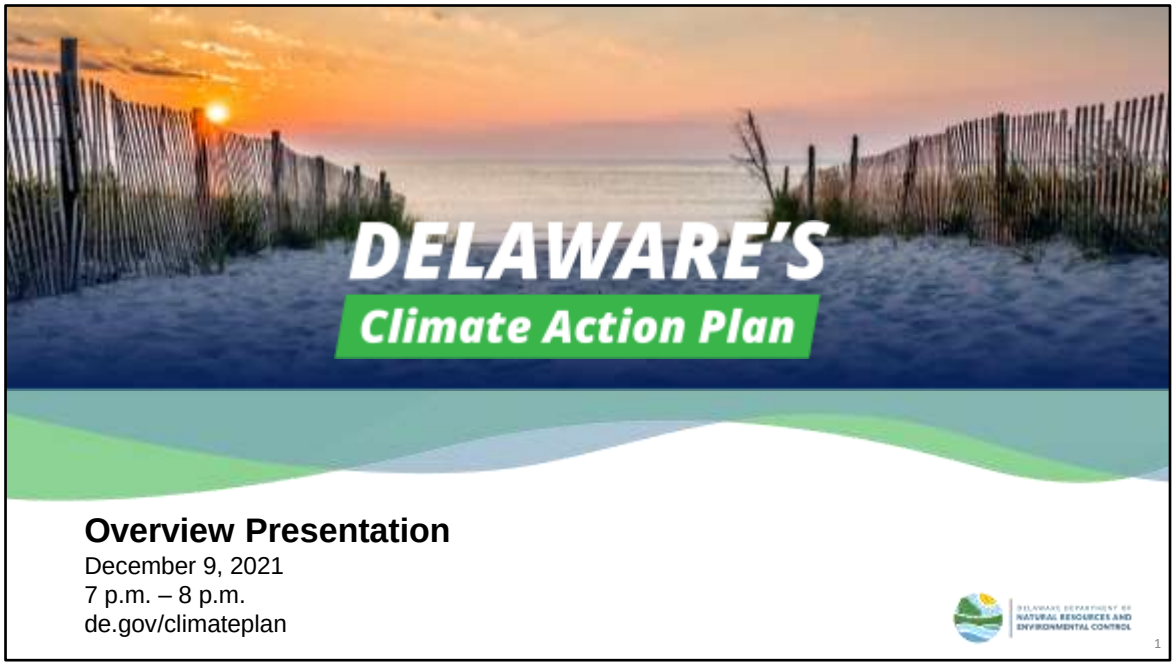

Good evening. This time is now 7:00 pm, so we will go ahead and get started. Welcome to Delaware's Climate Action Plan overview webinar. Thanks for making time to join us today.

Before we begin, we would like to gratefully acknowledge the Lenape and Nanticoke peoples on whose ancestral homelands we are located on what we call Delaware, and the diverse and vibrant Native communities who make their home here today.

Today's presentation will provide you with an overview of the recently released Delaware Climate Action Plan and answer questions you may have.

My name is Susan Love, I'm the Administrator in the DNREC Division of Climate Coastal and Energy. I will be a facilitator and presenter today.

This webinar is being recorded. Recordings will be posted in both English and Spanish on the Climate Action Plan website at de.gov/climateplan. A closed caption transcript questions and answers from both webinars will also be posted here.

Before we begin, we would like to ensure that everyone's technology is working and address a few housekeeping items.

Virtual Webinar Logistics: Tech Support

- Open your chat box.
- You can access the chat box by clicking the button at the bottom of your screen. A chat box will appear on the right side of your screen.
- Send a message to all panelists and someone will assist you. Please note that the other participants will NOT be able to see your question making it a private message.

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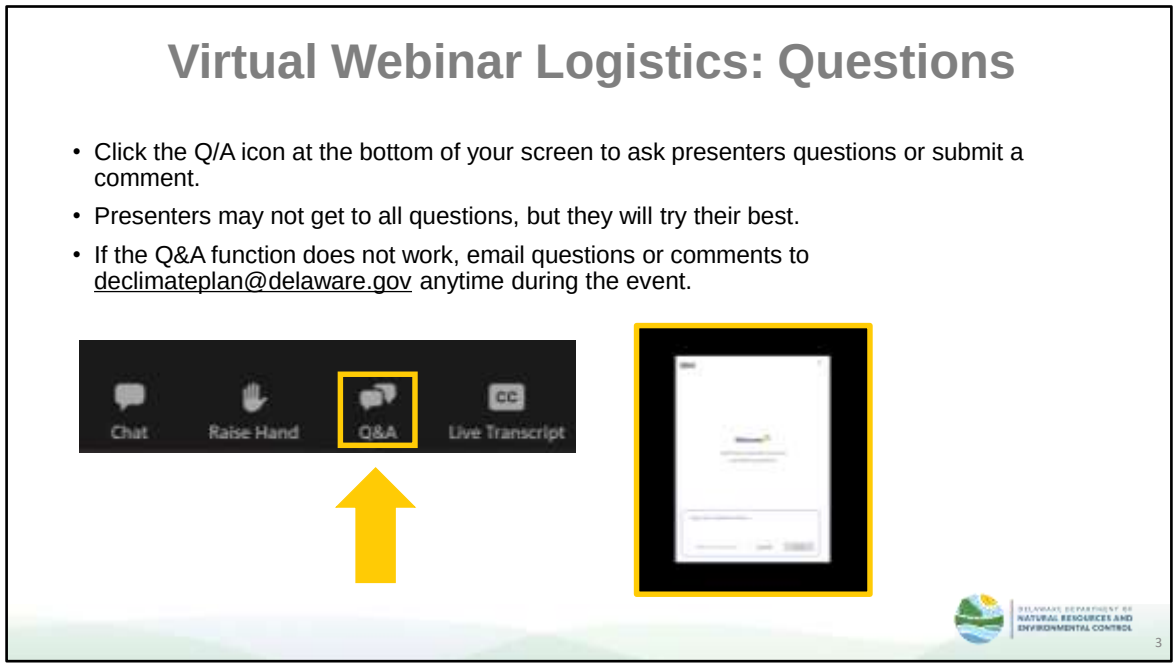
If you have any technical issues throughout the webinar, please use the CHAT BOX to send a message to “all panelists”. This will be a private message to panelists and one of us will assist you.

To access the chat box, click the chat box icon at the bottom of your screen.

We have also included a link to the Zoom Help Center in the chat box as an additional resource.



If you have questions during the webinar, please enter your questions by clicking the Q&A icon at the bottom of your screen and typing your question. Text typed into the Q&A box will be visible to everyone on the webinar.

We will answer as many questions as possible at the end of the presentation.

Any questions we cannot answer during the webinar will be answered in a document and posted on the Climate Plan website. So please do not hesitate to put your question into the chat box -- we will answer it!

