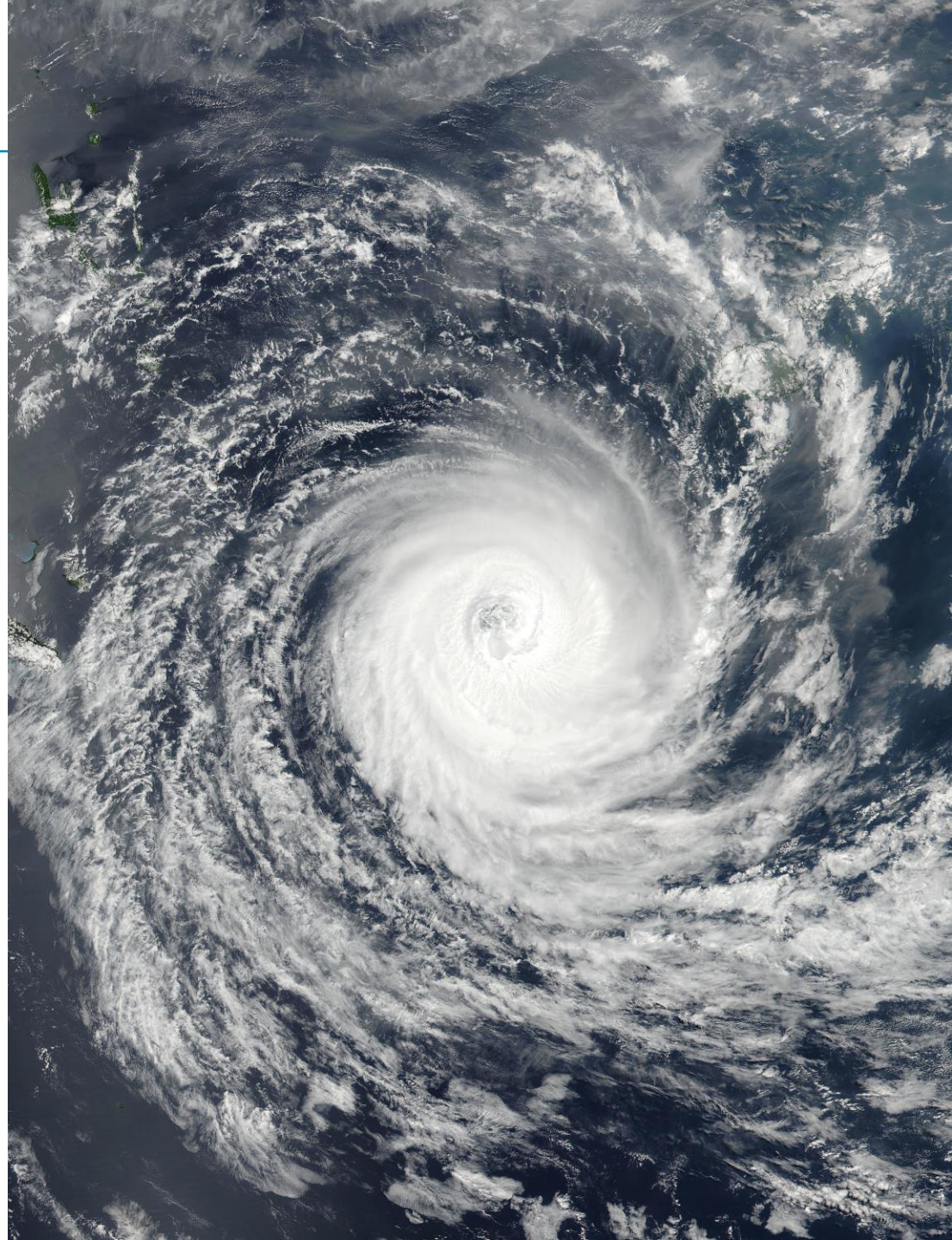
Act on Climate Mandates

- By 12-31-2025 (and every 5 years), the EC4 must submit an updated **Climate Change Strategic Plan**, following public comment, that includes strategies/programs/actions to meet economy-wide targets for GHG reductions as follows:
  - 10% below 1990 levels by 2020;
  - **45% below 1990 levels by 2030**;
  - **80% below 1990 levels by 2040**; and
  - **Net-zero emissions by 2050**.

