Connecticut's utilities implement energy efficiency programs in three-year cycles. The state is currently designing the portfolio for the <u>2022 – 2024 Conservation and Load Management</u> <u>Plan.</u> While each utility offers its own programs, the same portfolio of programs is available statewide through the <u>Energize CT Platform.</u>

#### **Performance Metrics**

### **Benefit-Cost Metrics**

Goals	Based on achieving annual savings goals for gas and electric	Base Test	Utility Cost test or Modified Utility Cost test (oil and propane).
Performance Incentives	<ul> <li>Can earn a percentage of spending based on performance, in two categories:</li> <li>90 percent tied to savings performance and achieving targets.</li> <li>10 percent tied to achieving other benefits, including total Mmbtu, participation, and equity metrics.</li> </ul>		

# **Centering Equity**

In 2020, DEEP launched the <u>Equitable Energy Efficiency</u> proceeding to define equity in the state's energy efficiency programs. Phase I of the proceeding included a multi-week public process that resulted in the <u>Phase I Goals and Actions Report</u>. The report characterizes current inequities in energy efficiency programs and identifies short-term actions. Phase II will commence at a later date.

In 2021, <u>Governor Lamont's EO 21-3</u> established the Connecticut Equity and Environmental Justice Advisory Council, which will advise DEEP on current and historic environmental injustice and further integrate environmental justice considerations into DEEP's programs, policies, and activities.

Baseline Year	Interim Goal	Long-term Goal
2001	45% by 2030	80% by 2050

Connecticut's 2008 Global Warming Solutions Act and An Act Concerning Climate Change Planning and Resiliency of 2018 set a mandatory greenhouse gas emissions reduction target for the state. In 2021, the governor issued <u>Executive Order 21-3</u> to direct Connecticut state agencies to take specific actions to mitigate and adapt to climate change, including improving building codes and appliance standards, strengthening the Lead By Example program, and establishing an Office of Climate and Public Health.

Connecticut is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States</u> <u>Climate Alliance</u>.

Appliance Standards	Executive Order NO.21-3 requires Connecticut to adopt appliance standards by the end of 2022.
Codes	Connecticut is currently on the 2018 IECC and is working towards adopting the 2021 IECC in 2022.
Home Energy Labeling	Connecticut's voluntary <u>Home Energy Score program</u> is integrated with the utilities' <u>Home Energy Solutions programs</u> and has a goal of scoring 12,000-14,000 homes annually.
Benchmarking	Benchmarking of all state-owned buildings 10,000 square feet or greater was <u>required by law</u> in 2014, which established a Lead by Example program.

Delaware's energy efficiency programs are a collaboration between the electric utilities, gas utilities, and the <u>Delaware Sustainable Energy Utility</u> (DE SEU), an energy efficiency utility. Programs are implemented in three-year cycles by both Energize Delaware and the utilities. Currently, Delaware is in the <u>2020 – 2022 plan cycle.</u>

#### **Performance Metrics**

Goals	Annual savings goals for gas and electric utilities.

Base Test	<u>Total Resource Cost Test</u>	
<u>Emission</u> <u>Metrics</u>	CO2: \$35.41 per ton NOx: \$9,500 per ton SO2: \$43,000 per ton	
Non-Energy Benefits Metrics	Avoided fuel costs	

**Benefit-Cost Metrics** 

## **Centering Equity**

Delaware's Community Involvement Advisory Council advises the secretary of the Department of Natural Resources and Environmental Control and helps to address adverse environmental impacts on communities. The Advisory Council was established <u>by law</u> as a permanent council serving in an advisory capacity to the secretary of the department.

Baseline Year	Interim Goal	Long-term Goal
2005	26-28% by 2025	40% by 2030

In 2021, Delaware's Department of Natural Resources and Environmental Control released <u>Delaware's Climate Action Plan</u> to help Delaware meet its emission reduction goals and set a course for state climate action in the coming decades. The plan indicates that the state is on track to achieve 25 percent emissions reduction from 2005 levels by 2025, falling just short of its 26-28 percent target.

