UNITED STATES
CLIMATE ALLIANCE

Photo: Redwood National Park by Sarah Brown

State Clean Energy Jobs Fact Sheet 2016-2019

CALIFORNIA

California continues to lead in mitigating the risks from current climate impacts while aggressively reducing greenhouse gas emissions. The state is proactively addressing threats to infrastructure and communities, critical ecosystems, and food systems, and continues to meet ambitious targets to reduce the very emissions that are responsible for these impacts. The state recognizes that climate policies are also economic and workforce policies with the potential to help create a more inclusive and sustainable economy for all Californians.

Clean Energy Job Growth (2016-19)

2.1%

Total Clean Energy Jobs in 2019

556,027

(Figure 1)

Largest Clean Energy Industries

Solar Electric Power Generation

Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR® & Efficient Lighting

(Table 2)

This fact sheet was produced by BW Research on behalf of the U.S. Climate Alliance. Jobs metrics presented for individual states in the appendix are consistent with the policy definitions of clean energy technologies for the respective states. Therefore, aggregated values from the appendix will differ slightly from cumulative values shown in the main report. It should be noted that employment totals represent the last quarter of 2019, before the onset of the global Coronavirus (COVID-19) pandemic. For more information on COVID-19 impacts to the energy and clean energy industries, please see www.bwresearch.com/covid.

The state is at the same time working to reduce climate risk and increase resilience, especially in the most climate-vulnerable communities, while transitioning to a carbon neutral economy by 2045. Key to this transition is maximum decarbonization across transportation and electricity, along with an ambitious public sector climate investment framework.

California climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for California residents as they rebuild their economy.

Figure 1. California Clean Energy Jobs Growth, 2016-2019

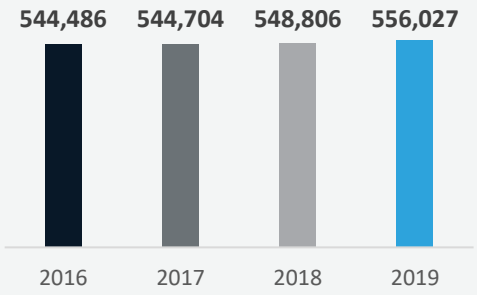

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Solar Electric Power Generation	124,817
Traditional HVAC	124,384
ENERGY STAR & Efficient Lighting	73,016
High Efficiency HVAC & Renewable Heating & Cooling	64,703
Other Energy Efficiency Technologies	39,712
Electric Vehicles	23,985
Advanced Materials	21,714
Storage	17,397
Traditional Hydropower Generation	11,091
Hybrid Electric Vehicles	9,995

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	7,938 (+6.8%)
ENERGY STAR & Efficient Lighting	7,575 (+11.6%)
Electric Vehicles	6,680 (+38.6%)
High Efficiency HVAC & Renewable Heating & Cooling	6,390 (+11.0%)
Advanced Materials	3,240 (+17.5%)
Bioenergy & Combined Heat & Power	2,431 (+47.7%)
Hybrid Electric Vehicles	1,838 (+22.5%)
Storage	1,805 (+11.6%)
Wind Electric Power Generation	1,638 (+35.3%)
Plug-In Hybrid Vehicles	1,266 (+38.6%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Mueller State Park by Colorado Parks and Wildlife

State Clean Energy Jobs Fact Sheet 2016-2019

COLORADO

Colorado advances in creating climate laws aimed at scaling renewable energy and other clean energy technologies and reducing greenhouse gases and local pollution, including methane and other pollutants from oil and gas operations. The state continues to take steps to meet their goal of 100 percent renewable energy by 2040 through efforts such as regulatory use of the Social Cost of Carbon and requirement for the state's largest utility to propose efforts that would achieve an 80% carbon reduction by 2030. Colorado has also established updated efficiency requirements for buildings, in addition to energy and water efficiency standards for appliances.

