

Delaware Climate Action Plan

Ian Yue

Delaware DNREC Division of Climate, Coastal, & Energy

Presentation to the Chesapeake Bay Program Climate Resiliency Workgroup
October 21, 2019



Presentation Roadmap

- Overview of Delaware's Climate Action Plan
- Prior State Plans and Assessments
- Climate Action Planning Process
- Questions We're Pondering

Overview of Delaware's Climate Action Plan

- **Plan in Development** – Aim to release draft Plan by December 2020
- **Focus on both mitigation and adaptation**
 - *Mitigation*
 - Strategies and actions to meet adopted U.S. Climate Alliance goal of reducing GHG emissions by 26-28% below 2005 levels by 2025
 - Strategies and actions for beyond (mid-term and long-term targets)
 - *Adaptation* – TBD
- **Unique approach and challenges**
 - No executive order or legislative mandate requiring Plan
 - Funding – State appropriation for FY20, no guaranteed future funding, supplemented by RGGI funding

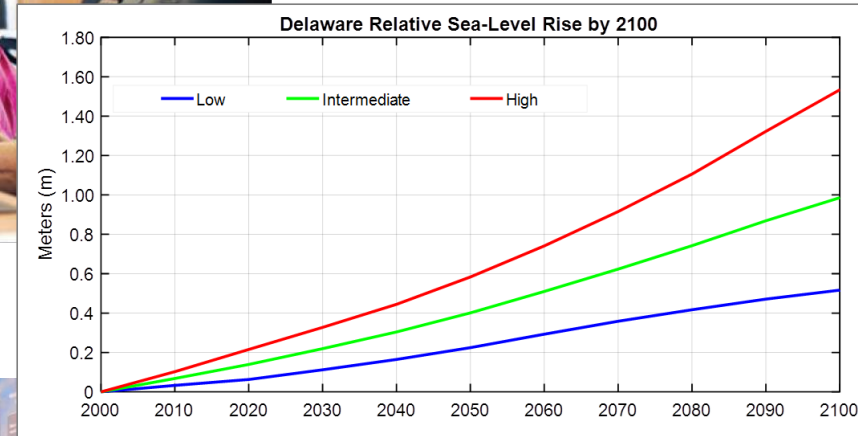
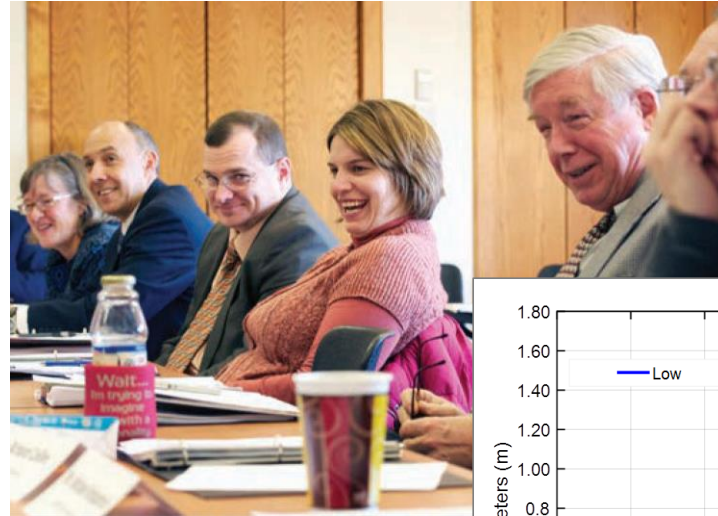
Prior State Plans and Assessments

Past work has followed three “tracks”:

- 1) Sea Level Rise Planning

SLR Planning Process for Delaware

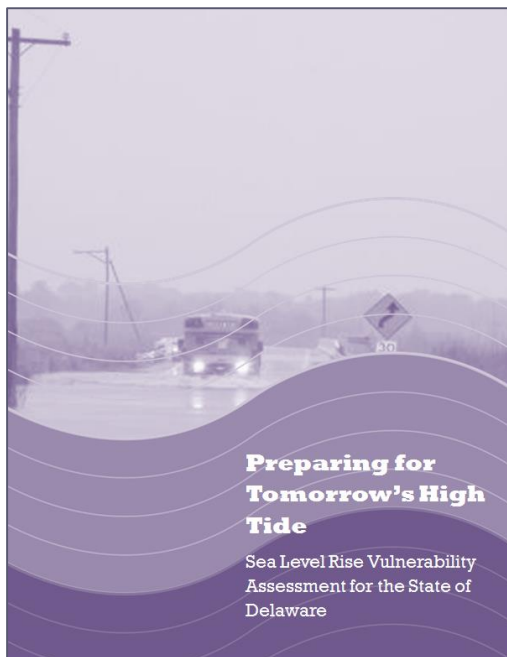
- **December 2009** – DNREC releases state SLR scenarios
- **November 2010** – DNREC convenes multi-stakeholder SLR Advisory Committee
- **July 2012** – Committee releases SLR vulnerability assessment
- **September 2013** – Committee releases SLR adaptation recommendations
- Planning process included 5 public engagement sessions held in November 2012



