

2019 Rhode Island Greenhouse Gas Emissions Inventory

*EC⁴ Council Meeting
December 15, 2022*



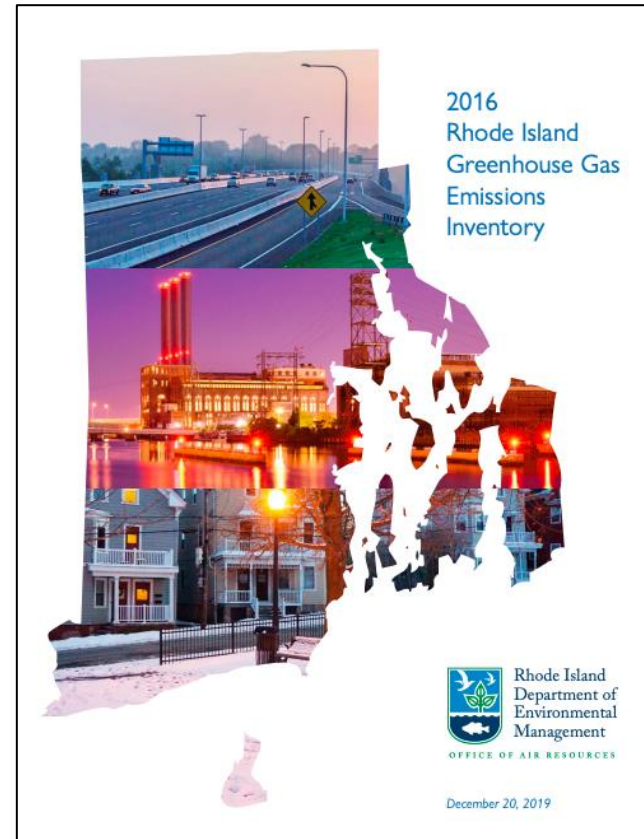
Rhode Island
Department of
Environmental
Management

OFFICE OF AIR RESOURCES

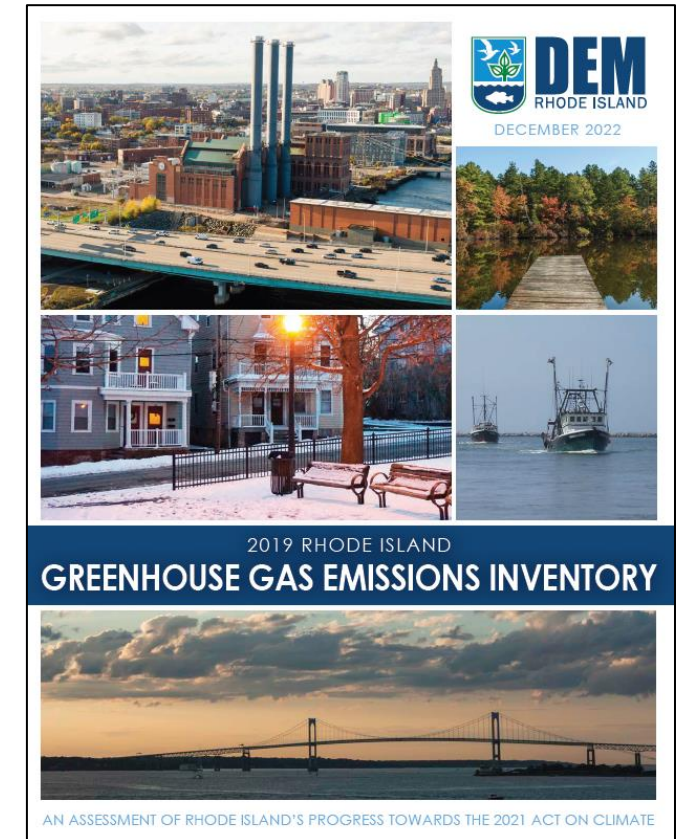


Background

- The *2019 Rhode Island Greenhouse Gas Emissions Inventory* is a “triennial summary” report
- Features:
 1. Emission Trends
 2. Estimation Methodologies
 3. Improvement Efforts