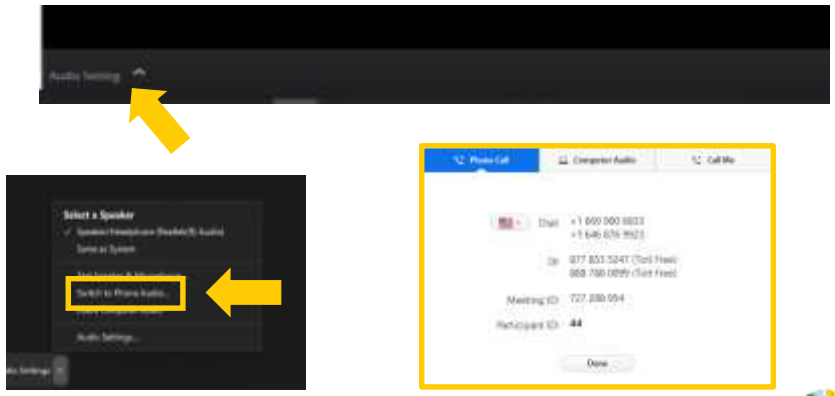
If you are calling into the webinar or do not have access to the Q&A box, you can also email questions to declimateplan@delaware.gov. Again, that's declimateplan@delaware.gov.

In order to create a safe and positive experience for all webinar participants, we will not tolerate any offensive or inappropriate language nor any kind of hate speech.

If such language is used, it will be deleted, and the responsible participant will be removed from the webinar and unable to return.

Virtual Webinar Logistics: Audio

- If you're using speaker audio and it doesn't work, try re-starting Zoom or click the "up" arrow and "Switch to Phone Audio".



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You will get a phone number to dial in to.

Virtual Webinar Logistics: Live Transcript

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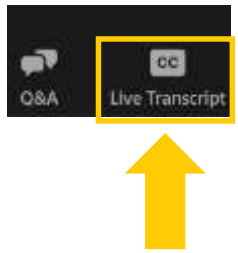
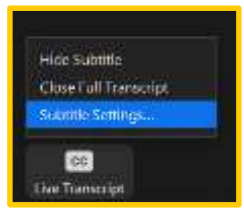
- To view subtitles that were typed previously, select “Show Full Transcript”, a new pop-up will appear with the transcript.
- To change subtitle size, click the “Live Transcript” icon again and select “Subtitle Settings”. Use the slider to change subtitle size in the pop-up panel.





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Subtitles are also available during this webinar.

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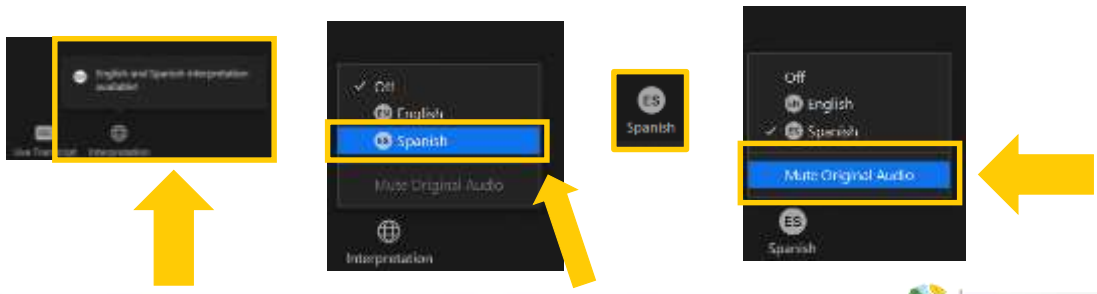
Virtual Webinar Logistics: Live Translation

Interpretacion en ESPAÑOL

- To turn on language interpretation click the interpretation icon at the bottom of your screen.
- Then select “Spanish”, the interpretation icon will change to “ES” and the word Spanish below.
- To only hear the presentation in Spanish without the original English at the same time click on the interpretation button again and select “Mute Original Audio.”



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Live Spanish translation is also available today during the webinar.

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Then select Spanish.

The interpretation icon will change to let you know your choice has been accepted.

To only hear the presentation in Spanish, click the interpretation icon again and choose to “Mute Original Audio” from the menu.

Agenda

7 p.m.	Webinar Introduction
7:10 p.m.	Introduction to the Climate Action Plan
7:20 p.m.	Strategies to Maximize Resilience
7:30 p.m.	Strategies to Minimize Emissions
7:40 p.m.	Plan Implementation
7:45 p.m.	Questions and Wrap-up
8 p.m.	Webinar Ends

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Ok. Now that we have everyone up and running with Zoom, we can move into our agenda for the afternoon. We do have a packed schedule but out of respect for your time we will finish no later than 8 p.m.

We will begin by hearing from DNREC Secretary Shawn Garvin.

Then we will provide an overview of Delaware's Climate Action Plan and take a more in depth look at the Plan's strategies to maximize resilience and minimize emissions.

Finally, we will have a live question and answer session where our presenters will answer questions that have been submitted into the Q&A box.

To get us started, I'd like to introduce DNREC Secretary Shawn Garvin for introductory remarks.

Secretary Garvin, the floor is yours.

Climate Change in Delaware

Climate change looks different depending on where you are in the world.

In Delaware, climate change primarily takes the form of:

- **Sea level rise,**
- **Increased temperatures**, and
- **More frequent intense storms**, including **heavy precipitation and flooding.**

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Thank you, Secretary Garvin.

You are here today likely because you have noticed changes in Delaware's climate and are concerned how these changes will affect your family and community. You may also want to know why these changes are happening and what can be done.

Climate change is caused by emissions of greenhouse gases, primarily fossil fuels and industrial pollutants. Here in Delaware, the three primary climate impacts are: rising sea levels, increasing temperatures and more frequent and intense storms.

Responding to climate change means both MINIMIZING the greenhouse gas emissions that cause climate change and MAXIMIZING our resilience to climate change impacts.

Plan Overview

Delaware's Climate Action Plan guides state efforts to **Minimize greenhouse gas emissions** and **Maximize resilience to climate change impacts.**

The Climate Action Plan was created to:

- Help Delaware meet its emissions reduction goal (at least 26% from 2005 levels by 2025).
- Integrate emissions reduction and climate change adaptation actions.
- Set a course for state climate action in the decades ahead.

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Delaware's Climate Action Plan builds upon two decades of work on climate change here in Delaware and accomplishes three primary things:

1. It outlines strategies that will help Delaware meet its short-term emission reduction goal—reducing emissions by at least 26% by 2025 from a 2005 baseline.

2. For the first time, integrates emission reduction strategies with resiliency actions

3. It sets a course for emission reductions and resiliency actions beyond 2025

A Living Document

- Many of these strategies build off existing programs.
- Strategies can be implemented over time, as resources, data and partnerships develop.
- Actions can evolve and change, as Delaware's understanding of climate impacts and climate change strategies grows.

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Delaware's Climate Action Plan is a living document – meant to provide guidance to programs and policies moving forward.

The strategies and actions we are about to share with you are meant to be implemented over time.

As our understanding of climate change in Delaware grows and technologies change, the strategies may also evolve and change.