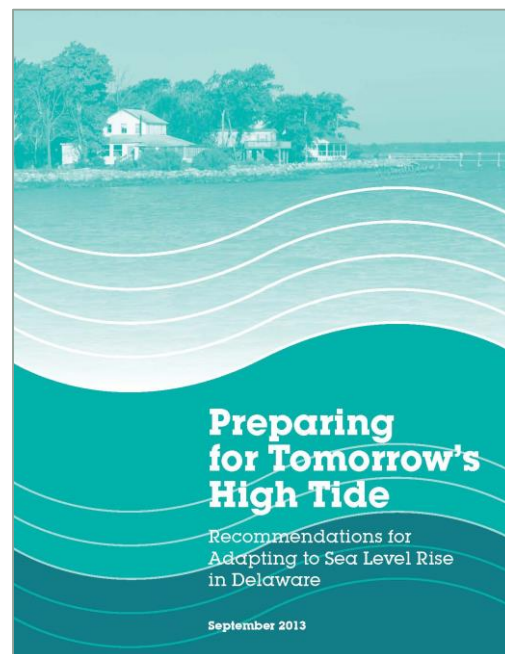
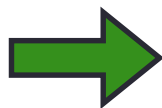
Prior State Plans and Assessments

Past work has followed three “tracks”:

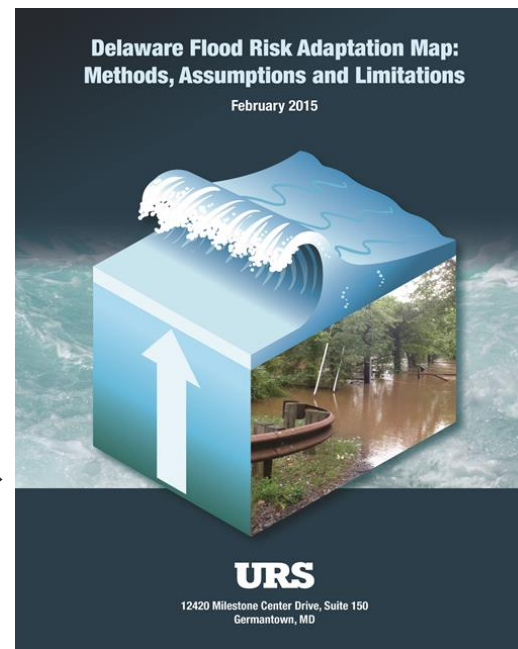
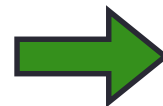
- 1) Sea Level Rise Planning



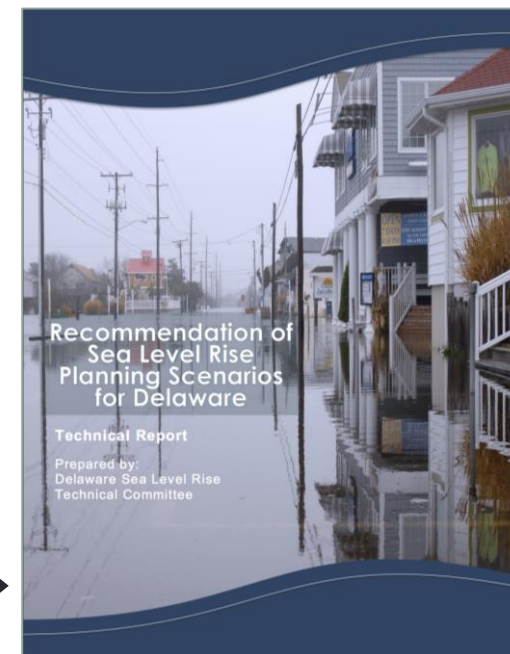
July 2012



September 2013



February 2015



November 2017

Prior State Plans and Assessments

Past work has followed three “tracks”:

- 1) Sea Level Rise Planning
- 2) Executive Order 41 (State Agency Planning)

Executive Order 41

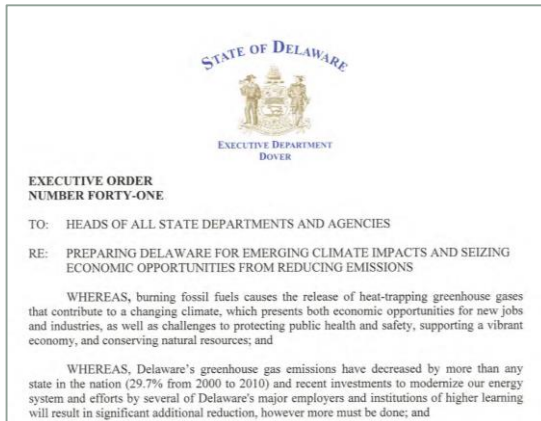
- Gov. Jack Markell signed in September 2013
- Created Cabinet Committee on Climate and Resiliency (11 state agencies)
- Required state agencies to:
 - Develop agency-specific climate adaptation recommendations
 - Account for flooding and SLR in siting and design of new state-funded projects
- Directed state to set GHG mitigation goals



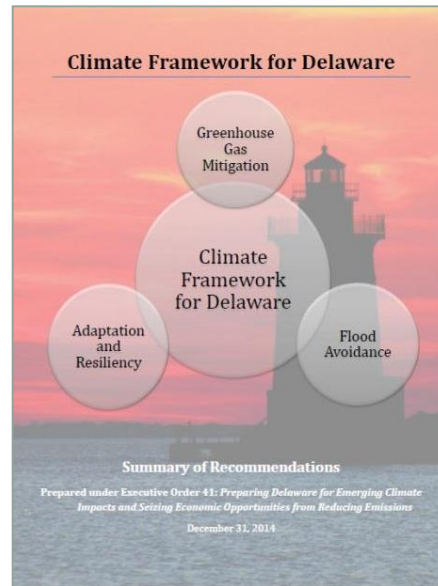
Prior State Plans and Assessments

Past work has followed three “tracks”:

