



DELAWARE'S

Climate Action Plan



Climate Action Plan Overview

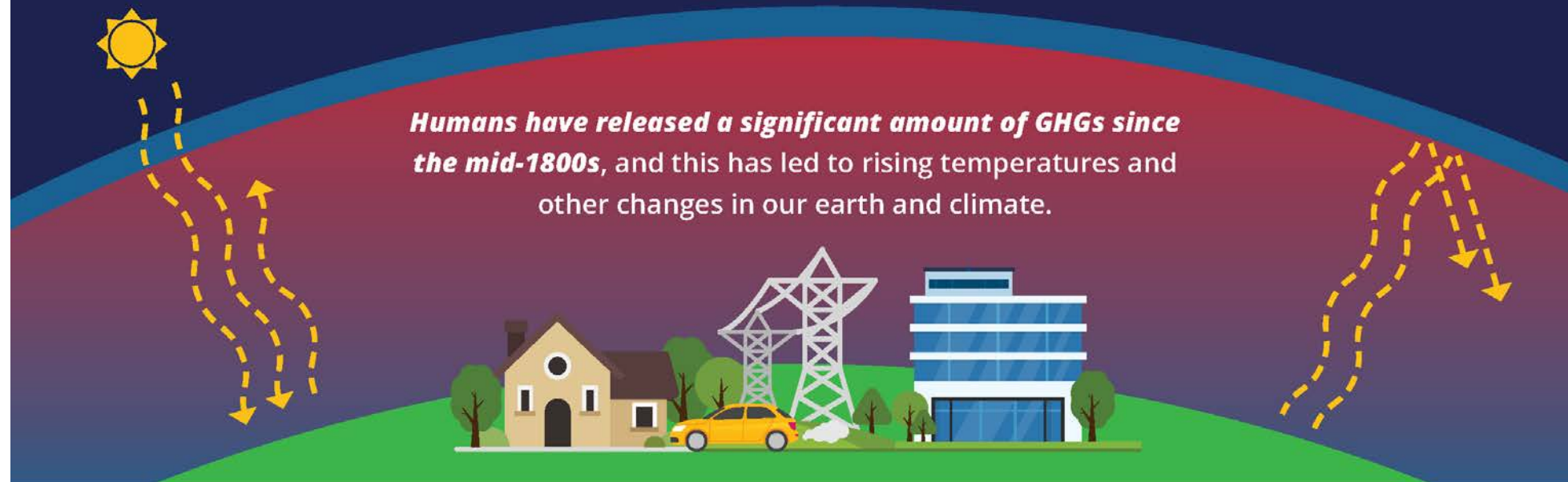
- Delaware's 5-year action plan + long-term strategies to address climate change
- Will lay out actions to address the causes and consequences of climate change:
 - Reduce greenhouse gas emissions by at least 26% below 2005 levels by 2025
 - Further reduce greenhouse gas emissions after 2025
 - Best prepare Delaware for climate change impacts (e.g., sea level rise, increased temperatures, more extreme weather)
- Release Date: Winter 2021



A Plan to Address the "Causes"

