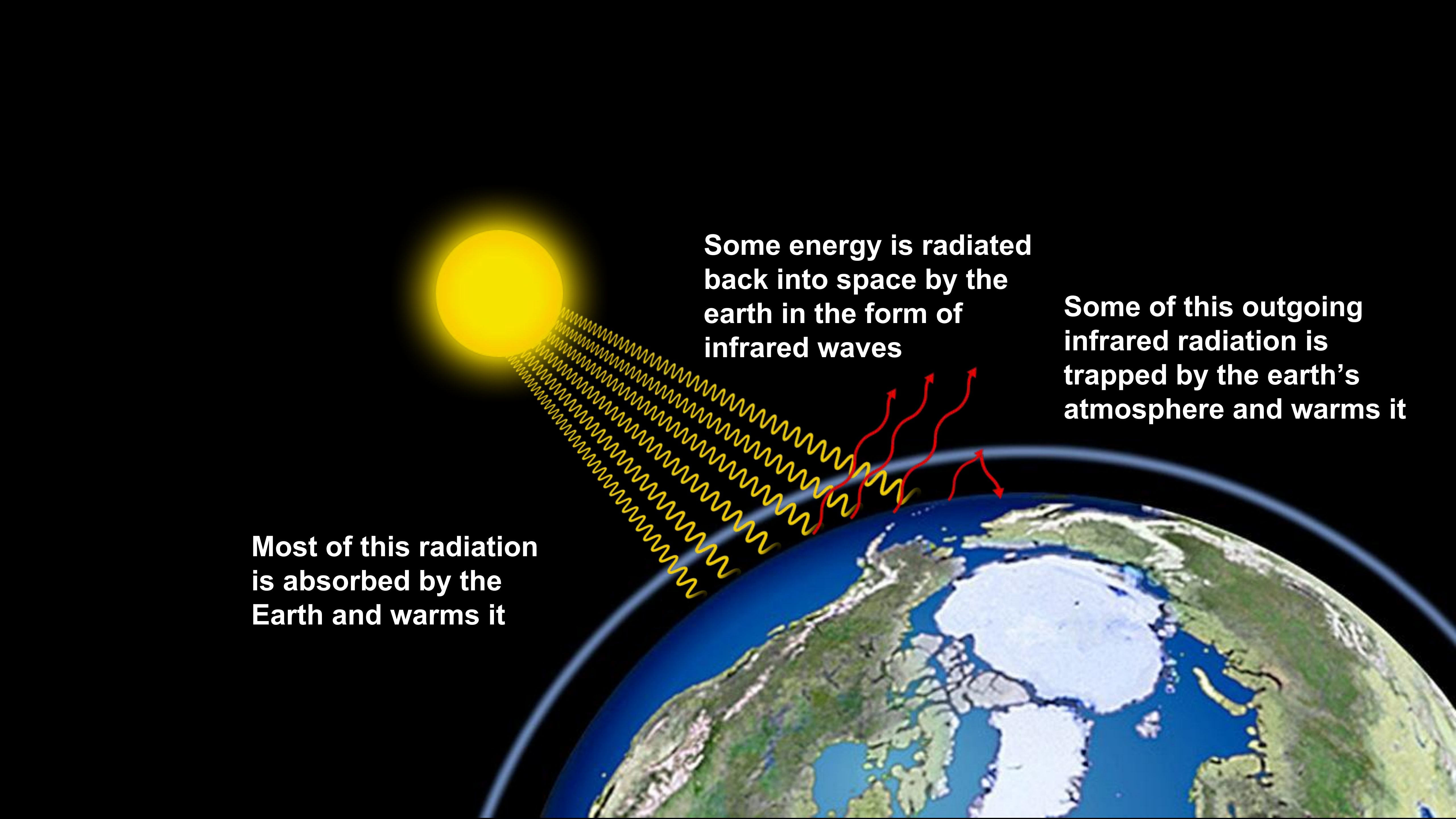


**Solar radiation  
in the form of lightwaves  
passes through the  
atmosphere**



A diagram illustrating solar radiation. A bright yellow sun is positioned in the upper left. Multiple wavy yellow lines representing electromagnetic radiation travel from the sun towards the Earth. The Earth is shown as a curved horizon in the lower right, with a detailed view of the Arctic region, including the Arctic Ocean and surrounding landmasses. The text 'Most of this radiation is absorbed by the Earth and warms it' is located in the lower left quadrant.

