

## **Delaware's Climate Action Plan Overview Webinar Series**

Webinar Nos. 1 and 2

December 6, 2021, and December 9, 2021

### **Question and Answer Document**

*This document provides a list of questions that were submitted during the Climate Action Plan Overview virtual webinar sessions held via Zoom on December 6 and 9, 2021.*

*Unless otherwise noted, the questions in this document are worded "as submitted" by workshop participants. In some cases, DNREC staff either modified the wording of the questions for clarity or consolidated questions that were asked more than once into a single entry; any questions that fall into either of these categories are preceded by an asterisk (\*) and changes are indicated in brackets, as applicable. DNREC aimed to maintain the integrity and spirit of all questions that were modified or consolidated.*

*This document also provides answers to participant questions. These answers come from DNREC's Division of Climate, Coastal and Energy in consultation with technical experts from within DNREC and other state agencies.*

*A complete list of web links embedded in this document can be located on the last page.*

*Document Posting Date: January 19, 2022*

### **Questions Related to Plan Content and Format**

*Delaware's Climate Action Plan (CAP) appears to be extremely general and lacking in detail compared to surrounding states. It does not provide a clear map to lowering our emissions. When will we see a detailed plan such as that submitted by Maryland or other states in our region?*

Many of the strategies and actions for reducing emissions in the CAP are informed by a detailed technical effort to model the effect of specific actions on Delaware's future emissions levels. These results are detailed in a [supporting technical document](#) authored by our consultant, ICF, and available on the [Climate Action Plan webpage](#).

The modeling effort indicates that a combination of strategies is necessary over time to reduce emissions. In the short term, the largest emission reductions will result from actions that decarbonize the energy grid, transition to electric vehicles and increase energy efficiency. Reviewing this report will help answer technical questions you may have about the effectiveness of each type of emission reduction effort.

Further details about how to move forward will come from individual implementation efforts. For example, throughout the document there are actions that call for assessing opportunities or barriers for action. Moving forward on those actions will provide opportunities for public engagement around a specific topic (e.g., appliance efficiency standards or landfill gas capture) and provide additional specific details for how to implement.

*Are there any specific industry requirements or regulations for businesses to lower their carbon footprint included in the plan at this point?*

The Climate Action Plan's strategy for reducing commercial and industrial emissions has a particular focus on reducing high global warming potential gases, increasing energy efficiency and increasing renewable energy deployments on commercial and industrial sites.

The plan itself does not create any new requirements, but implementation of the plan over time may result in expansion of existing programs or changes to regulations, policies or laws. Any proposed changes to laws or regulations related to implementing the Climate Action Plan would go through the normal legal process for laws and regulations, including opportunity for public comments.

*\*The presentation mentioned joining with other states to implement market-based emissions reduction strategies. Can you be more specific about these strategies? Specifically, is this referring to the Transportation Climate Initiative (TCI) and is the state going to continue to participate since other states are pulling out? If yes, when might a MOU be adopted?*

Several opportunities exist to work with other states on market-based emission reductions from transportation. Specifically mentioned in the plan (pg. 42) is assessing the feasibility of a low carbon fuel standard, assessing the feasibility of the [Transportation and Climate Initiative \(TCI\)](#) and assessing potential of mileage-based user fees on emissions. In addition, Delaware is already a participant in the Regional Greenhouse Gas Initiative (RGGI), a market-based emission reduction program for power-generating facilities.

The TCI program, and other multi-state mechanisms to reduce transportation emissions, will continue to be evaluated by states, including Delaware, as a potential strategy to be implemented in the future.

*\*Does anyone have the responsibility to make sure the state is implementing the plan, like an "Energy Czar" or a Climate Change Commission?*

The [DNREC Division of Climate, Coastal and Energy \(DCCE\)](#) is uniquely qualified to do just that. DCCE brings together under one roof the key programs working on resiliency, emissions reductions and energy policy to facilitate collaboration and coordination. Specifically, the

Climate and Sustainability Section, will be responsible for tracking implementation of the Climate Action Plan over time and will develop a webpage that will make it easy for Delawareans to access information about progress. The Section is also responsible for Climate Action Plan outreach efforts and for convening working groups for implementation.

