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# **Delaware Energy Plan Framework**



**Prepared by the DNREC Division of Climate, Coastal and Energy  
and NV5  
for the Governor's Energy Advisory Council**

**June 8, 2023**

## Executive Summary

The Delaware Energy Act, first adopted in 2004, created the Governor's Energy Advisory Council (GEAC or Council) and mandates the development of the Delaware Energy Plan (29 *Del. C.* § 8055). Senate Bill No. 310 as Amended by Senate Amendment No. 1 and House Amendment No. 2 (SB 310) amended [29 Del.C. § 8055](#), expanded the GEAC to 25 members, and tasks the Council with monitoring Delaware's energy system, identifying and proposing actions to enhance Delaware's energy system, including actions to lessen the climate change impacts of Delaware's energy system, and providing counsel to the Governor on promoting an economic, reliable and competitive energy market for all Delaware consumers. Among other responsibilities, the Council is charged with providing recommendations to the State Energy Office on updates to the Delaware Energy Plan and Climate Action Plan every 5 years from date of enactment. In developing its next set of recommendations, the GEAC will build on the policy work of two previous planning efforts: the 2009 Delaware Energy Plan and the 2021 Climate Action Plan as well as leverage the many energy programs, policies, and initiatives currently being implemented.

This Framework is intended to serve as an introductory summary and reference to inform and guide the deliberations of the Council and provide GEAC members with a high-level overview of Delaware's energy generation, use, laws, programs, and policies. This Framework is a living document and will be updated to reflect current developments in energy markets, policies, and programs

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## 1. Statutory Background of the Governor’s Energy Advisory Council and Delaware Energy Plan

The Delaware Energy Act, first adopted in 2004, created the Governor’s Energy Advisory Council (GEAC or Council) and mandates the development of the Delaware Energy Plan (29 Del. C. § 8055). Senate Bill No. 310 as Amended by Senate Amendment No. 1 and House Amendment No. 2 (SB 310) amends 29 Del.C. § 8055. Key provisions of the legislation are listed below. For complete language included in the bill, see Appendix A.

### Statutory Roles and Responsibilities of the GEAC and DNREC

The GEAC is established to: monitor Delaware’s energy system, identify and propose actions to enhance Delaware’s energy system, including actions to lessen the climate change impacts of Delaware’s energy system, and provide counsel to the Governor on promoting an economic, reliable and competitive energy market for all Delaware consumers. In particular, the Council is charged with providing recommendations to the State Energy Office on updates to the Delaware Energy Plan and Climate Action Plan every 5 years from date of enactment.

The GEAC will be composed of 25 members representing various state agencies and constituencies who are appointed to terms of 1, 2, or 3 years. A Chair will be appointed by the Governor for a term of 3 years and will be eligible for re-appointment for terms of 3 years.

To aid the Advisory Council in meeting its responsibilities, the Chair of the Advisory Council may establish subcommittees. The DNREC Division of Climate, Coastal and Energy (also referred to in code as the State Energy Office) will provide staff support to the Advisory Council. DNREC will also facilitate the development of a comprehensive State Energy Plan that includes but is not limited to “...encouraging and promoting conservation of energy ... and encouraging and promoting the use of renewable electric generation facilities and alternative energy technologies ...”

On or before January 31, 2023, and on or before every January 31 thereafter, the Council will submit an annual report to the Governor, President Pro Tempore of the Senate, and the Speaker of the House of Representatives for distribution to the members of the General Assembly, with a copy to the Director and the Legislative Librarian of the Division of Research of Legislative Council, and the Delaware Public Archives.

## 2. Policy Background

In developing its recommendations, the GEAC will build on the policy work of two previous planning efforts: the 2009 Delaware Energy Plan and the 2021 Climate Action Plan. The section below summarizes the recommendation and strategies included in those documents. For additional detail on these recommendations and strategies, please see Section 5 of this document.

## 2009 Delaware Energy Plan

The 2009 Delaware Energy Plan was presented to Governor Jack Markell in 2009 by the Governor's Energy Advisory Council. The 2009 Energy Plan built on the 2003 Governor's Energy Task Force Report.

The 2009 Energy Plan offered 49 recommendations encompassing:

- Increasing energy end-use efficiency and conservation
- Reducing the environmental impacts (footprint) of energy used and generated in Delaware
- Reducing energy used for transportation
- Maximizing clean energy economic development opportunities
- Maintaining and improving the reliability and security of Delaware's energy systems
- Minimizing energy-related costs and impacts on Delaware citizens

## Climate Action Plan

[Delaware's Climate Action Plan](#), which was released in November 2021, is used to guide state efforts to:

- Minimize greenhouse gas emissions, which drive the climate change we see today, and
- Maximize resilience to climate change impacts.

The Climate Action Plan identifies five key strategy and action areas for minimizing Greenhouse gas emissions:

- Clean and renewable energy expansion which has the greatest potential to reduce emissions in the long term.
- Energy efficiency measures which can be put in place relatively quickly and implemented through existing programs.
- Transportation sector transitions to zero-emission vehicles and more efficient transportation systems.
- High global warming potential emissions which include greenhouse gas emissions reductions and management of greenhouse gases other than carbon dioxide.
- Offsetting carbon emissions by preserving forests, croplands, wetlands and urban greenspaces that absorb (or sequester) carbon dioxide from the atmosphere, providing a cost-effective, temporary or long-term carbon storage solution.

The Climate Action Plan mitigation analysis can be shown in terms of mitigation actions as shown in Figure 1 below. The actions were grouped into "type" categories: Waste sector, High Global Warming Potential, Transportation, Energy Efficiency, and Renewable Energy.

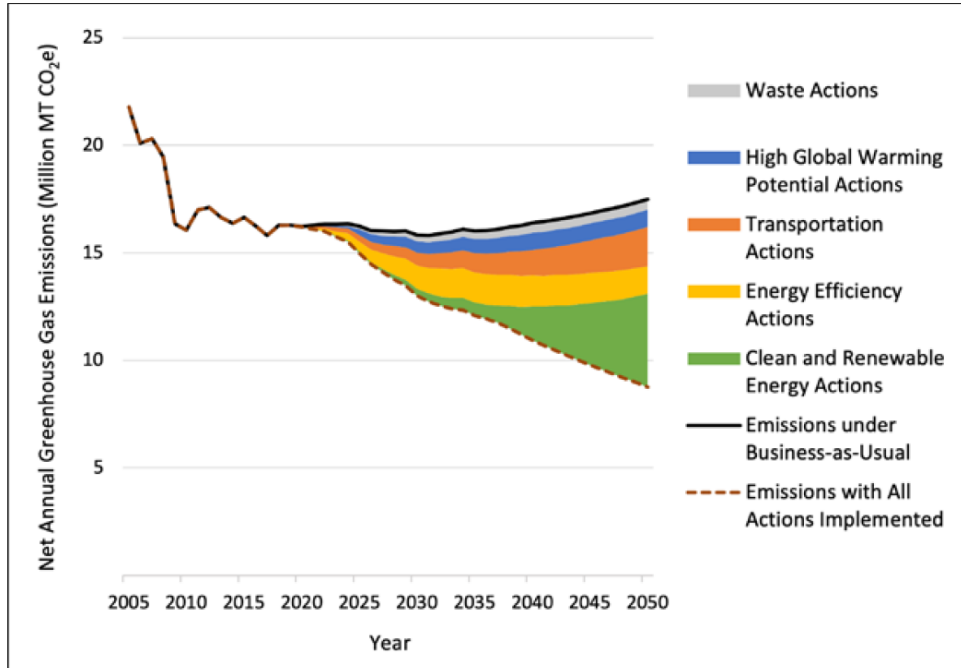


Figure 1: Net GHG Emissions Mitigation by Action Category, Delaware’s Climate Action Plan, p. 32

Section 5 of this Framework outlines and compares the respective recommendations, strategies, and actions from the 2009 Energy Plan and the Climate Action Plan.

### 3. Background On Delaware’s Energy Systems

#### Entities that Manage and Regulate Delaware’s Energy Systems

##### Electric and Gas Utilities

Delaware’s electric customers use roughly 11.4 million megawatt hours (MWh) of electricity a year. Delmarva Power (which is regulated by the Public Service Commission) does not own generating assets, but procures electricity, including renewable energy, through wholesale markets. There are nine municipal electric companies, eight of which are managed by the Delaware Municipal Electric Corporation. Municipal electric companies operate under the authority of their municipal governments. The Delaware Electric Cooperative, a rural electric cooperative under Delaware law, reports to its members.

Chesapeake Utilities and Delmarva Power & Light also deliver gas service to residential, commercial, industrial and electricity generation customers. Approximately 43% of Delaware households use natural gas for home heating.

##### Public Service Commission

Created in 1949 to regulate investor-owned public utilities, the [Delaware Public Service Commission](#) (PSC) works to ensure safe, reliable, and reasonably priced cable, electric, natural gas, wastewater, water, and telecommunications services for Delaware consumers. For those services that are moving toward competitive markets, the Commission makes rules to level the playing field between competing providers and resolves disputes between these providers.

The PSC is made up of five part-time Commissioners appointed by the Governor and confirmed by the Senate. The Commissioners are supported and assisted by a staff of full-time state employees. The Commission makes its decisions at formal meetings that are open to the public. Public hearings regarding rate changes, rulemakings, and complaints are conducted throughout the year.

In addition to the regulatory oversight of investor-owned utilities, the Commission’s engineering staff, through an agreement with the federal or U.S. Department of Transportation’s Office of Pipeline Safety inspects underground natural gas and propane systems for compliance with federal Pipeline Safety Regulations.

### Public Advocate

The [Division of the Public Advocate](#) (DPA) was established in 1978. In establishing the DPA, the General Assembly charged the Public Advocate with representing consumer interests whenever PSC-regulated utility companies in Delaware seek changes in the delivery of services or changes in rates for electric distribution, natural gas supply, water or wastewater services, or local exchange telephone services. The fundamental mission of the DPA is to advocate the lowest reasonable rates for consumers, consistent with the maintenance of adequate utility service and consistent with an equitable distribution of rates among all classes of consumers.

In 2013, the General Assembly amended 29 Del. C., Section 8716 to clarify its intent that the DPA is to advocate primarily on behalf of residential and small commercial customers, and that the DPA need not advocate on behalf of large commercial and industrial consumers where the Public Advocate determines that these entities have the means to advocate on their own behalf. The advisory role of the Public Advocate has been expanded to permit the Public Advocate, when requested, to provide guidance to the Governor, the General Assembly, or the Secretary of State on matters of energy policy and utility consumers, or other matters.

The DPA also appears in matters before federal regulatory agencies, such as the Federal Energy Regulatory Commission (FERC) and the Federal Communications Commission (FCC), representing the interests of utility consumers.

