



CITY OF LAKE WORTH BEACH  
**Community**  
Sustainability<sup>SM</sup>

# City's Comprehensive Plan

## Carbon Neutral Element

**Commission Meeting**

February 6, 2024



# City's Comprehensive Plan - Carbon Neutral Element



# Background

Lake Worth Beach lead sustainability efforts among municipalities:

- Sustainable Bonus; Green Principles; Complete Streets, Mobility
- 2018 City's Comprehensive Plan adopted by the City Commission, supports sustainable policies and strategies throughout the elements
- Reduce *greenhouse gas (GHG) emissions (Objective 6.1.1. Conservation Element)*
- *Improve Energy Conservation (Objective 6.1.5. Conservation Element)*
- *Implement strategies to reduce electrical usage (Policy 6.1.5.2 Conservation Element)*

# Purpose and Approach

- Add a Carbon Neutral Element to the Comprehensive Plan
- Create policies focusing on Lake Worth Beach's Carbon Neutral goals and strategies
- Facilitate applying for grants
- Research methodology for measuring and monitoring carbon emissions
- Support energy, development, infrastructure, conservation, and other climate-friendly policies
- Provide information that helps residents and businesses to reduce carbon emissions and be more energy efficient
- City's electrical utilities department will be involved in the preparation of the new element

# What is Carbon Neutrality?

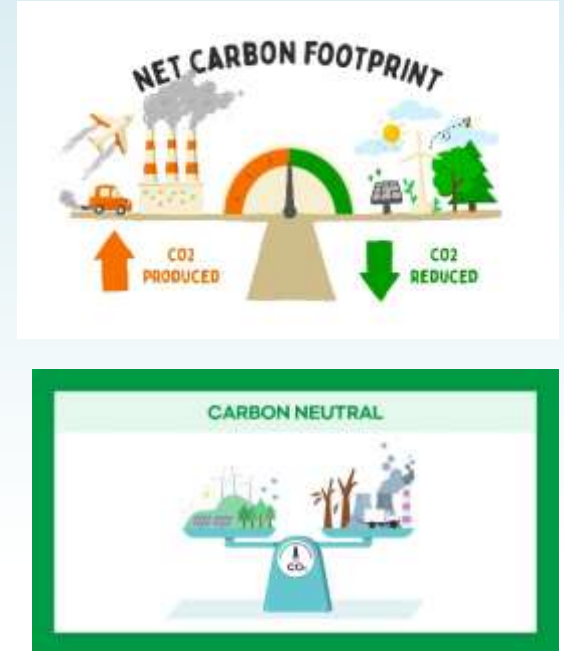
Carbon neutral means that any CO<sub>2</sub> released into the atmosphere from a company's activities is balanced by an equivalent amount being removed

## Carbon Neutrality vs Net Zero

- Often interchangeable terms
- Both have an overall goal to reduce or eliminate carbon emissions and greenhouse gases (GHG)

There are differences...

- Net-Zero emissions balance whole amount of greenhouse gas (GHG) released and amount removed from the atmosphere



# Paris Agreement

- Legally binding international treaty on climate change
- Adopted by 196 countries at the UN Climate Change Conference (COP21) in Paris, France, on December 12, 2015. Effective on November 4, 2016

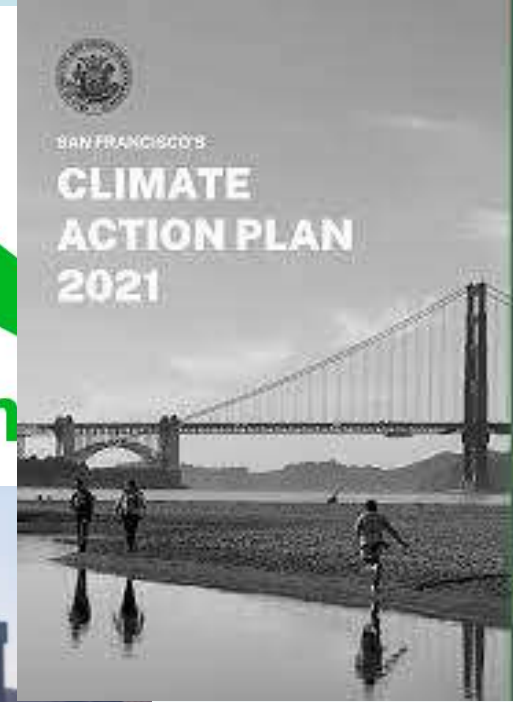
## GOAL:

- *Keep global warming to no more than 1.5°C by 2030*
- *Emissions must be reduced by 45%*
- *Net zero must be reached by 2050*



# Federal and Local Initiatives

- 2021, federal government signed an executive order outlining plan for the federal government to achieve carbon neutrality by 2050
- Cities across the country created Climate Action Plans, Sustainability Plans, or incorporated policies into their Comprehensive Plans for carbon neutrality and net zero emissions:
  - Boulder, CO
  - Minneapolis, MN
  - New York City, NY
  - San Francisco, CA





# Local Government Initiatives

**Boulder, Colorado** (Climate Action Plan and Comprehensive Plan) include policies:

- Local Energy Generator Opportunities
- Clean Mobility
- Energy System Resilience
- Energy-efficient building design

**Minneapolis, MN** (Climate Equity Plan and Comprehensive Plan)

- City seek to accomplish action steps to encourage the use and generation of renewable and carbon-free energy