Climate Change: Causes

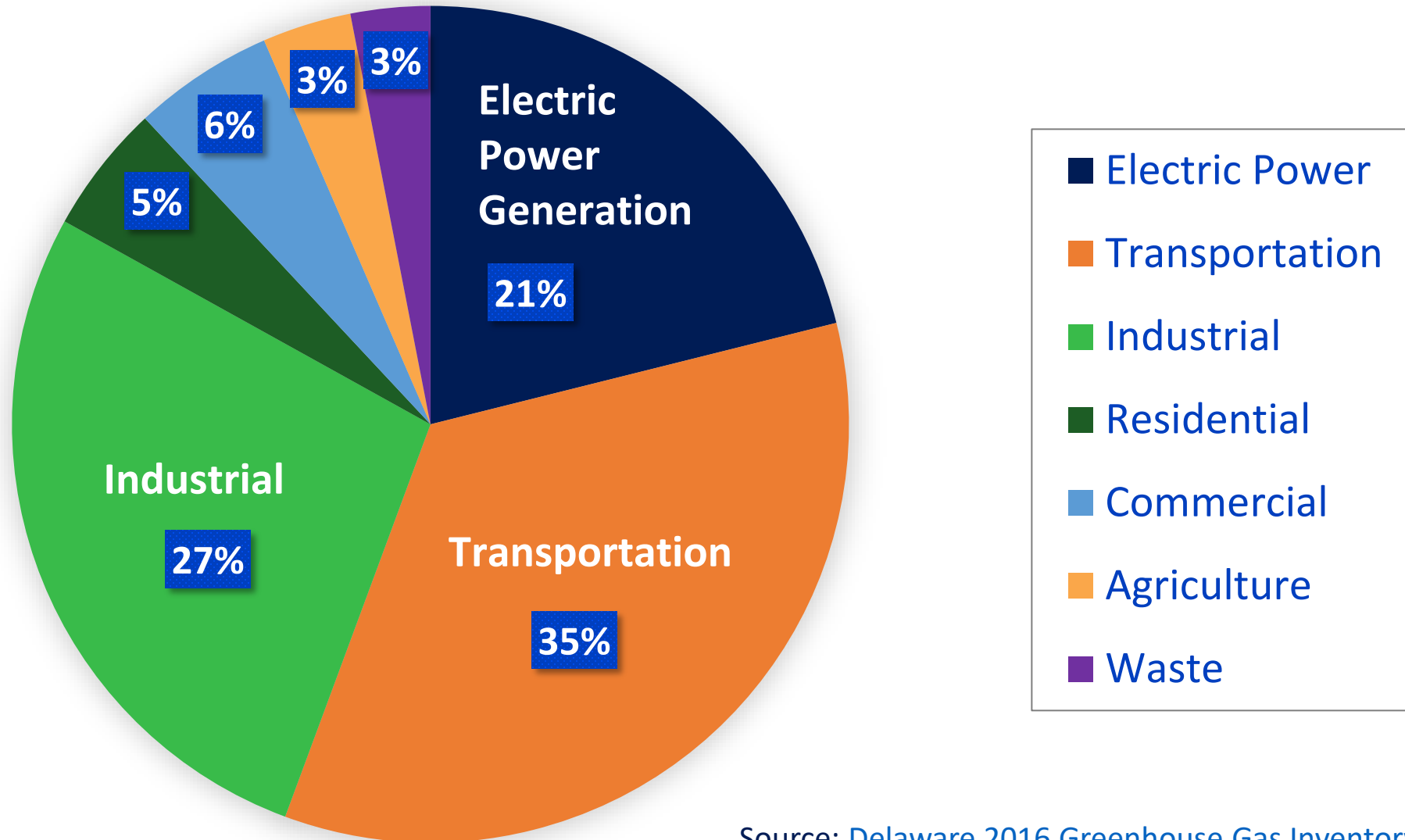
Greenhouse gases (GHGs) are vapors in the atmosphere, like carbon dioxide, that trap heat around the earth. When we use fossil fuels like coal, natural gas, and oil to power our homes, businesses, and vehicles, we release even more GHGs into the atmosphere.