*1st Triennial Summary
Published December 2019*

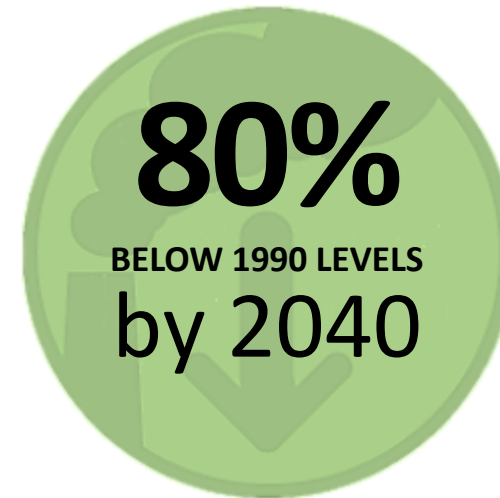
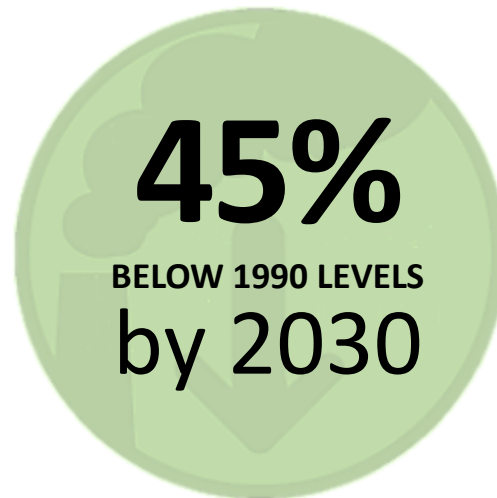
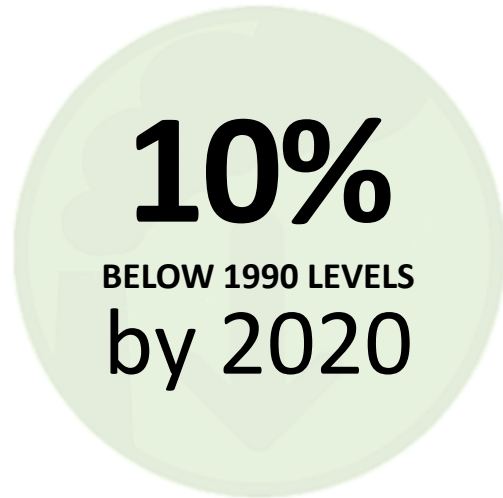


*2nd Triennial Summary
Published December 2022*

2021 Act on Climate



The Act on Climate's greenhouse gas emission reduction mandates:



*DEM's annual GHG emissions inventory serves as the **primary scientific tool** for evaluating progress with the Act on Climate*