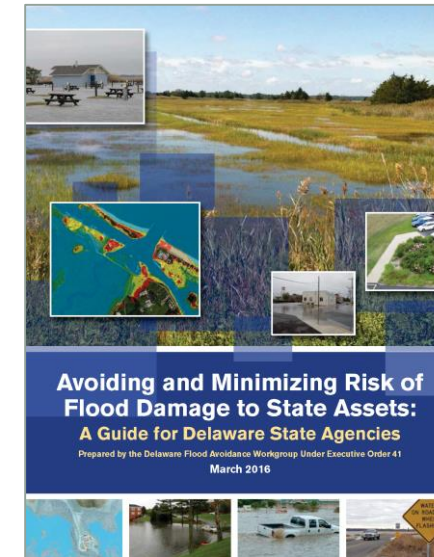
- 1) Sea Level Rise Planning
- 2) Executive Order 41 (State Agency Planning)



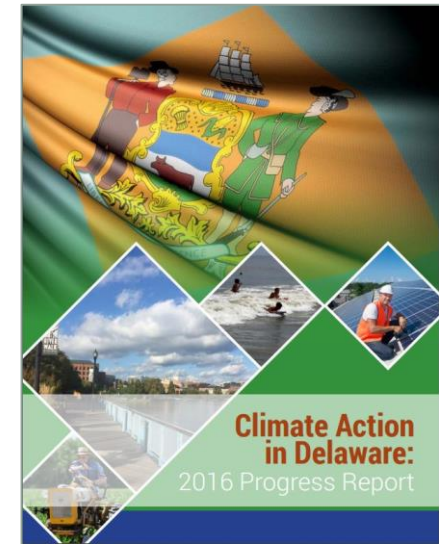
Executive Order 41
September 2013



December 2014



March 2016



December 2016

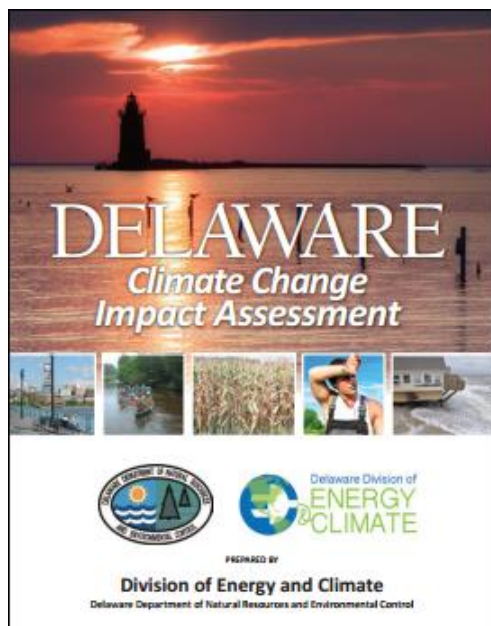
Strategic Opportunity Fund for Adaptation (SOFA) Grants

Two rounds of funding: 2016, 2018

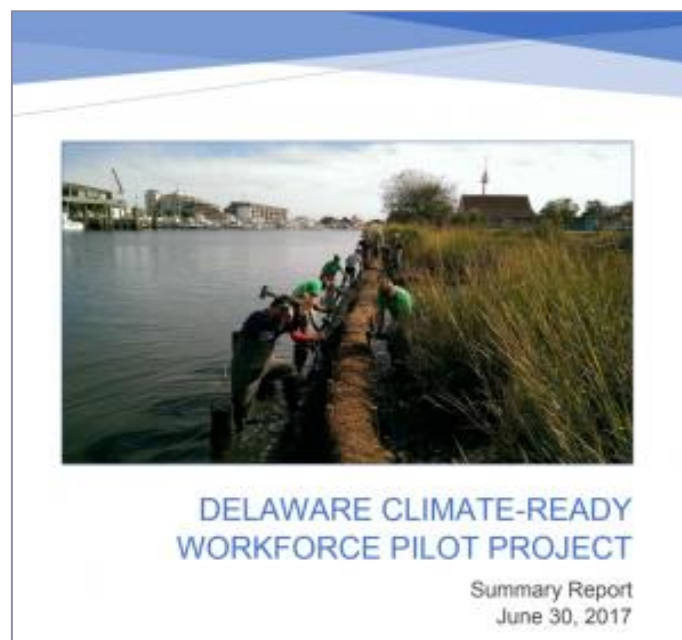
Prior State Plans and Assessments

Past work has followed three “tracks”:

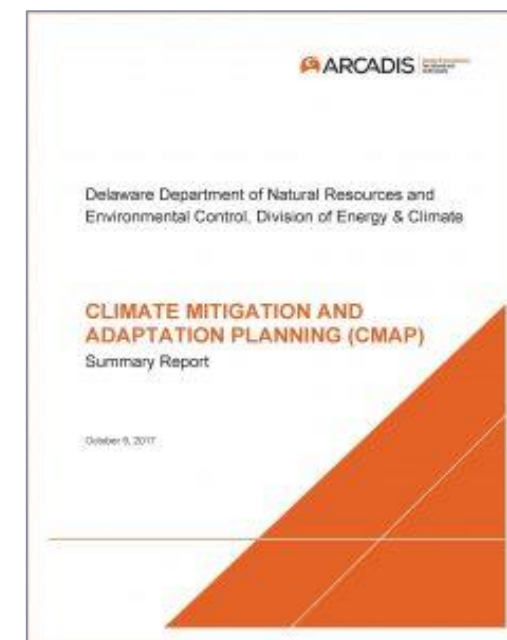
- 1) Sea Level Rise Planning
- 2) Executive Order 41 (State Agency Planning)
- 3) Other Assessments



