

DRAFT 2024 Climate Impacts Assessment and Climate Action Plan Scopes of Work

Revised February 9, 2023

1. Objectives

- To prepare a report on potential climate change impacts for the Commonwealth of Pennsylvania
- To develop climate change mitigation and adaptation strategies, model the impacts of those strategies, and provide a Climate Action Plan (CAP) for the commonwealth

2. Report Content

Pennsylvania Climate Impacts Assessment:

Pursuant to Act 70 of 2008, the Pennsylvania Climate Impacts Assessment will include:

- Scientific predictions regarding changes in temperature and precipitation patterns.
 - This will include a discussion on the current status of attribution science, which aims to link specific extreme weather events to climate change.
- Potential climate change impacts on human health, the economy, forests and ecosystems, wildlife, recreation, agriculture, and tourism.
 - This will include an updated summary of impacts identified in previous iterations and a current analysis of climate change impacts to human health and safety in Pennsylvania, particularly in Environmental Justice (EJ) communities.
- Economic opportunities for the commonwealth created by the potential need for adaptation and mitigation strategies.
 - This will focus specifically on opportunities for EJ Communities

The Pennsylvania Climate Impacts Assessment will also consider the Climate Change Advisory Committee's (CCAC) comments on the 2021 Pennsylvania Climate Impacts Assessment. Additionally, the content and formatting of this document should be more accessible to a general audience and include supplemental materials for a non-technical audience.

Pennsylvania Climate Action Plan:

Pursuant to Act 70 of 2008, the Pennsylvania Climate Action Plan (PA CAP) will:

- Identify greenhouse gas (GHG) emission and sequestration trends and baselines in Pennsylvania.
 - The 2024 PA CAP will include information on actions already being taken within the commonwealth, including notable efforts by municipal and county entities within Pennsylvania toward mitigating GHG emissions and adapting to climate change and how these successes can be compounded to reach net zero GHG emissions.
- Include strategies to reduce GHG emissions and adapt to climate change, highlighting GHG reduction as the primary focus.
 - GHG reduction strategies will meet both the commonwealth's goal of 80% GHG reductions from 2005 levels by 2050 and identify and model strategies that can eclipse this goal and help to achieve an equitable reduction to net zero GHG emissions to further align Pennsylvania with the U.S. Climate Alliance's goals.
 - The Pennsylvania Climate Impacts Assessment and its triennial updates will inform these GHG reduction and adaptation strategies. and incorporate the results of DEP's Climate Actions for EJ Communities stakeholder outreach and planning efforts.
- Evaluate the cost-effectiveness, including analysis of costs, benefits, and co-benefits (including those related to public health), of each strategy or suite of strategies.

- This analysis will also evaluate the financial impact of meeting future energy demand within the Pennsylvania.
- Recommend legislative changes to the General Assembly needed to implement the PA CAP.
 - To make strategies in the PA CAP more actionable, it will contain a section that includes sample legislative language informed by a literature review.
 - Sample legislative language will be clearly identifiable and aim to achieve GHG reductions by implementing the strategies enumerated in the 2024 PA CAP.

Furthermore, electricity modeling and associated GHG emissions will be based on in-state generation, rather than consumption, as in prior PA CAPs. Strategy development will include a review of examples outside Pennsylvania, including actions that other states, municipalities, NGOs, and businesses doing business and employing workers in Pennsylvania are taking.

The 2024 PA CAP will also include considerations from CCAC comments on the 2021 PA CAP and will specifically include the following:

- A more detailed economic analysis of the costs and benefits of the proposed strategies compared to those in previous PA CAPs, as well as the cost of inaction.
- Strategies to achieve net-zero buildings and consider the embodied carbon in buildings.
- A discussion of the implementation considerations for each strategy, such as responsible parties, first steps, and barriers.
- Strategies to enact an equitable transition for EJ and energy communities.
- Strategies to address fugitive emissions from fossil fuel production and transmission activities.
- Strategies addressing the waste sector, including recycling.
- A discussion of current energy and climate policies and programs that have decreased Pennsylvania's GHG emissions and strategies for building on those successes.

