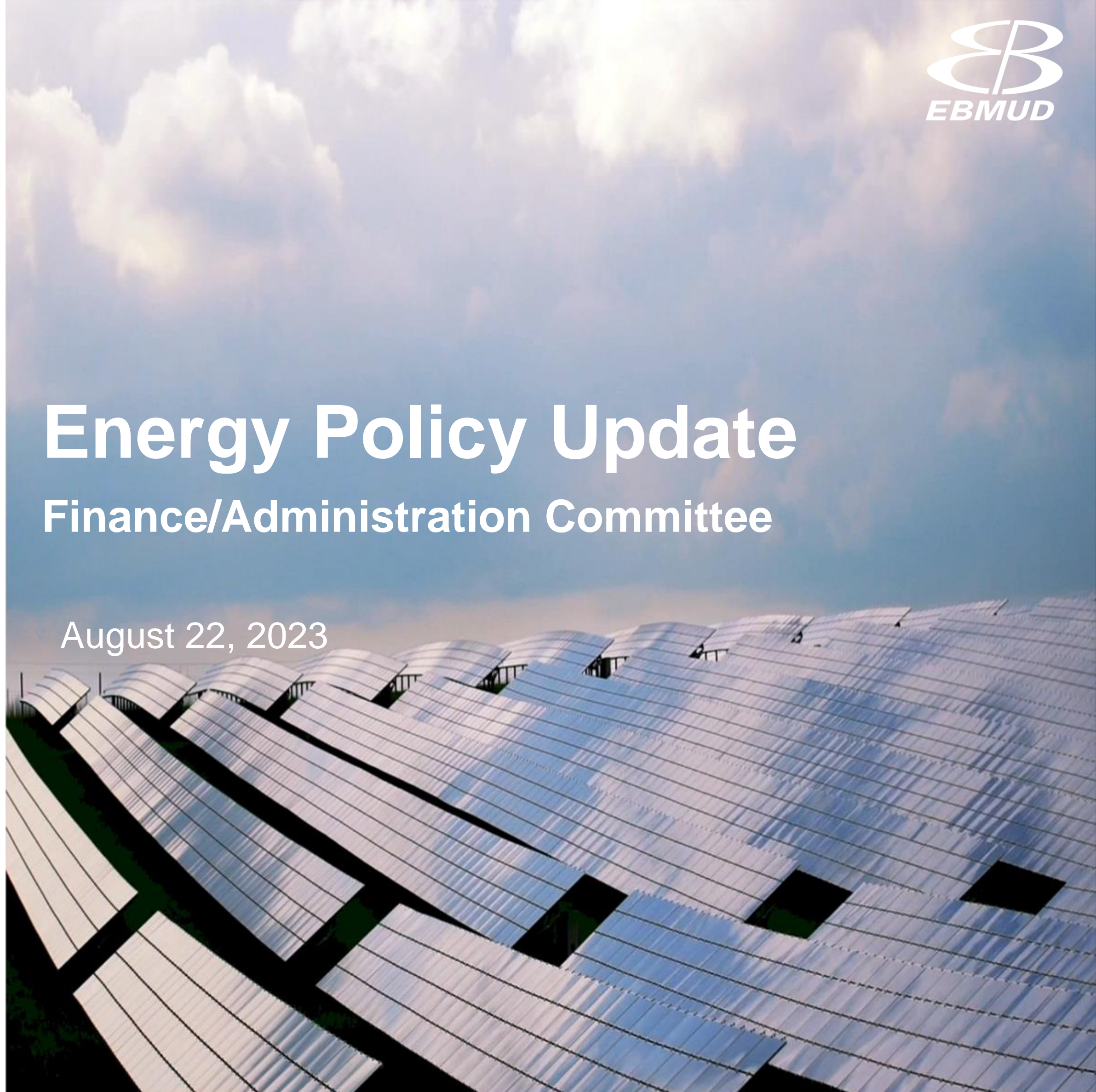




# Energy Policy Update

## Finance/Administration Committee

August 22, 2023



# Overview

- Policy 7.07 – Energy
  - Overview, Achievement, and GHG Protocol
- Proposed Policy Changes
- Wastewater System Emissions & Proposed Changes
- Water System Emission Projections
- Next Steps