February 2014



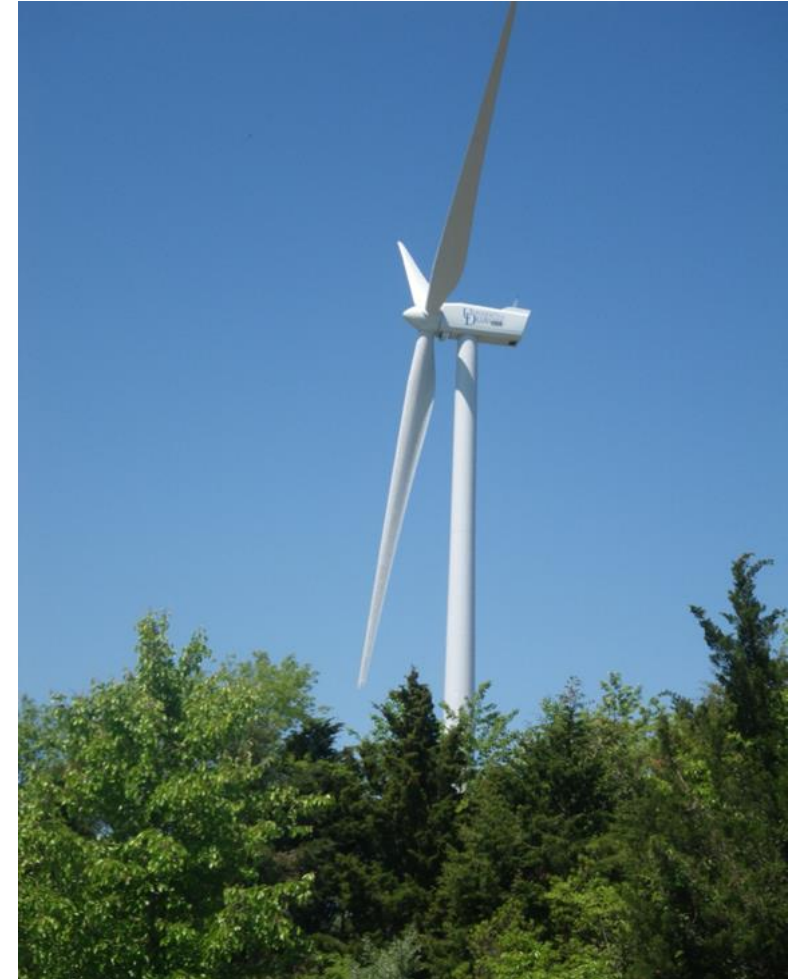
June 2017



October 2017

Delaware Climate Action Planning Process

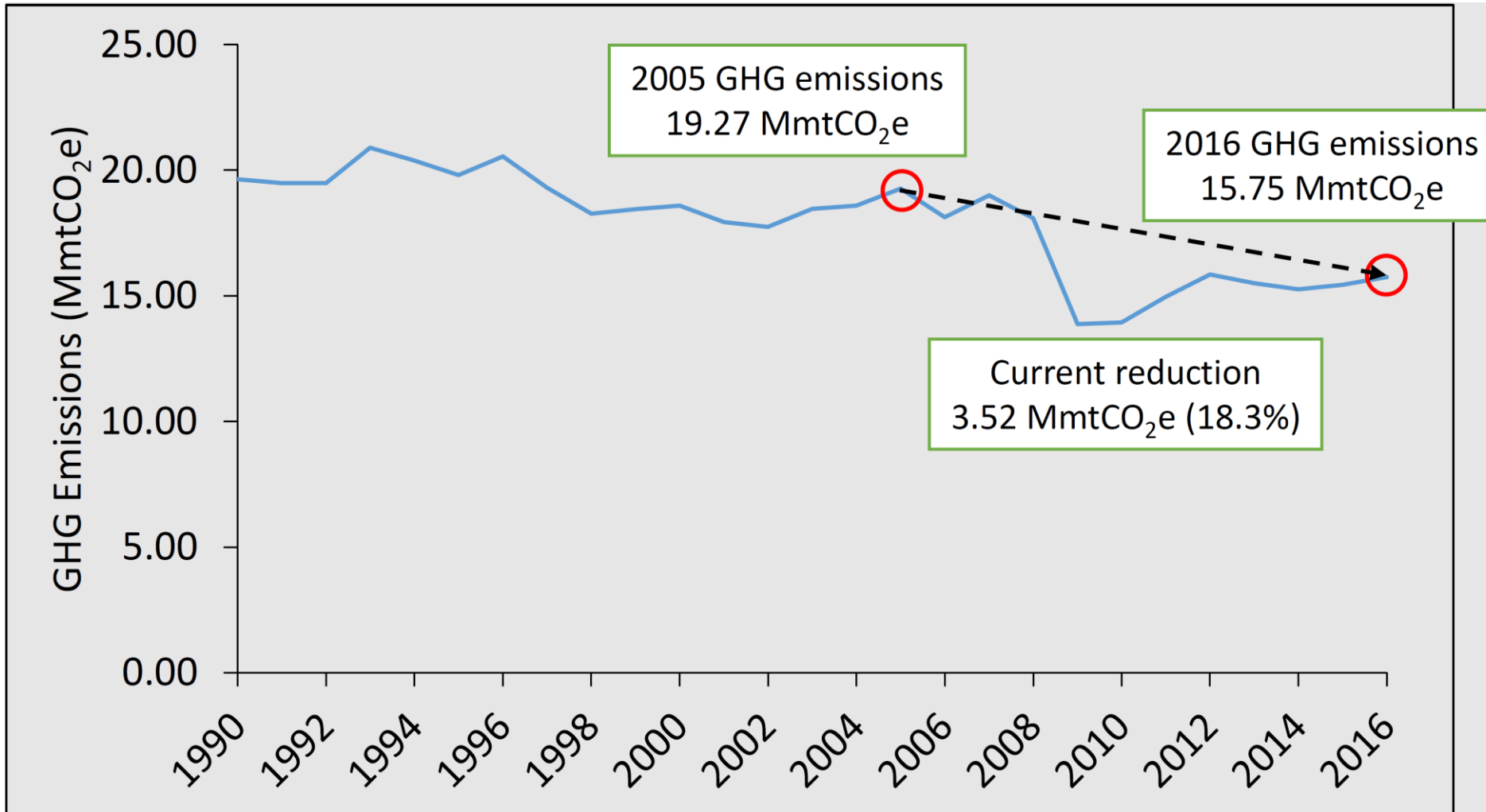
- State has developed many adaptation resources for planning
- State lacks data-driven mitigation strategies (i.e., GHG reduction actions to meet 2025 goal and beyond)
- Major focus of upcoming climate planning process: **Mitigation strategies and actions**
- Focus of climate adaptation plan TBD