## Delaware Energy Profile

### Electric Grid

Delaware’s electric grid is shaped by geography. Delaware is located on a peninsula, with population, electric load and generation concentrated in the north. Delaware is situated within the territory served by [PJM Interconnection](#), LLC (PJM), which manages the electric grid and wholesale power markets for roughly 65 million people in 13 states and the District of Columbia.

PJM offers summer and winter peak load projections for Delaware. Historically, summer peaks are higher than winter peaks.

Summer Peak (MW)			Winter Peak (MW)		
2022 Actual	2023 Projected	2033 Projected	2022 Actual	2023 Projected	2033 Projected
2,763 (8/24/22)	2,586	2,455	2,284 (12/24/22)	2,234	2,275

Figure 2: Actual and Projected Loads for Delaware, Source: PJM



Since 2000, 41 percent to 68 percent of Delaware's electricity has flowed into the state over transmission lines from generating units located in neighboring states. Most of the generating capacity located in Delaware is natural gas fired. Hence most of Delaware's electricity either comes in from out of state over power lines or is dependent on gas pipelines to powerplants for electricity generation.

Modernizing the electric grid, both transmission and distribution systems, has been identified as key to renewable energy and electric vehicle adoption. The transmission system is often compared to the interstate highway system, while the distribution grid is likened to local streets and roads. Transmission upgrades will be needed to accommodate offshore wind, while distribution system upgrades will be needed to accommodate the further growth of distributed solar. Energy storage and control systems hold the promise of providing additional flexibility and security to the grid.

### **Natural Gas**

In 2022, an estimated 4,305 gigawatt-hours (GWh) of electricity were generated in Delaware, down from 5,258 in 2019. Since 2010, electric generation fueled by natural gas fired power plants increased from 51% to 86% in 2021, which is down from a peak of 91% in 2019, with coal-fired plants dropping from 46% to only 7%, equating to a 5% increase from 2% to 7% from 2019 to 2021. Delaware had approximately 3,273 MW of installed generation capacity as of November 2022.

All of Delaware's natural gas supplies arrive by interstate pipeline from Pennsylvania, and about one-tenth of that natural gas continues to Maryland's Eastern Shore, which occupies the western portion of the Delmarva Peninsula.

Energy consumption in Delaware is primarily driven by fossil fuels, which made up 72% of the total energy usage in 2019. Petroleum products and natural gas accounted for most of the fossil fuel usage, with 54% and 47% of the energy consumption respectively, while renewable energy accounted for about 3% of the energy consumed. About 43% of Delaware households rely on natural gas for home heating, 37% use electricity, about 9% use propane, and 9% use fuel oil or kerosene.

In 2021, Delaware's industrial sector accounted for 40% of the natural gas consumption delivered to the state, while the electric generation sector has decreased by 50% from 2016 to approximately 25% of the state's usage.

### **Greenhouse Gas Emissions**

In 2017, Governor John Carney committed Delaware to reducing greenhouse gas emissions by 26% to 28% from 2005 levels by 2025. The Climate Action Plan maps out strategies and actions to meeting or exceeding that goal.

In 2022, Senate Bill 305 was proposed, known as the Delaware Climate Change Solutions Act, which was to establish statutory requirements of greenhouse gas emissions reductions over the medium and long term to mitigate the effects of climate change on the state. This bill would have required the state to reduce carbon emissions by 50% from 2005 levels by 2030, and 90% by 2050, in addition to planned updates to the Climate Action Plan and Energy Plan documents. Ultimately, this bill passed in the Senate but failed in the House and was not signed into law as written.

In 2020, Delaware produced 12.5 million tons of energy related CO2 emissions across the residential, commercial, industrial, transportation, and electric generation sectors. Delaware's electric power generation resulted in 1.8 million tons of CO2 released annually, which is approximately 15% of the state's overall emissions. Between 1970 and 2019, Delaware's total CO2 emissions have dropped by 15.4%, likely due to the increased usage of natural gas for generation and space heating instead of coal and fuel oil.

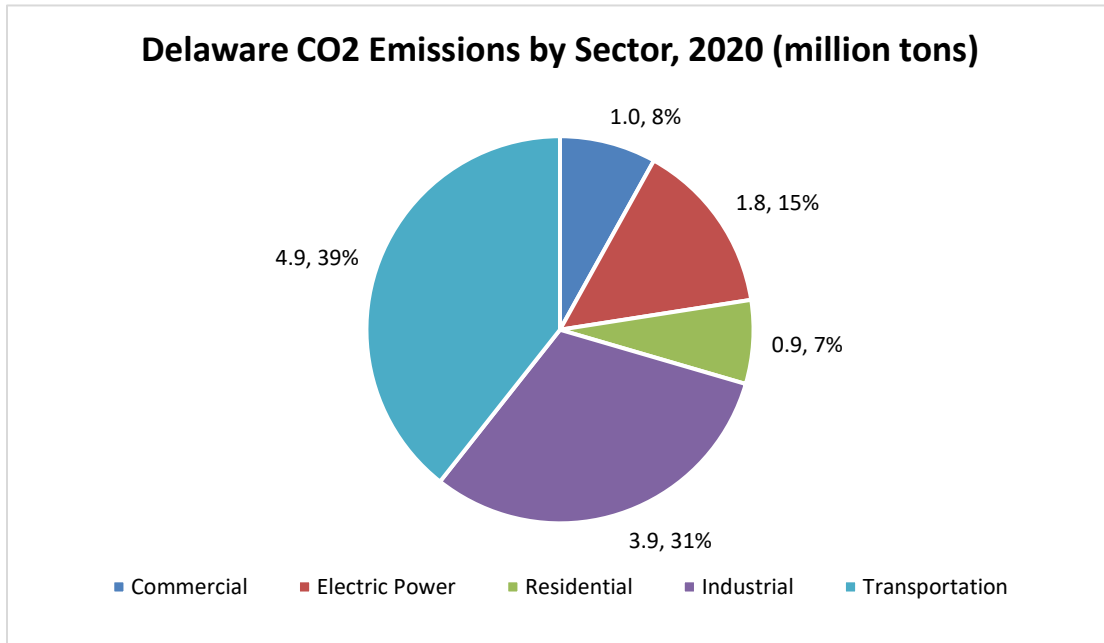


Figure 2: Delaware CO2 Emissions, 2020

Delaware's transportation sector produced 4.9 million tons of CO2 emissions in 2019, which is approximately 40% of the state's overall emissions, and the largest source of CO2 emissions statewide. The industrial sector is the second largest source of CO2 emissions, producing nearly 31% of CO2 emissions annually, followed by the commercial and residential sectors at 8% and 7% respectively.

PJM's reports on emissions from energy generation show reductions in emissions of CO2, NOx, and SO2 for the region and for Delaware.

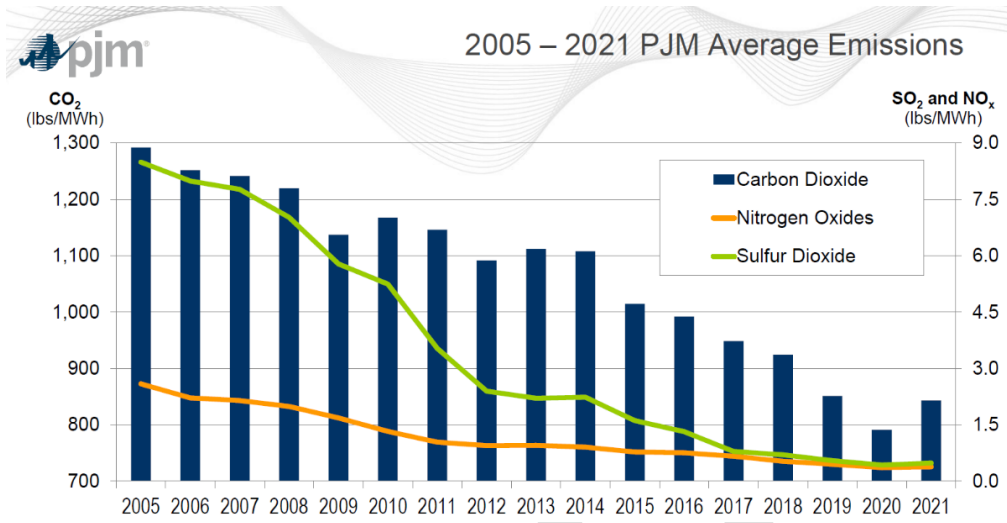


Figure 3: PJM Average Emissions

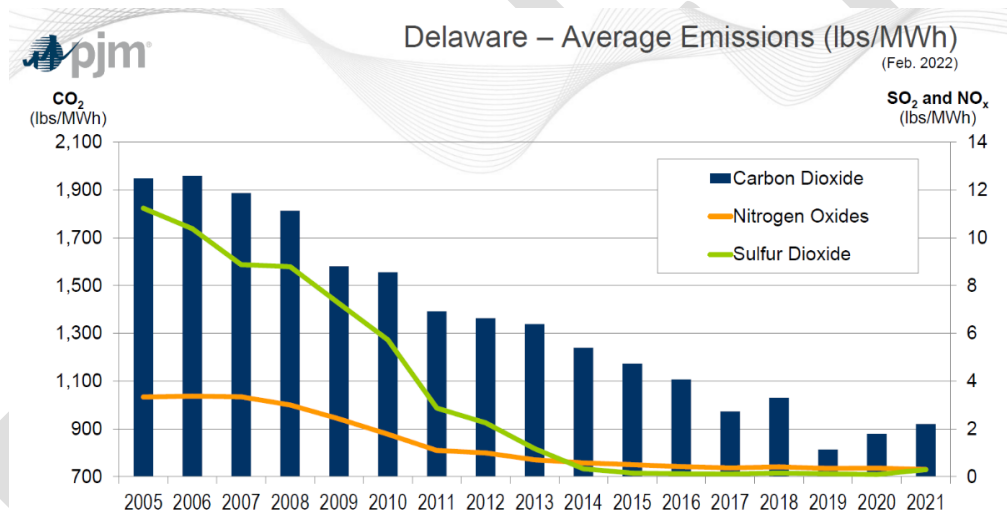


Figure 4: Delaware Average Emissions

Energy Futures Group (EFG) is providing analytic support for Optimal Energy and DNREC for the Delaware Energy Plan update using the Low Emissions Analysis Platform (LEAP) model developed by Stockholm Environmental Institute (SEI). LEAP is an energy accounting framework-based tool, developed over decades to aid with integrated demand and supply-side planning.