GHG: Greenhouse Gas Emissions

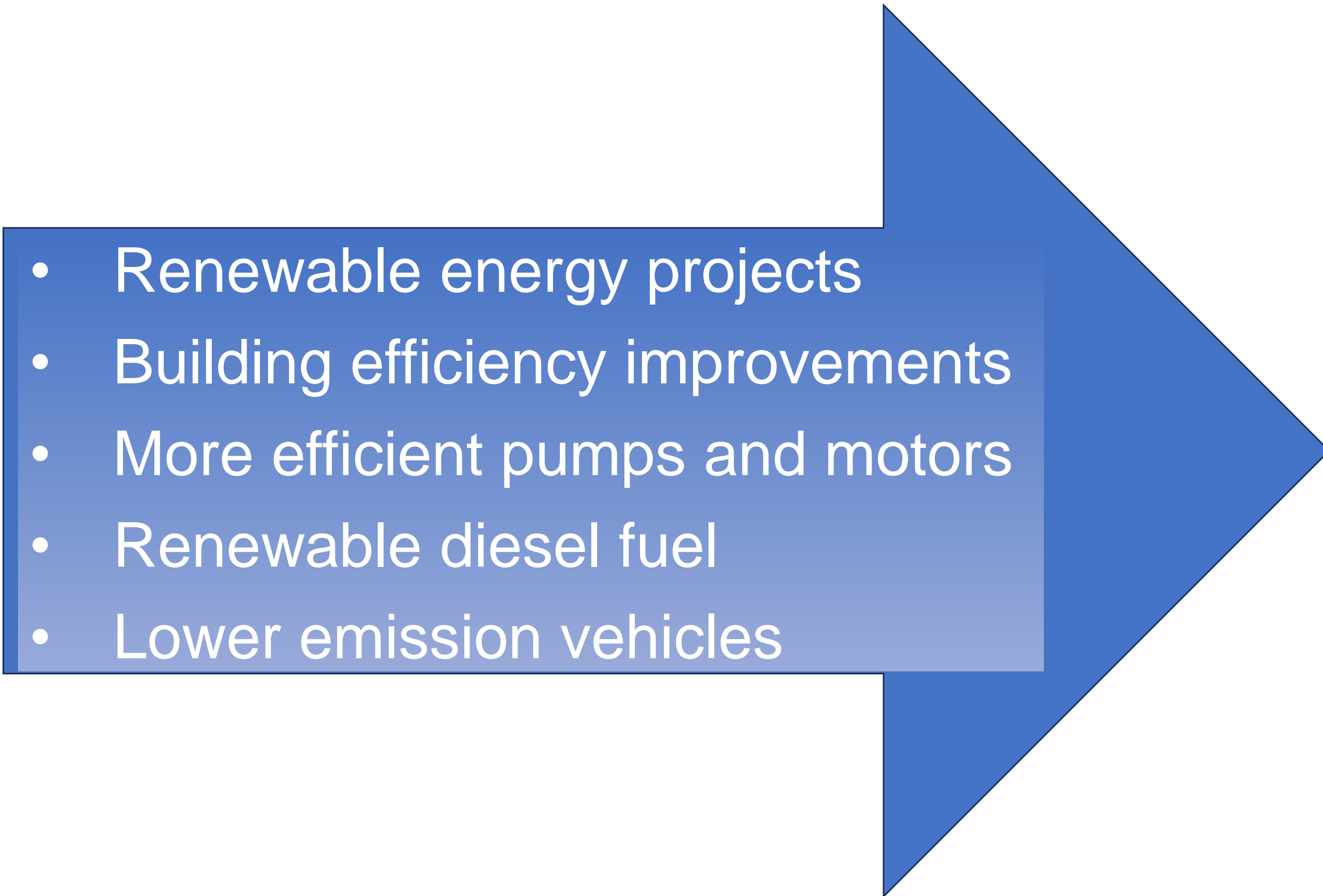
# Policy 7.07 - Energy

## 2003 – Policy Adopted

- Encourage efficient energy use; guide renewable energy investments

## 2013 – Emissions Reduction Targets, Water & Wastewater

# Policy 7.07 Actions and Achievement

- 
- Renewable energy projects
  - Building efficiency improvements
  - More efficient pumps and motors
  - Renewable diesel fuel
  - Lower emission vehicles

Reduction of 22,551 MT CO<sub>2</sub>e<sup>1</sup>; a 48% reduction since 2000