Delaware Climate Action Planning Process

- Two DNREC Divisions leading the effort:
 - Division of Climate, Coastal, & Energy (DCCE)
 - Division of Air Quality (DAQ)
- *Mitigation*
 - **DCCE** – Lead: Climate Section, Supporting: Energy Section
 - **DAQ** – Regulatory team that focuses on GHG accounting/tracking
 - **Consultant** – Technical analysis, stakeholder/public outreach facilitation
- *Adaptation* – Lead: Coastal Section, Supporting: TBD

Delaware's GHG Emissions



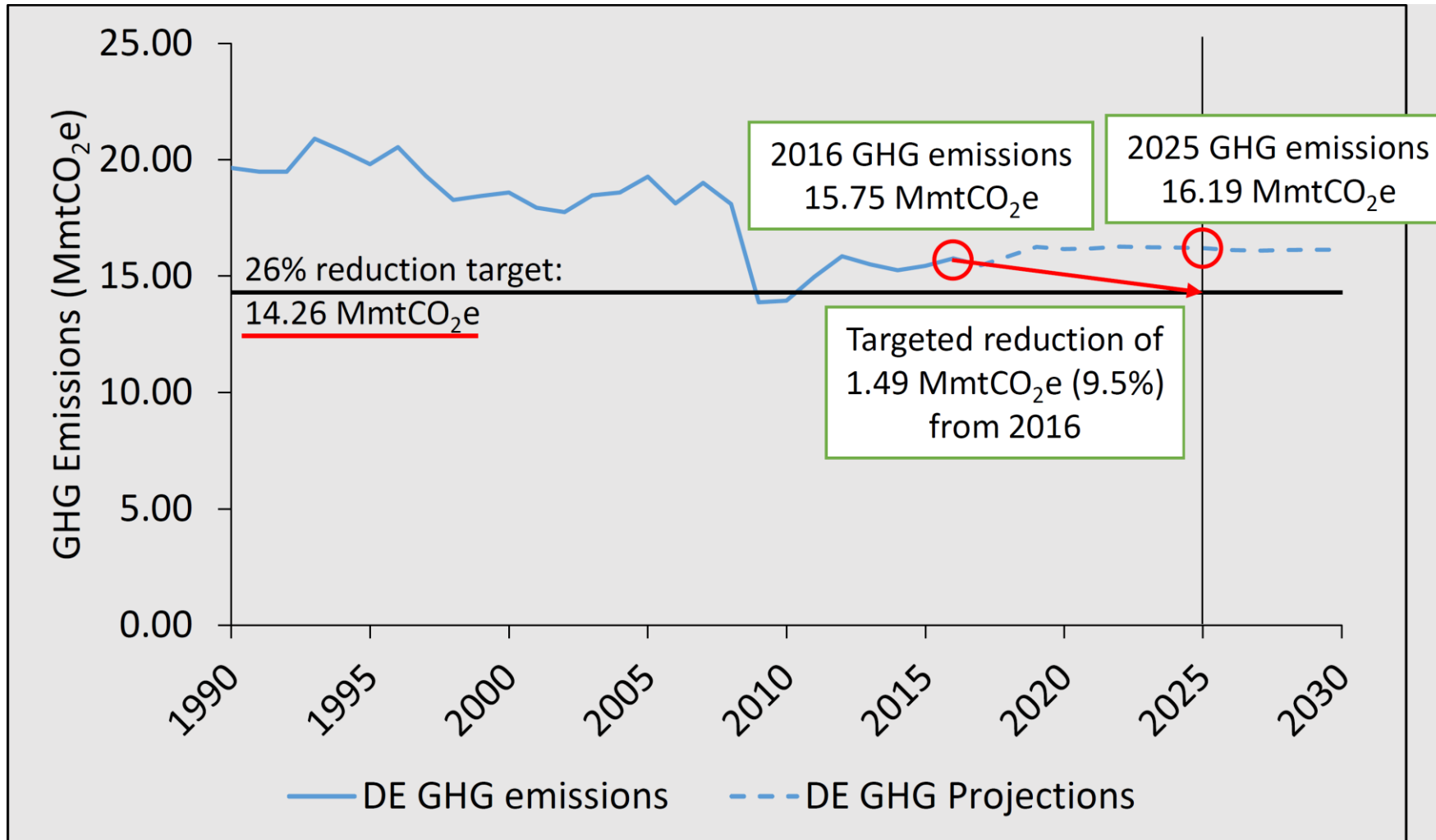
2025 Goal:
Reduce GHG emissions by 26-28% below 2005 levels.