Sources of Emissions



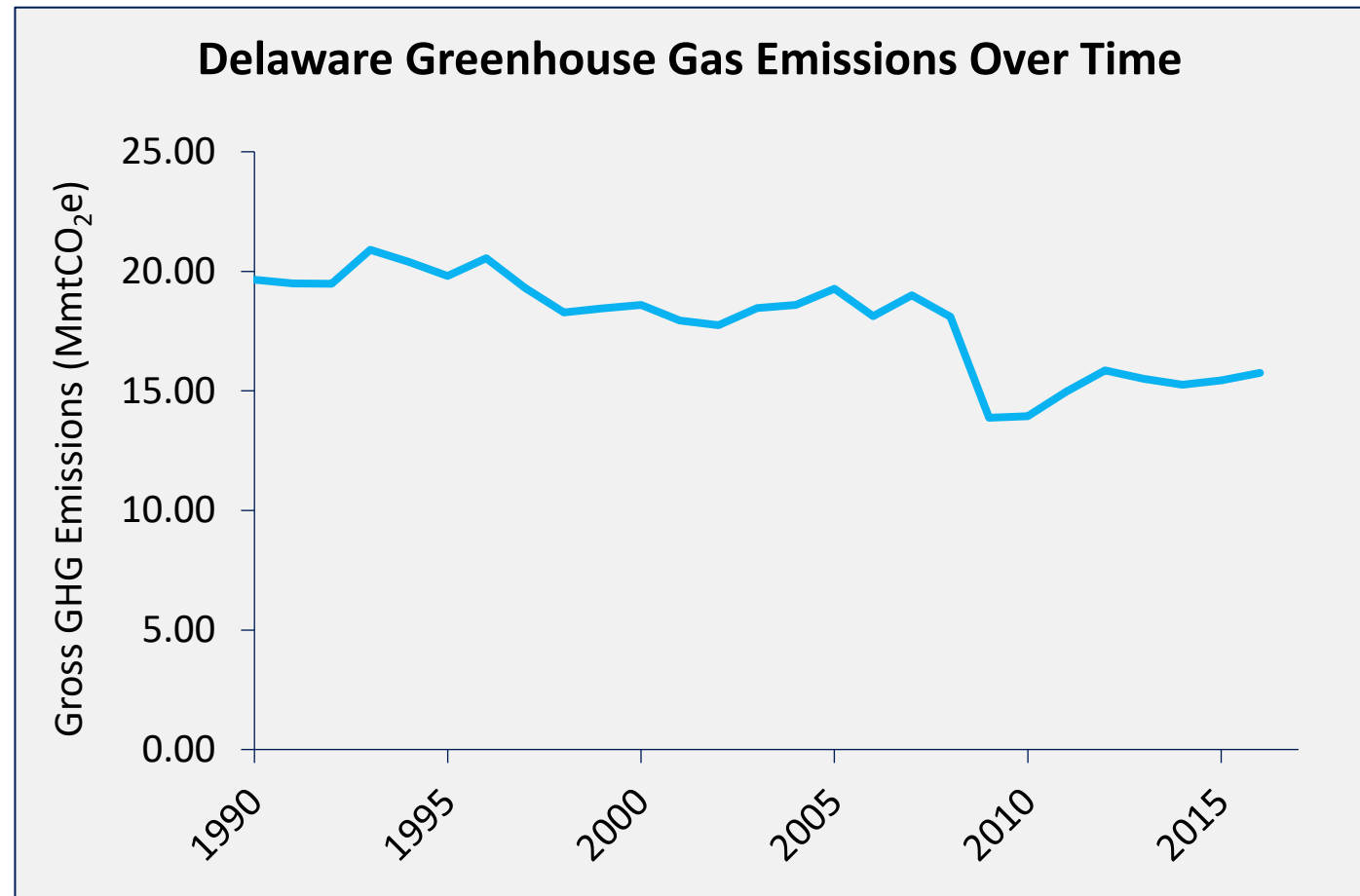
Delaware's Greenhouse Gas Emissions



Source: [Delaware 2016 Greenhouse Gas Inventory](#)

Reducing Greenhouse Gas Emissions

- Delaware has committed to reducing greenhouse gas emissions by 26% below 2005 levels by 2025
- So far, Delaware has reduced emissions by about 18%
- The State wants to map out how it can meet its 2025 goal – and make further emissions reductions beyond 2025



Source: Delaware 2016 GHG Inventory

A Plan to Address the "Consequences"

Climate Change: Consequences

Delawareans are already experiencing the impacts of climate change, with more on the way.



Increased Temperatures

Delaware temperatures have risen 2°F since 1900.

PROJECTED:

Delaware temperatures are expected to increase another 2.5-4.5°F by 2050, with an up to 8°F increase by 2100.



Hotter, Longer Summers

Historically, days above 100°F in Delaware have occurred less than once per year.

PROJECTED:

By 2050, Delaware can expect 2-8 days per year to reach above 100°F.



Rising Sea Levels

Sea levels at the Lewes tide gate have risen more than a foot over the last century.

PROJECTED:

Sea levels at the Lewes tide gate are expected to rise an additional 9-23" by 2050.



Increased Precipitation

Delaware averages 45" of rain per year, typically evenly distributed among seasons. Rainfall in the autumn has been increasing 0.27" per decade.

PROJECTED:

Overall rainfall in Delaware is expected to increase by 10% by 2100. The number of very wet days (2" or more of rainfall) will also increase.

Increased Temperatures

- Number of days over 95°F are expected to increase
- Annual and seasonal temperatures in Delaware have already increased by 2°F since 1900
- High temperatures threaten public health by worsening air quality and increasing risk of illnesses caused by heat and air pollution



Cooling Degree Days, an indicator of energy demand for cooling, are projected to rise from 1200 to 2000 by mid-century, and up to 3000 by end of century.

Source: Delaware Climate Impact Assessment (de.gov/climatechange)

Sea Level Rise

- By 2050, sea levels could rise by almost 2 feet
- Will harm soil and groundwater quality in coastal regions
- Will result in more erosion of beaches, roads, and other infrastructure in low-lying areas



State Route 9 has experienced flooding from higher tide elevations, which results from sea level rise.

Source: DNREC

More Extreme Weather

- Average precipitation is expected to increase by about 10% by 2100
- Heavy rainstorms are expected to become more frequent and more intense
- Extreme rainfall events affect agriculture by destroying crops, damaging farm facilities, and increasing crop disease pressure



In April-May 2018, rain destroyed several high dollar crops and threatened the yield of many others. DE Ag. Secretary Michael Scuse requested an emergency disaster declaration of USDA's Farm Service Agency State Service Center.