Delaware is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

Codes	Delaware is currently on the 2018 IECC and is beginning discussions about adopting the 2021 IECC in the next couple of years.
Benchmarking	In 2010, benchmarking of all state-owned or leased buildings was mandated by <u>executive order.</u>

Maine's energy efficiency portfolio is implemented statewide by <u>Efficiency Maine Trust</u>, a energy efficiency utility. Programs are implemented in a three-year cycle. Efficiency Maine's <u>2023 – 2025 Triennial Plan V</u> is currently pending approval at the Public Utilities Commission.

#### **Performance Metrics**

Goals	Annual electricity (MWh), natural gas (million cf), and liquid fossil fuel (million gallons) savings; reduction in CO2 emissions; summer peak electric load reduction; weatherization of buildings; installation of heat pumps; job years created; and electric vehicle rebates.
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### **Benefit-Cost Metrics**

Base Test	Jurisdiction Specific Test	
Emission Metrics	CO2: \$125 per short ton based on the New England Marginal Abatement Cost for Carbon	
Non- Energy Benefits Metrics	Avoided fuel costs and avoided water costs.	

# **Centering Equity**

In 2017, Efficiency Maine Trust created the Low Income Advisory Group to help consider equity issues in energy efficiency program design and implementation, and has focused efforts on <u>ensuring geographic equity</u> since 2018. Additionally, the Trust has equity metrics throughout its portfolio.

The <u>Maine Climate Council's Equity Subcommittee</u> will support ongoing planning and implementation of the state's climate strategies to ensure shared benefits across diverse populations in Maine.

Baseline Year	Interim Goal	Long-term Goal
1990	45% by 2030	80% by 2050

In 2019, <u>An Act to Promote Clean Energy Jobs and to Establish the Maine Climate Council</u> was passed to create the Climate Council and direct the state to implement a climate action plan. In 2020, Maine unveiled a four-year Climate Action Plan, <u>Maine Won't Wait</u>, that sets greenhouse gas reduction goals.

Maine is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

## **Electrification Initiatives**

In 2019, Maine <u>passed legislation</u> establishing a heat pump installation target of 100,000 cold climate heat pumps installed by 2025. Maine's newest climate plan expands this target to 240,000 heat pumps installed by 2030. Efficiency Maine Trust is tasked with helping Maine achieve these targets. As a result, Efficiency Maine Trust's energy efficiency plans include <u>targets and benchmarks</u> to accelerate heat pump adoption in the state.

## **Workforce Initiatives**

As a result of Maine's <u>2019 legislation</u> establishing a state heat pump installation target, Efficiency Maine Trust developed a <u>course curriculum</u> for registered trainers that supports heat pump installers and an online <u>Heat</u> <u>Pump Basics Training Center</u> required for all heat pump installers in the state.

Appliance Standards	Maine is currently creating appliance standards through state rulemaking.
Codes	Maine is currently on the 2015 IECC and is beginning discussions about adopting the 2021 IECC in the next couple of years.
Home Energy Labeling	Maine's mandatory <u>residential energy efficiency disclosure statement</u> <u>statute</u> requires landlords to provide the amount and cost of energy consumption to prospective tenants upon request.

Maryland's gas and electric utilities implement energy efficiency programs in three-year cycles as part of the state's <u>EmPOWER Program</u>. While the programs are under a statewide plan, each utility offers their own portfolios, which can vary territory to territory. The programs are currently in their 2021 – 2023 Cycle.

#### **Performance Metrics**

#### **Benefit-Cost Metrics**

Goals	Annual energy savings targets.	Base Test	<u>Both the Total Resource</u> <u>Cost Test and the Societal</u> <u>Cost Test.</u>
L		Non-Energy Benefits Metrics	Participant cost, economic well-being, comfort, fuel savings, and water savings.

## **Centering Equity**

In 2001, the <u>Commission on Environmental Justice and Sustainable Communities</u>, which advises state agencies on environmental justice and related issues, was established by <u>executive order</u>.

## **Climate Plans**

Baseline Year	Interim Goal	Long-term Goal
2006	50% by 2030	Net zero by 2050

In 2009, the state passed the Greenhouse Gas Reduction Act (GRRA), requiring a 25 percent reduction in emissions by 2020, based on 2006 levels. In 2016, the <u>legislation was updated</u> with a goal to require a 40 percent reduction by 2030. The Maryland Department of Energy released its <u>2030 GRRA Plan</u> in 2021, calling for 50 percent reduction by 2030.