Additionally, the content and formatting of this document will be more accessible to a general audience and include supplementary materials for a non-technical audience.

3. Target Audiences

The primary audiences and secondary audiences for this report include the following:

- Primary audiences:
 - Pennsylvania General Assembly
 - State and state-affiliated agencies
 - DEP and other state agencies (Department of Conservation and Natural Resources (DCNR), Department of Community and Economic Development (DCED), etc.)
 - Units of local government (counties, cities, boroughs, and townships)
 - Municipal Planning Organizations (Delaware Valley Regional Planning Commission (DVRPC), Councils of Government (COGs), etc.)
 - Members of the public (businesses and individuals)
- Secondary audiences:

- Federal agencies (U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), etc.)
- Academia
- Non-profit institutions
- Peer states

Previous Knowledge of Target Audience

Previous knowledge of the target audience may vary significantly between groups. Lawmakers, agency planners, and academics can be expected to have some background knowledge on climate and energy related issues and impacts and prior expertise in drafting policy, statutes, and regulations. Members of the public can be expected to have at least an awareness of some climate issues and impacts.

4. Stakeholder Engagement

DEP has contracted with Preservation Design Partners (PDP) to assist us in conducting targeted outreach to leaders in EJ Communities and develop a suite of climate actions that will directly benefit these communities. It is anticipated that these efforts will continue through Spring 2023. The contractor will use the information learned during this outreach in consultation with DEP in developing the PA CAP.

Additional outreach, with the aim of educating the public, will continue beyond the PA CAP development timeline. Details on DEP's Climate Outreach Strategy and specific outreach events are outlined in separate documents.

5. Timeline

EPO intends to solicit for and hire a contractor to provide technical assistance and work in concert with EPO to and assist in the development of the 2024 Pennsylvania Climate Impacts Assessment and PA CAP according to the following approximate timeline:

- EPO staff will prepare bid documents by 2/28/2023.
- Contract will be executed, and the contractor will begin work by 5/1/2023.
- The 2024 CIA will be due 12/29/2023.
- The contractor will consider public feedback received through DEP's stakeholder outreach efforts.
- The contractor will, at the direction of EPO, incorporate the CCAC's input into the 2024 PA CAP, engage with the CCAC at least every four months by attending in-person Committee meetings, and host webinars with updates and results or conduct separate calls to receive specific input from Committee experts.
- The contractor will present a final draft 2024 PA CAP to DEP by 5/31/2024.
- EPO staff will finalize the 2024 PA CAP and publish it by 10/31/2024.

6. Existing Information

Previous work that may contribute to this effort includes, but is not limited to the following:

- [2021 and previous Pennsylvania Climate Action Plans](#)
- [2021 and previous Pennsylvania Climate Impacts Assessments](#)

- CCAC comments on previous Pennsylvania Climate Impacts Assessments and PA CAPs (in appendices)
- [2018 Pennsylvania Energy Assessment Report](#)
- [2022 Pennsylvania GHG Inventory Report](#)
- [PennDOT's Extreme Weather Vulnerability Study](#)
- [DCNR's Climate Change Adaptation and Mitigation Plan – 2018](#)
- [Pennsylvania's Solar Future Plan](#)
- [Pennsylvania's EV Roadmap and update](#)
- [Pennsylvania DEP's Clean Energy Program Plan 2022 Update](#)
- [PA Energy and Employment Reports](#)
- [PA Clean Energy Employment Reports](#)
- [PA Energy Storage Assessment](#)
- [PA Agricultural Energy Opportunities Analysis](#)
- [Local Government Climate Action Plans](#)
- Climate Actions for Environmental Justice Communities (2023, forthcoming)
- Climate legislation from neighboring Mid-Atlantic states
- Net-zero climate plans from neighboring Mid-Atlantic states
- [Team Pennsylvania Foundation Releases Road Map on Carbon Management and Hydrogen Development in Pennsylvania - Team PA Foundation](#)
- [Portland Cement Association Roadmap to Carbon Neutrality](#)
- [US Climate Alliance Resources](#)