## **New York City, NY (Pathway to Carbon Neutral NYC)**

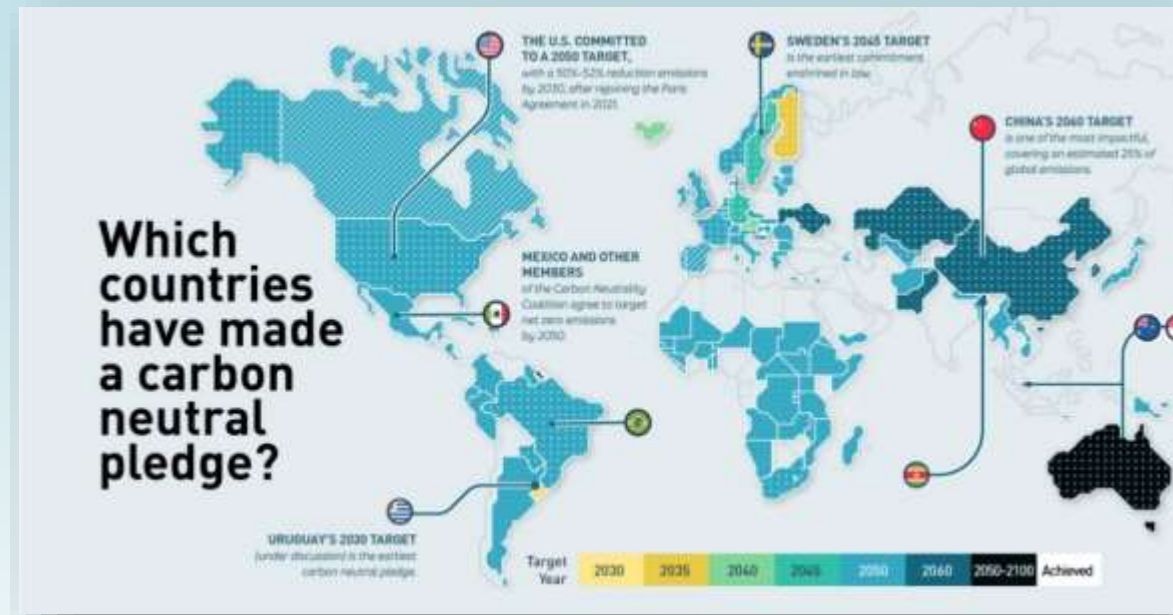
- Energy efficiency and heating system retrofits provide substantial non-energy benefits



# Global Initiatives

Coalition of countries, cities, businesses, and other institutions are pledging to obtain net-zero emissions including:

- More than 140 countries such as China, the United States, India, and the European Union (biggest polluters)
- More than 9,000 companies
- Over 1000 cities
- More than 1000 educational institutions
- Over 600 financial institutions



# Private Companies

Corporates across the global have pledged to reduce the carbon footprint

Industries such as food corporations, oil and automobile and energy Companies such as:

- Tysons and Quorn (Food Corporation)
- Exxon Mobil, General Motors, Ford, etc. (Oil and Automobile Companies)
- NextEra Energy and Schneider Electric (Energy Companies)

# Private Companies

## Food Corporations

- Tysons - announced in 2021 the goal to achieve net-zero GHG emissions by 2050
- Quorn - started reducing meat consumption, use recyclable materials to become carbon neutral by

## Oil and Automobile Companies

- Exxon Mobil (Oil) - achieve net-zero Scope 1 and 2 GHG emissions by 2050
- GM (Automobile) - achieve carbon neutrality by 2040 and eliminate tailpipe emissions by 2035

## Energy Companies

- NextEra Energy - goal to completely carbon emissions-free by 2045 by using solar, wind, and alternative energy sources
- Schneider Electric - incremental reduction of carbon footprint and Net Zero by 2050 chainwide.

The ExxonMobil logo features the word "Exxon" in red with a stylized 'X' and "Mobil" in red.

general motors

The NextEra Energy logo consists of the word "NEXTera" in green and blue, with "ENERGY" in blue below it, and a stylized blue and white globe icon.The Schneider Electric logo features the word "Schneider" in green and "Electric" in blue below it, with a green circular icon containing a white 'E'.

# What are Scopes?

- Companies use the Greenhouse Gas Protocol (GHG Protocol) to categorize and calculate emissions emitted
- Categories are Scope 1, 2, and 3:
- Scope 1 emissions are direct emissions from operations that are owned or controlled by the company
- Scope 2 emissions are emissions from the generation of purchased or acquired electricity, steam heating, or cooling consumed by the company. Scope 2 emissions occur at the facility where electricity is generated, not at the company's own facility.
- Scope 3 emissions are all other indirect emissions (not included in Scope 2) that occur in the value chain of the company.

# What are Carbon Offsets?

- Company purchases carbon credits (also known as carbon offsets)
- For every one ton of carbon produced, a business would need to purchase one verified carbon credit to offset the carbon emissions
- This process removes one ton of carbon dioxide from the atmosphere that would otherwise remain
- Typically, certified by third parties and go through a rigorous process to verify authenticity
- Carbon offsets are measured in a unit of tons of carbon dioxide equivalent emissions (tCO<sub>2</sub>e)

# Organizations

## C40 Cities

- Global network of nearly 100 mayors of cities that are united in their efforts to confront the climate crisis.
- Goal to cut global emissions in half by 2030



## Climate Impact Partners

- The organization has worked with over 300 clients in 33 countries including ING, and Microsoft to achieve carbon neutrality



## Carbon Neutral Cities Alliance (CNCA)

- Collaborates with membered cities to achieve carbon neutrality within the next 10 to 20 years



# Next Steps



PRESENTATION AND  
DIRECTION FROM CITY  
COMMISSION



PREPARE CARBON  
NEUTRAL ELEMENT -  
COMPREHENSIVE PLAN



PRESENTATION TO CITY  
COMMISSION FEEDBACK,  
UPDATE DOC.  
APPROVAL PROCESS



Thank you!

Questions?



CITY OF LAKE WORTH BEACH  
**Community**  
Sustainability<sup>SM</sup>