Maryland is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

Codes	Maryland is currently on the 2015 IECC and is beginning discussions about adopting the 2021 IECC in the next couple of years.
Benchmarking	Benchmarking of all state-owned or leased buildings was mandated <u>by law</u> in 2008, which established a Lead By Example initiative.

Massachusetts' gas and electric utilities implement energy efficiency programs in three-year cycles. The <u>2022 – 2024 Plan</u> was approved by the Department of Public Utilities in January 2022. While each utility offers its own programs, the same portfolio of programs is available statewide through the <u>Mass Save</u> platform.

Goals	Annual MMBtu Savings GHG Emissions Reductions
Performance Incentives	Earn a percentage of program budgets based on performance in four components: equity benefits, electrification benefits, standard benefits, and value or net benefits.

### **Performance Metrics**

### **Benefit-Cost Metrics**

Base Test	<u>Total Resource Cost Test</u>
Emission Metrics	CO2: \$128 per short ton based on the <u>Social Cost</u> <u>of Carbon</u>
Non- Energy Benefits Metrics	Fuel savings and water savings.

# **Centering Equity**

Massachusetts' <u>Energy Efficiency Advisory Council Equity Working Group</u> focuses on equity in energy efficiency programs, including moderate-income customers, customers with limited English proficiency, renters, and small businesses.

An <u>Act Creating a Next Generation Roadmap for Massachusetts Climate Policy</u> statutorily defines environmental justice communities and mandates development of workforce programs centered on these communities and current and former workers in the fossil fuel industry.

Baseline Year	Interim Goal	Long-term Goal
1990	50% by 2030	85% by 2050

In 2020, the state released its <u>2050 Decarbonization Roadmap</u>. In 2021, Governor Baker signed into law <u>An Act Creating A Next-Generation Roadmap for Massachusetts Climate Policy</u>, which requires the state to establish five-year benchmarks to ensure it achieves its carbon goals and five-year benchmarks for adopting and integrating clean technology in the state. Additionally, the law created the <u>first ever sector-by-sector greenhouse gas limits</u> in the nation for electric power, transportation, commercial and industrial heating and cooling, residential heating and cooling, industrial, and natural gas sectors.

Massachusetts is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States</u> <u>Climate Alliance</u>.

## **Electrification Initiatives**

Massachusetts' <u>Climate Act</u> legislation shifted the mandate for energy efficiency programs in the state so that they must consider climate emissions. Program changes in the energy efficiency space include new EM&V metrics, a GHG goal, and including the social cost of carbon in cost-benefit analysis. Due to these changes, the next state energy efficiency program portfolios, <u>Mass Save 2022 – 2024</u>, will include greater investment in heat pumps.

## **Workforce Initiatives**

Massachusetts has delivered workforce programs as part of the Mass Save energy efficiency portfolio since 2013.

In 2020, the Mass Save program released a <u>Massachusetts Energy Efficiency Workforce</u> <u>Development Needs Assessment</u> to help meet the state's energy efficiency and decarbonization goals. Additionally, Mass Save program administrators created the <u>Clean</u> <u>Energy Pathways Program</u>, which is designed to ensure growth and diversity in the energy efficiency workforce.

In 2021, Massachusetts' <u>Climate Act</u> grew energy efficiency workforce programs in the state by creating mandates for a yearly investment of \$12 million to create an inclusive workforce program and a heat pump market development program.

Appliance Standards	Appliance standards went into effect January 1, 2022.
Codes	Massachusetts is currently on the 2018 IECC and is working towards adopting the 2021 IECC in 2022.
Home Energy Labeling	Massachusetts' voluntary <u>building rating and labeling pilot programs</u> provide a scorecard to residents as a part of the Mass Save program.
Benchmarking	In 2007, benchmarking of all state-owned or leased buildings was mandated by <u>executive order</u> , which established the <u>Lead By Example</u> <u>Initiative.</u>

New Hampshire's gas and electric utilities implement energy efficiency programs in three year cycles. The utilities are currently implementing an extension of their <u>2018 - 2020</u> plan and proposing plans for the next cycle, 2022- 2023. The electric utilities offer the same portfolio statewide through the <u>NHSaves</u> platform, but each gas utility offers their own energy efficiency programs.