## 4. Current Energy Policies and Programs

### Renewable Energy

#### Renewable Energy Policy

The Renewable Portfolio Standards Act ([26 Del.C. §§ 351-364](#), sometime referred to as REPSA) was first adopted in 2005 and has been amended five times since, most recently in 2021. The General Assembly established REPSA's purpose as follows:

The General Assembly finds and declares that the benefits of electricity from renewable energy resources accrue to the public at large, and that electric suppliers and consumers share an obligation to develop a minimum level of these resources in the electricity supply portfolio of the state. These benefits include improved regional and local air quality, improved public health, increased electric supply diversity, increased protection against price volatility and supply disruption, improved transmission and distribution performance, and new economic development opportunities.

26 Del.C. § 351 (b)

REPSA sets minimum percentages of renewable energy that must be procured by electric utilities increasing annually to 40 percent (including 10 percent solar PV) by the compliance year beginning June 1, 2035. The standards for the current compliance year (June 1, 2022 to May 31, 2023) are 22 percent (including 2.75 percent solar PV).

REPSA provides that large energy users can be exempt from paying RPS compliance costs. REPSA also provides that a municipal electric company or the Delaware Electric Cooperative may exempt itself from RPS requirements "if it develops and implements a comparable program to the renewable energy portfolio standards." Delaware's municipal electric companies and the Delaware Electric Cooperative have elected to use this provision. Their plans are not subject to approval or regulation by the PSC or other State agency, but instead are subject to the jurisdiction of their municipal government, or in the case of the Co-op, its members.

RPS compliance can be achieved by owning renewable energy facilities or by buying renewable energy credits (RECs) or solar renewable energy credits (SRECs). Eligible energy facilities must be located in or deliver energy to the PJM grid. The Public Service Commission maintains a database of eligible energy resources. Most RECs are supplied by out-of-state wind projects, while most SRECs are supplied by in-state solar installations.

The [Renewable Energy Taskforce](#) was established under REPSA to provide recommendations for establishing renewable energy trading mechanisms and other structures to support the growth of renewable energy in Delaware. The Taskforce is directed by REPSA to promote a market for renewable energy at all scales.

The RPS has driven the growth of solar sited in Delaware from 2 megawatts (MW) at the end of 2008 to 207 MW at the end of 2022.

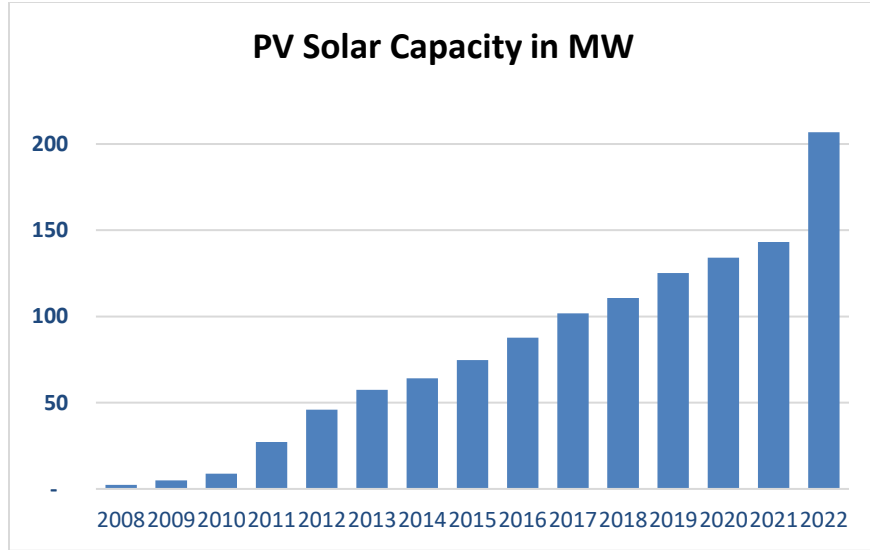


Figure 5: Solar Capacity in Delaware by MW, Delaware Public Service Commission

## Renewable Energy Programs

### DNREC

Program	Description
Green Energy Fund (GEF)	Established by the Delaware Legislature in 1999 to accelerate the deployment of renewable energy systems in the state. It encompasses the Green Energy Program, Technology Demonstration Program, and Research & Development Program. The GEF is funded through a public benefits fund charge of \$0.000356 per kilowatt-hour consumed that is collected monthly by Delmarva Power.
Green Energy Program (GEP)	Provides grants for qualifying renewable energy systems installed in Delaware by applicants whose electricity provider collects funds for the GEF. Grants are available for homeowners, businesses, Certified Diverse Small Businesses, and nonprofits. Eligible renewable energy technologies include solar, geothermal heat pumps, solar water heating, and small-scale wind. Since 1999, the GEP has provided more than \$58 million in grants to support over 5,500 renewable energy installations in Delaware and helped to increase Delaware’s solar capacity to over 200 MW in 2022.
Technology Demonstration Program	Provides grants to projects that demonstrate the market potential for new renewable energy and energy efficiency technologies and accelerate the commercialization of these technologies in Delaware. Eligible topic areas may include photovoltaic systems, solar thermal, storage and conversion equipment, passive solar design, and microgrids and control technologies that utilize renewable energy. More than \$2.4 million in grant funding has been awarded to projects in qualifying topic areas, such as a vehicle to grid (V2G) capable bus and the demonstration of storage from electric vehicles used for both grid market participation and emergency power. Grants under this program were last awarded in 2020.

Research and Development Program	Provides grants to projects that develop or improve renewable energy technology in Delaware. Qualifying projects improve the engineering, adaptation, or development of products or processes that directly relate to renewable energy technology. More than \$1.6 million in grant funding has been awarded to eligible research projects in topic areas such as green hydrogen production, solar plus battery storage, and bi-facial solar modules. Grants under this program were last awarded in 2020.
LMI Solar Pilot Program	Launched in July 2022, the Low- to Moderate- Income (LMI) Solar Pilot Program is meant to bring renewable energy to a segment of the Delaware population that has historically been underserved by existing state programs. This two-year pilot program will utilize funds from DNREC’s Green Energy Program and Weatherization Assistance Program to provide free or reduced-cost solar to low- and moderate-income Delawareans in Delmarva Power territory. The goal of this program is to serve 50 LMI households each year of the pilot. Federal funds in year 2 are expected to expand program capacity and reach.

**Delaware Sustainable Energy Utility**

<b>Program</b>	<b>Description</b>
Residential Solar Loans	The Residential Solar Loan Program provides low-interest loans to credit-qualified homeowners in Delaware to encourage the purchase of customer-sited, customer-owned renewable generations. These loans are available to credit-qualified Delaware residents who own a single-family home or duplex.
Delaware Property Assessed Clean Energy (D-PACE)	D-PACE is designed to help qualifying commercial, industrial, agricultural, nonprofit and multifamily property owners access long term financing for the installation of qualifying energy improvements. Qualifying improvements may include any construction, renovation or retrofitting of energy efficient technology, clean energy systems or qualifying waste heat recovery technologies that are permanently fixed to qualifying commercial property.
Low Interest Commercial Loan Program	The Low Interest Commercial Loan Program allows business to borrow from \$10,000 up to \$2,000,000 per project, with attractive terms and interest rates for energy efficiency measures and renewable energy initiatives.
Affordable Multifamily Housing	This program provides multifamily building owners with technical assistance, financial incentives and low-cost financing for energy efficiency upgrades and renewable energy investments to reduce building operating costs.
Farm Program	The Farm Program helps farmers and other agri-businesses to receive loans up to \$400,000 and grants up to \$100,000 toward new HVAC systems, lighting, poultry house insulation, irrigation pump replacement and more. Renewable energy assessments are available at no charge to the applicant.
Solar for School Districts Grant Program	This program offers districts across the state the opportunity to go solar. Schools may use grants for feasibility studies, installation, array components and the cost of utility upgrades.
Solar for Public Libraries Grant Program	This program offers public libraries across the state the opportunity to go solar. This is for new projects not existing ones. Libraries may use grants for feasibility studies, installation, array components and the cost of utility upgrades.
Solar Renewable Energy Credits (SREC)	DESEU operates Delmarva Power’s Annual SREC Procurement Program that provides 20-year contracts to SREC sellers on a competitive basis. Delmarva plans to run at least one solicitation each year in order to fulfill its long-term SREC needs. The solicitation is run as an online auction. Facilities that qualify as having been built with either Delaware labor or Delaware manufactured parts may be granted an SREC bonus of 10% for each qualification.

### Delaware Municipal Electric Corporation (DEMEC)

Program	Description
Corporate Renewable Energy Block Program	Offers commercial or industrial customers the opportunity to select renewable energy options that meet their corporate sustainability goals based on the organization's typical and projected energy consumption. Eligible customers can purchase a customized portfolio of products through market purchases of select Renewable Energy Credits or Solar Renewable Energy Credits from a variety of generation technologies.
Municipal Green Energy Grant Program	Designed to encourage and support renewable energy technologies, provides grants to electric customers of DEMEC electric utilities that contribute to the Municipal Green Energy Fund.
City of Newark Renewable Energy Program	A 100% renewable energy fee for all electric customer classifications. This fee automatically applies to all new electric accounts created after May 26, 2021, and existing customers may opt into the program. The fee is set on a charge per kilowatt-hour and the revenue derived from this fee is used to purchase RECs of sufficient quantity to cover all usage from accounts that have opted to participate in the program.

### Delaware Electric Co-Op (DEC)

Program	Description
Renewable Resource Program	Offers grants to residential and nonprofit DEC customers as funding allows.
Community Solar Program	Allows their members to pay an additional monthly fee to enroll in the program. Commercial members can purchase blocks of renewable energy for \$10 per block.

## Energy Efficiency

### Energy Efficiency Advisory Council (EEAC)

Delaware energy efficiency program and portfolio planning is coordinated through the [Delaware Energy Efficiency Advisory Council](#) (EEAC). In recognition of the importance of engaging marginalized groups, the EEAC created the Low-Income Subcommittee as a permanent subcommittee reporting to the EEAC, which has been reorganized and renamed the Energy Access and Equity Collaborative (EAEC) to better reflect the future priorities and focus in this area.

### Energy Efficiency Programs

Energy Efficiency programs in Delaware are currently implemented through some of the state's utilities including Delmarva Power, DEMEC, and DEC. Efficiency programs are also run by DNREC as well as Delaware's Sustainable Energy Utility (DESEU). The SEU is a non-profit organization that was created in 2007 through legislative action to foster a sustainable energy future in Delaware. The DESEU serves as a one-stop resource to residents and businesses by offering numerous programs through its Energize Delaware initiative.