- By 12-31-2022, the EC4 shall submit an updated **GHG Reduction Plan** to Governor & General Assembly (2016)

- Develop **public metrics and an online public dashboard** tracking both emissions reductions and sources of energy consumed by the state, updated at least annually

- Each agency has authority to **promulgate rules and regulations** necessary to meet the GHG mandate reduction mandate



Context: Transportation Sector

2021 Act on Climate Reduction Requirements

Year	GHG Reduction Target	GHG Emissions Target (MM Tons CO2/year)	Emission Reductions Needed from 1990 baseline
1990 (Baseline) * includes LULUCF Sequestration (-0.29)	N/A	12.48 (baseline)	
2016 INVENTORY *doesn't include LULUCF Sequestration	N/A	11.02 (modeled emissions)	
2017 INVENTORY *doesn't include LULUCF Sequestration	N/A	11.74 (modeled emissions)	
2020	10% below 1990	11.23 (1.25 reduction from 2017 inventory)	1.25 reduction
2030	45% below 1990	6.86 (4.37 reduction from 2020 target)	5.62 reduction
2040	80% below 1990	2.50 (4.36 reduction from 2030 target)	9.98 reduction
2050	NET-ZERO EMISSIONS	up to 2.50 reduction from 2040 target	up to 12.48 reduction

Getting to Net-Zero means we can still produce some emissions, as long as they are offset by processes that reduce human-caused GHG emissions. For example, planting trees, or drawdown technologies like direct air capture.

TCI Reduction is 30% between 2023 and 2032 based roughly off 2016 baseline- assume reduction of about 1.18 tons/year- that comprises 27% of the required reduction between 2020 & 2030

	GHG emissions from:	CO2 emissions from:	Carbon sequestered from:	GHG emissions avoided by:
1 MMT CO2e is equivalent to:	217,480 Passenger vehicles driven for one year	120,423 homes' energy use for one year	1,225,178 acres of U.S. forests in one year	208 Wind turbines running for a year
4 MMT CO2e (Approx. the entire 2017 transportation sector emissions) is equivalent to:	869,920 Passenger vehicles driven for one year	481,693 homes' energy use for one year	4,900,710 acres of U.S. forests in one year	832 Wind turbines running for a year

There are ~800,000 passenger cars registered in RI. Source: RIDMV

There are ~410,885 households in RI. Source: Housing Works RI

There are ~40,000 acres of state-owned land in RI. Source: RIDEM

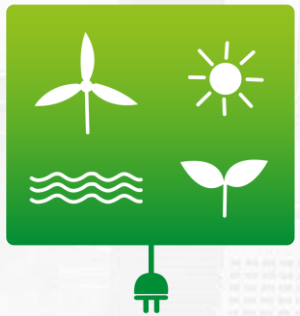
Calculation based on DOE 2019 average nameplate capacity 2.42 MW, 35% wind capacity factor, 8,760 hours per year (on land turbines). Assumed that electricity generated from an installed turbine would replace marginal sources of grid electricity.

Estimates provided by US EPA GHG Equivalencies Calculator: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