Source: Delaware.gov

Delaware's Climate Action Plan will consider solutions in a variety of areas, including:

**Renewable Energy
(wind and solar)**

Agriculture and Conservation

**Energy Efficiency
and Industrial Refrigerants**

**Support for local communities
(technical assistance, grant funding)**

**Clean Transportation
(public transit, electric vehicles)**

Partnerships with other states



DELAWARE'S ***Climate Action Plan***

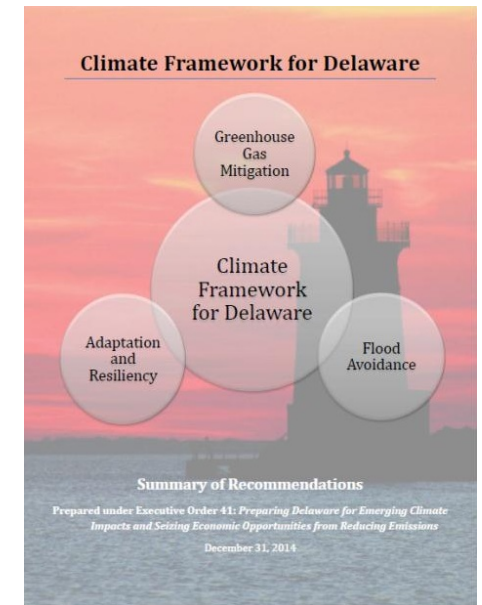
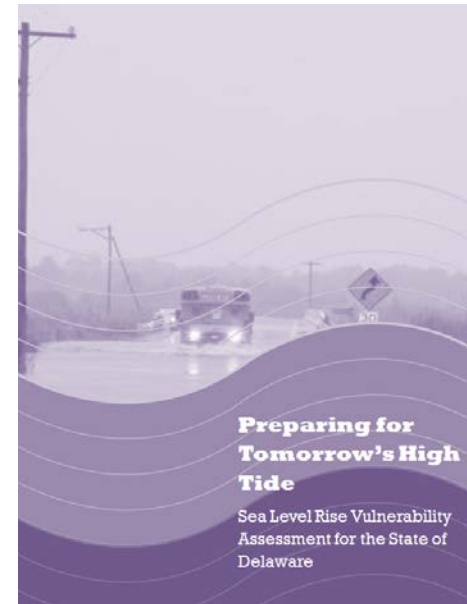
Implementing Delaware's Climate Action Plan will protect and strengthen:

- Our agricultural and tourism economies
- The natural places we enjoy for recreation
- Our infrastructure
- The health of our residents and visitors
- Access to clean energy and transportation for all Delawareans

What will inform the Climate Action Plan?

Past Efforts

- *Statewide Sea Level Rise Planning Initiative*
 - Vulnerability assessment for Delaware
 - Sea level rise planning scenarios
- *Executive Order 41*
 - Climate Framework for Delaware
 - Guidance on flood risk and state assets
- Implementation
 - State agency and local government climate adaptation actions
 - Efforts to reduce greenhouse gas emissions



What will inform the Climate Action Plan?

Present Knowledge

- *Greenhouse Gas Emissions Modeling (2005 to 2050)*
 - Business-as-usual scenario
 - Future scenarios with specific emissions reduction strategies implemented
- *Economic Modeling of Emissions Reduction*
 - Cost benefit and cost effectiveness analyses of specific reduction strategies
 - Implementation barriers and opportunities
- *Stakeholder Engagement and Input*
 - Public workshops
 - Technical advisory workshops



March 2020 Public Workshops



Georgetown
Tuesday, March 3



Wilmington
Wednesday, March 4



Dover
Thursday, March 5

PROJECT TIMELINE

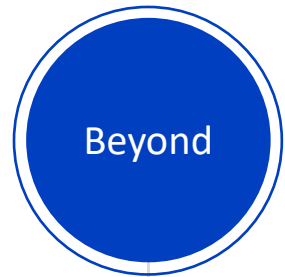
Round 1 of public workshops and technical advisory workshops



Round 2 of public workshops and technical advisory workshops



Plan implementation
Additional analyses?
Additional engagement?



Release analysis of greenhouse gas reduction strategies



Release Delaware's Climate Action Plan



MAKE YOUR **VOICE HEARD**

› Public and technical input are an important part of the Plan development process

In person



Attend a public workshop happening in the early fall.

Online



Visit declimateplan.org.
Engage online and on social media ([Facebook](#) and [Twitter](#)).

Word of Mouth



Tell your family, friends, neighbors, and coworkers.



THANK YOU

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Climate Action Plan

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