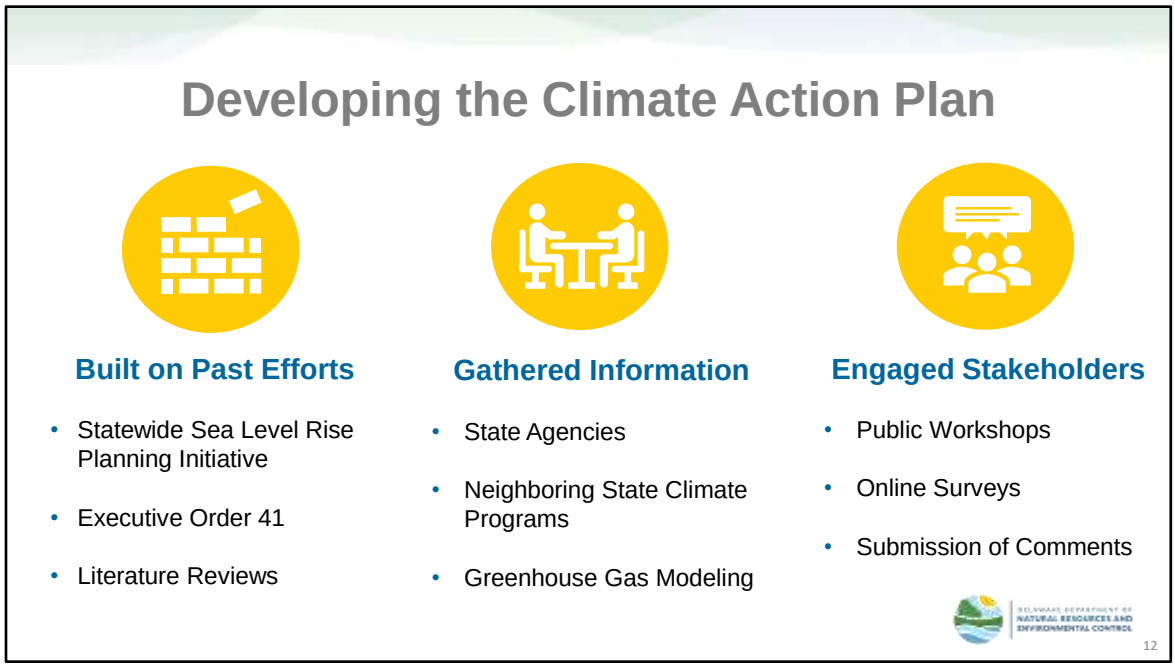
Implementing individual actions in the plan will also bring more opportunities for engagement and public involvement.

I do want to make clear that the plan is a GPS – showing us a path forward.

The plan itself does not change any existing laws, policies, regulations or funding levels.

This is a statewide plan; as we review the strategies in the plan with you, you will notice that strategies are focused on state agency actions, or activities that benefit from state agency involvement.

However, in order to prepare our state for climate change, everyone has a role to play whether at your home, business, community, or local town council.



Delaware's Climate Action Plan builds on past efforts to address climate change in Delaware like the 2013 Sea Level Rise Recommendations report and the 2014 Climate Framework for Delaware.

To develop the plan, our team gathered information including interviews with stakeholders and from greenhouse gas emissions modeling.

We also worked to engage the public and technical experts in the development of the plan.

We hosted 3 in-person public workshops in March 2020, and 5 online workshops in September 2020 to share information and get feedback from the Delaware residents.

These online workshops were paired with questionnaires that could be filled out by participants and those who were unable to make the sessions.

We also hosted in-person expert stakeholder workshops in March 2020 and online in September 2020.

Feedback from all these efforts was incorporated into the plan.

Now I will turn it over to Ms. Maggie Pletta who will provide you an overview of the strategies outlined in the Plan to maximize resilience.

You will then hear from Ms. Jennifer de Mooy about strategies to Minimize Emissions, before you hear back from me to wrap it up.

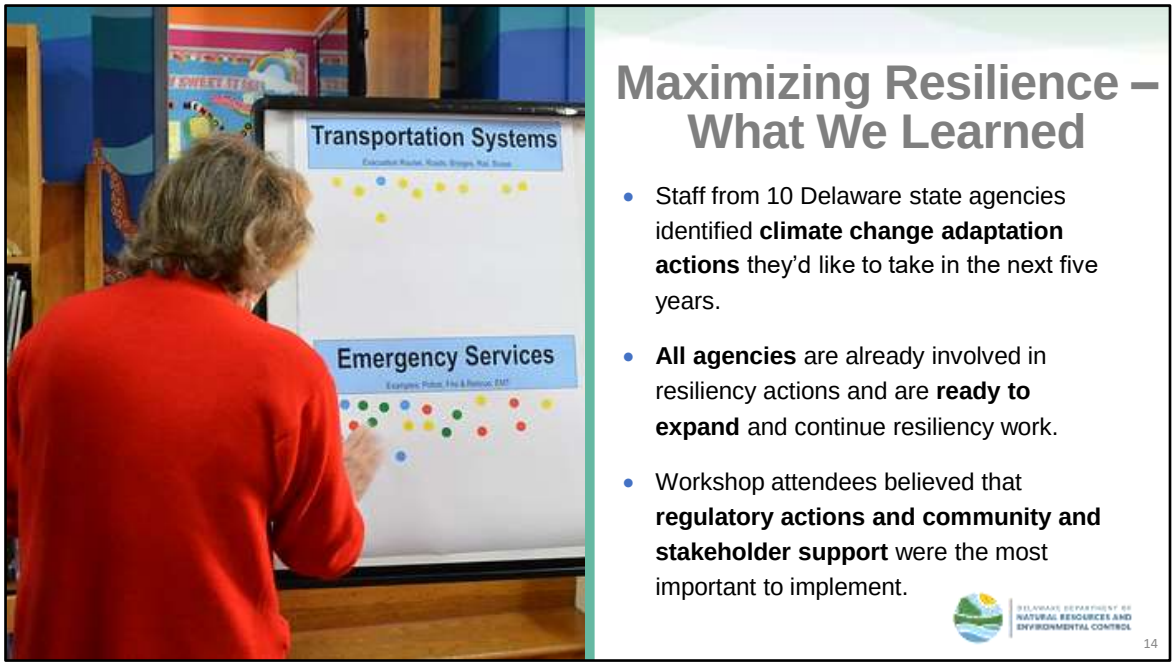
Thank you, Susan.

As you heard from Susan one of the major components of the Plan is to identify opportunities and strategies that state agencies can take to maximize their resilience to climate change.

So, what does it mean to be resilient?

It means that an agency has the ability to “bounce back” after a hazardous event rather than just reacting to the event.

There are many ways that resilience can be achieved and over the next few slides I will cover the strategies laid out in the plan, as well as how the strategies were created.



First, let's look at how the strategies and actions were identified.

We interviewed staff from across 10 state agencies to gather information on what climate change impacts they were already experiencing on their work, how they are adapting to them, and what impacts they expected to see in the future.