### **Questions Related to Emission Reduction Goals**

*Do you have annual targets [for emission reduction]?*

There are not annual targets for reducing emissions, the target is focused on reaching the 2025 goal of at least 26% reduction of emissions compared to the 2005 baseline. Each year, the DNREC Division of Air Quality produces the [Delaware Greenhouse Gas Inventory](#) which is used to track our progress to reach the 2025 goal.

*Where is the State today versus the 2005 baseline [for emissions]?*

Each year, the DNREC Division of Air Quality produces the [Delaware Greenhouse Gas Inventory](#) which is used to track our progress to reach the 2025 goal.

The 2018 Delaware Greenhouse Gas Inventory, released in September 2021, shows that greenhouse gas emissions in 2005 were 23.19 million metric tons of carbon dioxide equivalent (MMT $\text{CO}_2\text{e}$ ). A reduction of 26% in greenhouse gas emissions would equal 17.16 MMT $\text{CO}_2\text{e}$ . The 2018 GHG emissions data for Delaware are the most current available. In 2018, greenhouse gas emissions were estimated at 16.89 MMT $\text{CO}_2\text{e}$ .

This report indicates that for 2018, we met the minimum goal of a 26% reduction in greenhouse gas emissions from a 2005 baseline year. However, the report also indicates an overall increase in emissions between 2017 and 2018. DNREC will continue to inventory emissions each year and report progress over time.

*How do Delaware goals match up with President Biden's goal of 50-52% reduction in Greenhouse Gas emissions by 2030?*

The Climate Action Plan was developed in part to identify ways to meet the established goal of the state to reduce greenhouse gas emissions by at least 26% by 2025 (from 2005 levels). This goal matches the pledge the United States made in 2015 at the [Conference of the Parties \(COP\) United Nations Framework Convention on Climate Change held in Paris](#).

At the recent COP, held in Scotland in November 2021, the United States pledged to reduce emissions nationwide by 50-52% by 2030. Delaware's goal has not yet been updated to reflect a longer time period, or this increased ambition, from the federal government.

Strong federal climate goals and climate programs will assist Delaware to meet, and exceed, its 2025 emission reduction goals. The new ambitious federal goal could also be useful in discussions about longer-term goals that the state may wish to establish.

*\*Why wasn't the State bold and set a more aggressive goal than 26% that is more on par with neighboring states? What is the next emissions goal after 2025? And is it more aggressive than 26%? Are the goals of this plan enough given the recent IPCC recommendation of carbon neutrality by 2050?*

The Climate Action Plan provided the first opportunity for the state to understand a path to meeting its goal of reducing emissions by at least 26% by 2025 (from 2005 levels). What we learned is that without new actions to reduce emissions, Delaware will just miss its goal, but by taking new actions to reduce emissions, Delaware can exceed the goal. A suite of potential actions was modeled in the [GHG Emission mitigation analysis](#) completed by ICF. The analysis showed that if Delaware implemented this suite of actions, it could reduce statewide emissions by as much as 31%. These potential actions are not the only actions Delaware could take. Rather, they were selected to provide an example of the emission reduction potential of putting in place additional emission reduction strategies.

Strategies and actions outlined in the Climate Action Plan are focused first on meeting the 2025 goal and putting in place the foundation for emission reductions beyond 2025. On page 63 of the Climate Action Plan, it suggests that establishing mid- and long-term emission reduction goals would be beneficial. The emissions modeling conducted in support of the Climate Action Plan, combined with the discussion in Chapter 3.1 about other state emission goals, can be used to guide discussion about future emission goals for the state.

*The Delaware plan is fairly open-ended, so it will need some serious work to get to net zero no later than 2050, the goal of the US Climate Alliance, to which Delaware belongs. What level of Renewable Energy Portfolio Standards do you think will help us get to this goal?*

Renewable energy alone will not get us to net zero greenhouse gas (GHG) emissions. Other mitigation actions, such as electrification of the building and transportation sectors, will have to be implemented to achieve net zero.