Quick Facts



1990-2019

Rhode Island Greenhouse Gas (GHG) Emissions Inventory

Gross GHG Emissions by Economic Sector in 2019



2019 Net GHG Emissions

10.04
million metric tons of CO₂e

2019 Greenhouse Gas Removals

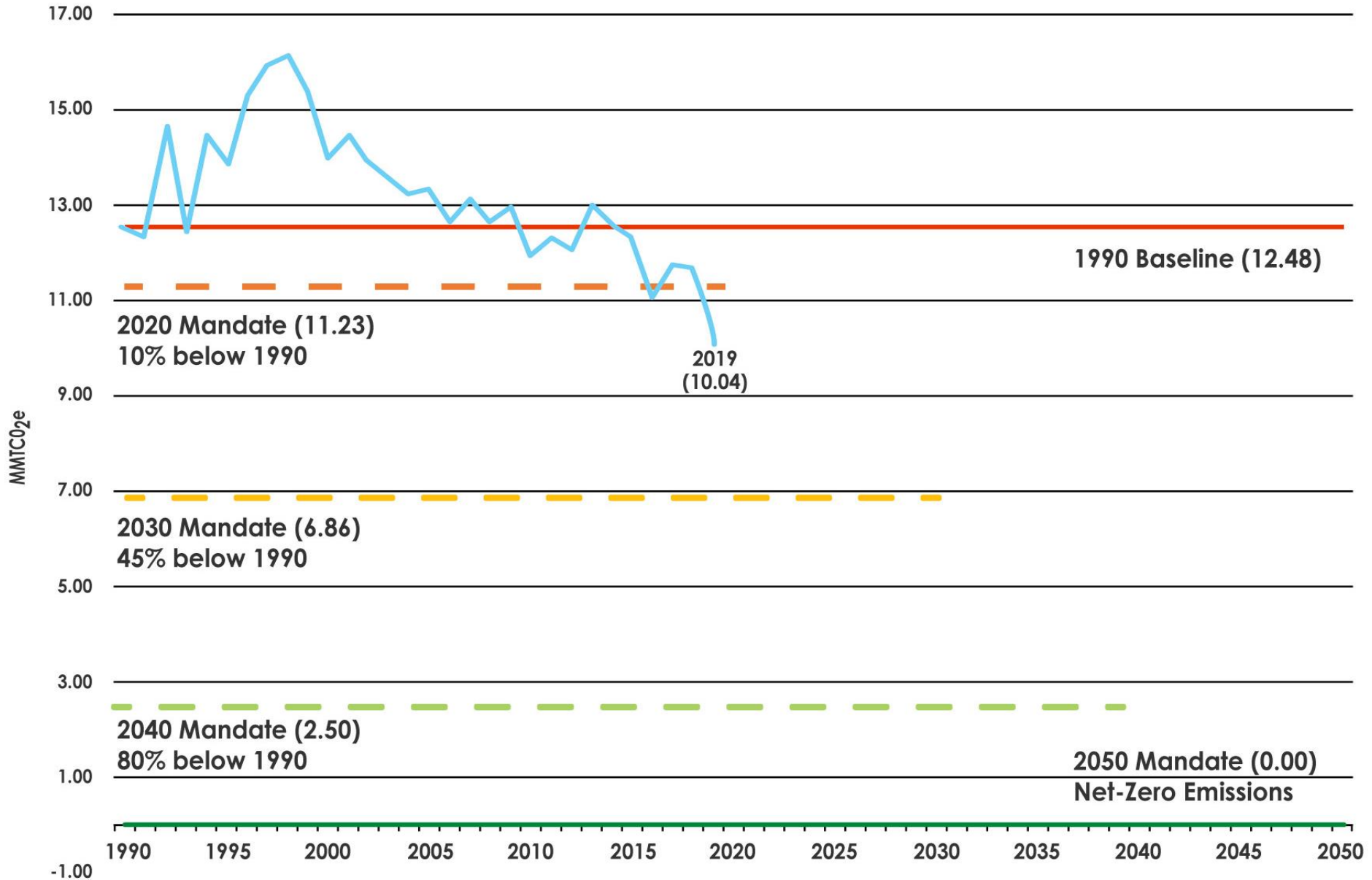
Land Use, Land Use Change & Forestry (LULUCF)

-0.78 MMTCO₂e
-7.2%
of gross GHG emissions
offset by LULUCF

1990 - 2019 Change

Statewide Net
GHG Reductions
(1990-2019)
-19.6%

RI GHG 2021 Act on Climate Mandates



*Inventory years 1991-2018 (except 2010) are gross totals and are not an apples-to-apples comparison to the 1990 baseline.

Major Economic Sector Trends



Since 1990

- Transportation **decreased 13.7%** ↓
- Residential Heating **decreased 12.0%** ↓
- Electricity Consumption **decreased 27.4%** ↓



Manchester Street Power Station, Providence

Since 2016

- Transportation **increased 8.8%** ↑
- Residential Heating **increased 8.8%** ↑
- Electricity Consumption **decreased 28.0%** ↓



Washington Bridge (I-195), East Providence



Spotlighted Inventory Improvements

1. Revised methodology for accounting the emissions reductions associated with **Renewable Energy Certificates (RECs)**.
2. The addition of a **Land Use, Land Use Change, and Forestry (LULUCF)** sector to the annual inventory.



Wickaboxet Management Area, West Greenwich



Block Island Wind Farm, New Shoreham

Going Forward



1. 2019 was the last “pre-pandemic” GHG emissions inventory.
2. Inventory years 2020 and 2021 are likely “uncharted” territory for GHG accounting because of major economic changes in those years. Analysis may be challenging.
3. Further improvements are warranted to ensure accurate net-zero accounting practices.



Providence Skyline

Questions? Thank you!

Joseph Poccia | *Air Quality Specialist*

Rhode Island Department of Environmental Management

Office of Air Resources

401-222-2808 x 2774106

joseph.a.poccia@dem.ri.gov

Rhode Island Greenhouse Gas Emissions Inventory:

<https://dem.ri.gov/ghg-inventory>



Rhode Island
Department of
Environmental
Management

OFFICE OF AIR RESOURCES