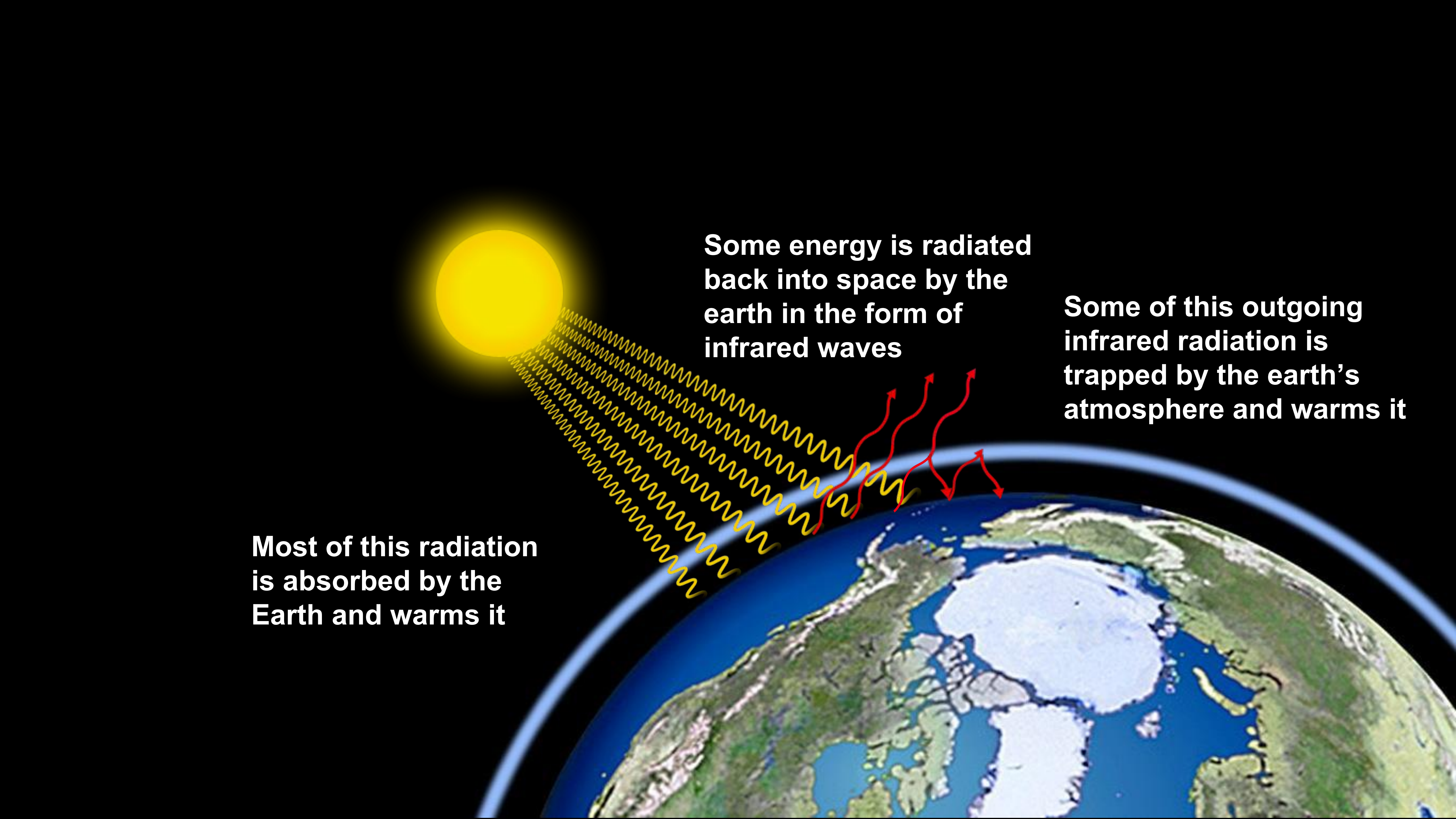
**Most of this radiation  
is absorbed by the  
Earth and warms it**