A suite of potential emission reduction actions was modeled in the [GHG Emission mitigation analysis](#) completed by ICF. This modeling exercise included a renewable energy target of 40% by 2035 and 100% by 2050. The analysis showed that if Delaware implemented the selected suite of actions, statewide emissions could decline by 31% by 2025 and 59.7% by 2050. These potential actions are not the only actions Delaware could take. Rather, they were selected to provide an example of the emission reduction potential of putting in place additional emission reduction strategies.

*Is the goal outlined in the plan of 31% actually enough to prevent the rise of greater than 1.5C temp rise globally and avoid catastrophic climate change?*

A 31% emission reduction is not a goal in the plan. Rather, it is the result of an [emissions modeling exercise](#). The modeling exercise showed us that our goal for 2025 is feasible. However, the Climate Action Plan also “recognizes the need to strengthen our commitment to reducing emissions beyond 2025.” It also notes: “The Intergovernmental Panel on Climate Change indicates that worldwide greenhouse gas emissions must reach net zero by 2050 to stop Earth’s warming beyond 1.5 degrees C (1.7 degrees F) and to avoid the worst consequences of climate change” (page 28). By minimizing greenhouse gas emissions now, Delaware contributes to a worldwide effort to reduce the severity of rapid climate change.

### **Questions Related to Regulations and Legislation**

*Will DNREC be drafting legislative language to achieve greater emissions reductions?*

The Climate Action Plan recognizes that legislation and regulations and/or policies may be needed in the future to achieve greater emissions reductions. Reviewing current regulations and policies and identifying opportunities for changes to both increase resiliency and minimize emissions is one of the strategies outlined in the Plan.

*\*How will things change to incorporate sea level rise considerations into our current decision-making process? Most state and local policies and regulations for flood management, emergency management, infrastructure siting, building codes and natural resource management had not considered the future effects of sea level rise.*

The Climate Action Plan highlights the importance of incorporating future conditions—sea level rise, increasing temperatures, and increasing heavy precipitation events—into our decision-making processes.

Section 3.2.2. points out specific examples of regulations and plans that could be updated to incorporate climate impacts and section 3.2.3 includes example actions that can be taken to assist local governments and communities. This is particularly important as many municipalities do not have the resources or technical capacity to do it alone. Section 4.2.1 also suggests the state formulate a standard set of planning scenarios for use in decision-making.

Previously, the state published [Avoiding and Minimizing Risk of Flood Damage to State Assets: A Guidance Document for State Agencies](#) that outlines steps for incorporating increasing flood risk into construction of state buildings and infrastructure.

*\*Can people who live in mobile homes on land that they pay lot rent receive incentives such as rebates & energy credits for adding solar panels to their homes?*

Yes! There are grants and rebates available for renewable energy and energy efficiency for renters and homeowners, including mobile homes.

The programs that you qualify for may depend on where you are located, the condition of the home and which electricity provider you use. More information on programs and who to contact can be found on the "[programs for residents](#)" page of the Division of Climate, Coastal and Energy website.

*Why Does DNREC allow big company polluters to buy credits from the small business trading and banking program instead of requiring polluters to actually reduce pollution instead of adding pollution in already heavily pollution burden communities like the Rt. 9 Corridor and Collins Park?*

DNREC makes permitting decisions based on the applicable state regulations and state and federal law. The Climate Action Plan points out actions that can be taken to incorporate climate change into applicable regulations.