<sup>1</sup> MT CO<sub>2</sub>e: metric tons of carbon dioxide equivalent

# Water Energy Nexus Protocol

- Water-Energy Nexus (WEN) 1.0 – May 2019
  - Used in 2019-2021 inventory
  - Baseline emissions updated in 2019
- WEN 2.0 – September 2021
  - Adds Wastewater System process emissions
  - Increase emissions by 50,000 MT CO<sub>2</sub>e
- WEN 3.0 – Approximately 2026
  - Further increase emissions from Wastewater System process



**The Climate Registry**

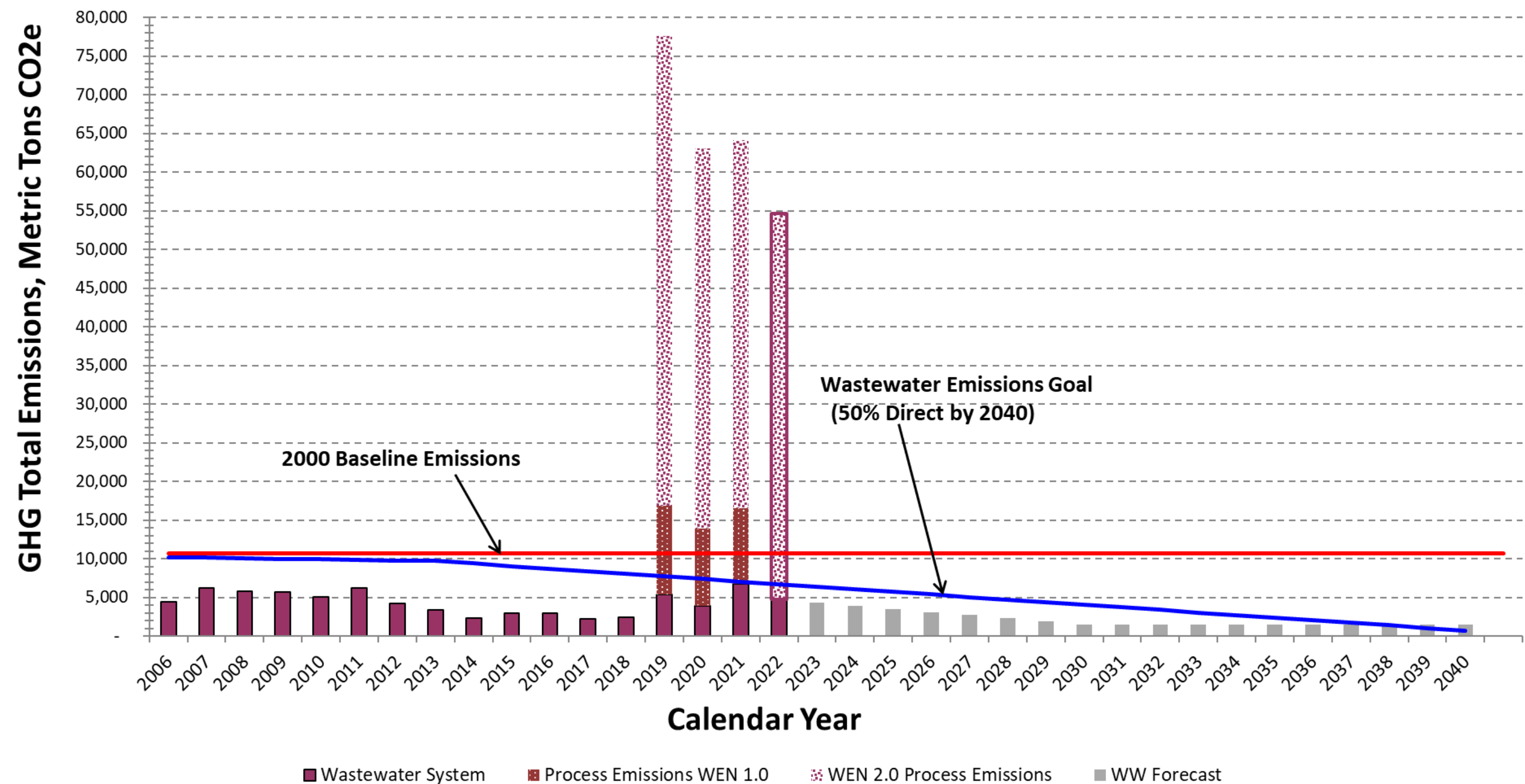
*The Climate Registry: GHG measurement and reporting program*