EC4 Priority Themes

Community Resiliency

Clean Transportation



Clean Energy Policies & Programs

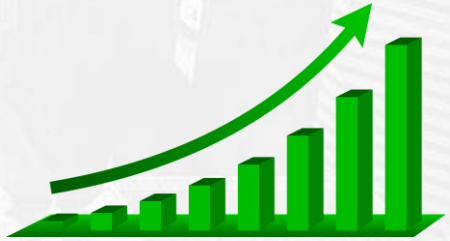
Equity and Environmental Justice

Public Health

Heating Sector Transformation

Clean Energy Sector Workforce Development

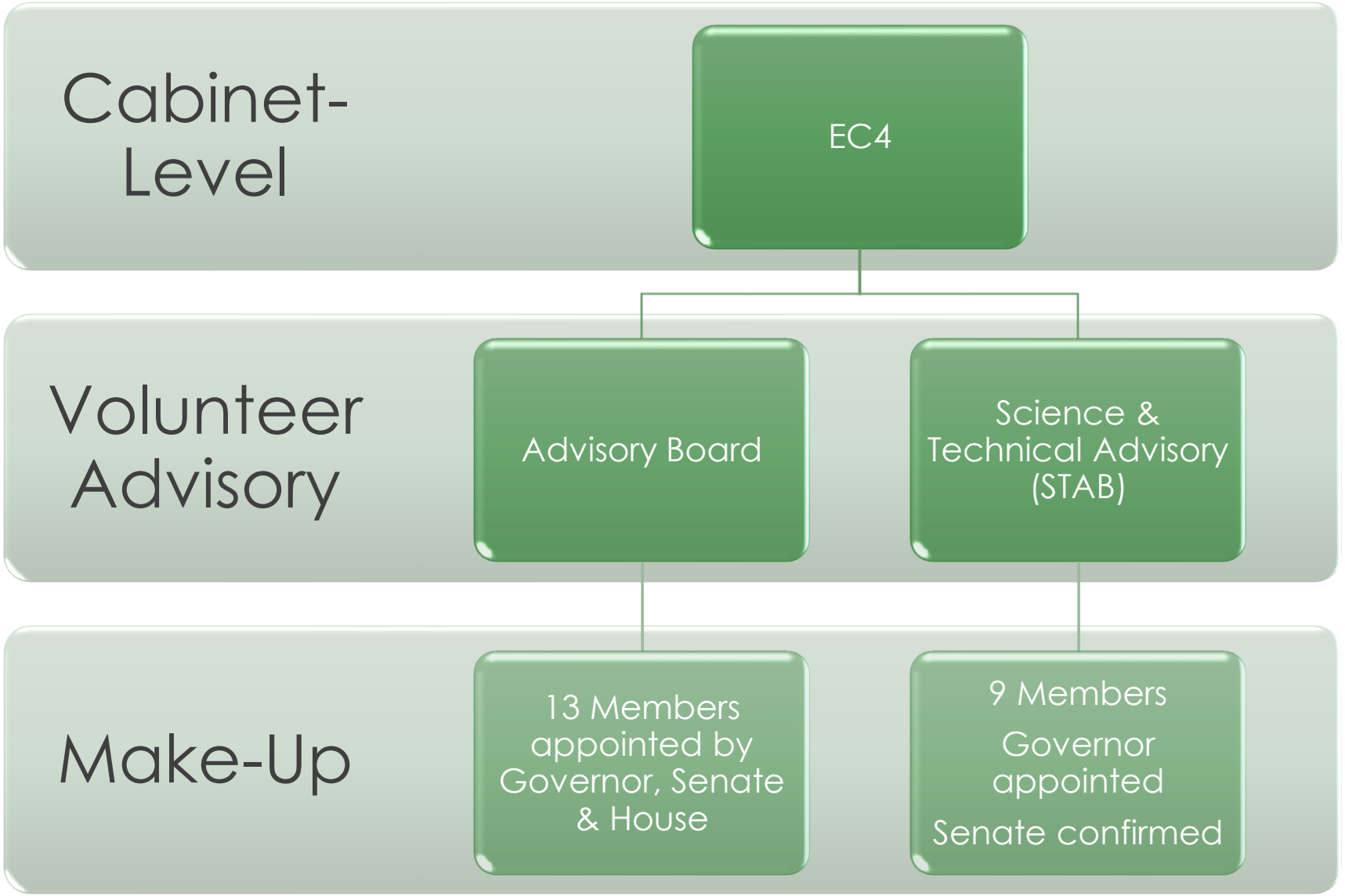
GHG Emissions Inventory



Climate Dashboard and Metrics

Act on Climate Reporting Mandates

Organizational Structure



Initial Key AoC Workstreams

Workstream A:
Enhance EC4

Workstream B:
GHG Reduction Plan (12/31/22)

Workstream C:
Climate Change Strategic Plan (12/31/25)

Workstream D:
Public Dashboard & Metrics

Workstream E:
Equity & Environmental Justice Engagement Strategy

Discussion