### **Questions Related to Resiliency**

*\*Do we have metrics, or benchmarks, for sea level rise and coastal flooding especially in southern Delaware seashore regions?*

Yes, the National Oceanic and Atmospheric Administration (NOAA) has three local tide gauges that record water levels and long-term sea level trend data. The longest data set is for Lewes, DE dating back to 1919. Cape May, NJ has been recording data since 1965 and Ocean City, MD has data from 1975. The sea level rise trend data along with other station and tidal information can be found at the [NOAA Tides and Currents website](#). In addition, the University of Delaware's Delaware Environmental Monitoring and Analysis Center (DEMAC) has a database of high-water marks of storm flooding from 1961 to 2016. There is [high water mark data across the state](#) for over 120 storms in the database. DEMAC hopes to update the database in the future.

*What targeted communication tools and messages on climate change do you have available? Where are they accessible?*

Currently, the best resource for Delaware specific information on climate change is the [Delaware Climate Information Center](#). The website is designed to provide easy access to relevant and useful information for assessing impacts and preparing for climate change in Delaware. It is intended to be used by citizens, business owners, government officials, and scientists. The site includes a grant funding database, climate change projects and reports,

outreach and events, climate data, decision-making tools and applications, and the contact information for the agencies and organizations working on climate change in Delaware. Additionally, one of the strategies in the Climate Action Plan is to expand the available communication and messaging tools and resources, so additional resources will be forthcoming.

*\*How can residents concerned with land-use changes and planning in their county help move action forward at the local level? What can the state do to support these efforts?*

The best way that concerned residents can get involved is by making their concerns known to their local representatives. The state has a variety of technical assistance programs that can provide support to interested communities and information to residents. A good one-stop shop of information on climate change impacts is the [Delaware Climate Information Center](#), a database with resources on climate change impacts and tools available for increasing community and individual resiliency.

### **Questions Related to Renewable Energy**

*Where is the clean energy going to come from?*

Delaware's renewable energy requirements are met mostly by wind and solar. The recently revised [Renewable Portfolio Standards \(RPS\)](#) law specifies that 40% of Delaware's energy come from renewable energy (including 10% solar) by 2035. Energy planners expect that the RPS for 2035 will continue to be met primarily with wind and solar resources.

*How can we expand dangerous infrastructure to utilize "renewable" gas, without facing the same exact harms that have come from "natural" gas infrastructure (e.g., pipeline leaks)?*

The Climate Action Plan includes a strategy to "Increase renewable natural gas production and incentive markets for its use as a fuel" (page 44). Two actions listed under this strategy call for assessing opportunities for using captured landfill gas as fuel and assessing opportunities for anaerobic digestion projects. The plan calls for an assessment of opportunities to improve our understanding about emission reduction benefits, markets for products, etc. The potential for negative impacts, including emissions leaks, could be a component of those assessments.

Strategies and actions in the Plan focused on assessing opportunities for renewable natural gas is not an endorsement of any specific project, but a recognition that renewable natural gas could be part of a low- or no-carbon energy mix and that state regulators and others must be prepared to evaluate whether it is the right choice for Delaware, especially as technology matures.

*What seems to be the stumbling block for Delaware to start an offshore wind project?*

The [Governor's Offshore Wind Working Group](#) recommended that Delaware consider several future options for procuring offshore wind to serve Delaware and posed a series of questions for further study and analysis. In 2021, DNREC engaged the Special Initiative for Offshore Wind at the University of Delaware "to conduct analysis of market trends, forward looking prices, supply chain and workforce development opportunities, technical obstacles, and options for the possible procurement of offshore wind to serve Delaware." That work has not yet been completed.

*\*What is the plan for decarbonizing the grid?*

Decarbonizing the grid will require increasing use of renewable energy resources, which are becoming more price competitive.

*Are there any upcoming projects in private industry to develop utility scale renewable energy? Will Delaware incentivize these businesses to develop and construct these projects?*

We are seeing increasing interest in developing utility scale solar projects in Delaware. Because utility scale solar offers clear cost advantages, the State does not offer specific incentives beyond removing barriers (like the recent [Senate Bill 2](#) relating to community solar) and providing the opportunity for participation in Solar Renewable Energy Credits markets.