# Energy Policy

- 2020 – Policy 7.07 revised
  - New Water System GHG reduction goals
    - Direct – 100% reduction by 2030
    - Indirect – 100% reduction by 2030
  - No change to Wastewater GHG goals
    - Direct – 50% reduction by 2040
    - Indirect – 100% reduction by 2040
- Energy Policy key points
  - Use of energy efficiently
  - Develop cost competitive renewable projects
  - Include energy efficiency, renewable energy and reduction of GHGs in capital projects
  - Purchase renewable energy to reduce costs and GHG emissions
  - Purchase Renewable Energy Credits (RECs) and carbon credits to meet emission goals
  - Choose the least cost option to meet GHG goals

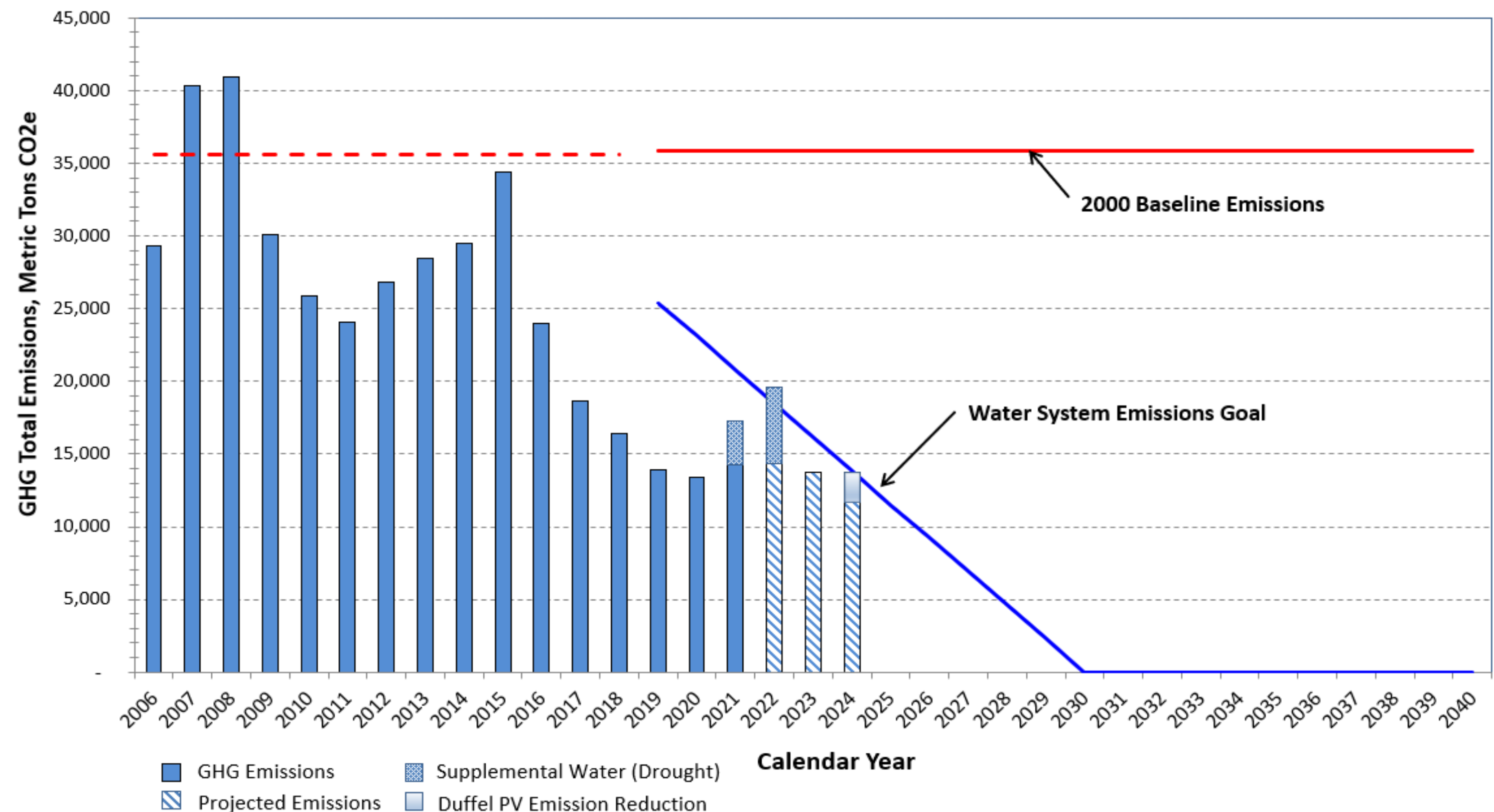
# Wastewater System Emissions (WEN 2.0)