**Most of this radiation is absorbed by the Earth and warms it**

**Some energy is radiated back into space by the earth in the form of infrared waves**

**Some of this outgoing infrared radiation is trapped by the earth's atmosphere and warms it**



**Most of this radiation is absorbed by the Earth and warms it**

**Some energy is radiated back into space by the earth in the form of infrared waves**

**Some of this outgoing infrared radiation is trapped by the earth's atmosphere and warms it**

# The Biggest Sources of Greenhouse Gases

THAWING PERMAFROST

COAL MINING

COAL PLANTS

AIR  
TRANSPORT

OIL PRODUCTION

INDUSTRIAL PROCESSES

CROP BURNING

FERTILIZATION

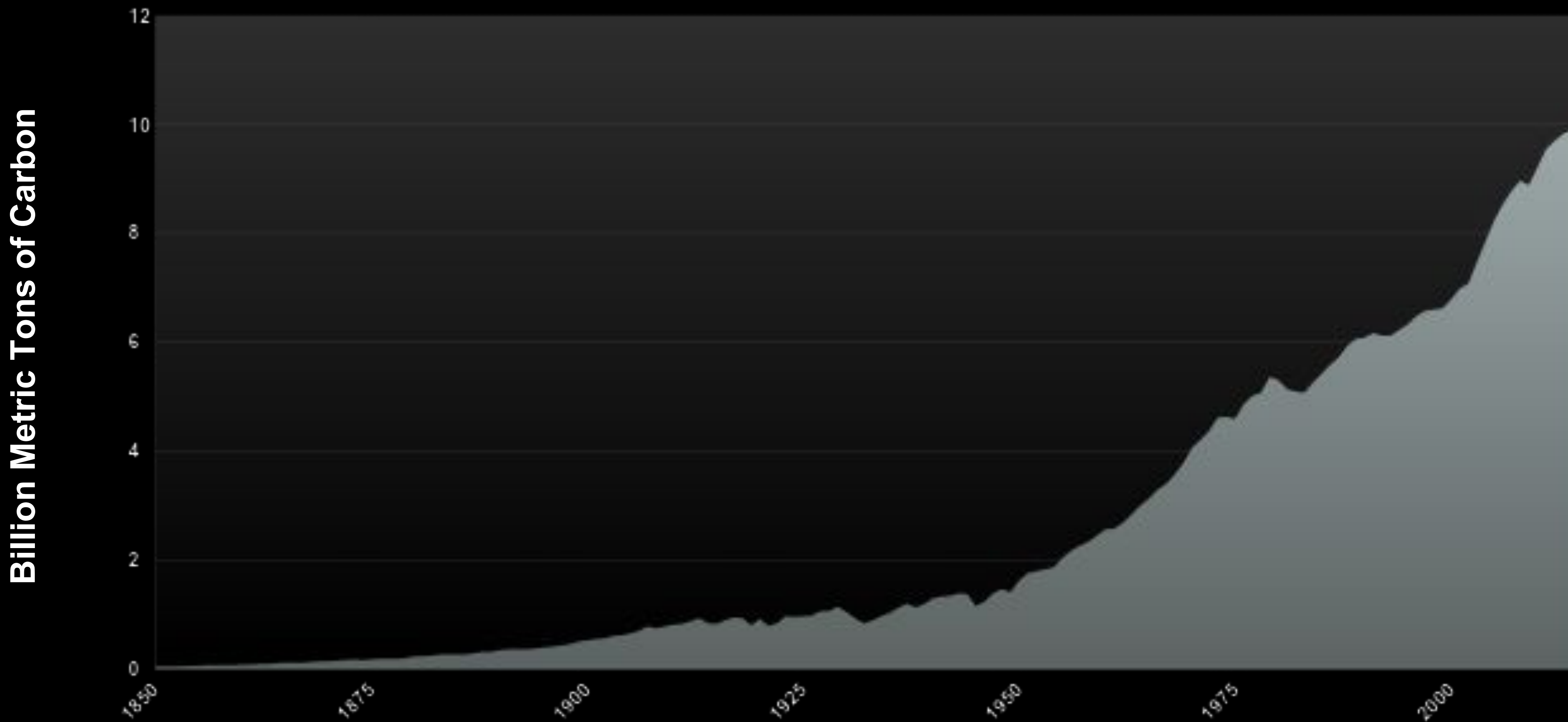
FOREST BURNING

INDUSTRIAL AGRICULTURE

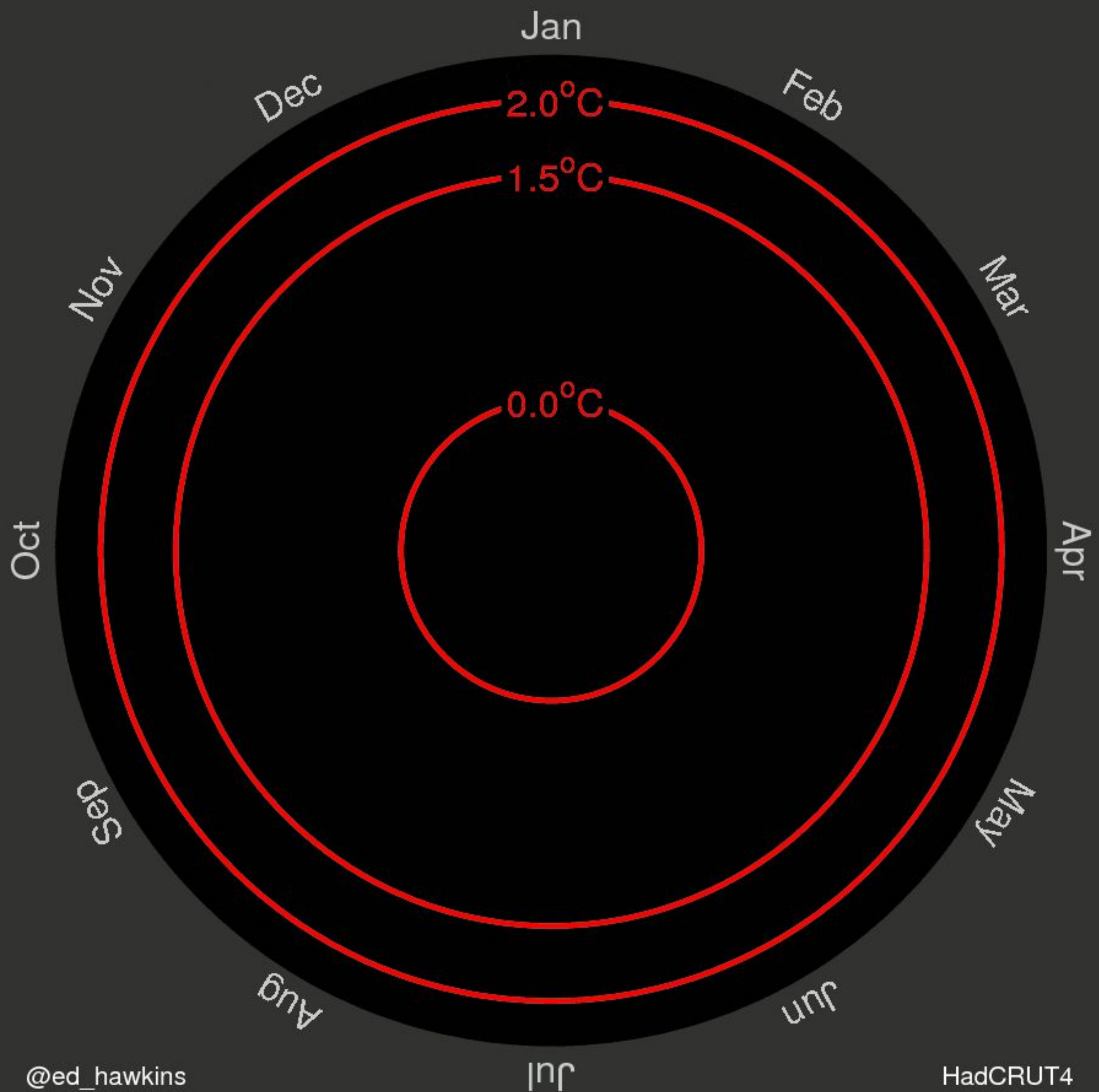
LAND  
TRANSPORTATION

LANDFILLS

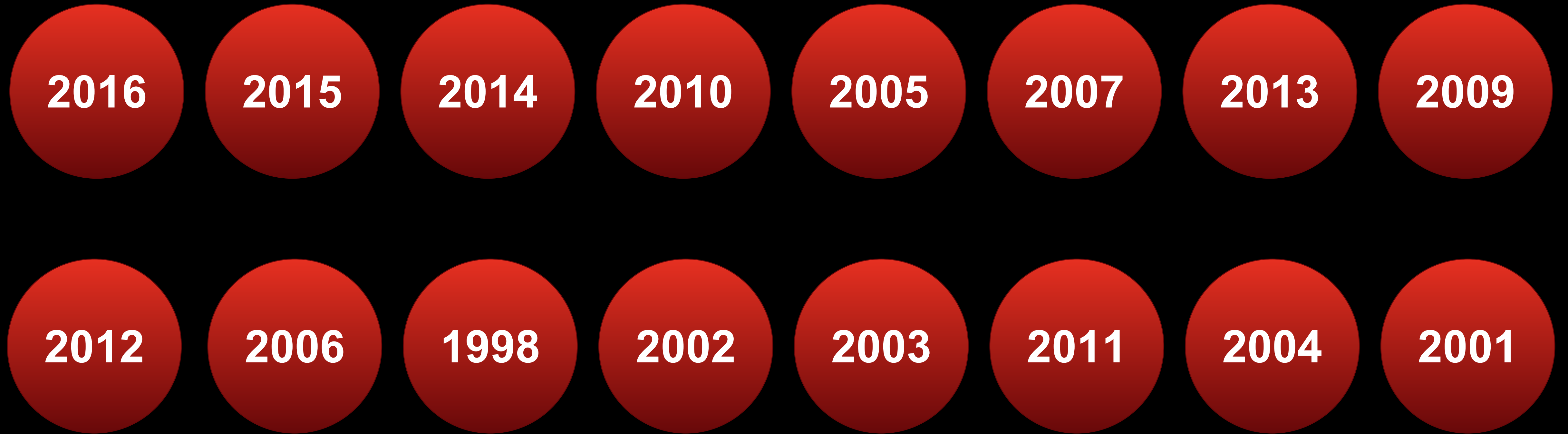
# The Largest Source of Global Warming Pollution is the Burning of Fossil Fuels