Data based on 2016 GHG inventory, which is the latest data available.

<http://www.dnrec.delaware.gov/Air/Documents/2016-de-ghg-inventory.pdf>

Gross emissions only

Delaware's GHG Emissions



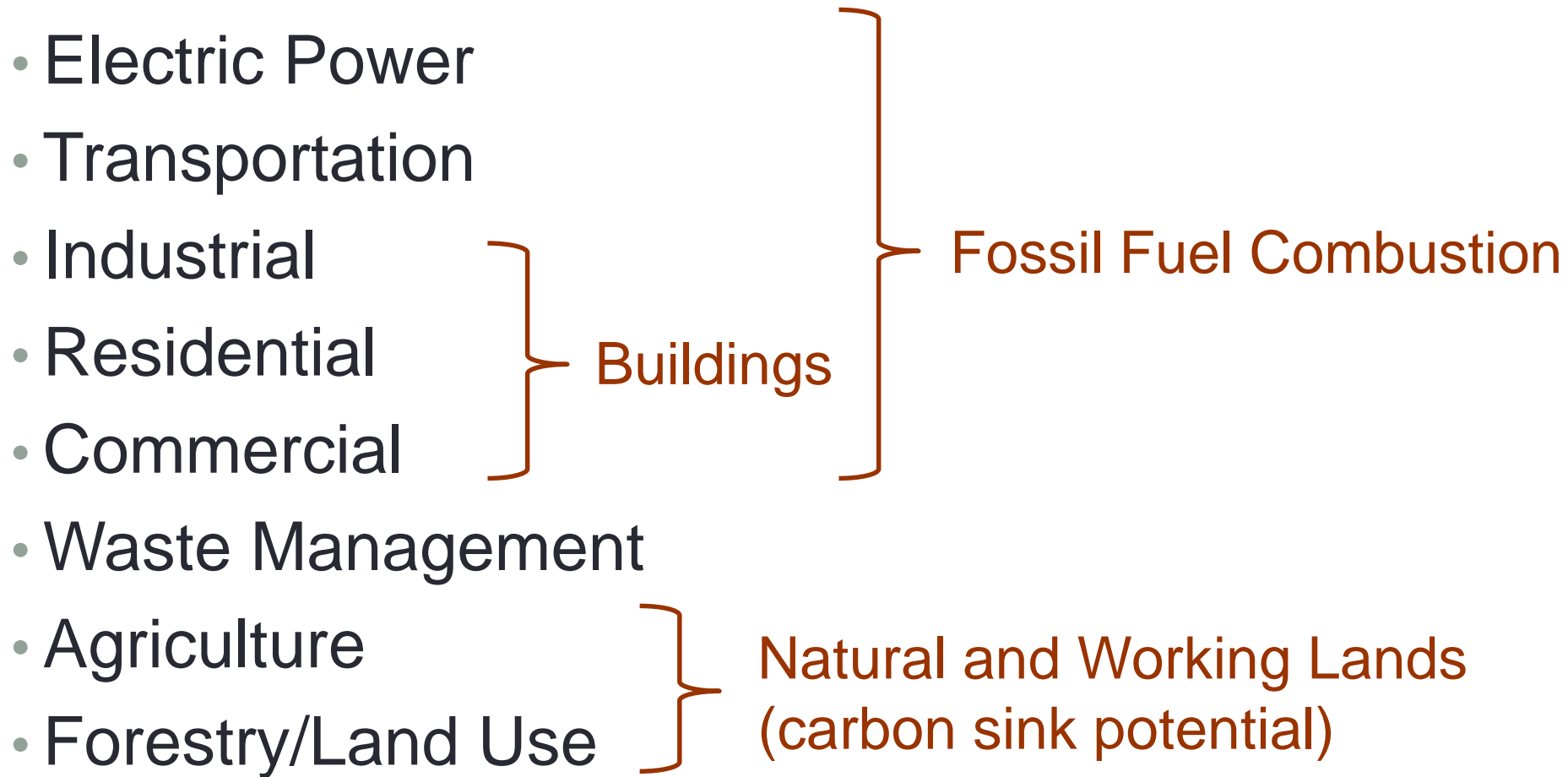
2025 Goal:
Reduce GHG emissions
by 26-28% below 2005
levels.