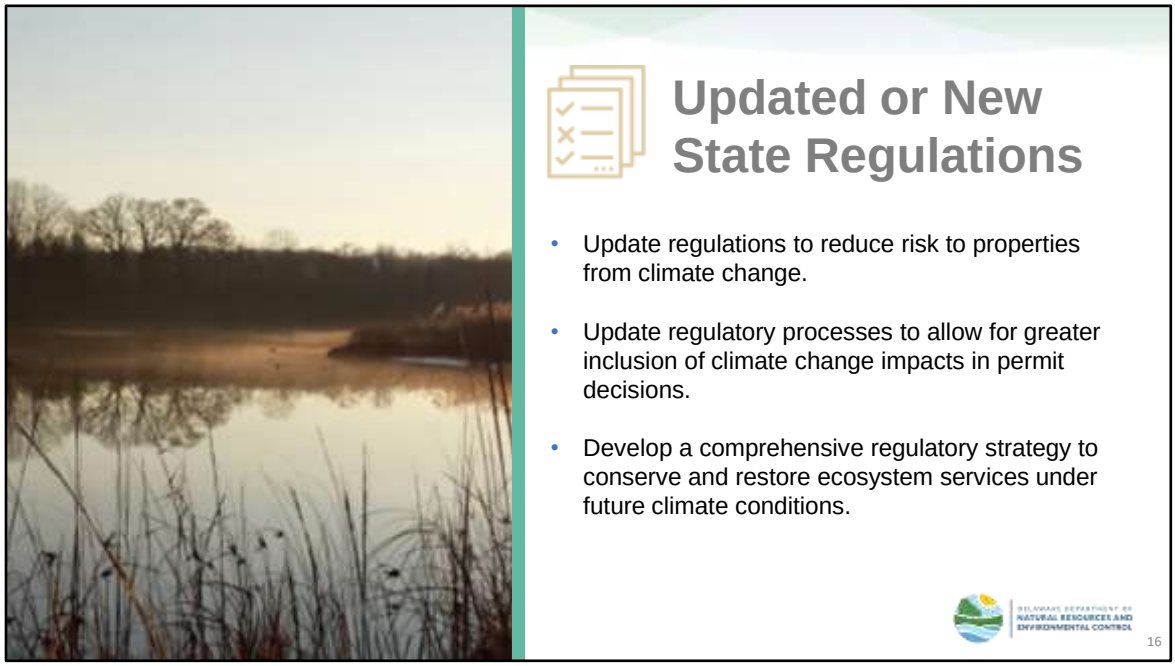
That produced a list of actions and strategies that fell into seven overarching categories.

These actions and strategies were shared last fall during our virtual public workshop series for the public to review and provide input.

The feedback from the workshop helped the team to prioritize the strategies in the Plan.

From those workshops the top two areas that attendees believed were most important to implement were regulatory actions and community and stakeholder support.

Now let's dive a little deeper into the strategies that resulted from the state agency interviews that made it into the plan based on public input.



The first category of strategies relates to the updating or creation of new state regulations.

State agencies are tasked with upholding regulations and policies that protect Delaware's residents and resources.

However, many regulations and procedures were written and enacted prior to the current scientific understanding of climate change and its impacts.

To ensure that agencies protect and manage state resources appropriately — under both current and future climate conditions — periodic review of, updates to, and possible creation of regulations and policies are needed.

This strategy aims to protect the safety and well-being of the state's residents, businesses, resources and economy

The next strategy category is to provide support for communities and stakeholders.

There are 57 incorporated municipalities in Delaware, all of which will be impacted by climate change.

Many of these municipalities depend on state agencies and other organizations for planning and implementation support including up-to-date tools, training and technical support.

This is especially important for our “front-line” communities, or the communities that are first and often worst impacted by climate change.

Many of these communities are a sub-set of a larger municipality or in rural unincorporated areas that have no formal governance structure.

Providing support to these communities is an important step in ensuring equitable climate action.

The third strategy category is to incorporate climate change impacts and considerations into management plans.

State agencies use various planning documents to manage natural resources, emergency response, state facilities and agency equipment.

These plans are updated on a periodic basis and serve as the guiding documents on how an agency functions, including how they spend their budgets.

Updating the plans to incorporate current and future climate conditions ensures effective management, protection of human life, and fiscally responsible decision making.

The fourth strategy category focuses on the design and operation of state-owned facilities.

The Delaware Office of Management and Budget manages and maintains more than 100 facilities, 165 acres of property and over 900 vehicles statewide.

These totals do not include additional land and facilities owned by other state agencies, making the total area owned and maintained even higher.

Many are already impacted by climate change and will continue to be affected as the climate continues to change.

The impacts of climate change on facilities can result in more frequent repairs because of extreme weather events and higher operating costs to heat and cool buildings.

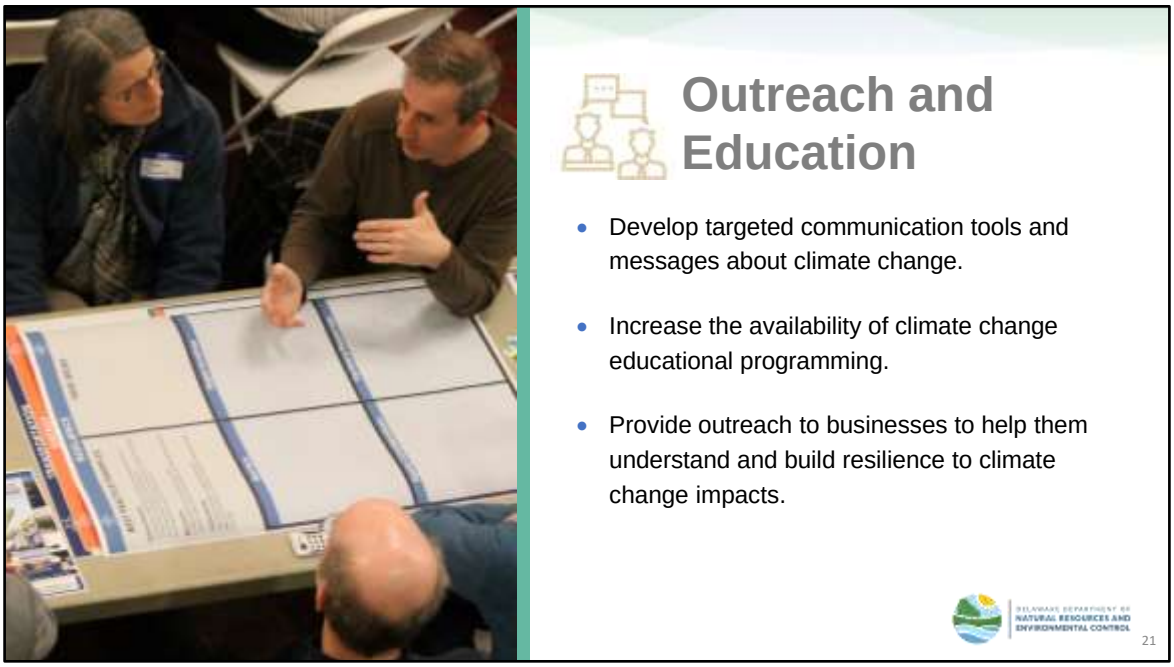
By taking action now to improve the resiliency of state-owned facilities and adapting construction methods, it can reduce the long-term management costs of facilities.

