



Delaware State Energy Office
 DNREC Division of Climate, Coastal and Energy





Executive Summary

Delaware is in the midst of a far-reaching energy transition. The energy systems that we rely on to power, cool and heat our homes, meet our transportation needs and power commerce and industry are facing unique challenges, including reducing climate impacts, increasing the use of renewable energy, improving energy efficiency, addressing issues of energy justice,



adapting the power grid to changes in generation and distribution of power and preparing our workforce to meet our changing energy needs. The 2024 - 2028 State Energy Plan (Plan) serves as a guidebook for the State Energy Office (SEO) and stakeholders in government, industry and the public to meet these challenges over the next five years and beyond.

Development of the Plan

Development of the 2024 - 2028 State Energy Plan was guided by the statutory mandates of the Delaware Energy Act and the Climate Change Solutions Act of 2023. The Delaware Energy Act established the statutory authority for the SEO to develop and update a comprehensive state energy plan every five years that ensures equitable access to clean and affordable energy to all Delawareans.¹ The Plan incorporates input from the Governor's Energy Advisory Council (GEAC, or Council) and a variety of stakeholders, is designed to support the Climate Action Plan and builds on the ongoing development of energy policies and programs.

The GEAC was established in 2004 and charged with updating the state energy plan every five years, with the last plan produced in 2009.² In 2022, the Delaware Energy Act was amended to expand the Council to 25 members and update its mission. It was further updated in 2023 to clarify the respective roles of the GEAC and the SEO. The GEAC, staffed and supported by the SEO, prepares policy and program recommendations, drawing upon the expertise and policy perspectives of a wide array of stakeholders. The SEO prepares a new energy plan based on the recommendations of the GEAC, additional analysis, public input and statutory requirements.

¹ URL: <https://delcode.delaware.gov/title29/c080/sc02/index.html>

² URL: <https://dnrec.delaware.gov/climate-coastal-energy/energy-office/advisory-council/>

The Delaware Energy Act mandates that the Plan include but not be limited to “... encouraging and promoting conservation of energy ... and encouraging and promoting the use of renewable electric generation facilities and alternative energy technologies...” and “support[s] the state’s greenhouse gas emissions reductions targets...”

The reconstituted GEAC began meeting in June 2023 and established four workgroups: Renewable Energy and Clean Technologies, Energy Efficiency and Electrification, Grid Modernization, and Environmental Justice and Energy Equity. In 2023, the GEAC held 25 public meetings (five each of the full Council and each workgroup) and gathered public input at three public engagement sessions. At the end of this process the GEAC met again in January 2024 to review and approve 82 recommendations, which are summarized in the Council’s 2023 Activity Report.³

In developing its recommendations, the GEAC built on the policy work of previous planning efforts, including the 2009 Delaware Energy Plan, the 2021 Climate Action Plan and the many energy programs and policy initiatives already in place. The Council’s recommendations are incorporated in the Plan.

Strategies for Delaware’s Energy Future

Building on these statutory mandates and the broad public engagement process, five overarching action categories are identified:

- **Energy Justice** that addresses historical causes of energy inequality and the associated health, social and economic burdens.
- **Renewable Energy and Clean Technologies** that centers on the carbon-free generation essential to achieving goals identified in the Climate Change Solutions Act.
- **Energy Efficiency and Promoting Beneficial Electrification** in homes and businesses to enable achievement of the state’s greenhouse gas emissions reduction goals.
- **Grid Modernization** to overcome new and emerging challenges to grid reliability and take advantage of new energy opportunities.
- **Workforce Development** to ensure Delaware’s workforce is prepared to meet the demands of a clean energy future.



³ URL: <https://documents.dnrec.delaware.gov/energy/geac/2023-Annual-Activity-Report.pdf>

Below is a more detailed description of each action category and a summary of the strategies each entails.

Energy Justice

Energy justice, or energy equity, builds on the environmental justice movement to address the inequities that result from energy systems and related extractive economies. This includes energy burden (the relative cost of energy), exposure to extreme heat, exposure to increased air pollution and poor health outcomes.



Energy justice is more than just protecting communities from harm; it is also about ensuring fair access to opportunity. The clean energy transition will bring many benefits to Delaware, including cleaner air, cleaner transportation, more efficient homes with lower energy bills and access to good jobs in the rapidly expanding clean energy sector. Energy justice means ensuring that all communities have equitable access to these benefits.