*Does the plan promote renewable sources of natural gas, such as biogas from digesters recycling byproducts from our state, like it does solar and geothermal sources?*

Renewable gas generation from anaerobic digesters and landfills qualifies as renewable energy under existing state law. There are several landfill gas projects operational today in Delaware.

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*\*How will DE "be prepared" for acceptance/implementation of Offshore Wind projects? What are the barriers to its implementation and how are they being addressed?*

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## Questions Related to Emission Reduction Strategies

*Has DNREC looked at Vermont's Universal Recycling Law?*

Delaware’s Climate Action Plan does not reference other state recycling programs specifically. However, it does include strategies and actions related to waste management; for example, the plan identifies actions to reduce methane emissions by diverting waste from landfills through increased recycling and waste diversion (pg. 45).

*\*Will there be efforts to keep mature trees during development via coding and permitting to ensure the carbon storing benefits they provide remain?*

The Climate Action Plan contains several strategies that seek to increase the ability of our natural resources to act as a carbon “sink.” For example, it contains an action to permanently protect 2,500 acres of forested areas by 2028 and 1,000 acres of headwater forests by 2025 (pg. 48). These strategies align with existing plans including the Delaware Statewide Forest Strategy and the Chesapeake Bay Watershed Implementation Plan.

The way in which natural resources, including mature trees, are conserved during the development process is determined in county and municipal codes. DNREC has worked with several municipalities to improve local codes for tree preservation and technical assistance is also available from the [Department of Agriculture’s Urban and Community Forestry Program](#).

*How can we encourage the Governor to implement ZEV regulations for passenger vehicles and sign the MOU on small trucks, etc.?*

The Climate Action Plan includes actions to adopt the proposed Zero Emissions Vehicle portion of California's Advanced Clean Cars program (also known as ZEV). This policy is currently under consideration. Strong business and consumer demand for electric vehicles helps grow the industry in Delaware. Show your support by taking advantage of our [Clean Transportation Rebate Program](#) and purchasing or leasing an electric vehicle.

## Questions Related to Equity and Underserved Communities

*What is and will be the role of the Community Ombudsman in the Delaware Plan, if any?*

The DNREC Community Ombudsman took part in the state agency interview process and provided actions that could be taken to help increase resiliency of frontline communities. Example actions include providing annual training to community leaders about the impacts of climate change, updating policies for grant funds and educating communities on resiliency resources available from other state agencies.

*What are the plans to engage Delaware frontline (and underserved) communities to ensure equity in action implementation and future planning?*

Engaging frontline and underserved communities is a top priority of Plan implementation. DNREC has launched an Environmental Justice Continuous Improvement Project. The goal of this project is to improve and ensure environmental justice for Delaware communities while providing DNREC services and make it become part of the Department's culture in everything we do. An internal team has been developed to focus on creating a framework that will establish strategies and best practices for improvement of services to increase efficiency and effectiveness.

In support of this, DNREC has contracted Delaware State University (DSU) to review how DNREC engages with underserved audiences and areas for improvement. The final report from DSU is expected in winter 2023, this report will help identify how best to engage with frontline and underserved communities across a spectrum of issues, including climate action.

*Are there representatives from those Native American nations (Delaware) involved in this presentation or active with DNREC?*

During the creation of the Climate Action Plan or the release webinars there was no direct involvement with the Native American nations in Delaware. However, DNREC is very interested in increasing its partnership with Delaware's Native American community, specifically identifying opportunities to incorporate the community's traditional knowledge into management and research decisions.

*Is the state developing a plan to maximize federal infrastructure funds? Will you make sure funding goes to underserved communities?*

State agencies are working together to make preparations for federal funding opportunities through the Federal Infrastructure Investment and Jobs Act. However, federal agencies have not yet laid out details regarding how the funds can and should be spent.

One of the three guiding principles of the Climate Action Plan is to ensure climate action is engaged, empowering and equitable. Ensuring everyone is at the table throughout the implementation process is vital to the success of the plan.