### DNREC

Program	Description
Energy Efficiency Investment Fund (EEIF)	Established by amendments to 29 Del.C. §8030 and 30 Del.C. §5502 of the Delaware Code in 2012. Upon the creation of the EEIF, the first \$5 million of the Public Utility Tax (PUT) would be designated to the program to provide

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	grants to commercial, industrial, and nonprofit entities in addition to local governments and state agencies for energy efficient building renovations. Grant funding is available only to those who pay into PUT, however, EEIF also receives additional funding from RGGI, which is used to fund projects of applicants who do not pay into PUT, which are mostly local governments and state agencies. In 2016, EEIF received an additional \$8 million in funding from the Pepco-Exelon merger and would be available for us to use until 2021. These funds were to support Delmarva customer projects. Since 2016, the EEIF program has distributed over \$17 million in grant awards for projects which have reduced almost 250 million kWh and 1.3 million MMBtu of energy.
Energy Efficiency Industrial (E2I)	Formed in 2016 in response to funding received from the Pepco-Exelon merger, which provided \$8 million in funding for grant awards geared towards large energy users in Delaware. Grants were available for 5 years following the release of these funds and were only available to Delmarva customers. Since this time, the E2I program has helped an array of industrial entities receive grants for major energy efficient renovations, which often entail complex, multi-system unit renovations. In the program's 5-year life, all \$8 million dollars were allocated, generating energy savings of almost 38,000,000 kWh and nearly 45,000 MMBtu.
Weatherization Assistance Program (WAP)	Provides free services to qualified low-income Delaware families to reduce energy costs by helping homeowners and renters cut their energy bills by weatherproofing and improving the energy efficiency of their homes. Professionals from the program conduct home assessments and provide basic remedies to reduce the utility costs of these buildings.

**Delaware Sustainable Energy Utility**

<b>Program</b>	<b>Description</b>
<b>Residential/Low Income</b>	
Affordable Multifamily	Provides owners of multifamily dwellings with technical assistance, incentives and low-cost financing to reduce building operating costs and improve the living environment for residents.
Empowerment Grant	Provides direct investment, community outreach, education, and engagement to low- and moderate-income communities have been historically underserved.
Home Energy Counseling Checkup	Provides a home walkthrough and personalized recommendations of ways to save energy, plus free energy-saving products (up to a \$100 value).
Home Performance with Energy STAR	Offers a whole house approach to improve energy efficiency in single-family homes.
LightsOn	In partnership with the HELP Initiative, this program promotes both energy efficiency and improves public safety. It involves installing high-efficiency, sensor-controlled dusk to dawn LED lights outside of homes.
Online Marketplace	Sells energy efficient products online such as LEDs and smart thermostats at a discounted rate to customers.
Zero Energy Manufactured Home (ZeMod)	Supports residents purchasing energy modular homes that are of durable, energy efficient, comfortable, and have good indoor air quality Services include: Homebuyer counseling, Down-payment assistance for eligible buyers, Energy efficiency and renewable energy incentives, access to suitable and affordable lots.
<b>Commercial &amp; Industrial</b>	
C-PACE	Provides long term financing for the installation of qualifying energy improvement for commercial, industrial, agricultural, nonprofit and multifamily property owners access



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Energy Assessments for Non-Profits	In partnership with the University of Delaware's Industrial Assessment Center, funds energy assessments for nonresidential buildings operated by nonprofits and government agencies in Delaware.
Faith Efficiencies	In partnership with Delaware Interfaith Power and Light (DelPL), the Faith Efficiencies program provides many energy resources including energy assessments and recommendations, funding options and ongoing cost-saving energy education to faith communities statewide.
Farm Program	Provides farms with energy audits, cash incentives for qualifying equipment, project installation support, support, accessing additional financial assistance, and low-interest loans.
Pathways for Green Schools	Provides participating schools with an energy audit; guidance on using ENERGY STAR Portfolio Manager; and guidance on offering environmental education programs for students. Schools that complete the program may receive mini grants to implement energy or sustainable projects at their school from the SEU.
Revolving Loan Fund	Provides direct low-interest loans to businesses, non-profits, and governments for the purpose of financing Energy Efficiency Measures, Renewable Energy Projects, Alternative Fuel Vehicles and Infrastructure and carbon emissions reduction measures.
Small Business	This new program being developed by the SEU will provide small business customers with energy audits, Installation of energy saving measures, and special financing and incentives for implementing the energy audit recommendations.

**Delaware Electric Cooperative**

<b>Program</b>	<b>Description</b>
Home Performance with Energy STAR	DEC partners with the SEU to offer customers in its service territory a whole house approach to improve energy efficiency in single-family homes.
C&I Lighting	Grant funding for the replacement of existing lighting fixtures with new higher efficient LED lamps, ballast and lighting fixtures at non-residential General Service (GS) and/or Large Commercial (LC) member facilities.
C&I EV Charging	For Members who have a commercial interest and wish to install at least two commercial type vehicle chargers on a property they own or lease. Members need to have all charging infrastructure placed on the Large Commercial-Controlled Load rate classification. Once signed up a signal will be sent to the commercial type of charger that will regulate the flow of power during control periods
Residential EV Charging	Incentives for EV owners who do not use their EV chargers during peak usage alerts
Geothermal Heat Pumps	Incentives delivered for installation of GSHP versus conventional HVAC
Roadway Lighting	Incentives for replacing outdoor lighting and roadway fixtures with more efficient options
Smart Thermostat	Members who install or who have already installed a thermostat connected to Wi-Fi are eligible for the program. Participants agree to allow DEC to adjust their thermostats a few degrees during summer peak usage alerts.

**Delaware Municipal Electric Corporation**

<b>Program</b>	<b>Description</b>
Efficiency Smart	Offers several options to help participating communities and their residential and business customers use less energy and save money through energy education, plug load meter reports, technical assistance, and financial incentives. Specific initiatives of Efficiency Smart include: home energy

	rebates, appliance recycling rewards, online savings, local retail savings, electric bill advice, online home energy assessment, and community outreach
Power Savers	On days that large increases in electric usage are expected, DEMEC encourages customers to avoid activities that will increase their use by issuing "Power Saver Alerts." DEMEC uses a combination of municipal notification systems, contractor support, and website and social media to issue alerts and notify customers.

**Delmarva Power**

<b>Program</b>	<b>Description</b>
Appliance Recycling	Offers customers up to \$50 for replacing and recycling old, inefficient appliances such as refrigerators
LED Lighting	An LED lighting program provides customers with instant in-store discounts on efficient bulbs to encourage them to replace inefficient lighting.
Behavior	Helps customers reduce energy use by changing their actions. Participants receive home energy reports comparing their usage with neighbors in similar homes. Reports also provide high usage alerts and more personalized data to keep customers informed about their energy usage and how to reduce it.

**Grid Modernization**

Section 40101(d) of the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law) provides funds to enhance the resilience of the electric grid. DNREC formed a Section 40101(d) Committee to advise DNREC on administering federal Bipartisan Infrastructure Law funding for utility grid resilience projects. The initial grant application was submitted in May. Once the grant funds are approved, DNREC will work with the committee and utilities on project proposals.

**Regional Greenhouse Gas Initiative (RGGI)**

Delaware is a participant in a multi-state carbon dioxide cap-and-trade program developed as a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and Virginia to cap and reduce carbon dioxide (CO2) emissions from the power sector. This effort is known as the [Regional Greenhouse Gas Initiative](#) (RGGI).

Delaware’s portion of the RGGI program is established in Delaware regulations as the CO2 Budget Trading Program (7 DE Admin. Code 1147), which is designed to initially stabilize and then reduce CO2 emissions in an economically efficient manner. Delaware and other states have developed the emission budget trading programs based on a model rule developed by the RGGI participating states since 2009 to reduce CO2 emissions from fossil-fuel fired power plants.

Money raised through the initiative is returned to participating states to invest in energy efficiency, renewable energy and other consumer benefit programs. These programs are spurring innovation in the clean energy economy and creating green jobs in the RGGI states.

## Transportation Programs

### Clean Transportation Programs

#### DNREC

Program	Description
Clean Vehicle Rebate Program	Provides incentives for Delawareans and Delaware businesses to buy or lease new alternative fuel vehicles. The vehicle rebate program encourages the deployment of electric, natural gas, and propane-powered vehicles as part of Delaware's commitment to innovation in the transportation sector, reducing greenhouse gases, and improving Delaware's air quality.
Electric Vehicle Charging Equipment Rebates	Offers rebates to lower the cost of electric vehicle charging stations that can be installed at your workplace, outside your businesses and in other public places.
Alternative Bi-Fuel Vehicle Rebates	Provides incentives to encourage the use and deployment of bi-fuel vehicle technologies in Delaware. Bi-fuel vehicles for this program are defined as those vehicles that have two separate fueling systems that enable them to run on either propane or natural gas and a conventional fuel.
Heavy-Duty Vehicle Rebate Program	Provides funds to help offset the costs of purchasing heavy duty dedicated compressed natural gas (CNG) vehicles. The program provides rebates of \$20,000 for new qualifying heavy duty CNG class 7 or 8 vehicles (GVW >26,000 pounds) and is aligned with Delaware's commitment to innovation in the transportation sector, reducing greenhouse gases, and improving Delaware's air quality. The program will accept applications through Dec. 31, 2022, or until funding has expired.

#### Delaware Sustainable Energy Utility

Program	Description
Grant for Local Government EV Fleets	Provides grants up to \$500,000 for local governments that can be used for feasibility studies, motorcycles, cars, trucks, vans, electric riding lawn equipment, charging stations, utility upgrades, installation, and special training for the use of new EV equipment.

#### Delmarva Power

Program	Description
Plug-In Vehicle Rate	Allows customers to receive a time-of-use rate specific to EV charging. The rate provides the benefit of reduced electric bills for customers when they charge their vehicle during off-peak hours.

#### Delaware Electric Cooperative

Program	Description
Beat the Peak	Allows customers who install a Chargepoint Home Charger at their residence to receive a billing credit of \$200 plus a \$5 discount on their bill during months of peak energy usage.

## Energy Reliability and Security

The Delaware Energy Assurance Plan (EAP) is a comprehensive manual for state government leaders charged with the responsibility of ensuring the health, welfare, and safety of the citizens

of the state during periods of energy emergencies. The plan describes the way the state will respond if an energy shortage of a substantial nature occurs or appears imminent.

The Department of Natural Resources and Environmental Control (DNREC), the Delaware Emergency Management Agency (DEMA), and the Delaware Public Service Commission (PSC) work in close consultation during energy emergency shortages. DNREC's Division of Climate, Coastal and Energy is the lead agency for energy emergency planning. The DEMA director is the primary advisor to the governor in an emergency/energy crisis.

<https://dnrec.alpha.delaware.gov/climate-coastal-energy/sustainable-communities/energy-assurance/>

## Energy Equity

The benefits and burdens of our energy systems are not equitably allocated. Some efforts, examples of which are described below, are already in place to mitigate the inequities that exist within the energy system. As Delaware considers its energy future and ways we generate, distribute and use energy, it will be important to consider and further address these inequities.