The Plan details strategies to ensure that all communities are engaged in, and benefit from, the energy transition:

- Identify communities in the state that are affected by energy inequities.
- Identify and work with trusted partners to effectively engage those communities.
- Identify policy gaps and direct policies and programs to serve those communities.
- Continually monitor and measure progress towards addressing those inequities to continually improve services to those communities.

Renewable Energy and Clean Technologies

Promoting renewable energy and other clean technologies is central to the Plan. Renewable energy policies and programs have been in effect for more than 20 years, and the Plan aims to further these efforts by pursuing pathways to net zero emissions and expanding equitable access to renewable energy.

The Plan details strategies to promote clean and renewable energy, including:

- Map pathways to achieve net zero emissions in the energy sector by 2050.
- Promote continuing growth of solar generation at all scales and expand equitable access to solar energy.
- Develop and implement an offshore wind strategy that meets Delaware's needs.
- Monitor and assess potential benefits of emerging renewable and clean technologies.
- Assess the feasibility and market potential of renewable fuels.

Energy Efficiency and Beneficial Electrification

Shifting residential and commercial buildings from fossil fuels to renewably sourced energy and improving building energy efficiency are critical in realizing Delaware's greenhouse gas reduction goals. The SEO will lead this effort by promoting electrification of vehicles, homes and businesses, and improving energy efficiency through home improvements and updated building codes.

The Plan details strategies to expand energy efficiency and electrification, including:

- Improve, expand or create energy efficiency and electrification programs for residential and commercial buildings.
- Strengthen building energy codes and standards.
- Promote vehicle electrification.
- Establish more rigorous tracking and reporting mechanisms for program implementation.

Grid Modernization

Delaware's grid is facing increasing challenges, including higher loads, the need for new technologies and climate-related stresses. Much of our electric grid was designed and built in the 1960s and 1970s. While new technologies have been developed and deployed, much of the grid infrastructure we use today is old and needs to be modernized to accommodate new technologies.

The Plan takes a critical look at our grid infrastructure and proposes strategies designed to maximize its resiliency, prepare it for increased renewable generation and meet increasing demand without increasing energy burdens.

Strategies include:

- Prepare electric utility transmission lines and substations to integrate the increasing use of renewable resources.
- Modernize Delaware's distribution networks to integrate distributed energy resources and non-wires alternatives.
- Maximize resiliency of energy infrastructure to combat climate change vulnerabilities such as extreme heat and weather events.
- Adopt innovative rate design and utility programs that use smart grid technologies for peak shaving, demand response and increased reliability as cost effectively as possible.



Workforce Development

As the transition to clean energy progresses, Delaware employers in the sector are facing hiring challenges. Expanding professional development and career pathway programs and removing barriers keeping workers out of the sector will be key in developing a skilled workforce that is adequately prepared to move Delaware into a clean energy future.

The Plan proposes strategies to recruit and train a modern energy workforce, including:

- Complete a workforce needs assessment for the clean energy economy.
- Expand clean energy workforce development programs.
- Increase collaboration in expanding clean energy workforce development programs.
- Build awareness of clean energy jobs and training opportunities.
- Build the professional capacity in state government agencies to meet the planning, program and regulatory challenges of leading the energy transition.

The Plan also presents a State Energy Profile, which presents a snapshot of current energy generation, transmission, distribution and end use, along with an overview of the agencies, utilities and other key entities that shape our energy systems. The successful implementation of the Plan will require collaboration among government, industry and residents.

This Plan is best understood as a living document. Conditions will evolve and new technologies will develop. While our energy and climate planning efforts require looking ahead as far as 2050, this iteration of the Plan is designed to guide us for the next five years, at which time it will be updated.

Just as the development of the Plan involved broad public involvement, implementing it will likewise require the participation of stakeholders from all points of view in the public and private sectors.

With gratitude to the many Delawareans who participated in offering their opinions, expertise and recommendations, the State Energy Office presents the 2024 - 2028 Delaware State Energy Plan as the basis for our common work navigating and managing the energy transition.





2024-2028 Delaware State Energy Plan



**Delaware Department of Natural Resources
and Environmental Control**

State Energy Office

89 Kings Highway

Dover, DE 19901

www.dnrec.delaware.gov