*Data based on 2016
GHG inventory, which is
the latest data available.*

<http://www.dnrec.delaware.gov/Air/Documents/2016-de-ghg-inventory.pdf>

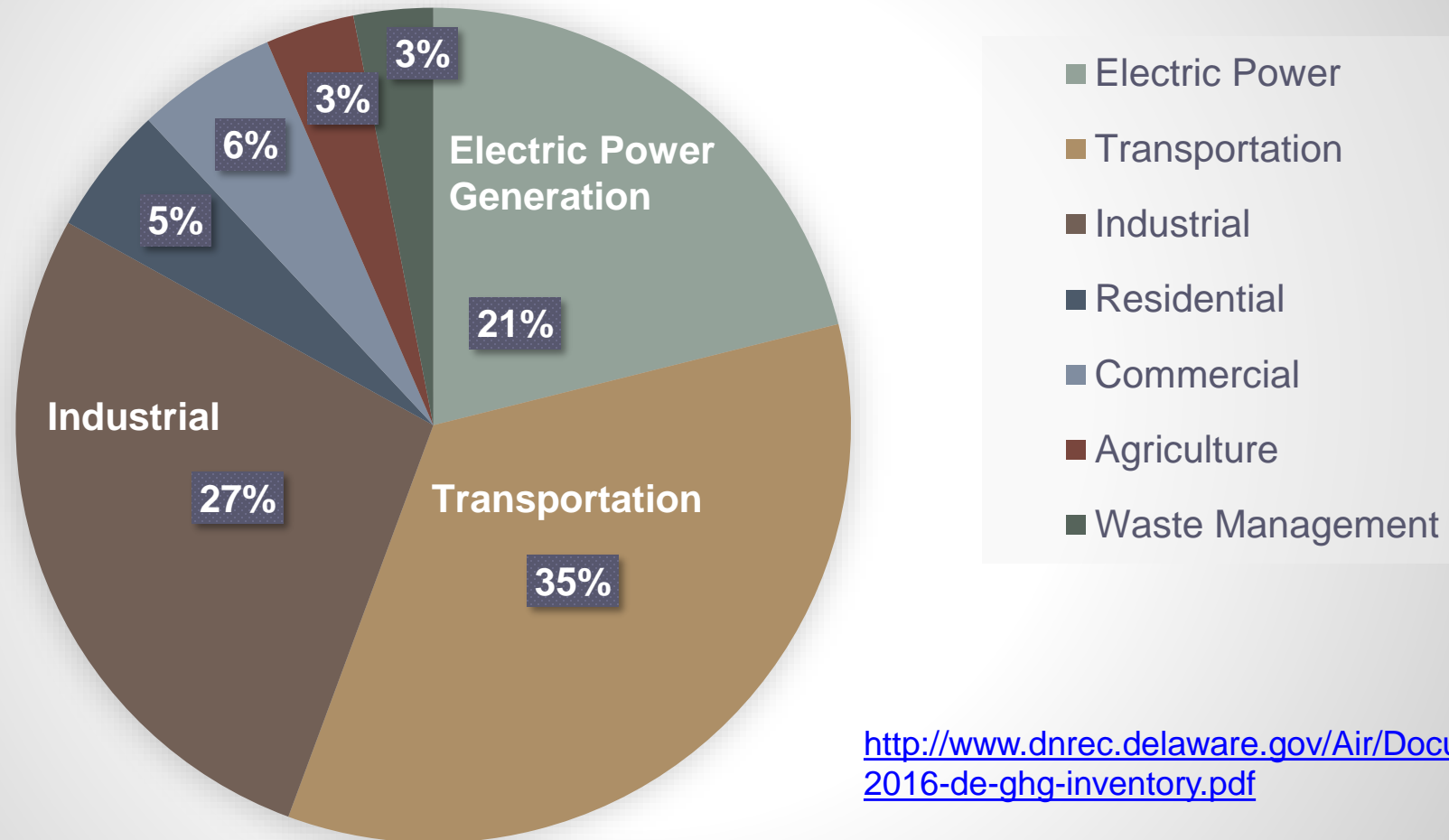
Gross emissions only

Sources of Delaware's GHG Emissions



Delaware's GHG Emissions by Sector

2016 Delaware Greenhouse Gas Emissions Inventory



<http://www.dnrec.delaware.gov/Air/Documents/2016-de-ghg-inventory.pdf>

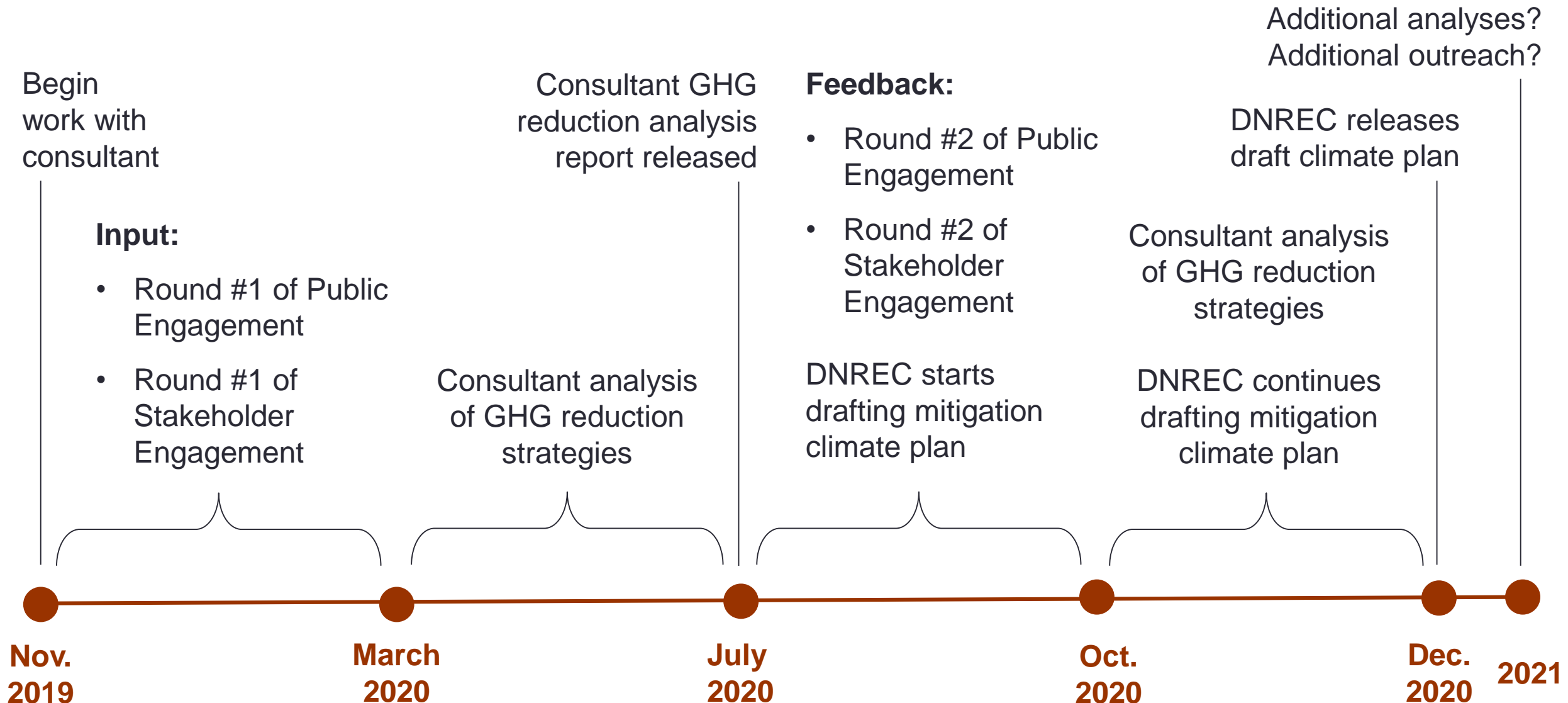
Mitigation Approach to Climate Action Plan

Two scopes of work:

- *Technical Analysis*
 - GHG projection modeling of sectors
 - Business as usual vs. GHG reduction strategies
 - Projections to 2025, mid-term, and long-term
 - Analyses of GHG reduction strategies
 - Economic costs vs. benefits, cost effectiveness
 - Implementation barriers and opportunities
- *Stakeholder/Public Outreach*
 - Sector-specific stakeholder meetings
 - Public engagement and feedback sessions



Timeline for Mitigation Portion of Climate Plan



Current Climate Mitigation Strategies

DCCE Climate Section