Clean Energy Job Growth (2016-19)

13.9%

Total Clean Energy Jobs in 2019

67,509

(Figure 1)

Largest Clean Energy Industries

ENERGY STAR® & Efficient Lighting

Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR & Efficient Lighting

(Table 2)

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Colorado became the first state in nearly a decade to adopt a Zero Emission Vehicle standard, and the Colorado Electric Vehicles Plan seeks to further reduce emissions in the transportation sector with a focus on medium and heavy-duty vehicles. The state is also working to help communities improve their disaster recovery, as well as take proactive measures to decrease effects of climate changes.

Colorado climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Colorado residents as they rebuild their economy.

Figure 1. Colorado Clean Energy Jobs Growth, 2016-2019

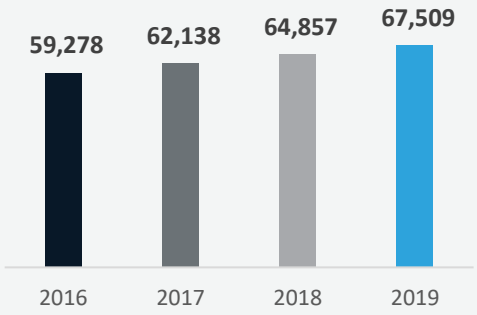

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
ENERGY STAR & Efficient Lighting	11,156
Traditional HVAC	10,438
Solar Electric Power Generation	8,335
Wind Electric Power Generation	7,509
High Efficiency HVAC/ Renewable Heating & Cooling	6,894
Advanced Materials	5,971
Woody Biomass	3,306
Other Ethanol & Non-Woody Biomass Fuels	1,727
Storage	1,704
Other Energy Efficiency Technologies	1,634

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	1,961 (+23.1%)
ENERGY STAR & Efficient Lighting	1,762 (+18.8%)
High Efficiency HVAC/ Renewable Heating & Cooling	1,708 (+32.9%)
Advanced Materials	482 (+8.8%)
Other Energy Efficiency Technologies	424 (+35.1%)
Bioenergy/ Combined Heat & Power	405 (+43.3%)
Wind Electric Power Generation	384 (+5.4%)
Solar Electric Power Generation	327 (+4.1%)
Energy Storage	261 (+18.1%)
Hybrid Electric Vehicles	236 (+19.0%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Walnut Beach by Derek Story

State Clean Energy Jobs Fact Sheet 2016-2019

CONNECTICUT

Connecticut continues to implement steps to reach its short- and long-term greenhouse gas reduction goals. The state has become more energy efficient by establishing a lead-by-example approach, helping reduce the state's carbon and environmental footprint while decreasing the cost of government operations. The state also enacted a requirement to seek up to 2 gigawatts of offshore wind power over the next 11 years. In the transportation sector, Connecticut is dedicated to growing the number of zero-emission vehicles on the road.

Clean Energy Job Growth (2016-19)

7.3%

Total Clean Energy Jobs in 2019

44,094

(Figure 1)

Largest Clean Energy Industries

High Efficiency HVAC & Renewable Heating & Cooling

Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR® & Efficient Lighting

(Table 2)

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The state is continuing to improve resilience in vulnerable communities along its coast by addressing both critical infrastructure and sea-level rising. Connecticut is also actively working to phase out the use of high-warming hydrofluorocarbons to reduce climate pollution, as well as to protect vital land including parks, forests, and wildlife areas.

Connecticut climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Connecticut residents as they rebuild their economy.

Figure 1. Connecticut Clean Energy Jobs Growth, 2016-2019

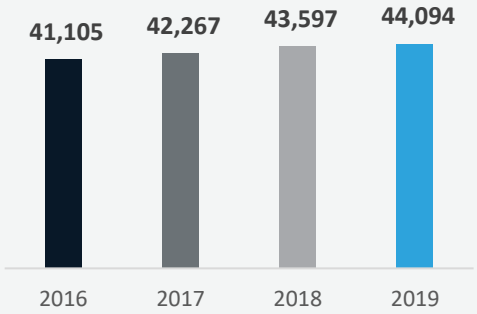

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
High Efficiency HVAC & Renewable Heating & Cooling	10,619
Traditional HVAC	8,840
ENERGY STAR & Efficient Lighting	8,373
Other Energy Efficiency Technologies	4,523
Advanced Materials	3,646
Solar Electric Power Generation	2,839
Nuclear Electric Power Generation	1,256
Hybrid Electric Vehicles	860
Electric Vehicles	433
Plug-In Hybrid Vehicles	391