#### **Performance Metrics**

Goals	Annual energy savings targets for gas and electric.
Performance Incentives	Utilities can earn up to 6.875% of actual program expenditures based on performance in cost- effectiveness and energy savings achieved.

### **Benefit-Cost Metrics**

Base Test	<u>Granite State Cost Test</u>
Emission Metrics	CO2: \$100 per ton based on the global reduction marginal abatement cost. NOx: \$11, 954.59 per ton.
Non-Energy Benefits Metrics	Unregulated fuel savings and water savings.
Low Income Metrics	Metrics for improved occupant health and safety for weatherization projects.

Climate Plans	
Baseline Year	Long-term Goal
1990	85% by 2050

IIn 2009, the state released its <u>Climate Action Plan</u>, setting a greenhouse gas reduction goals. New Hampshire is a member of the <u>Regional Greenhouse Gas Initiative</u>.

Codes	New Hampshire is currently on the 2015 IECC.
Benchmarking	In 2007, benchmarking of all state-owned or leased buildings was mandated by <u>law.</u>

In New Jersey, the natural gas and electric utilities and the <u>New Jersey Clean Energy</u> <u>Program (CEP)</u> offer the same suite of energy efficiency programs across the state. The CEP administers new construction programs and the utilities offer all other programs. The portfolio has a three-year cycle, and the state is currently implementing the <u>2021-2024 cycle</u>.

#### **Performance Metrics**

Goals	Annual yearly savings goals.
Performance Incentives	Utilities can earn an additional 0.5 percent return on investment on expenditures for the energy efficiency portfolio based on annual energy savings achieved.

### **Benefit-Cost Metrics**

Base Test	<u>New Jersey Cost Test</u>
Carbon Metrics	CO2: \$38 per ton, EPA's <u>avoided cost</u> of damages with a three percent discount rate.
Non- Energy Benefits Metrics	Five percent adder to account for benefits that are not included and difficult to quantify (public health, water and sewer benefits, economic development, etc.).
Low Income Metrics	10 percent adder to account for additional benefits to participants and communities (including health and safety).

## **Centering Equity**

New Jersey created an <u>Equity Working Group</u> as part of the current cycle of energy efficiency programs. This group is responsible for developing recommendations for integrating equity metrics.

New Jersey's <u>Environmental Justice Law of 2020</u> statutorily defines "overburdened communities" and requires the Department of Environmental Protection to consider cumulative impacts when siting facilities in these communities.

Baseline Year	Long-term Goal
1990	80% by 2050

The <u>2007 Global Warming Response Act</u> set an emissions reduction goal. In 2019, the state published its <u>Energy Master Plan</u>, which set a goal to reduce projected energy use 20 percent by 2020. In 2020, the legislature released its <u>Global Warming Response Act 80x50</u> Report that assesses the opportunities and limitations of existing policies and programs.

New Jersey is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

## **Workforce Initiatives**

The New Jersey Board of Public Utilities established a Workforce Development Working Group to inform energy efficiency program design and evaluation in its order approving New Jersey's <u>2021 – 2024 energy efficiency programs</u>. The working group will develop recommendations for establishing coordinated and collaborative workforce development and job training pathways statewide, with a focus on providing economic opportunities for underrepresented and socially or economically disadvantaged individuals.

Appliance Standards	New Jersey adopted appliance standards through <u>legislation</u> in December of 2021.
Codes	New Jersey is currently on the 2018 IECC, but the New Jersey Department of Community Affairs submitted their 2021 IECC proposal to the Governor's office for approval and is expected to adopt this codes package in 2022.
Benchmarking	In 2018, New Jersey passed the <u>Clean Energy Act</u> , a law requiring all buildings over 25,000 square feet to benchmark their energy and water consumption annually.

New York offers energy efficiency programs through its utilities and the <u>New York State</u> <u>Energy Research and Development Authority</u> (NYSERDA). New York's Energy Efficiency and Building Electrification Portfolios run in five-year cycles. The state is currently implementing the <u>2021 to 2025 Portfolio</u>.

#### **Performance Metrics**

Goals	Reductions in MMbtu for both gas and electric programs.
Performance Incentives	Utilities <u>can earn incentives</u> for system efficiency, energy efficiency, customer engagement, and interconnection.