### Questions Related to Human Health and Safety

*What is being done to address the risk of extreme heat and track actual morbidity and mortality in that area?*

Delaware's Division of Public Health has created an informational online tool to help residents access data and information on health statistics, "[My Healthy Community: Delaware Environmental Public Health Tracking Network](#)." The site includes a Population Health dashboard (as well as a COVID-19 dashboard) that includes data related to environmental conditions and related public health concerns. Importantly, the dashboard includes a section on climate change-related health data. Under this section, users can find health data on heat stress hospitalizations, as well as asthma hospitalizations and deaths.

*\*What is the plan for communities at risk from climate and health changes?*

The Plan outlines several strategies and possible actions for supporting communities at risk from climate and health changes. Examples include the creation of cooling centers, expanding the [Low-Income Home Energy Assistance Program \(LIHEAP\)](#) and increasing education on reducing mosquito habitat. There are also strategies to provide technical support to communities through existing programs like the [Resilient Communities Partnership](#) and the [Coastal Training Program](#), as well as the possibility of creating new programs to provide community support.

*\*Why aren't public health impacts considered with the same weight as business interests when approving permits?*

DNREC makes permitting decisions based on the applicable state regulations and state and federal law. The Climate Action Plan points out actions that can be taken to incorporate climate change into applicable regulations.

### Miscellaneous

*Do we have access to the PowerPoint?*

Yes, a copy of the PowerPoint and recordings of the webinars are available on the [Climate Action Plan web page](#).

## Embedded Web Links Listed by Document Order

Delaware Climate Action Plan Supporting Technical Greenhouse Gas Mitigation Analysis Report:

<https://documents.dnrec.delaware.gov/energy/Documents/Climate/Plan/DNREC%20Technical%20Report.pdf>

Delaware Climate Action Plan Webpage: <https://dnrec.alpha.delaware.gov/climate-plan/>

Transportation and Climate Initiative: <https://www.transportationandclimate.org/>

DNREC, Division of Climate, Coastal and Energy: <https://dnrec.alpha.delaware.gov/climate-coastal-energy/>

Greenhouse Gas Emission Inventory: <https://dnrec.alpha.delaware.gov/air/greenhouse-gas/>

Avoiding and Minimizing Risk of Flood Damage to State Assets:  
[www.de.gov/floodavoidance](http://www.de.gov/floodavoidance)

Programs for Residents from DCCE: <https://dnrec.alpha.delaware.gov/climate-coastal-energy/resident/>

Conference of the Parties (COP) United Nations Framework Convention on Climate Change held in Paris: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

Renewable Energy Assistance: <https://dnrec.alpha.delaware.gov/climate-coastal-energy/renewable/assistance/>

NOAA Tides and Currents: <https://tidesandcurrents.noaa.gov/>

Delaware High Water Mark Database: <http://demac.udel.edu/delaware-high-water-marks/about.php>

Delaware Climate Information Center: <https://www.declimateinfo.org/>

Renewable Energy Portfolio Standards: <https://dnrec.alpha.delaware.gov/climate-coastal-energy/renewable/portfolio-standards/>

Offshore Wind Working Group: <https://dnrec.alpha.delaware.gov/climate-coastal-energy/renewable/offshore-wind-working-group/>

Delaware Senate Bill 2: <https://legis.delaware.gov/BillDetail/78777>

Department of Agriculture Urban and Community Forestry:  
<https://agriculture.delaware.gov/forest-service/urban-and-community/>

Clean Transportation Program: [www.de.gov/cleantransportation](http://www.de.gov/cleantransportation)

My Healthy Community Delaware Environmental Public Health Tracking Tool:  
<https://myhealthycommunity.dhss.delaware.gov/locations/state/community-characteristics>

Low-Income Home Energy Assistance Program (LIHEAP):  
<https://www.dhss.delaware.gov/dssc/liheap.html>

Resilient Communities Partnership: <https://dnrec.alpha.delaware.gov/coastal-programs/planning-training/resilient-communities/>

Delaware Coastal Training Program: <https://dnrec.alpha.delaware.gov/coastal-programs/planning-training/coastal-training/>