The fifth strategy area is to conduct research and monitoring on the impacts of climate change and adaptation pilot projects.

While national and international research can support local and regional decisions, Delaware-specific research may provide increased clarity on the most effective solutions to issues the state is facing.

State agencies already collect data across all sectors, but not every agency conducts climate change research.

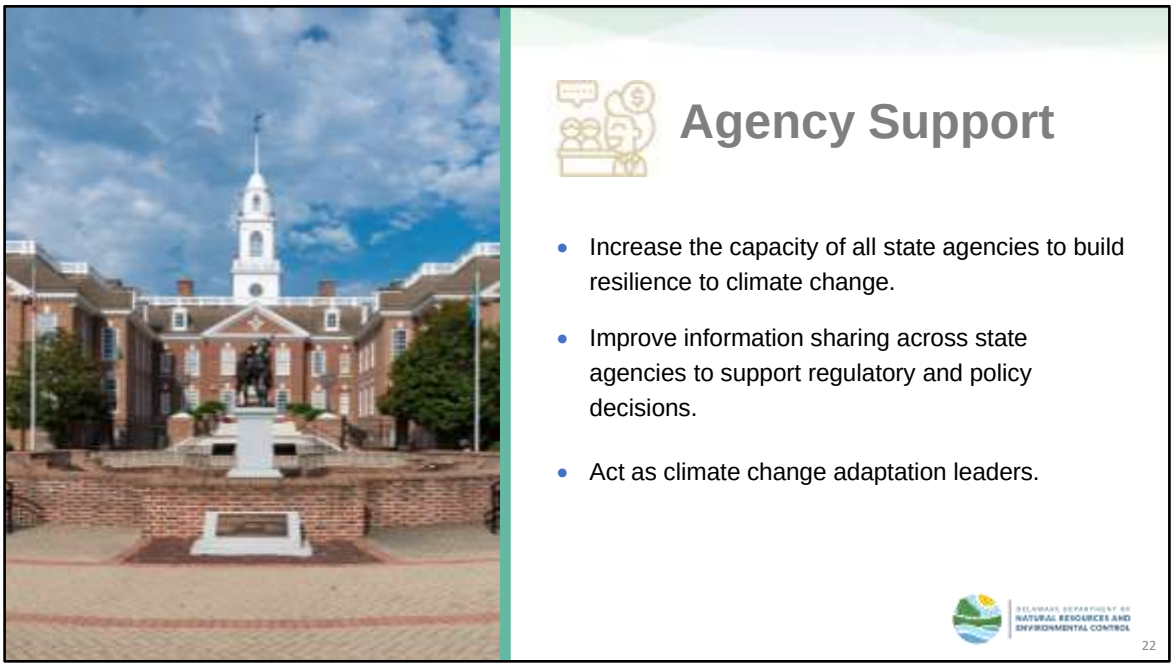
For effective decision making, research and monitoring of climate change impacts in Delaware and possible solutions must continue and expand across all agencies.



The next strategy area is to provide outreach and education on climate change and opportunities for families and communities to build resilience.

Outreach and education can empower individuals to engage in community decisions and proactively prepare for climate change.

The more individuals get involved in climate action, the healthier Delaware's communities and economy become.



The final strategy area focuses on the necessary support from agency and state leadership that state agencies need to implement the other strategies outlined in the Plan.

Support can be in various forms, including providing additional resources, conducting employee training or promoting cooperative efforts between all government levels.

With strong leadership and sufficient support, Delaware can be a resilience leader.

Now that you have heard about the strategies to maximize resilience, I am going to pass you over to Jennifer DeMooy who will cover the Plan's strategies to minimize emissions.

But before I do that, remember to submit any questions you have to the Q/A box, and we will do our best to answer as many as possible at the end during our Q/A session.

Jennifer, take it away.

Thank you, Maggie!

Key strategies to reduce greenhouse gas emissions include clean and renewable energy, energy efficiency, transportation, reducing high global warming potential greenhouse gases, and natural and working lands.

Delaware Emissions

Human activities have increased the amount of greenhouse gases in our atmosphere.

DNREC's Division of Air Quality conducts an annual **GHG inventory** of in-state greenhouse gas emissions.

The top three sectors that are the leading sources of emissions in Delaware are:

- **Transportation**
- **Industrial**
- **Electrical Power**

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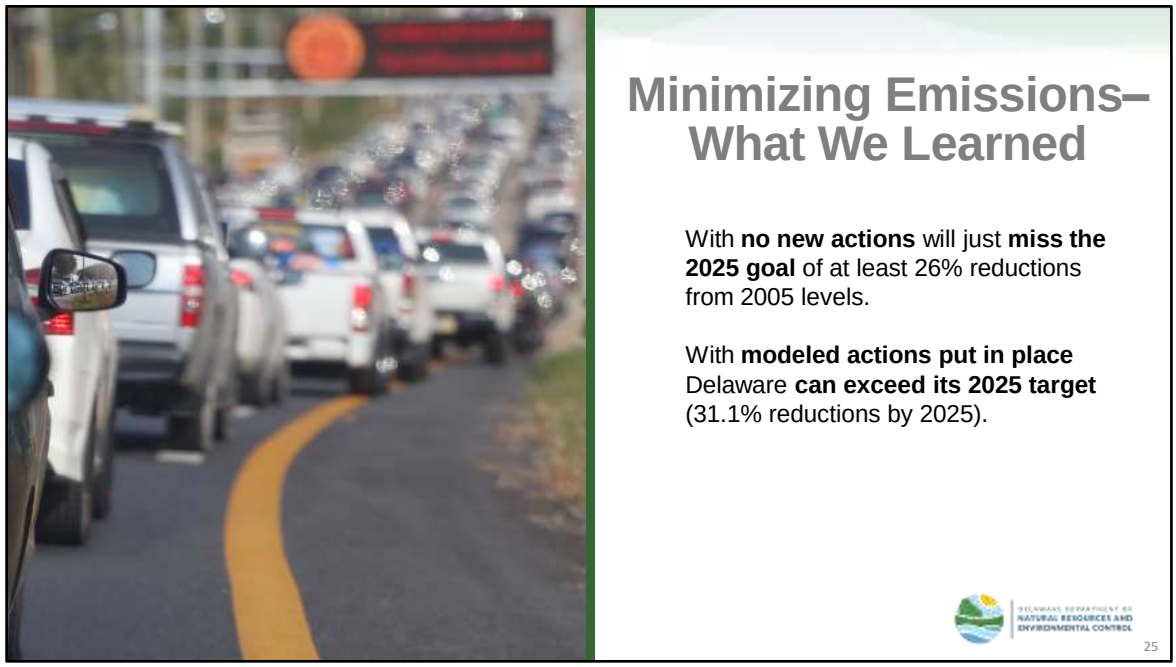
We know from our state Greenhouse Gas Emissions Inventory that the three largest sources of emissions are: Transportation, Industry, and the Electric Power sectors.