### Energy Equity Programs

Low-Income Home Energy Assistance Program

The [Delaware Energy Assistance Program \(DEAP\)](#) is a federally funded program for low-income families that need help in meeting their costs of home energy. The [Division of State Service Centers \(DSSC\)](#) administers this program on a contractual basis with Catholic Charities, Inc. Funds are provided by the U.S. Department of Health & Human Services (HHS), under the [Low-Income Home Energy Assistance Program \(LIHEAP\)](#). DEAP services provide assistance to income eligible families to help them meet their home energy needs. Income eligibility is defined as 200% of the federal poverty level. (As a reference, please see the Division of Social Services' [Income Eligibility tables](#)). LIHEAP has several components which include:

- **Fuel Assistance:** Help with home energy bills from the period of October 1 - March 31. This includes grants to income eligible households to help pay for home heating, which includes electricity, natural gas, kerosene, propane, coal, or wood. Grants are made to both homeowners and renters.
- **Crisis Assistance:** This component helps households in crisis during the winter months and may be in the form of a supplemental grant to their fuel assistance benefit. In addition to being income eligible, households must show they are experiencing a crisis (i.e., shut-off notice, out of fuel, no money to pay for fuel).
- **Summer Cooling Assistance Program (SCAP):** This program operates during the months of June-August and helps pay for electricity to cool homes with air conditioning during the hot, humid summer months. In addition to receiving a grant to offset the high costs of electricity to air condition a home, some populations may be eligible to receive a room sized air conditioning unit.

### Low- to Moderate- Income Solar Pilot Program

Launched in July 2022, the [Low- to Moderate- Income \(LMI\) Solar Pilot Program](#) is meant to bring renewable energy to a segment of the Delaware population that has historically been underserved by existing state programs. This two-year pilot program will utilize funds from DNREC's Green Energy Program and Weatherization Assistance Program to provide free or reduced-cost solar to low- and moderate-income Delawareans in Delmarva Power territory. The goal of this program is to serve 50 LMI households each year of the pilot.

### Community Solar

In order to lower the cost of energy and accelerate the adoption of community-based solar photovoltaic systems in the State, Senate Bill 2 was passed in 2021. This bill eliminated barriers to such systems and set up a regulatory process implemented by the Public Service Commission with consumer protection provided by the Department of Justice. Specifically, this bill: 1. Allows for multiple types of ownership models, defined as "community-owned energy generating facilities," to exist and compete in the marketplace; 2. Increases the maximum size of these systems to 4 megawatts (MW); 3. Eliminates the requirement that all customers of a system must be located on the same distribution feeder; 4. Eliminates the requirement that all customers of a system must be identified before the system can be built; 5. Provides for the regulation of these systems by the Public Service Commission and sets forth the fee and requirements for a Certificate to Operate; 6. Provides compensation to the system owner for 10% or less of unsubscribed energy; 7. Requires each system owner to certify that it serves at least 15% low income customers; and 8. Provides that the Public Service Commission will engage in rule-making in consultation with the Consumer Protection Unit of the Delaware Department of Justice.

### Energy Efficiency Programs

The Delaware Energy Efficiency Advisory Council (EEAC) provides guidance on efficiency program and portfolio planning in the state. The Low-Income Energy Efficiency Subcommittee of the EEAC was created to support all Delaware low-income energy efficiency programs and initiatives by providing input on the development and implementation of cost-effective program offerings targeted to marginalized groups. In 2021, the Low-Income Committee of the Energy Efficiency Advisory Council voted to rename itself the Energy Access and Equity Collaborative (EAEC) to better reflect the future priorities and focus the Committee. The EAEC is in the process of discussing additional goals for the future.

Current efficiency programs that support low-income Delawareans include the following programs described in more detail in the tables on pages 10-13:

- DNREC
  - Weatherization Assistance Program
- Delaware SEU
  - Empowerment Grant
  - Home Energy Counseling Checkup
  - LightsOn
  - Zero Energy Manufactured Home

## 5. Policy and Program Recommendations from the 2009 Delaware Energy Plan and Strategies and Actions from the 2021 Climate Action Plan

The work of the Governor's Energy Advisory Council will build upon the policy and program recommendations from the 2009 Energy Plan and the strategies and actions presented in the Climate Action Plan, which are here organized by subject matter. This section also references other state policies, programs, and initiatives related to each topic.

### Climate Strategy

2009 Energy Plan:

- “Establish a greenhouse gas reduction goal and a Climate Change Commission to develop a detailed Climate Action Plan for Delaware.”

Climate Action Plan:

- Governor John Carney announced the release of Delaware's Climate Action Plan on November 4, 2021.

Other state policies, programs, and initiatives:

- Senate Bill 310:
  - Directs the Governor's Energy Advisory Council to “propose actions to enhance Delaware's energy system, including actions to lessen the climate change impacts of Delaware's energy system...” (29 *Del.C.* § 8055 (b))

### Renewable Energy

#### Renewable Portfolio Standards (RPS)

2009 Energy Plan:

- Recommended that the Governor should consider increasing the RPS beyond the then current percentage of 20% by 2019.

Climate Action Plan:

- Add requirements to maximize the use of renewable energy and other carbon-free strategies from in-state sources, while continuing to secure necessary out-of-state renewable energy resources.
- Consider incorporating an energy storage component to integrate renewable energy into the grid.
- Initiate comprehensive studies to determine strategies for achieving 100% renewable and carbon free electricity from the grid by 2050.
- Conduct planning to assess how to integrate utility-scale and distributed renewable energy.
- Conduct planning to assess integrating offshore wind from projects in neighboring states into Delaware's grid.
- Assess needs and opportunities for resilience benefits through microgrids and other advanced grid technologies.
- Integrate other carbon-free technologies into the grid to complement renewable energy.
- Assess opportunities for renewable natural gas (biogas), low-carbon gases or other new clean energy technologies to meet energy needs and contribute to decarbonizing the grid.

Other state policies, programs, and initiatives:

- Renewable energy programs
  - See various renewable energy programs described in the tables on pages 9-11

### **Equity challenges in access to renewable energy**

Climate Action Plan:

- Expand opportunities to provide solar systems to low- and moderate- income residents and communities through efforts including community solar projects and targeted incentive programs.
- Expand existing energy efficiency programs to better support minority-, women- and veteran-owned businesses.
- Collaborate with the Public Service Commission and other stakeholders to consider a graduated rate structure, e.g. a lower rate for electricity for income-qualified ratepayers.

Other state policies, programs, and initiatives:

- Senate Bill 2:
  - Adopted in 2021, Senate Bill 2 established new provisions removing barriers to the development of community solar.
- LMI Solar Pilot Program:
  - DNREC launched a two-year Low- and Moderate-Income (LMI) Solar Pilot Program July, 2022.
  - The program is designed to reach 50 homes per year in DPL territory. Federal funds in year 2 will expand program capacity and reach.

### **Transmission and Distribution**

2009 Energy Plan:

- Mid-Atlantic Power Pathway: Continue support for the Mid-Atlantic Power Pathway Project (MAPP).
- The MAPP was subsequently cancelled.

Climate Action Plan:

- Ensure adequate transmission infrastructure is in place to accommodate the growing use of renewable energy through coordination with the Public Service Commission, utilities and the regional transmission organization, PJM Interconnection.

Other state policies, programs, and initiatives:

- PJM OSW Transmission Study
  - PJM Interconnection, LLC is working with member states on offshore wind (OSW) transmission planning. DNREC plans to be involved in this planning.
  - PJM is currently engaged in reforming its generation interconnection review process.
- UD/SEU Survey
  - The SEU has engaged Professor Steve Hegedus of the University of Delaware to conduct a survey of Delaware's electric utilities on distribution planning and practices. The study, which grew out of Senator Hansen's energy stakeholders group, is expected to be completed this fall.

### **Offshore Wind (OSW)**

2009 Energy Plan:

- "The Delaware Economic Development Office should be funded and tasked with the development of a favorable climate in Delaware for new primary wind industry and ancillary support businesses for the wind industry whether located in Delaware or elsewhere."

Climate Action Plan:

- “Engage with other east coast states and PJM Interconnection to adapt the transmission grid to accommodate offshore wind.”
  - Ongoing via the PJM Offshore Wind Transmission Study Group (OTSG).
- Engage and coordinate with neighboring states on offshore wind policy.
- Investigate potential pathways for procurement of offshore wind. This should include potential mechanisms for environmental data collection and monitoring.
- The Special Initiative on Offshore Wind (SIOW) at the University of Delaware delivered a report to DNREC and the General Assembly in April 2022.
- Ensure sustainable offshore wind planning, construction, operation and decommissioning by incorporating data and information to support effective decision-making in the Mid-Atlantic Ocean Data portal and decommissioning by incorporating data and information to support effective decision-making in the Mid-Atlantic Ocean Data portal.
- Identify and promote economic development opportunities presented by offshore wind development.

Other state policies, programs, and initiatives:

- Bluewater Wind:
  - In 2006, the General Assembly passed the Electric Utility Retail Customer Supply Act (House Bill 6) which included a provision for soliciting proposals to build new generation in Delaware. Three proposals were submitted: a new coal-fired plant, a new natural gas-fired plant, and an offshore wind project submitted by Bluewater Wind.
  - After the four state agencies tasked with approving one of the projects could not agree on approval of the offshore wind proposal, the General Assembly took up the matter. Senate Bill 328 approving a 200 MW offshore wind farm passed the Senate and House in June of 2008. Following the bill’s passage and the subsequent approval by the Delaware Public Service Commission (PSC), Bluewater Wind was expected to be the first offshore wind project in the United States.
  - Bluewater Wind was acquired by Babcock & Brown, an Australian firm, which sold the company to NRG. NRG cancelled the project in December of 2011.
  - The statutory provisions to encourage offshore wind development that were adopted in 2008 have since expired.
- Offshore Wind Working Group:
  - The Offshore Wind Working Group (OWWG), in its 2018 report to the Governor “recommended no immediate procurement of offshore wind from a project already approved by another state,” and identified several options that deserve further consideration, including: a large-scale purchase; incremental commitments to future projects; waiting until more developers propose projects in the Mid-Atlantic region; and evaluating other renewable resources in lieu of offshore wind. The Working Group also identified key criteria for deciding a future course of action.
- Maryland OSW Projects:
  - Maryland has awarded procurement commitments to US Wind and Ørsted for a total of just over 2,000 megawatts (MW).
  - Both companies plan to connect their projects to shore in Delaware and are conducting geotechnical surveys in support of their planning. No decisions have been made on transmission connections for either project.