# Global temperature change (1850–2016)



# 16 of the Hottest Years Measured Have Occurred Since the Year 2001





# Average Annual Temperature Increase by State

Colorado's average annual temperature has risen 2° F over the last 30 years

Temperature Change Since 1970 (°F per Decade)



Data: Climate Central

Additional Data: Colorado Climate Change Vulnerability Study, University of Colorado, Boulder and Colorado State University

# As Temperatures Rise, So Does Water Use



**People**



**Crops**



**Energy**



**Industry**



**Animals**

In addition to heat waves & droughts, **wildfires** in Colorado are projected to increase in frequency and severity by 2050

**The average fire season in the American west is now 105 days longer than in the 1970s.**

In Colorado, the average year in the 2010s saw **30 times** more acres burned by large wildfires as the average year in the 1970s.

# High Park Fire, Colorado

June 18, 2012



# Black Forest, Colorado

June 13, 2013

**511 homes were  
destroyed by the  
Black Forest fire.**

# Boulder, Colorado

September 14, 2013

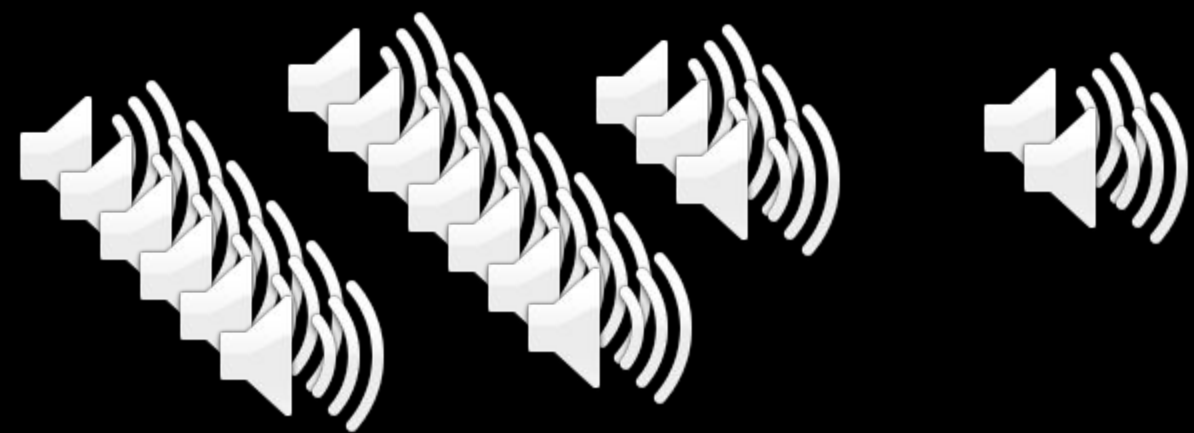




# Colorado Springs, Colorado

August 29, 2016





# The Cost of Carbon

**\$ Political Instability**

**\$ Floods & Mudslides**

**\$ Wildfires**

**\$ Drought**

**\$ Storm Damage**

**\$ Ocean Acidification**

**\$ Infrastructure Loss**

**\$ Climate Refugees**

**\$ Species Extinction**

**\$ Melting Glaciers**

**\$ Famine**

**\$ Water Scarcity**

**\$ Ecosystem Loss**

**\$ Our Way of Life**

**\$ Infectious Diseases**

**\$ Sea Level Rise**



**... And *the threat to the* much, much more  
Global Economy"**

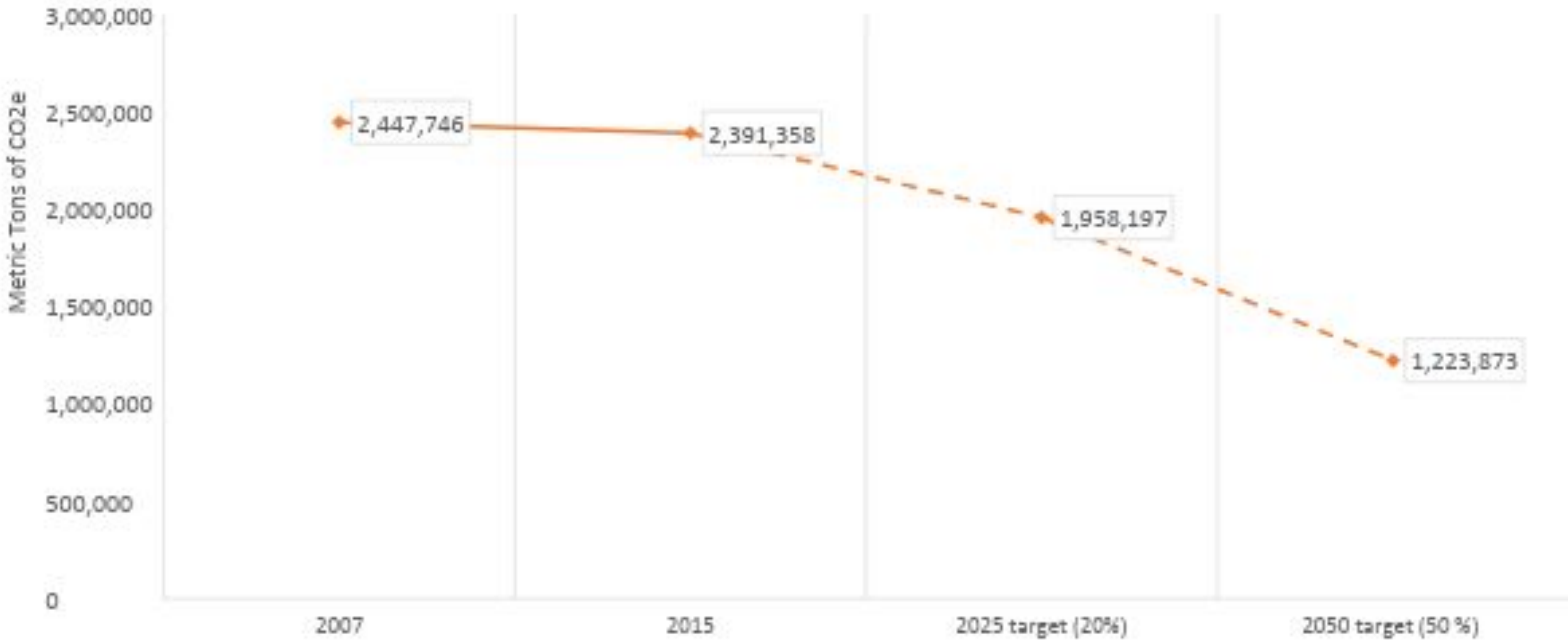
# Lakewood and Denver

City perspectives from Lynn Coppedge and Taylor Moellers



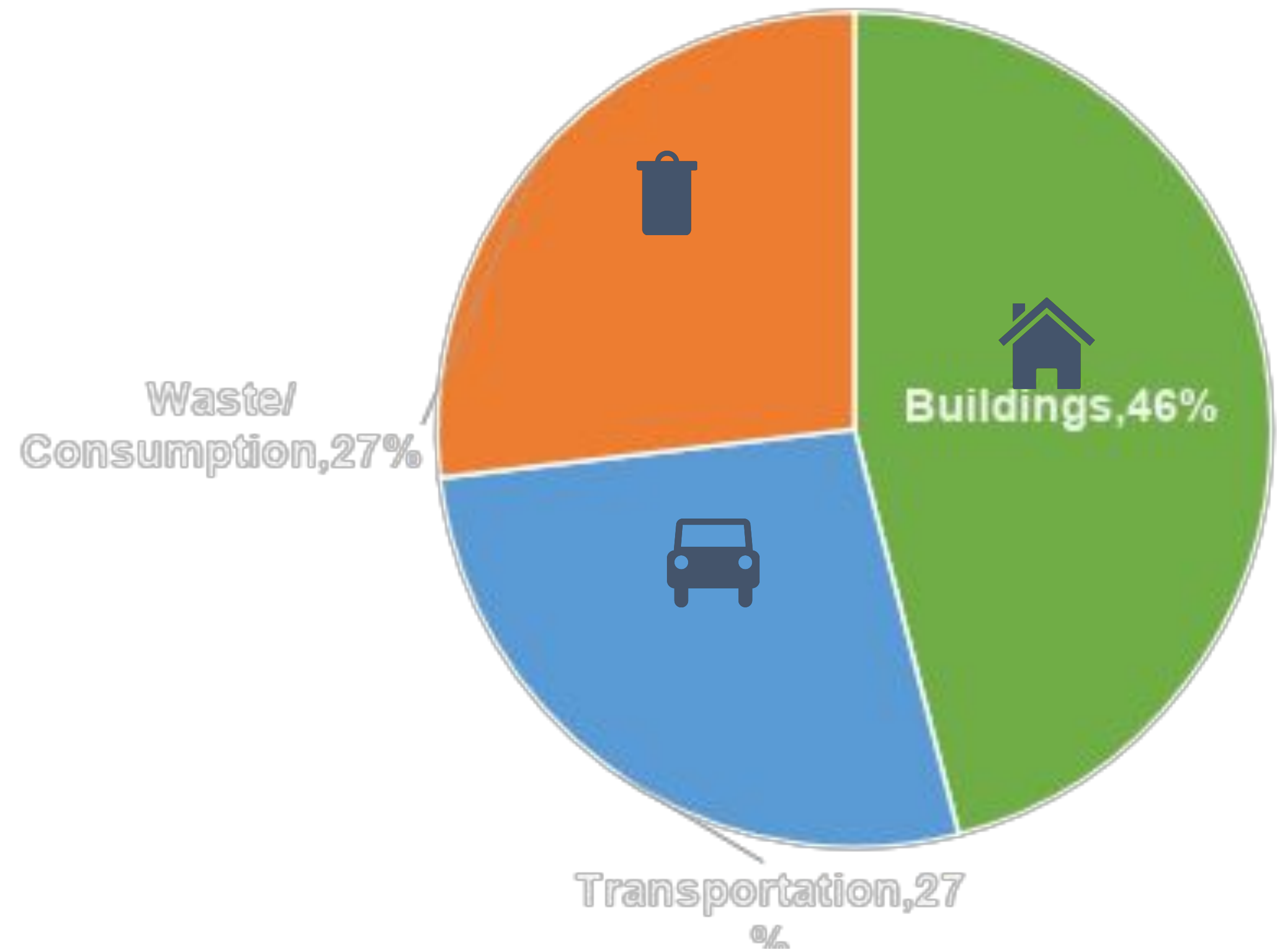
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# City of Lakewood Climate Goals