- Rebates for alternative fuel vehicle and EV charging stations (home, business)
- Work with state vehicle fleet

DCCE Energy Section

- Rebates for renewable energy and energy efficiency projects

Division of Air Quality

- National Clean Diesel Campaign grants
- Volkswagon Mitigation Fund projects

Partnerships/Collaborations

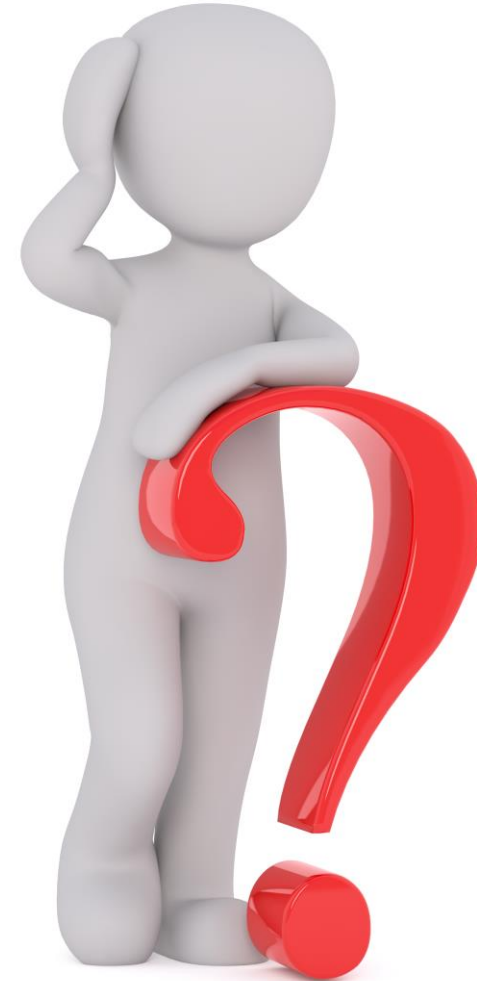
- RGGI
- U.S. Climate Alliance
- Clean Cities Coalition
- TCI
- Utilities – Expand EV charging infrastructure, rates for EV charging

Potential Legislation/Regulation

- Public charging stations
- Push towards Zero Emission Vehicle (ZEV) regulations

Questions We're Pondering

- How to best integrate mitigation and adaptation into a single plan?
- What should we be prepared for come 2021?
- What steps or challenges are we not taking into account?



Questions? Comments? Advice?



Photo credit: Bob Mical / flickr (CC BY-NC 2.0)

Ian Yue

Climate Planner

Delaware DNREC Division Climate, Coastal, & Energy

ian.yue@delaware.gov

(302) 735-3367