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	958 (+12.2%)
ENERGY STAR & Efficient Lighting	872 (+11.6%)
High Efficiency HVAC & Renewable Heating & Cooling	509 (+5.0%)
Bioenergy & Combined Heat & Power	191 (+128.2%)
Microgrid	182 (+424.2%)
Wind Electric Power Generation	175 (+1604.4%)
Advanced Materials	134 (+3.8%)
Other Grid Modernization	126 (+212.8%)
Hybrid Electric Vehicles	98 (+12.9%)
Plug-In Hybrid Vehicles	85 (+27.7%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Lewes Beach by Joel DeMott

State Clean Energy Jobs Fact Sheet 2016-2019

DELAWARE

Delaware has been taking actions to reduce greenhouse gas emissions and increase resilience to climate change. The state offers numerous energy efficiency and renewable energy incentive programs including the Energy Efficiency Investment Fund and Green Energy Fund, which provide grants and low-interest loans to help residential, commercial and industrial customers upgrade to energy-efficient alternatives and install on-site renewable energy. Delaware also requires that 25 percent of electricity come from renewable sources by 2025 and recently amended its Code for Energy Conservation by adopting the 2018 International Energy Conservation Code and ASHRAE 90.1 2016 Energy Standard.

Clean Energy Job Growth (2016-19)

4.4%

Total Clean Energy Jobs in 2019

14,167

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR® & Efficient Lighting
Traditional HVAC

(Table 2)

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In the transportation sector, Delaware provides rebates and grants to residents and business who purchase or lease an electric vehicle or install electric vehicle charging stations. In an effort to reduce pollution from high global warming potential greenhouse gases, the Cool Switch Low Impact Refrigerant Program was launched in 2020 to incentivize businesses and industries to voluntarily transition away from hydrofluorocarbons.

The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that in addition to reducing the state's greenhouse gas emissions, Delaware climate policy, with the right attention to job quality and access, can provide employment opportunities for residents across the state.

Figure 1. Delaware Energy Jobs Growth, 2016-2019

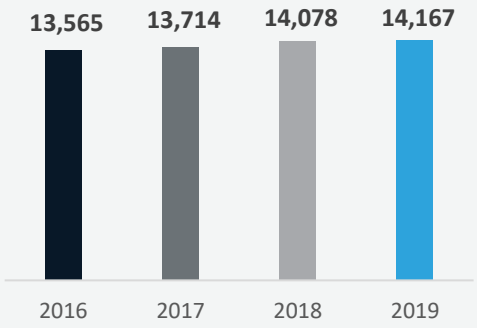

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	4,482
High Efficiency HVAC & Renewable Heating & Cooling	3,570
Advanced Materials	2,188
ENERGY STAR & Efficient Lighting	1,441
Other Energy Efficiency Technologies	862
Solar Electric Power Generation	626
Hybrid Electric Vehicles	169
Traditional Hydropower	115
Smart Grid	93
Electric Vehicles	85

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Energy STAR & Efficient Lighting	227 (+18.6%)
Traditional HVAC	191 (+4.5%)
Solar Electric Power Generation	140 (+28.7%)
High Efficiency HVAC & Renewable Heating & Cooling	90 (+2.6%)
Wind Electric Power Generation	47 (no jobs in 2016)
Bioenergy & Combined Heat & Power	38 (+765.7%)
Corn Ethanol	23 (+41.6%)
Microgrid	19 (+50.4%)
Energy Storage	16 (+56.8%)
Smart Grid	15 (+19.8%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Makena State Park by Asia Ko

State Clean Energy Jobs Fact Sheet 2016-2019

HAWAII

Hawaii has been a global leader in adopting ambitious climate policies that have resulted in economic growth and innovation for the state. Hawaii is pursuing an across-the-board energy policy which includes energy efficiency performance standards, a 100 percent renewable portfolio standard for renewable energy, electric transportation and alternative fuels, and the implementation of zero emission technologies. Hawaii also seeks to sequester more greenhouse gas emissions than it emits as quickly as practical and no later than 2045, making it the only U.S. state with a carbon-negative statutory mandate.