# City of Lakewood Climate Goals

2015 Emissions by Sector



# City of Lakewood Climate Goals

## What have we done so far?

2007 - 2015

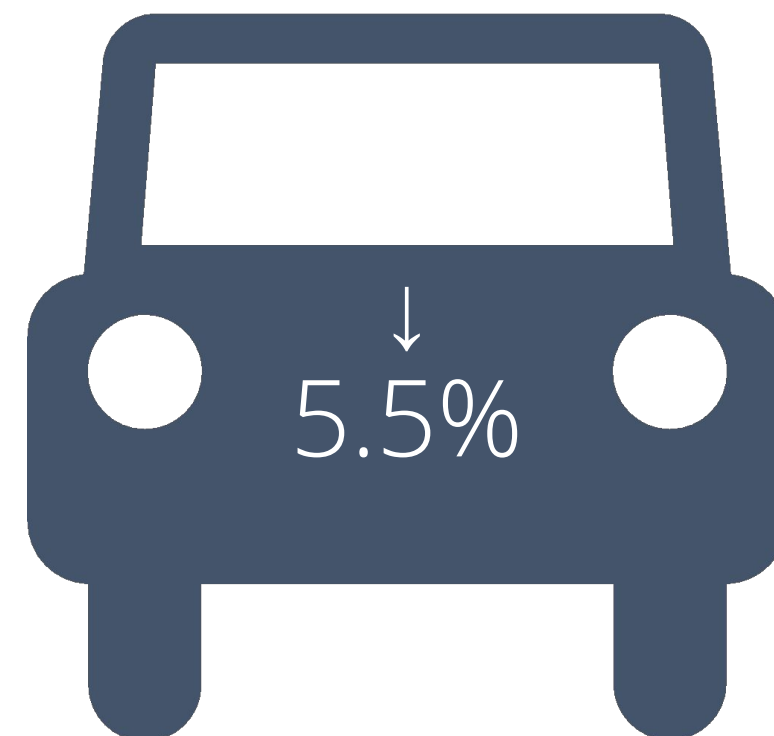
### Buildings Sector



#### Why?

Increasing amounts from renewable energy sources

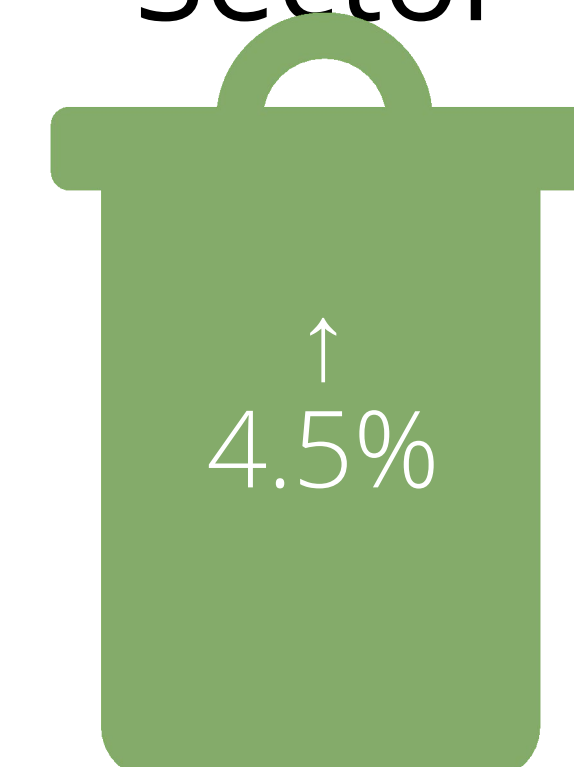
### Transportation Sector



#### Why?

W Line opening  
Fuel efficiency standards  
Efficiency in airplanes

### Waste/Consumption Sector





#### Why?

Population increase  
Minimal change in behavior

# City of Lakewood Climate Goals

How do we reduce 433,161  
MtCO<sub>2</sub>e?

	Citywide Strategy	MtCO <sub>2</sub> e	YOU!
	Renewable Energy Generation	139,268	Install solar Subscribe to renewables
	Energy Efficiency	94,026	Energy audit Waterwise landscaping
	Commercial Waste Diversion	41,805	Talk to local businesses
	Curbside Recycling	40,425	Recycle more, toss less!