Wastewater System GHG Total Annual Emissions vs Goal



# Water System GHG Projections

Water System GHG Total Annual Emissions vs Goal

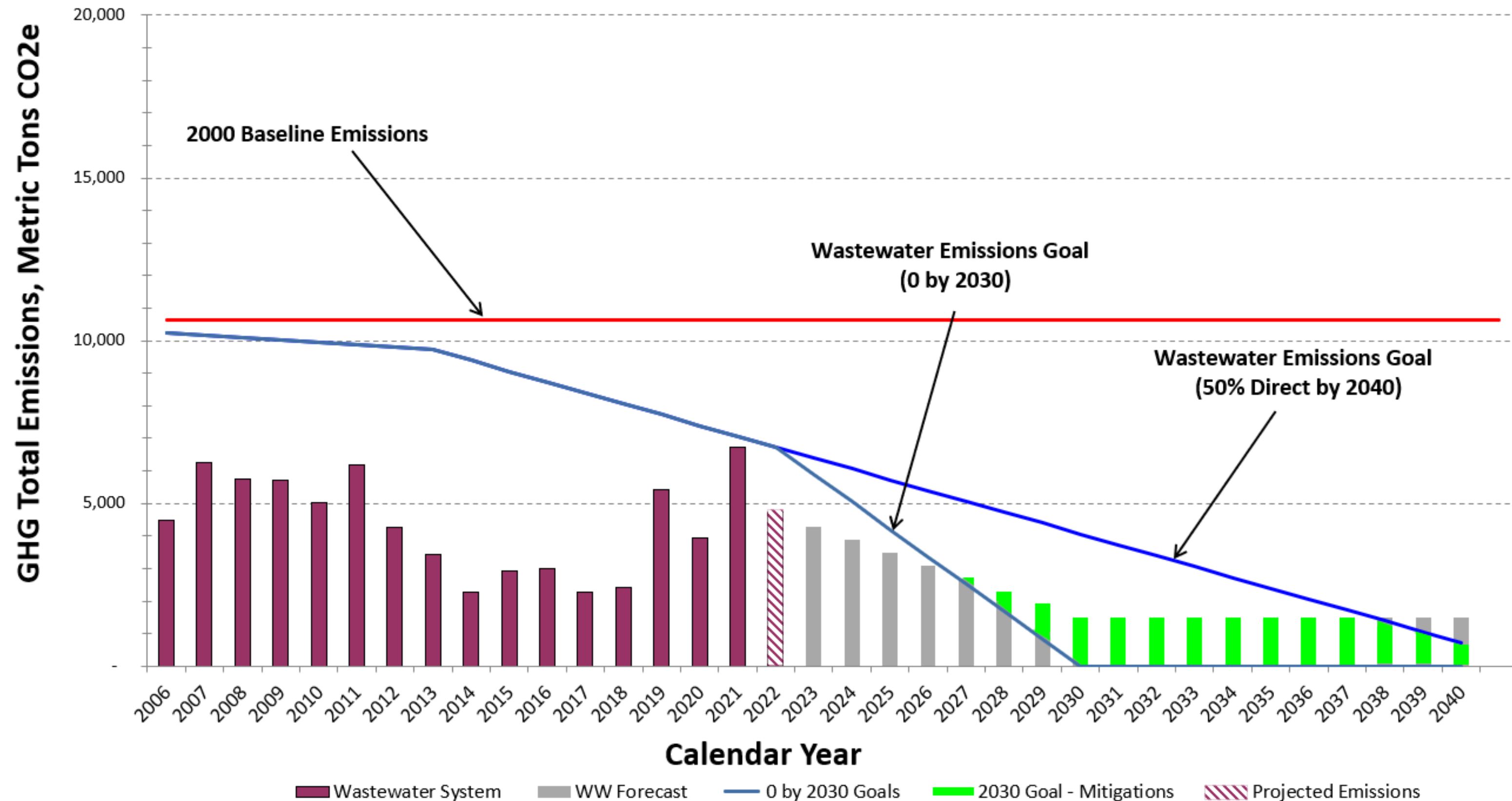


# Proposed Policy Changes

- Remove process emissions from GHG goal
  - Continue to compile, track, and report values
  - Monitor evolution of science
- Align Wastewater System GHG goals with Water System GHG goals (i.e., 2030 goal)
- Modify least cost mitigation option
  - Prioritize actual actions over purchase of carbon credits
- Forecast emissions mid-year
  - Take proactive action if needed

# Wastewater System without Process Emissions

## Wastewater System GHG Total Annual Emissions vs Goal



# Modification of Least Cost Option

- Forecast energy use and GHG emission from sources
- If projected emissions exceed policy goals
  - Purchase lowest emissions energy as available
- If goals are not met, purchase the least cost option:
  - Direct purchase of RECs
  - Direct purchase of emissions credits

## GHG Mitigation Costs from Proposed Policy Changes

MITIGATION OPTIONS	Water System (2022)
Purchase Carbon Credits to meet goal <sup>1</sup>	\$15,000
Purchase low-emissions product to meet goal	\$18,000
Purchase zero-emissions product to meet goal	\$21,000

- Proposed changes have little impact on 2022 mitigation costs for water
- Emissions in 2022 for wastewater will not exceed revised goal (assuming process emissions are excluded) – no costs
- Moving wastewater emissions target forward to 2030 will cost an estimated \$350,000 through 2040 (likely by purchasing carbon offsets)

1. Based on \$20 / MT carbon credit price

# Next Steps

- Seek Finance/Administration feedback and support on the revised policy
- Board considers adopting revised Policy 7.07 – Energy at its September 26, 2023 meeting
- Present 2022 GHG Inventory at the October 24, 2023 Sustainability Committee meeting
- Forecast GHG emissions 2024 mid-year
- Take proactive actions, if necessary
- Begin transition to zero-emission vehicles during Fiscal Year 2024-2025 based on the new California Air Resources Board regulations

Questions?