Clean Energy Job Growth (2016-19)

1.2%

Total Clean Energy Jobs in 2019

15,011

(Figure 1)

Largest Clean Energy Industries

Solar Electric Power Generation
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC
ENERGY STAR® & Efficient Lighting

(Table 2)

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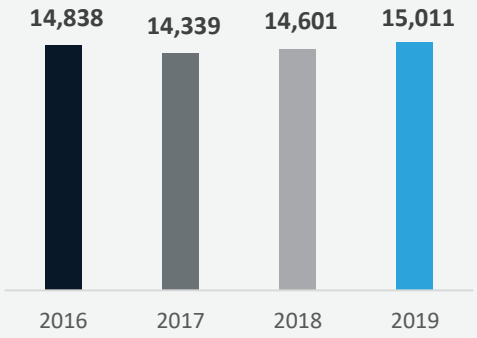
These goals are advanced through strategic investments of the Environmental Response, Energy, and Food Security Tax on the importation of petroleum products ("barrel tax") to fund the transition to renewable energy, the Volkswagen Settlement Beneficiary Mitigation Plan to fund the electrification of transportation, and the public benefits fee administered on ratepayer bills to fund energy efficiency programs such as green financing and demand management. These funding mechanisms, along with adopting California's appliance efficiency standards and aligning markets with other statutes such as through the Medium and Heavy Duty Zero Emission Vehicle MOU, help to grow Hawaii's opportunities for clean energy jobs.

Figure 1. Hawaii Clean Energy Jobs Growth, 2016-2019



The U.S. Climate Alliance Clean Energy Jobs Report indicates that reducing the state's greenhouse gas emissions, with the right attention to job quality, access, and equity can provide opportunity for Hawaii residents as they rebuild the state's economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Solar Electric Power Generation	4,311
High Efficiency HVAC & Renewable Heating & Cooling	3,232
Other Ethanol & Non-Woody Biomass Fuels	1,966
ENERGY STAR & Efficient Lighting	1,394
Corn Ethanol Fuels	1,055
Other Energy Efficiency Technologies	561
Traditional HVAC	514
Advanced Materials	381
Storage	377
Bioenergy & Combined Heat & Power	251

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	312 (+153.8%)
ENERGY STAR & Efficient Lighting	280 (+25.1%)
High Efficiency HVAC & Renewable Heating & Cooling	181 (+5.9%)
Corn Ethanol Fuels	160 (+17.9%)
Bioenergy & Combined Heat & Power	159 (+172.8%)
Advanced Materials	133 (+53.7%)
Other Energy Efficiency Technologies	60 (+12.0%)
Wind Electric Power Generation	45 (+28.3%)
Storage	43 (+12.8%)
Hybrid Electric Vehicles	28 (+18.3%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Matthiessen State Park by Miguel Bandeira

State Clean Energy Jobs Fact Sheet 2016-2019

ILLINOIS

Illinois is actively becoming more energy-efficient in an effort to reach targets from the 2016 Future Energy Jobs Act (FEJA). The FEJA demands the two biggest electric companies cut down on electric waste, sets aside $25 million per year to create energy efficiency programs for low-income households through 2030, and implement solar deployment and job training programs that increase access to clean energy for low-income households.

Clean Energy Job Growth (2016-19)

8.0%

Total Clean Energy Jobs in 2019

134,881

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC
ENERGY STAR® & Efficient Lighting

(Table 2)

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Illinois is also establishing a program that funds compressed natural gas vehicles and electric public transit buses. The state is on the right pathway to creating a cleaner climate for years to follow.

Illinois climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Illinois residents as they rebuild their economy.