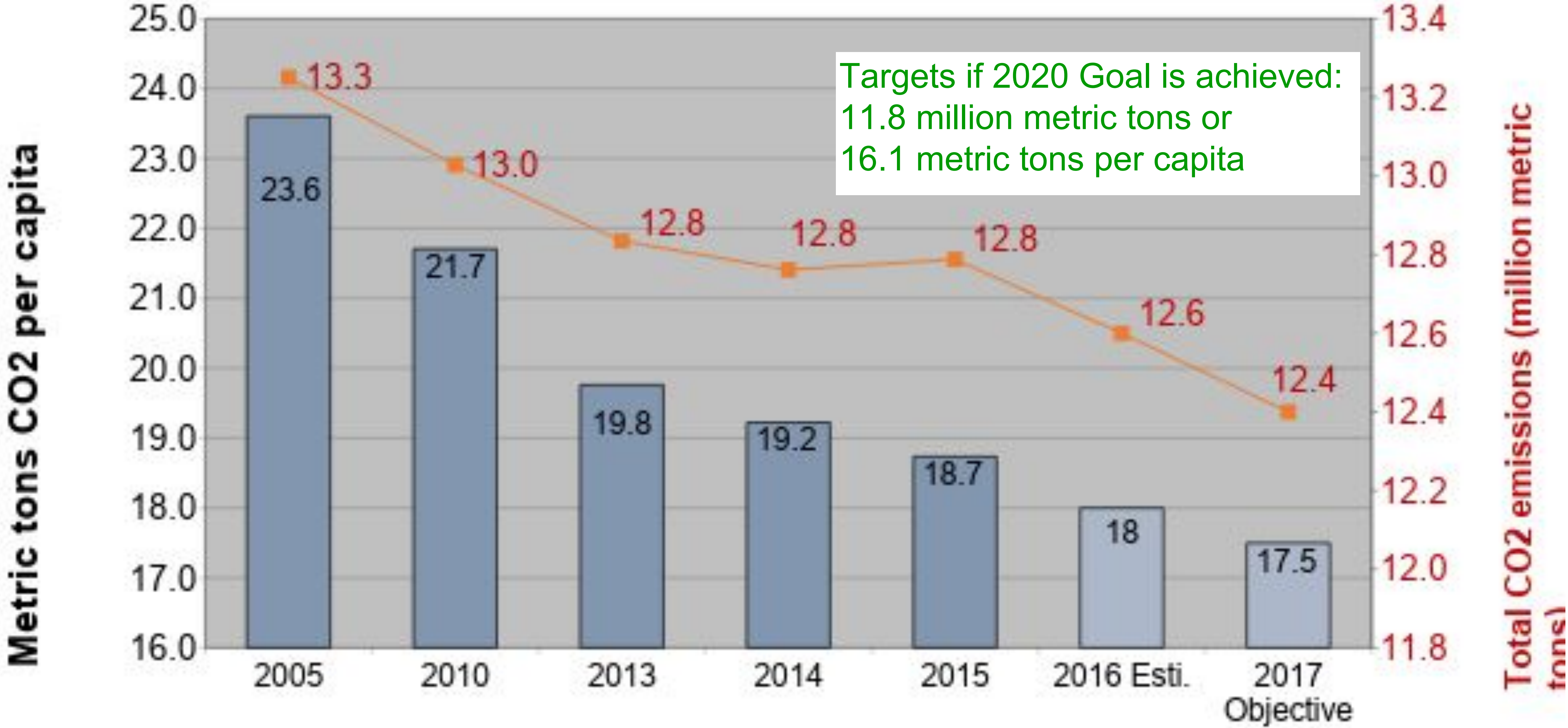
# Denver



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# 2005-2017 Greenhouse Gas Emissions in Denver (Total and Per Capita)



# How did Denver reduce emissions with a growing economy and population?

- Policies at the Federal, State, and Local level have a big impact.
  - Federal CAFE standards improved efficiency in vehicles
  - State Renewable Portfolio Standard required more renewables on the electric grid
  - Denver's Benchmarking Ordinance requires measuring building energy use
- Programs help move innovation into mainstream



## How did Denver reduce emissions with a growing economy and population?

- Programs help move innovation into mainstream
  - Energy Efficiency Rebates
  - Direct buy down of LEDs
  - Pass Gas program and state and federal rebates for EVs



**LED INSTANT REBATE  
FROM XCEL ENERGY**



# How did Denver reduce emissions with a growing economy and population?

- Individual Actions
  - Getting involved at all levels of government
  - Participating in the democratic process
  - Becoming leaders in neighborhoods and communities

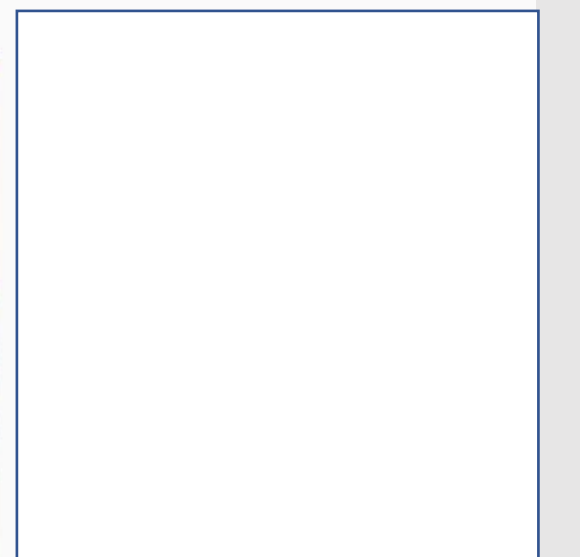


THE DENVER POST

BUSINESS

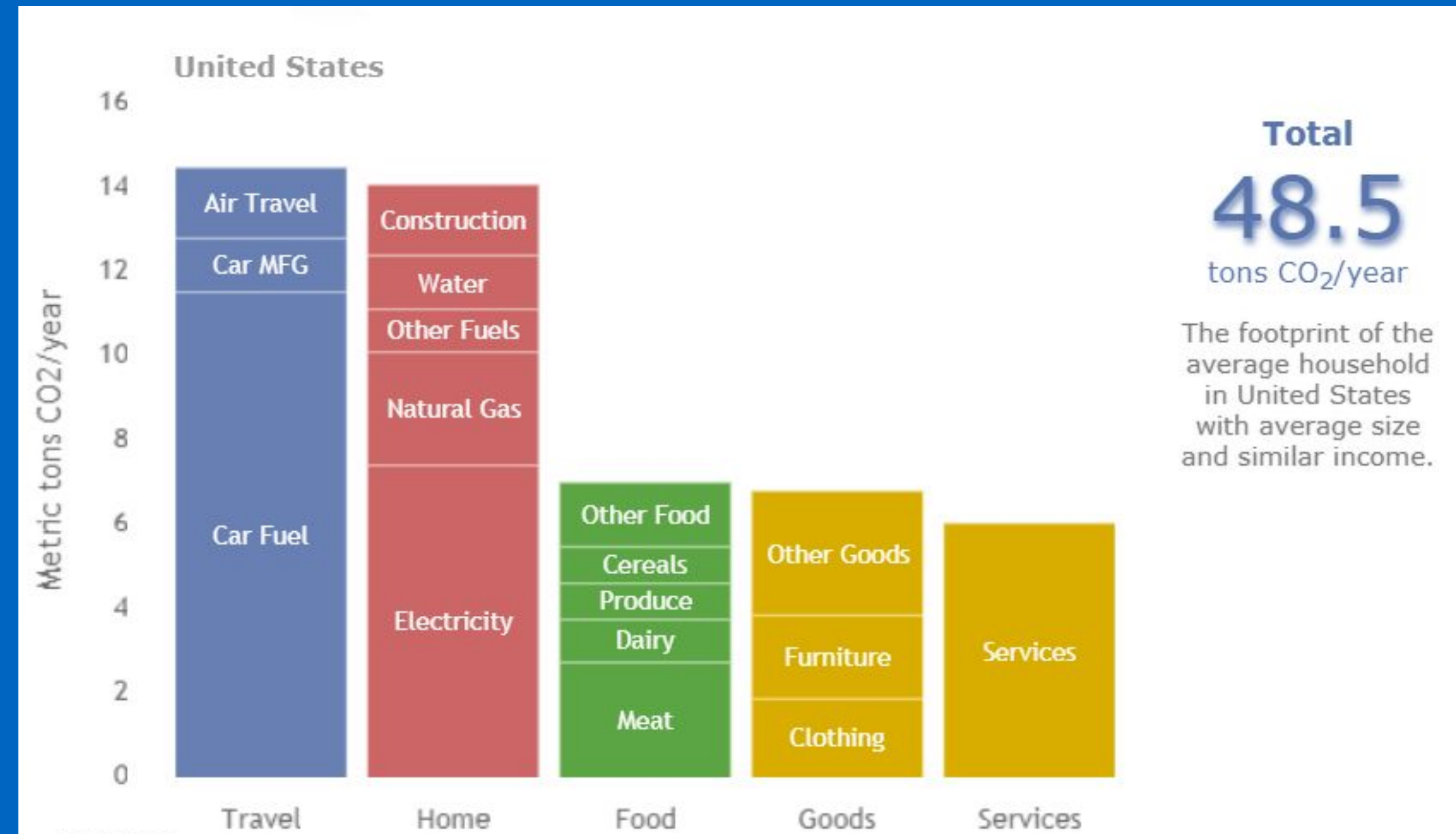
Coal's foes and friends get fired up in hearing over future of Xcel plants in Colorado