#### **Benefit-Cost Metrics**

Base Test	<u>Societal Cost Test</u>
Emission Metrics	CO2: \$128 per short ton based on the Social Cost Of Carbon
Non- Energy Benefits Metrics	Water savings

## **Centering Equity**

The <u>Climate Leadership and Community Protection Act</u> directs state agencies to deliver at least 35 percent, with a goal of 40 percent, of overall benefits of spending on clean energy and energy efficiency to disadvantaged communities. It also creates a <u>Climate Justice Working Group</u> to be comprised of representatives from environmental justice communities and state agencies.

Baseline Year	Interim Goal	Long-term Goal
1990	40% by 2030	85% by 2050

In 2019, the legislature passed the <u>Climate Leadership and Community Protection Act</u>, requiring the state to reduce greenhouse gas emissions. It also requires state agencies to direct at least 35 percent, with a goal of 40 percent, of programmatic benefits to disadvantaged communities. In 2021, New York released a <u>Statewide Greenhouse Gas Emissions Report</u> and NYSERDA released a <u>Strategic Outlook for 2021-2024</u>.

New York is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

## **Electrification Initiatives**

New York's energy efficiency portfolio program goals use MMbtu as a unit rather than electric or gas energy savings (typically measured in MWh and therms). This approach embraces energy efficiency plus electrification because it prioritizes lowering energy usage without specifying the energy source (gas or electric). The state's energy efficiency portfolio includes both **Energy Efficiency and Building** Electrification Portfolios. In recent years, New York has rolled a program targeted at accelerating heat pump deployment, the <u>Clean Heat Program</u>, which includes a mandatory installation target for every electric utility.

## **Workforce Initiatives**

NYSERDA created a <u>Clean Energy</u> <u>Workforce Development</u> webpage that provides six workforce development programs that cover building operations and maintenance, heat pumps, and energy efficiency. Additionally, <u>New</u> <u>York's Clean Heat Program</u> has invested \$38 million through 2025 to train and develop the clean heating and building electrification workforce.

Codes	New York is currently on the 2018 IECC and is working towards adopting the 2021 IECC in the next couple of years.
Home Energy Labeling	New York's mandatory <u>truth in heating law</u> requires people selling or renting homes to provide energy bills and insulation details upon request from prospective buyers or lessees.
Benchmarking	In 2012, benchmarking of all state-owned or leased buildings greater than 20,000 square feet was mandated by <u>executive order.</u>

Pennsylvania's electric utilities implement energy efficiency programs in five-year cycles under the state's <u>Act 129 Energy Efficiency and Conservation Program</u>. While the programs are under a statewide plan, each utility offers its own portfolio, which can vary territory to territory. The programs are currently in Phase IV, which runs 2021-2026.

### **Performance Metrics**

Goals	Must achieve a set number of MWh over the five-year plan

### **Benefit-Cost Metrics**

Base Test	Total Resource Cost Test
Non- Energy Benefits Metrics	Fuel savings and water savings.

# **Centering Equity**

In October 2021, <u>Governor Wolf's Executive Order 2021-07</u> created an Office of Environmental Justice within the Department of Environmental Protection, directing it to develop and publish an environmental justice strategic plan every five years as well as develop statewide definitions including "environmental justice area." It also established an Environmental Justice Interagency Council to advise the Governor's Office on potential disproportionate impacts of state laws, regulations, policies, and activities.

Baseline Year	Interim Goal	Long-term Goal
2005	26% by 2025	80% by 2050

In 2019, Governor Wolf issued <u>Executive Order 2019-01</u> to address climate change and to promote energy conservation and sustainable governance. In addition to setting statewide climate goals, the order establishes the Governor's Green Government Council and sets a goal for state agencies to reduce energy consumption by 21 percent by 2025 from 2017 levels. The <u>Pennsylvania Climate Action Plan 2021</u> outlines strategies for meeting the state's greenhouse gas reduction goals.

In 2020, Pennsylvania <u>started the process</u> to join the <u>Regional Greenhouse Gas Initiative</u>. Pennsylvania is a member of the <u>United States Climate Alliance</u>.



Rhode Island's gas and electric utility, Narragansett, implements energy efficiency programs in three-year cycles with oversight from the <u>Energy Efficiency and Resource Management</u> <u>Council.</u> Narragansett is currently implementing the <u>2021 – 2023 Energy Efficiency Program</u>.