- Integrating OSW into the grid will require connecting the projects to shore and upgrading the overall grid to accommodate the new power flows from the projects.
- Special Initiative on Offshore Wind:
  - The UD Special Initiative on Offshore Wind (SLOW) report highlights downward price trends, provides price projections for a large-scale purchase, and offers recommendations for achieving the best possible price for an offshore wind project. The report projects a price of \$71.48 per megawatt hour (MWh), or 7.148 cents per kWh for an 800 MW project.
- OSW Consultants:
  - DNREC has engaged the Brattle Group, Inc. and Synapse Energy Economics, Inc. for offshore wind consulting services.
  - DNREC is using Brattle primarily to help guide the State through the complexities involved in connecting offshore wind to the grid in Delaware as well as other related technical and policy issues.
  - DNREC is using Synapse on a variety of matters, including advice on overall offshore wind economics, monitoring developments in other states, project financial analysis, and modeling possible impacts on electricity markets and electric rates.

## Energy Efficiency and Electrification

### Energy Efficiency

#### 2009 Energy Plan:

- Adopt an Energy Reduction Goal & Vision to achieve energy self-sufficiency and carbon neutrality in Delaware's built environment by 2030.
- Energy Education and Outreach Program: The Sustainable Energy Utility, in coordination with the Energy Office, should develop and implement a comprehensive education program to inform Delawareans on energy efficiency.

#### Climate Action Plan:

- Build on existing incentive programs to reduce energy consumption by 0.7% annually by 2022 and by 1.5% annually from 2023 forward.
- Continue implementation of Energy Efficiency Advisory Council goals to expand cost-effective energy efficiency programs. Create new cost sharing programs that expand programs across utilities (shared savings).
- Work with state agencies and educational institutions to promote worker training in energy efficiency technologies, installation, and maintenance.
- Assess feasibility and benefits of adoption of legislation to institute stronger appliance energy efficiency standards.
- Develop a "cool roof" program to promote the use of vegetation or reflective materials that absorb less heat or reflect more sunlight than standard roofs.

#### Other state policies, programs, and initiatives:

- Energy efficiency programs:
  - See various renewable energy programs described in the tables on pages 12-14

### Residential Energy Efficiency

#### 2009 Energy Plan:

- Retrofitting of Existing Homes for Energy Efficiency: The SEU should defray energy efficiency investments of existing homes, both rental units and owner occupied.

- Energy Efficiency Financing of New and Existing Homes: The Energy Office should explore, in coordination with the SEU, new energy efficiency financing models of new and existing homes. The SEU should defray the incremental investments required for meeting the EPA Energy Star Program requirements.

Climate Action Plan:

- Strengthen programs to increase energy efficiency in affordable and multi-family housing.
- Support statewide energy efficiency programs, working with the Delaware State Housing Authority and the Delaware Sustainable Energy Utility, among others.
- Partner with local agencies and nonprofit organizations to provide energy efficiency through existing low-income programs, including Habitat for Humanity, New Castle County Lead Remediation, Milford Housing and Development, and Good Neighbors, among others.

Other state policies, programs, and initiatives:

- Energy efficiency programs:
  - See various renewable energy programs described in the tables on pages 12-14

### **Weatherization Assistance Program**

2009 Energy Plan:

- Expand the Weatherization Assistance Program (WAP): Significantly increase the budget of the Weatherization Assistance Program to enable the program to provide substantially more weatherization services to low-income owner-occupied and rental households as rapidly as possible."
- Energy Education and Outreach Program: The Sustainable Energy Utility, in coordination with the Energy Office, should develop and implement a comprehensive education program to inform Delawareans on energy efficiency"

Climate Action Plan:

- Expand weatherization programs to reach more homes and buildings for retrofits and accomplishing increased efficiency.
- Partner with other agencies to provide energy education for clients of the Weatherization Assistance Program.
- Refer homeowners and renters to energy efficiency education programs that deliver a complete picture to the low-income client about energy efficiency and behavioral changes.

Other state policies, programs, and initiatives:

- DNREC's Weatherization Assistance Program provides assistance to the low-income residential sectors to weatherize home while reducing energy use, electrical demand, natural gas, and other fuel usage.
- The SEU provides a pre-WAP program for all applicants in need of repairs not covered by WAP.

### **Industrial Energy Efficiency**

2009 Energy Plan:

- Combined Heat and Power: DNREC should develop Combined Heat and Power regulations for boilers/power plants on an energy output basis.
- DNREC should study, and if appropriate, develop a set-aside of allowance allocations for energy efficiency and renewable energy in Delaware's NOx and CO2 trading programs.

Climate Action Plan:

- Build on existing incentive programs to reduce energy consumption in industrial sector by 0.7% annually by 2022 and by 1.5% annually from 2023 forward.
- Maintain existing funding from the Public Utility Tax to support the Energy Efficiency Investment Fund.
- Expand energy efficiency incentive programs to target the ten highest energy users in Delaware.
- Provide additional outreach and education on energy efficiency to industrial facilities to assist in identifying opportunities to reach independent corporate goals.

Other state policies, programs, and initiatives:

- Energy efficiency programs:
  - See various renewable energy programs described in the tables on pages 12-14

## Building Codes

2009 Energy Plan:

- EE-4: Enhanced Energy Efficient Construction of New Homes: The State should supplement the Federal tax credit by extending a homebuilder a tax credit for building a home that uses 50% less energy than the most recent IECC code.
- Building Codes for Energy Efficiency: Continually adopt the most recent ASHRAE standards as Delaware's Commercial Energy and Ventilation Codes
- Building Codes for Energy Efficiency: Continually adopt the most current edition of the International Energy Conservation Code (IECC) as Delaware's Residential Energy Code

Climate Action Plan:

- Establish in-state training infrastructure for code inspectors, contractors, and building designers, including certification training, continuing education, and code transition assistance during code adoption cycles. • Conduct an energy code compliance benchmarking field study to determine a baseline of Delaware's current code compliance rates, followed by code compliance studies on a biannual basis to track improvements.
- Establish statewide energy code compliance improvement goals of 10% annual improvement above current baseline.
- Fully implement existing code requiring residential new construction to be net-zero energy-capable by 2025 and commercial new construction by 2030. • Update 16 Del. Laws, c. 76, §7602(c) to include reporting and enforcement mechanisms, clarify the existing definition of net-zero energy home/building and establish an incentive program to promote the construction of net-zero energy homes and commercial buildings.
- Provide technical support for municipalities to adopt more stringent local stretch codes with development of policy tool kits and training resources.
- Provide technical support for the International Energy Conservation Code (IECC) 111 or American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 189.1112 to be adopted by municipalities as strengthening appendices to the IECC and ASHRAE 90.
- Build on existing incentive programs to reduce energy consumption by 0.7% annually by 2022 and by 1.5% annually from 2023 forward.
- Continue implementation of Energy Efficiency Advisory Council goals to expand cost-effective energy efficiency programs. Create new cost sharing programs that expand programs across utilities (shared savings).

Other state policies, programs, and initiatives:

- We are working with stakeholders to revise Delaware's Energy Conservation Code.
- We plan to formally start the regulatory process to update the Code this spring.

## Electrification

### Climate Action Plan:

- Build on existing initiatives to increase all-electric retrofits to 25% of residential and 40% of commercial properties by 2050.
- Coordinating with new building codes to ensure 90% of new residential properties are all-electric by 2050.
- Decarbonizing the electric generation grid has the highest emissions reduction potential in the medium and long-term scenarios.
- Building and transportation electrification are large drivers of emissions reductions but rely on the grid decarbonizing for full effectiveness.

### Other state policies, programs, and initiatives:

- Transportation:
  - Expand current EV incentive programs, paired with additional infrastructure incentives for charging station build outs, to increase EV adoption rate to 20% by 2030, and 70% by 2050.
  - Electrify the state agencies light-duty fleet vehicles, with 20% of the fleet by 2025, and 100% of the fleet by 2050.

## High Global Warming Potential Greenhouse Gases

### Climate Action Plan:

- Adopt and implement state regulations, including 7 DE Admin. Code 1151, to establish a phase-down schedule for end-use specific hydrofluorocarbons.
- Develop and implement incentive programs, like the Cool Switch Low Impact Refrigerant Program, to accelerate the transition from the use of hydrofluorocarbons by alleviating the upfront costs of new equipment using alternative refrigerants.
- Develop and implement a statewide Refrigerant Management Program, including requirements for technicians' certification, refrigerant recovery and equipment recycling, management of refrigerant leaks and reclamation, equipment disposal and recordkeeping.
- Assess strategies for improving collection efficiencies of sources of methane (e.g. landfill gas, wastewater treatment) and improving refinement of captured gas for increased use in applications such as energy generation projects and production of renewable natural gas as a vehicle fuel source.
- Encourage utilities to become partner programs of the U.S. EPA Natural Gas STAR Program to implement methane reducing technologies and document voluntary emission reduction activities for natural gas transmission and distribution pipelines.
- Assess opportunities to convert captured landfill gas into renewable natural gas to be used as fuel for heavy-duty vehicles, power generation, industrial processes, and other applications. As part of this action, an effort should be undertaken to ensure adequate emissions control technology for renewable natural gas-fired engines, as the exhaust may contain higher levels of air toxics emissions, such as formaldehyde.
- Assess opportunities to support anaerobic digestion projects to process organic and agricultural waste into a usable renewable natural gas product.
- Encourage the use of renewable natural gas as a fuel for trash collection trucks by working with landfill operators to offer lower disposal rates for trash trucks that are fueled by renewable natural gas.
- Develop and incentivize projects for renewable natural gas fueling stations for vehicles to generate demand for new heavy-duty vehicles that use renewable natural gas as a fuel source.

- Improve waste stream characterization methodology to calculate recycling rates and identify components of the waste stream for downstream specialty compost manufacture.
- Develop education and outreach programs and implement a disposal system to efficiently separate waste types prior to collection, and to develop a pay-as-you-throw variable rate system for trash collection and disposal.

Other state policies, programs, and initiatives:

- DNREC's Cool Switch Low Impact Refrigerant Program provides incentives for the use of refrigerants with lower Global Warming Potential impacts.

## Transportation And Land Use

### Clean Transportation

2009 Energy Plan:

- The SEU should provide economic incentives to encourage public and private fleet owners to purchase fleet vehicles that meet the State standards (to be developed under Recommendation TE-9).
- The SEU should provide economic incentives for home infrastructure options to encourage greater use of alternative fuel vehicles such as electric, compressed natural gas and Vehicle-to-Grid.
- Alternative Fuel/Fuel Efficient Vehicles: TE-9A. The Office of Management and Budget should establish high standards for fuel efficiency and environmental impacts for new fleet purchases by the State.
- As new alternative fuel vehicle technologies become commercialized, the State Energy Office should conduct studies of options for making the support infrastructure available and convenient to the public in an economically feasible and environmentally safe manner.