Utility looking at replacing coal-based power with renewables



# Relative Impacts of Personal Choices

1. How we get around
2. How we use materials in our homes
3. The foods we eat (and waste)
4. The goods we buy
5. The services we use



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# Visioning

What does it look like to take climate action?



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# Conclusion

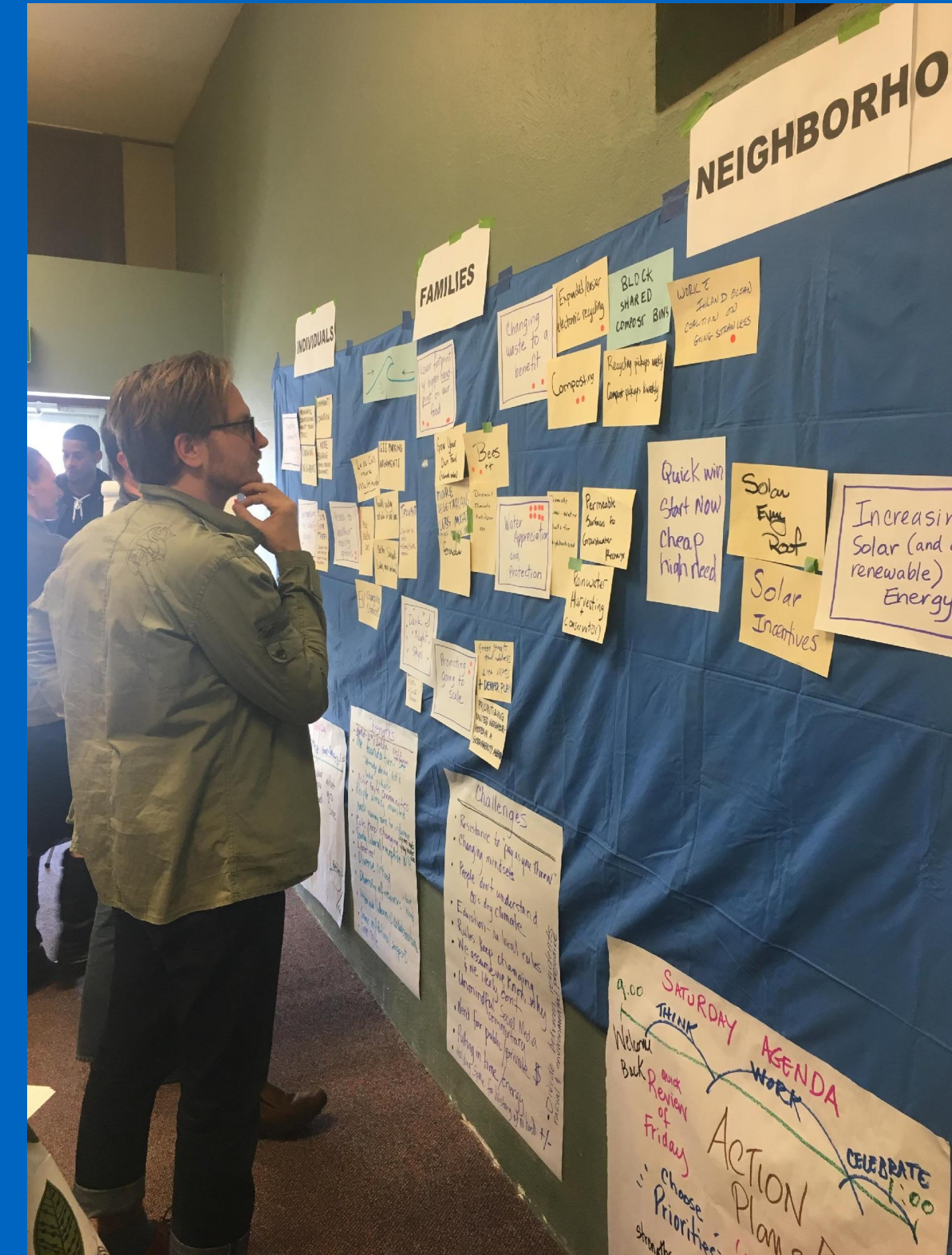
Take-aways from this session



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# Want to learn more?

- Chat with us at lunch!
- Visit [AccelerateClimateAction.org](https://AccelerateClimateAction.org)
- Host your own Forum! (& earn SN credits!)
  - Denver folks talk to Taylor
  - Lakewood folks talk to Alyssa



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