#### Lifetime energy savings for electric (MWh), natural gas (MMBtu), and delivered fuels Goals (MMBtu): reductions in electric peak demand; and savings achieved through combined heat and power measures. Up to five percent of eligible spending budget. Can earn incentives for cost-Performance effective residential programs, Incentives income-eligible programs, and commercial and industrial programs.

#### **Performance Metrics**

### **Benefit-Cost Metrics**

Base Test	<u>Rhode Island Test</u>
Air Emissions Metrics	CO2: \$68 per short ton based on AESC 2018 New England marginal abatement cost.
Non- Energy Benefits Metrics	Water and sewer benefits, economic development benefits; may include labor, material, facility use, health and safety, materials handling, national security, property values, and transportation.
Low Income Metrics	For income-eligible measures, includes impacts of having lower energy bills to pay, suchas reduced arrearages oravoided utility shut-off costs.

# **Centering Equity**

The <u>2021 Act on Climate</u> directs the Executive Climate Change Coordinating Council (EC4) to create an equitable transition for environmental justice populations, redress past environmental and public health inequities, and include a process for input for those most vulnerable to the effects of climate change. The plan must also provide support for transitioning workers to quality and family-sustaining clean energy jobs, prioritizing women, people of color, indigenous individuals, veterans, formerly incarcerated people, and people living with disabilities.

Climate Plans		
Baseline Year	Interim Goal	Long-term Goal
1990	45% by 2035	80% by 2050

The <u>Resilient Rhode Island Act of 2014</u> set greenhouse gas reduction targets and established the Executive Climate Change Coordinating Council. In 2018, the state released <u>Resilient Rhody:</u> <u>Climate Action Plan</u>, detailing strategies for achieving the emissions reduction goals. In 2020, <u>Executive Order 20-01</u> set a goal to meet 100 percent of the state's electricity demand with renewable energy by 2030. The subsequent report, <u>The Road to 100% Renewable Energy by 2030</u> in <u>Rhode Island</u>, provides an analysis to guide the state in achieving this goal.

Rhode Island is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States</u> <u>Climate Alliance</u>.

Appliance Standards	Rhode Island is currently in the process of creating appliance standards through state rulemaking.
Benchmarking	In 2015, benchmarking of all state-owned or leased buildings was mandated by <u>executive order,</u> which established the <u>Lead By Example</u> <u>Initiative.</u>

Vermont's energy efficiency portfolio is implemented statewide by <u>Efficiency Vermont</u>, an energy efficiency utility. Programs are implemented in a three-year cycle. Efficiency Vermont is currently implementing the <u>2021-2023 Triannual Plan</u>.

#### **Performance Metrics**

Goals	24 performance indicators and minimal performance requirements for both electric and fuels programs that include: annual and lifetime savings, GHG reductions, peak savings, participation, and geographic equity.
Performance Incentives	Up to 4.8 percent of total budget, tied to achieving the performance indicators and minimal performance requirements.

#### **Benefit-Cost Metrics**

Base Test	<u>Societal Cost Test</u>
Emission Metrics	CO2: \$100 per ton based on the <u>global reduction</u> <u>marginal abatement cost.</u>
Non-	Fuel savings, water
Energy	savings, and a 15 percent
Benefits	adder for all participant
Metrics	non-energy benefits.
Low	15 percent adder for low-
Income	income benefits to
Metrics	customers and society.

## **Centering Equity**

Efficiency Vermont has low-income sector minimum spending requirements. It also recently conducted a <u>statewide energy burden study</u> to identify the areas of the state with the highest energy burdens and design programs to meet their needs. The Vermont utilities, which operate a Renewable Energy Standard Tier 3 program, must achieve equity in all sectors, including low-income.

The <u>Global Warming Solutions Act of 2020</u> establishes the <u>Just Transitions Subcommittee</u> of the Vermont Climate Council to ensure the plans will benefit and support all Vermont residents fairly and equitably.

Baseline Year	Interim Goal	Long-term Goal
1990	40% by 2030	75% by 2050

In 2005, <u>10 V.S.A. § 578</u> set greenhouse gas reduction requirements. In 2016, Vermont's <u>Comprehensive Energy Plan</u> was released. The state committed to a climate action accountability framework in 2020, as outlined in the <u>Global Warming Solutions Act</u>. The Vermont Climate Council leads the <u>Climate Action Plan</u> efforts and released an initial plan in 2021.