Climate Action Plan:

- Continue offering electric vehicle rebates through Delaware's Clean Transportation Incentive Program to encourage the purchase or lease of electric vehicles. Modify incentive levels over time to respond to market trends and emerging technologies.
- Adopt California's Zero Emissions Vehicle portion of the Clean Cars program to require light-duty vehicle manufacturers to make available specific quantities of zero-emission vehicles for sale in Delaware.
- Develop audience-specific marketing campaigns and education to highlight the benefits of zero emissions vehicles particularly for dealerships, businesses, local governments and disadvantaged communities.
- Assess opportunities for indirect incentives for zero-emission vehicle drivers, such as discounted parking rates and registration fees.
- Partner with technical and vocational schools to provide electric vehicle maintenance and repair training programs inclusive of light, medium and heavy-duty vehicles.
- Review existing state economic development funding to ensure that small businesses conducting research and manufacturing for batteries, hydrogen, charging and other components are eligible for funding.
- Set payment standards and interoperability standards for public electric vehicle charging stations (i.e., Open Charge Point Protocol, Open Smart Charging Protocol).
- Create guidance and model ordinances for local governments to streamline permitting and installation of electric vehicle charging stations in residential and commercial buildings, public parking facilities and rights-of-way.

- Continue offering charging station rebates through Delaware’s Clean Transportation Incentive Program to defray initial costs of installing charging stations.
- Expand Delaware’s Clean Transportation Incentive Program to include incentives for used electric vehicles and/or increased rebate amounts for low- and moderate-income car buyers.
- Support access to electric vehicle mobility for populations with limited access to personal vehicles (including low-income households, students and seniors), through local electric car sharing programs and strategic deployment of charging stations.
- Partner with state agencies to develop charging station accessibility requirements to meet compliance with the Americans with Disability Act.
- Maintain and augment state programs that reduce cost of public transit travel solutions for low-income individuals, like the Get a Job/Get a Ride Program recently relaunched by DART First State.
- Facilitate installation of electric vehicle charging stations in multi-family dwelling units through partnership with electric utility providers and pilot projects.
- Establish working groups to develop action plans to address barriers to clean mobility in rural, low-income and disadvantaged communities in Delaware.
- Require utilities to offer programs for electric vehicle drivers including advanced active charging management practices and time-of-use rates to encourage electric vehicle charging in off-peak hours.
- Incentivize solar powered charging stations by developing a joint incentive program between Delaware’s Clean Transportation Incentive Program and the Green Energy Fund.
- Continue to assess the feasibility of adopting the Transportation and Climate Initiative cap-and-invest policy, a mechanism that sets a decreasing cap for on-road transportation emissions while also generating revenues that can be invested in additional clean transportation programs.
- Support federal legislation and regulations that require more stringent nationwide standards for emissions and technology.
- Adopt the proposed California Advanced Clean Cars II Program addressing technology and emission standards for light -duty vehicles for years 2026 to 2035.
- Adopt the California Advanced Clean Trucks Program addressing technology and emission standards for medium and heavy-duty vehicles for model years 2024 to 2035.
- Convert 20% of state-owned light-duty vehicles to electric by 2025 and install adequate charging stations to support these vehicles.
- Encourage increased telecommuting options for state employees, including training for managers, updated telecommute policies and investments in technology.

Other state policies, programs, and initiatives:

- Clean transportation programs:
  - See DNREC’s clean transportation programs described in the table on page 15

## Vehicle to Grid Technology

2009 Energy Plan:

- Vehicle to Grid Development: The Governor, through his policy office, should convene an advisory group to determine the infrastructure, incentives and rules needed to facilitate Vehicle-to-Grid (V2G) development and implementation.
- Vehicle-to-Grid large fleet demonstration project: The Governor, through the appropriate agency(ies), should conduct a pilot project using state government or other large fleets to evaluate the economics and technical feasibility of business models for vehicle to grid.

Climate Action Plan:

- Partner with universities and colleges to expand the deployment of vehicle-to-grid technology.

**Land Use Planning and Vehicle Miles Travelled**

2009 Energy Plan:

- Bicycle and Pedestrian Transportation: DeIDOT and other state agencies and cooperators should encourage bicycling and walking as alternative transportation.
- The Governor or the Legislature should implement a “Complete Streets” requirement statewide by statute or Executive Order.
- DeIDOT and other appropriate agencies should increase funding for pedestrian and bicycle transportation.
- Employer Trip Reduction Programs: The Governor, through the Secretaries of Natural Resources & Environmental Control and Transportation should convene a committee, including representatives of Delaware employers such as the State Chamber of Commerce, to develop standards and incentives for employer participation in commute alternatives programs.
- Vehicle Fees &/or Fuel Taxes: The Delaware Department of Transportation should develop and propose vehicle-related fees and/or fuel taxes which encourage increased fuel efficiency and decrease miles travelled.
- Goal to Reduce Vehicle Miles Travelled: The Governor should adopt a goal that by 2030, the total vehicle miles travelled in Delaware will not exceed the levels in 2009.
- Bus Transportation System Improvement: Where possible, DART and other bus service systems should combine services in overlapping areas. Add additional small bus/van routes to connect to longer distance, express oriented transit routes.
- Non-ADA Para transit Service: The Governor, through the Secretaries of Transportation and Health and Social Services, should convene an ad hoc panel to evaluate and recommend options to improve energy-efficiency and cost-effective implementation of the State’s policies regarding non-ADA Para transit service.
- Transit Investment: DeIDOT should raise fixed-route transit capital spending to at least 20% of total transportation spending in the region and create a dedicated funding stream for the system.
- Bus Rapid Transit Feasibility: The Delaware Department of Transportation should explore the feasibility of creating a phased bus rapid transit system throughout the Mid-Atlantic Area (Delaware, Maryland, Pennsylvania, New Jersey).
- HOV (High Occupancy Vehicle) Lanes: As new roadways or expansions are planned, DeIDOT should evaluate and incorporate HOV lanes into those plans as appropriate.

Climate Action Plan:

- Accelerate and enhance existing efforts to create “Complete Communities” which promote healthy lifestyles, economic growth and sustainability through integrated approaches to transportation, land use and community design.
- Build on existing incentives and partnerships for businesses to encourage employees to use alternative modes of transportation (including telecommuting) for commuting to/from work.
- Partner with counties and municipalities to evaluate methods to incorporate the greenhouse gas emissions consequences of land use decisions into Comprehensive Development Plans and Master Plans.
- Help to improve the Project Prioritization Criteria for the state’s Capital Transportation Program to incorporate greenhouse gas emissions and develop a standard method for quantifying emissions impacts.

- Designate funding and incentives to expand broadband internet access to help facilitate telecommuting (and other benefits) in rural areas that lack adequate broadband coverage.
- Conduct research to determine whether increased use of ride-share services such as Uber and Lyft will affect vehicle miles traveled, congestion and emissions.
- Build on existing programs, such as the EPA SMARTWAY program, and develop incentives to support freight businesses in adopting best practices for route optimization, last mile solutions and mode switching.
- Improve marketing of existing and underutilized incentive programs for fuel switching such as the Clean Transportation Incentive Program, Volkswagen Settlement Funds, and Diesel Emission Reduction Act to accelerate the transition of medium- and heavy-duty vehicles to emission-free technology.
- Assess the feasibility of adopting a Low Carbon Fuel Standard in Delaware to drive innovation and further carbon reductions from the fuels supply chain.
- Assess the potential implications of a mileage-based user fee on greenhouse gas emissions in the state.

## Technology Specific Recommendations

### Biofuels

2009 Energy Plan:

- Biofuels - Expanded Research: The Delaware Economic Development Office should work in close alignment with Delaware-based companies and universities to encourage expanded research and business leadership in the State, including the attraction of partners.

### Hydrogen/Fuel Cells R&D

2009 Energy Plan:

- Support the effort among the state government, local industry and universities for a coordinated, strong approach to fuel cell research and deployment.
- Create a public/private partnership to fund a fast fill Hydrogen station at the I-95 rest area"
- The Office of Management and Budget, in cooperation with the Energy Office and the University of Delaware, should establish a pilot project to help to create a functioning system of fuel pumps and vehicles located near where the research is being conducted.

Other state policies, programs, and initiatives:

- Several private firms in Delaware are conducting research and development in the hydrogen/fuel cell space, including Versogen (a startup that grew out of the University of Delaware and has receive State funding), Chemours (fuel cell membranes R&D), and Bloom Energy (which is adapting its fuel cells for H2 applications).
- The Mid-Atlantic Clean Hydrogen Hub (MACH2) proposal is a collaborative public/private effort involving DE, PA and NJ. MACH2 to promote the production, processing, delivery, storage and end-use of clean hydrogen fuel.

## Economic Development Opportunities

2009 Energy Plan:

- "The Delaware Economic Development Office should be funded and tasked with the development of a favorable climate in Delaware for new primary wind industry and



ancillary support businesses for the wind industry whether located in Delaware or elsewhere.”

Climate Action Plan:

- Identify and promote economic development opportunities presented by offshore wind development.
- Work with state agencies and educational institutions to promote worker training in energy efficiency technologies, installation, and maintenance.

## Other Recommendations from the 2009 Energy Plan

### Energy Planning Governance

2009 Energy Plan:

- Create a Governor’s Executive Office for Energy Policy.

### Integrated Resource Planning

2009 Energy Plan:

- Support and encourage efforts by all electric distribution utilities in Delaware to implement an integrated resource planning process (“IRP”) and that the IRP process be coordinated with PJM’s Regional Planning Process. The IRP should include a resource portfolio approach reflecting a diverse mixture of the following: transmission, substantial levels of Energy Efficiency (EE) and Demand Side Management (DSM), and generation.

Other state policies, programs, and initiatives:

- The IRP requirement was eliminated by Senate Bill 191 in 2018.

### Recycling

2009 Energy Plan:

- Delaware should promote statewide recycling programs to increase the percentage of wastes removed from the solid waste stream. Recycling saves energy and reduces greenhouse gas emissions, positively affecting climate change.

Note: Delaware’s Universal Recycling law became effective September 2011 and required waste haulers to provide recycling.

### Reduce Emissions from Coal Plants

2009 Energy Plan:

- Reduce the carbon emissions from the State’s existing coal facilities.

Other state policies, programs, and initiatives:

- The Indian River power plant, the last operating coal power plant in Delaware is slated for closure and is currently being kept online per a PJM Reliability Must Run tariff pending transmission grid upgrades.
- RGGI, which was at the beginning of implementation when the 2009 Energy Plan was published, has been a factor in fuel switching away from higher GHG emitting generating facilities.