Delaware's Climate Action Plan is a GPS for achieving Governor Carney's commitment to reduce the state's greenhouse gas emissions by at least 26% by 2025 from 2005 levels.

The Plan also looks out beyond 2025 and sets a course for further emissions reductions in the decades ahead.



Delaware staff worked with technical experts to model Delaware's greenhouse gas emissions, and potential reductions, over the next three decades.

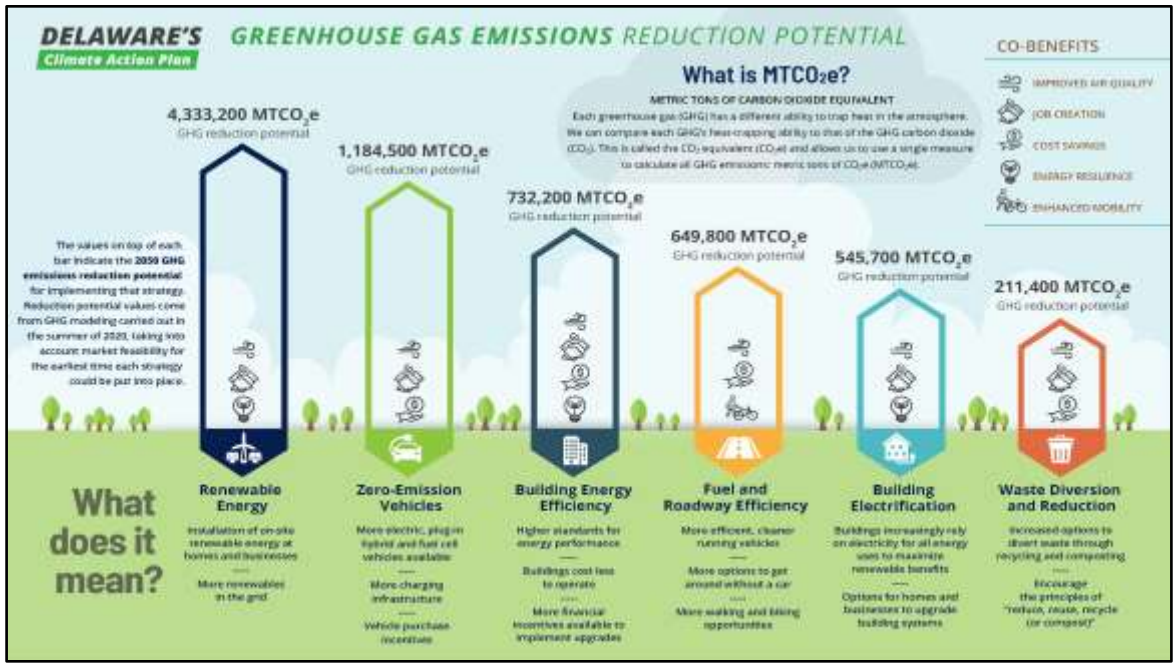
You'll find a link in the chat box to the report of the findings from that technical analysis.

We looked at what our emissions are today, as compared to 2005, and looked at what they would be in the future with no new actions to reduce those emissions.

What we learned is that, without any new emission reduction actions, Delaware will be just shy of its goal of reducing emissions by at least 26% by 2025.

We also learned that, without additional actions, emissions would start rising again after 2030 due to population growth.

But looking at a suite of potential actions we found that Delaware could exceed its 2025 goal, and put in place significant emission reductions beyond 2025, while also benefiting from lots of co-benefits.



In the technical analysis we conducted while developing the Plan, we looked at a variety of greenhouse gas reduction strategies to see how implementing these measures would affect emissions. The results highlight three key take-aways:

One, decarbonizing the electricity grid – meaning making electricity cleaner from renewable energy and other non-carbon sources – has the greatest emission reduction potential in the long term.

Two, energy efficiency actions are very effective to help meet our short-term goal and remains an important strategy in the longer term.

And three, the transition to electrification of transportation and building is an important strategy. This means shifting to electric vehicles and buildings that rely on electricity — clean electricity — for heat and cooking rather than propane oil and natural gas.

The Climate Action Plan includes 29 strategies to minimize greenhouse gas emissions.

Each strategy varies in cost to implement and how quickly they can be put into action.

And another important thing to note is that many of these strategies have significant co-benefits:

- improving air quality
- creating new job opportunities
- saving residents and businesses money
- improving the resilience of our power supply, and
- improving mobility options across our state.

Increasing the amount of renewable and clean energy that runs our electrical grid and powers our homes and businesses has the greatest potential to reduce greenhouse gas emissions in the long term.

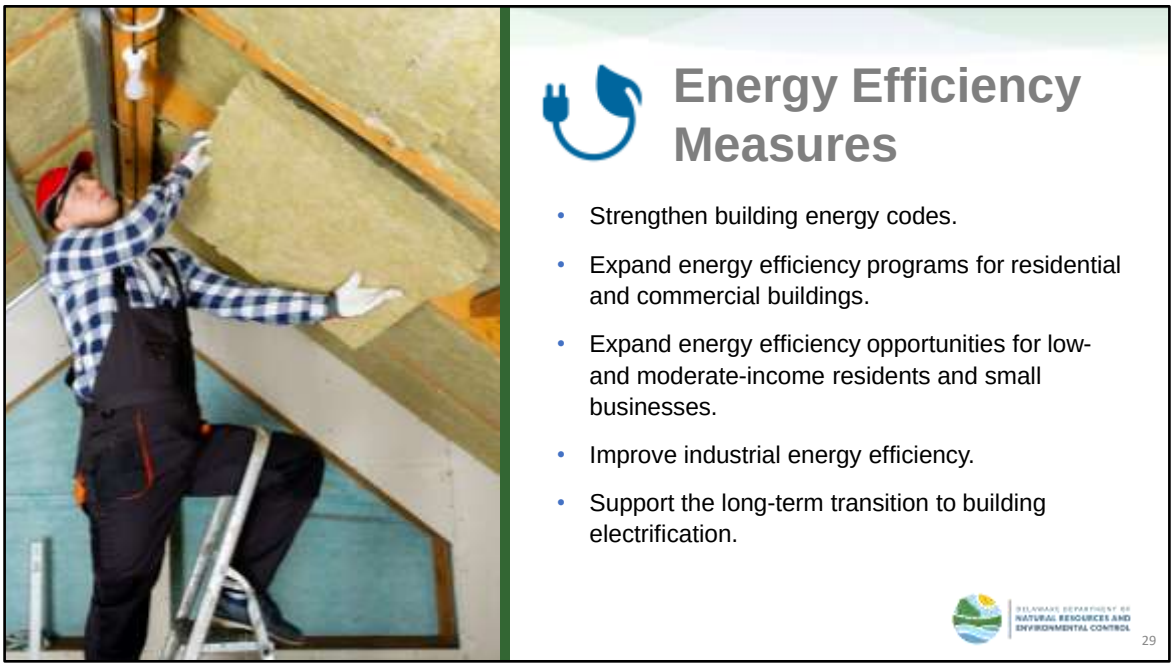
This strategy aims to "decarbonize" the electrical grid, accommodate new technologies and ensure adequate transmission infrastructure.