Vermont is a member of the <u>Regional Greenhouse Gas Initiative</u> and the <u>United States Climate</u> <u>Alliance</u>.

## **Electrification Initiatives**

In 2015, Vermont enacted a r<u>enewable</u> <u>energy standard program</u> with three tiers. Tier III mandates energy transformation projects that reduce fossil fuel consumption by the utilities. This includes converting homes that heat with fossil fuels to heat pumps and other fuel switching projects. The Tier III requirement and coordination with efficiency programs has <u>increased heat</u> <u>pump adoption</u> across the state.

## **Workforce Initiatives**

In 2021, Vermont <u>passed legislation</u> creating a Weatherization Workforce Group to develop plans to grow and standardize a statewide building sciences curriculum that would establish a clear career path in energy efficiency construction. This group released a <u>Weatherization Workforce Plan</u> that includes an overview of the barriers to growing a weatherization workforce and a curriculum and certification delivery framework to create statewide program.

Codes	Vermont is currently on the 2018 IECC and is working towards adopting the 2021 IECC over the next couple of years.
Home Energy Labeling	Vermont's voluntary <u>home energy profile program</u> provides a free-to- use online tool to create a home label.
Benchmarking	Vermont encourages state agencies to benchmark through an <u>executive order</u> , but there is no explicit benchmarking policy.

Washington D.C.'s energy efficiency portfolio is implemented statewide by the <u>DC</u> <u>Sustainability Energy Utility</u> (DC SEU). The DC SEU is currently implementing the <u>2017-2022</u> <u>Plan.</u>

#### **Performance Metrics**

Goals	Lifetime electric and natural gas savings; low-income housing spending and savings; increase number of green collar jobs; efficient administrative expenses; small business spending; reducing growth in energy demand of large users; and reducing peak demand.
Performance Incentives	Earn performance incentives for achievement of benchmarks.

### **Benefit-Cost Metrics**

Base Test	<u>Societal Cost Test</u>
Emission Metrics	CO2: \$100 per short ton for <u>avoided carbon</u> <u>emissions</u> . NOx: \$35 per ton based on the Clean Air Interstate Rule (CAIR).
Non- Energy Benefits Metrics	Five percent adder as a proxy value to recognize tangible benefits that are challenging to quantify.

## **Climate Plans**

Baseline Year	Interim Goal	Long-term Goal
2006	50% by 2032	80% by 2050

The <u>Clean Energy DC Act</u> codifies initiatives in the <u>Clean Energy DC Plan</u>, including mandating 100 perecnt renewable energy by 2032. The <u>Climate Ready DC Plan</u> includes strategies for climate adaptation and preparedness.

## **Workforce Initiatives**

Since 2016, the DC SEU has offered a <u>Workforce Development Program</u> as part of its energy efficiency portfolio. The program is designed for residents who are new to the workforce, between jobs, or looking for a career change. It offers five-month externships with local contractors and organizations, as well as job training and certification and placement assistance.

Appliance Standards	DC has adopted appliance standards for equipment such as air purifiers, portable electric spas, and showerheads.
Codes	DC is on the 2015 IECC, with strengthening amendments, and is in the process of adopting the 2021 IECC.
Benchmarking	In 2008, benchmarking of all municipal buildings 10,000 square feet or greater and commercial and multi-family buildings 50,000 square feet or greater was mandated <u>by law.</u>
Building Performance Standards	In 2018, DC passed the first Building Energy Performance Standard in the country <u>by law.</u>

While there are no statewide mandates or plans for energy efficiency programs in West Virginia, all electric utilities in the state offer programs. <u>Appalachian Power and Wheeling Power</u> offer residential, low-income, and commercial programs in one-year cycles. <u>Monongahela Power Company and Potomac Edison Company</u> both offer virtual home and commercial energy assessments.

#### **Performance Metrics**

### **Benefit-Cost Metrics**

Base Test	Total Resource Cost Test
Base Test	Total Resource Cost Test

Codes	West Virginia is currently on the 2009 IECC.
Benchmarking	In 2021, benchmarking of all state-owned or leased buildings was mandated <u>by law.</u>