## Appendix A: Acronyms

<b>Btu</b>	British thermal unit
<b>CAP</b>	Climate Action Plan
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>DEC</b>	Delaware Electric Cooperative
<b>DEMEC</b>	Delaware Municipal Electric Corporation
<b>DER</b>	Distributed energy resource
<b>DNREC</b>	Delaware Department of Natural Resources and Environmental Control
<b>DP&amp;L</b>	Delmarva Power and Light
<b>DPA</b>	Delaware Public Advocate
<b>EAEC</b>	Energy Access and Equity Collaborative
<b>EEAC</b>	Energy Efficiency Advisory Council
<b>EEIF</b>	Energy Efficiency Investment Fund
<b>EV</b>	Electric vehicle
<b>GEAC</b>	Governor's Energy Advisory Council
<b>GEF</b>	Green Energy Fund
<b>GHG</b>	Greenhouse gas
<b>kW</b>	Kilowatt, a measure of power equal to 1,000 watts
<b>kWh</b>	Kilowatt hour, the amount of energy consumed by using one KW of power for one hour
<b>LEAP</b>	Low Emissions Analysis Platform
<b>LMI</b>	Low-and moderate-income
<b>MW</b>	Megawatt
<b>MWh</b>	Megawatt hour
<b>OSW</b>	Offshore Wind
<b>PSC</b>	Public Service Commission
<b>REC</b>	Renewable Energy Credit
<b>RETF</b>	Renewable Energy Taskforce
<b>RGGI</b>	Regional Greenhouse Gas Initiative
<b>RPS</b>	Renewable Portfolio Standard
<b>SEU</b>	Sustainable Energy Utility
<b>SREC</b>	Solar renewable energy credit
<b>VMT</b>	Vehicle miles traveled

## Appendix B: Glossary

### **British Thermal Unit (BTU)**

A BTU is a standard measure of energy and provides a basis to compare energy sources and uses.

### **Capacity**

The maximum amount of electricity a generator can produce, measured in megawatts (MW).

### **Climate Change**

A long-term change in the average weather patterns that have come to define Earth's local, regional and global climates.

### **Community Solar**

A solar energy development model in which multiple participants share, invest in and benefit from a single solar energy system (often a larger, off-site development). Individuals either own or lease a portion of the system and reap the benefits (such as cost savings) from the solar energy generated by the portion they own or lease.

### **Decarbonization**

Long-term strategies to reduce carbon dioxide emissions by phasing out the use of carbon-emitting processes and technologies. This is primarily done by eliminating the combustion of fossil fuels as an energy source, with the end goal of a carbon-free global economy.

### **Delaware's Energy Office**

The Energy Office is located in DNREC's Division of Climate, Coastal and Energy.

### **Distributed Energy Resources (DER)**

Small-scale electricity production that is on-site or close to the primary user and is interconnected to the utility distribution system.

### **Electric Vehicle (EV)**

A type of zero-emission vehicle that has a battery instead of a gasoline tank and an electric motor instead of an internal combustion engine. Also known as an all-electric vehicle or battery-electric vehicle.

### **Electrification**

The process of replacing technologies that use fossil fuels as an energy source with technologies that use electricity instead. Electrification holds to the expectation that electricity is generated using clean or renewable energy.

### **Energy Efficiency (EE)**

Practices in which older or less energy-efficient appliances, vehicles, building materials and other technologies are replaced with newer, more efficient designs that require less energy. By reducing energy demand, efficiency improvements can both reduce greenhouse gas emissions and realize cost savings in the short-term.

### **Energy Storage**

The capturing and storing of energy for future use. Energy can be stored through electrochemical (batteries), thermal, and mechanical means, as well as through pumped hydropower and hydrogen.

### **Environmental Justice**

An environmental justice community is a community that is disproportionately impacted by pollutants.

### **Equity**

Just and fair inclusion in a society where all can participate, prosper and reach their full potential.

**Federal Energy Regulatory Commission (FERC)**

FERC has jurisdiction over the interstate sale and transmission of electricity and natural gas, and regulates PJM.

**Greenhouse Gases**

Gases in the atmosphere that have the ability to trap heat. Common greenhouse gases include carbon dioxide, methane, nitrous oxide, certain fluorinated gases (such as hydrofluorocarbons and chlorofluorocarbons) and water vapor.

**Kilowatt (kW)**

A kW is a unit of electrical capacity equal to 1,000 watts.

**Kilowatt-hour (kWh)**

A kWh is a unit of electrical energy equal to 1,000 watt-hours.

**Megawatt (MW)**

A MW is a unit of electrical capacity equal to 1,000 kilowatts or 1,000,000 watts.

**Megawatt-hour (MWh)**

A MWh is a unit of electrical energy equal to 1,000 kWh.

**Microgrid**

A microgrid is a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connect or island-mode.

**Net-zero emissions**

As it relates to greenhouse gas emissions, net-zero emissions is achieved when greenhouse gas emissions from human activities are balanced out by removing greenhouse gases from the atmosphere, a process known as carbon removal. Carbon removal can be carried out via carbon sequestration and storage as well as through the use of carbon removal technology.

**Net-zero energy building/home**

Buildings and homes that combine energy efficiency and renewable energy generation to consume only as much energy as can be produced on site through renewable resources over a specified time period.

**Peak Demand**

The highest electric power demand that has occurred over a specified time period.

**PJM**

PJM is the regional transmission organization responsible for planning and operating the electric transmission grid across thirteen Mid-Atlantic and Midwestern states and the District of Columbia. PJM is also the independent system operator that administers the wholesale power markets in its territory to assure bulk system reliability.

**Regional Greenhouse Gas Initiative (RGGI)**

The Regional Greenhouse Gas Initiative (RGG) is the first mandatory market-based program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among several states in the Northeast and Mid-Atlantic regions to cap and reduce CO2 emissions from the power sector.

**Weatherization**

A range of practices aimed at weatherproofing and installing energy-efficient measures in a building or home to improve the structure's envelope, heating and cooling systems, electrical system and electricity and fuel consumption. Weatherization programs can include home energy audits, air sealing, insulation, moisture control and ventilation.

## Appendix C: GEAC Statutory Language from SB 310

The Delaware Energy Act, first adopted in 2004, creates the Governor's Energy Advisory Council and mandates the development of the Delaware Energy Plan (29 Del. C. § 8055). Senate Bill No. 310 as Amended by Senate Amendment No. 1 and House Amendment No. 2 (SB 310) amends [29 Del.C. § 8055](#) to read:

§ 8055 Governor's Energy Advisory Council.

(a) There is hereby established the Governor's Energy Advisory Council.

(b) The Governor's Energy Advisory Council shall monitor Delaware's energy system, identify and propose actions to enhance Delaware's energy system, including actions to lessen the climate change impacts of Delaware's energy system, and provide counsel to the Governor on promoting an economic, reliable and competitive energy market for all Delaware consumers.

(c) The Governor's Energy Advisory Council shall be assigned the following responsibilities:

(1) [Repealed.]

(2) Providing recommendations to the State Energy Office on updates to the Delaware Energy Plan and Climate Action Plan every 5 years from date of enactment. The updating process shall include a process for public input and measures for progress in attaining goals identified in the plans.

(3) Monitoring federal, state and regional energy issues, identifying the impacts on Delaware and recommending actions and policies to the Governor and General Assembly in response to identified issues.

(4) Other duties as referred by the Governor.

(d) The Governor's Energy Advisory Council shall be composed of 25 members as follows:

(1) A Chair to be appointed by the Governor for a term of 3 years and who shall be eligible for re-appointment for terms of 3 years.

(2) Chair of the Public Service Commission or their designee.

(3) The Public Advocate or their designee.

(4) Chair of the Weatherization Assistance Program Policy Advisory Council or their designee.

(5) The Executive Director of the Delaware Sustainable Energy Utility or their designee.

(6) Fifteen members who shall be appointed by the Governor representing, to the extent possible, the following constituencies: electricity transmission; electricity distribution; electricity generation; economically or environmentally overburdened and underserved communities; Public Service Commission-regulated, municipal, and cooperative public utilities; agriculture and/or agribusiness; utilities; solar energy; wind energy; energy efficiency; innovative energy technology; industrial electricity users; transportation fuels; and environmental, public health, and energy interests. These members shall be appointed by the Governor as follows:

a. Five members shall be appointed for 3-year terms;

b. Five members shall be appointed for initial 2-year terms;

c. Five members shall be appointed for initial 1-year terms;

d. Thereafter, appointees shall serve for 3-year terms.

(7) The Secretaries of Transportation, Natural Resources and Environmental Control, and Agriculture or their designees shall serve as ex-officio members.

(8) One member of the Senate appointed by the President Pro Tempore of the Senate.

(9) One member of the House of Representatives appointed by the Speaker of the House of Representatives.

(e) An appointment, pursuant to this section, to replace a member whose position becomes vacant prior to the expiration of the member's term shall be filled only for the remainder of that term. Members shall continue to serve after the expiration of their terms until they resign, are reappointed or are replaced.

(f) Members of the Advisory Council shall serve without compensation, except that they may be reimbursed for reasonable and necessary expenses incident to their duties as members in accordance with state law.

(g) The Chair of the Advisory Council may establish such subcommittees of the Advisory Council as the Chair determines would provide assistance to the Advisory Council in meeting its responsibilities. Any subcommittee shall be chaired by an Advisory Council member or their designee.

(h) A quorum of the Advisory Council is a majority of its members. A vacant position is not counted for quorum purposes. Official action by the Advisory Council requires the approval of a majority of the members present at a meeting with a quorum.

(i) The State Energy Office shall provide staff support to the Advisory Council.

(j) *Annual report.* —

On or before January 31, 2023, and on or before every January 31 thereafter, the Council shall submit an annual report to the Governor, President Pro Tempore of the Senate, and the Speaker of the House of Representatives for distribution to the members of the General Assembly, with a copy to the Director and the Legislative Librarian of the Division of Research of Legislative Council, and the Delaware Public Archives.

The Delaware Energy Act specifies the role of the [DNREC Division of Climate, Coastal and Energy](#), which is also referred to in the Code as the State Energy Office.

§ 8053 (c) The State Energy Office shall:

...

(7) Facilitate the development of a comprehensive State Energy Plan designed to protect the health, safety and welfare of the citizens and economy of the State and which shall include, but not be limited to:

- a. Encouraging and promoting conservation of energy through reducing wasteful, uneconomical or inefficient uses of energy;
- b. Encouraging and promoting the use of renewable electric generation facilities and alternate energy technologies by residential and commercial consumers; and
- c. Encouraging and promoting such other energy efficiencies and conservation goals, methods, standards, training, programs and policies that are consistent with the intent of this subchapter, especially those directed toward improving end-use efficiency among the State's energy consumers.