This includes actions like increasing solar and geothermal in our homes and businesses and phasing out the burning of fossil fuels for electric generation.

Delaware can scale up existing incentive programs that help homeowners and business install renewable energy systems such as solar panels, solar water heating and geothermal systems.

Investment in clean energy strategies and technologies creates job and economic development opportunities.

Implementation of these strategies will also improve air quality, leading to health benefits, particularly for communities near power generation facilities.



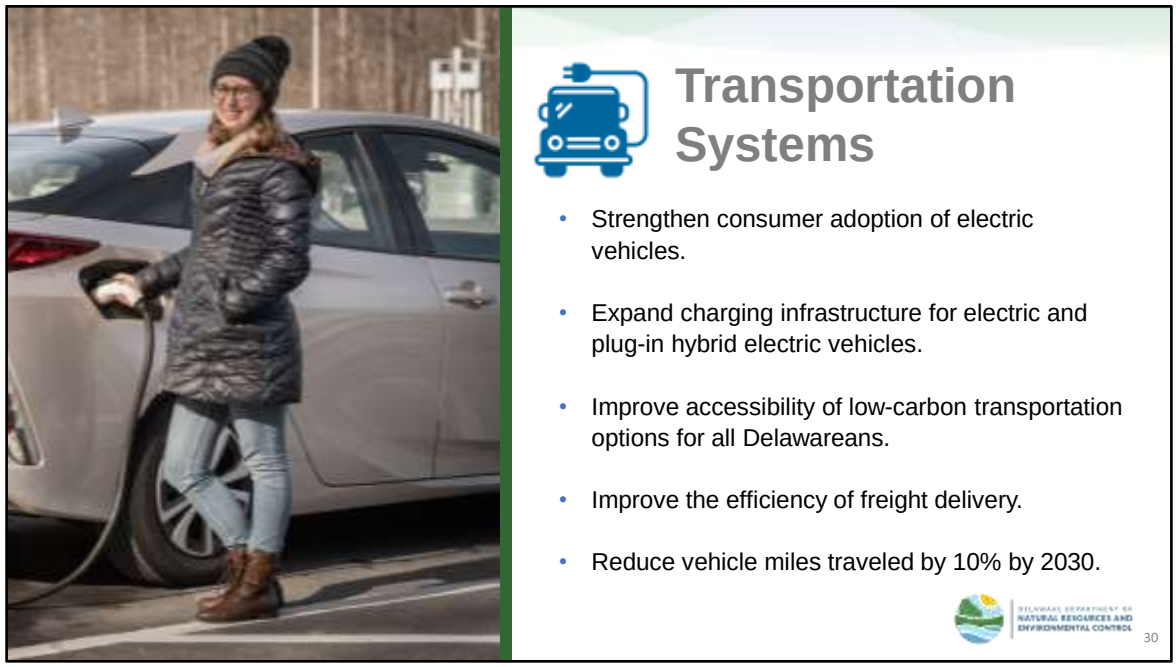
Energy efficiency is an effective and proven way to reduce greenhouse gas emissions.

Because these measures can be put in place relatively quickly, it is an important strategy for short-term emissions reduction and meeting our 2025 goal.

But these benefits go much longer than that. Co-benefits include cost savings, job creation, energy resilience, and air quality improvements.

This strategy also looks at electrifying new buildings and retrofitting existing buildings over time. Switching to appliances like stoves and furnaces that use electricity from a cleaner grid has the potential to achieve big reductions in greenhouse gas emissions.

Delaware offers a range of incentive programs to support households and businesses, including opportunities for Delawareans with the greatest economic need.

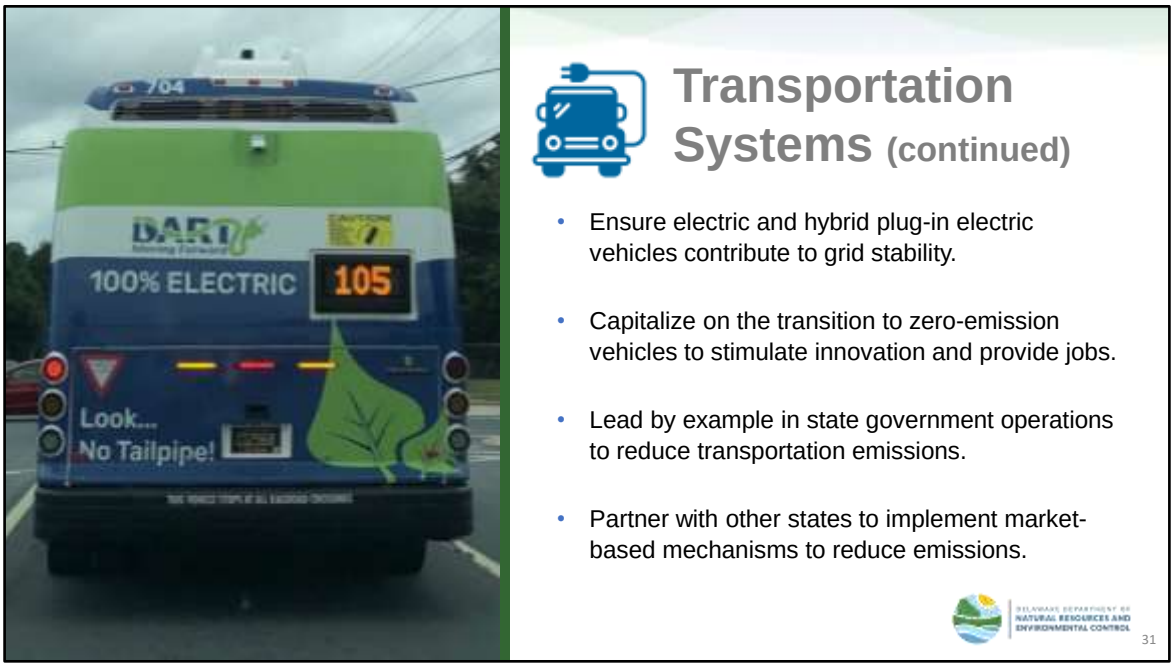


Transportation is currently the largest in-state source of greenhouse gas emissions, mostly from cars and trucks we drive every day.

The Climate Action Plan includes strategies that help reduce emissions from transportation, including transitioning to electric vehicles, improving freight efficiency and reducing total miles traveled.

Additionally, transitioning to zero- and lower-emission vehicles improves air quality, leading to health benefits, particularly in urban areas with high traffic congestion.

Installation of vehicle charging infrastructure and innovation in low-carbon transportation technology creates jobs and economic development opportunities.



Making our existing transportation system more efficient, making it easier to walk and bike, increasing the efficiency of gasoline powered cars — this plays an important role in reducing emissions.

These measures can help drivers save money and also provide more transportation choices.

The Climate Action Plan includes strategies for the state to lead by example. Transitioning to electric vehicles for state government business contributes to emissions reductions and saves money in fuel and maintenance costs.

Some greenhouse gases have a larger warming effect on the atmosphere than carbon dioxide. Delaware's focus is on hydrofluorocarbons (or HFCs) and methane.

Hydrofluorocarbons include products used as refrigerants.

Strategies to reduce emissions of these potent greenhouse gases include transitioning to the use of chemicals that do the same job but with a lower global warming potential.

Methane is a product of landfill decomposition, wastewater treatment and certain agricultural practices, as well as being a component of natural gas.

Capturing, diverting, and reducing leakage of these greenhouse gases are important strategies for reducing emissions.

The ways that we manage waste products also plays a role. Reducing, reusing, recycling and composting can reduce emissions, with opportunities for job creation and cost savings.

The plants and soils contained within croplands, wetlands and forests, or "natural and working lands," have the ability to absorb (or sequester) carbon dioxide from the atmosphere, acting as a "carbon sink."

Capitalizing on this natural carbon storage can help offset a portion of the greenhouse gases released in the atmosphere by human activities.

There's a link in the chat box to a report on Delaware's Natural and Working Lands with more information.

Many agricultural management practices that are implemented for environmental benefits can also reduce or offset greenhouse gas emissions.

Trees in urban settings also shade buildings and paved areas, reducing the heat island effect and lowering the energy costs for cooling and heating homes and businesses.

Conserving forest lands provides many additional benefits, including protection of water quality and supply, supporting wildlife habitat and providing recreational opportunities.

And now I am going to pass you back to Susan to discuss the next steps of plan implementation.

Next Steps

Thank you both for that overview. And now most of you are probably wondering "what's next?"

We published Delaware's Climate Action Plan to be a working document, a guide for state agencies and others to maximize resilience and minimize emissions. The state, and some of our partner entities are already using it to inform and prioritize efforts.

As I mentioned before, the plan will be implemented over time as resources, data, and partnerships evolve.

Already, we have demonstrated commitment to implementing the plan: DelDOT announced the formation of a new Division, the Division of Resiliency and Sustainability whose focus is innovative solutions to our climate challenges.

Governor Carney just announced the Tree for Every Delawarean Initiative, and $1.4 million was just announced for electric vehicle charging stations.

Guiding Principles for Implementation

Ensure climate action is ambitious yet adaptable.

Ensure climate action accounts for all costs and benefits.

Ensure climate action is engaged, empowering and equitable.

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We recognize that HOW an action is accomplished can be just as critical as WHAT is implemented.

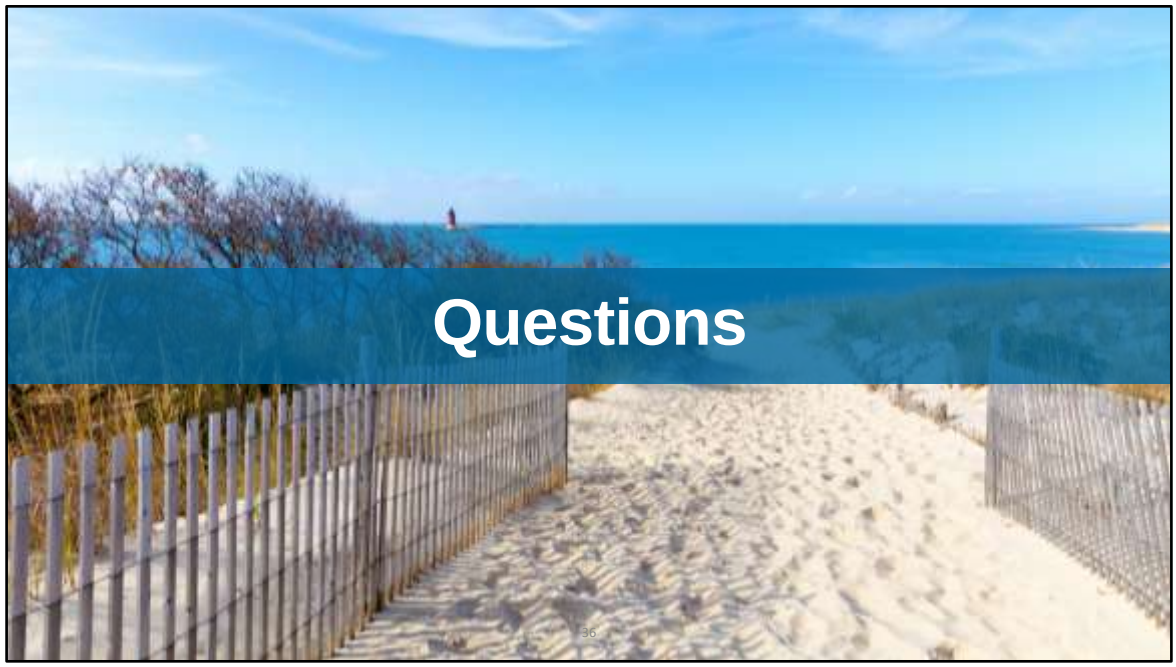
This is why the Plan outlines three guiding principles for taking action.

These principles can be applied to implementation of each action in the plan:

1. Ensure that actions are ambitious, but can accommodate changes in climate and economic conditions

2. Ensure that the full costs and benefits of taking action are accounted for in considering the cost of action – for example, cost of climate related damage to infrastructure and savings from energy efficiency

3. Engage early and often with stakeholders and community members and avoid inequities in design of climate action.



We are now going to enter into the question-and-answer portion of our workshop led by Ms. Kristen Thornton, where presenters will answer questions that were submitted in our Q&A box throughout the evening.

As I mentioned at the beginning of the workshop, we may not be able to get to all your questions.

However, ALL questions – whether answered tonight or not – will be collected answered in a single document that will be uploaded to the Climate Action Plan website before the holidays.

Kristen we are ready for our first question.

Thank you, Kristen, and thank all of you for the great questions.

So, as we wrap up this webinar, we just want to remind you of how you can keep up-to-date on climate action.

All of the materials shared this afternoon, and the full Climate Action Plan can be found at de.gov/climateplan.

The link to the site has been added to the chat box for you.

A copy of today's webinar and the compiled Q/A document will be uploaded to the website before the holidays.

Also available on the website is a Spanish translation of the Climate Action Plan and other resources.

You can also follow us on social media to keep up to date on activities the Division of Climate Coastal and Energy is working on.

This concludes today's webinar.

Thank you for joining us this evening, we hope the information was helpful and you are leaving today with a better understanding of Delaware's Climate Action Plan.