Figure 1. Illinois Clean Energy Jobs Growth, 2016-2019

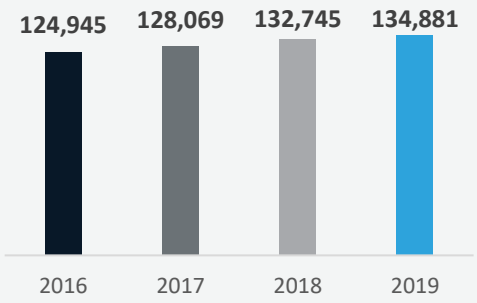

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	31,327
High Efficiency HVAC & Renewable Heating & Cooling	28,715
ENERGY STAR & Efficient Lighting	13,855
Other Energy Efficiency Technologies	8,837
Wind Electric Power Generation	8,763
Advanced Materials	8,290
Solar Electric Power Generation	5,917
Hybrid Electric Vehicles	4,651
Nuclear Electric Power Generation	4,429
Corn Ethanol Fuels	3,423

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	2,553 (+8.9%)
ENERGY STAR & Efficient Lighting	2,446 (+21.4%)
High Efficiency HVAC & Renewable Heating & Cooling	1,479 (+5.4%)
Advanced Materials	765 (+10.2%)
Bioenergy & Combined Heat & Power	646 (+44.0%)
Solar Electric Power Generation	592 (+11.1%)
Hybrid Electric Vehicles	480 (+11.5%)
Wind Electric Power Generation	442 (+5.3%)
Plug-In Hybrid Vehicles	438 (+26.1%)
Storage	340 (+18.4%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Westford Solar Park by Massachusetts Office of Energy and Environmental Affairs

State Clean Energy Jobs Fact Sheet 2016-2019

MASSACHUSETTS

Massachusetts is driving clean energy and greenhouse gas reduction efforts while continuing to put its residents, infrastructure, and natural resources first. Through innovative policies, the Commonwealth has notable targets to solicit 1,200 MW of hydroelectric power, 3,200 MW of offshore wind power, and 1,000 MWh of energy storage, as well as strategically reducing peak electricity demand.

Massachusetts continues to set a leading example by being named the most energy-efficient state by the American Council for an Energy Efficient Economy (ACEEE) for the 9th year in a row.

Clean Energy Job Growth (2016-19)

4.3%

Total Clean Energy Jobs in 2019

113,967

(Figure 1)

Largest Clean Energy Industries

Advanced Materials & Recycled Building Materials

Clean, High Efficiency, & ENERGY STAR® Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

Clean, High Efficiency, & ENERGY STAR Heating & Cooling

LED, CFL, & Other Efficient Lighting

(Table 2)

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Massachusetts is part of the multi-state Transportation and Climate Initiative, focused on regional policy solutions to reduce greenhouse gas emissions from the transportation sector. Governor Baker has also focused investment on forest land protection programs, coastal resiliency projects, improved land use practices, and climate adaptation and wetland habitat restoration.

Massachusetts climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Massachusetts residents as they rebuild their economy.

Figure 1. Massachusetts Clean Energy Jobs Growth, 2016-2019

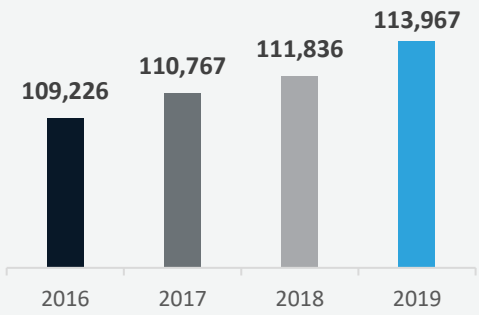

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Advanced Materials & Recycled Building Materials	21,415
Clean, High Efficiency, & ENERGY STAR Heating & Cooling	19,672
Solar Electric Power Generation	16,890
Other Energy Efficiency Technologies	9,322
All Other Clean Energy Electric Power Generation	8,876
ENERGY STAR Appliances	7,560
LED, CFL & Other Efficient Lighting	7,424
Storage	5,061
Reduced Water Consumption Products & Appliances	3,524
Woody Biomass	3,378

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Clean, High Efficiency, & ENERGY STAR Heating & Cooling	1,891 (+10.6%)
LED, CFL and Other Efficient Lighting	1,200 (+19.3%)
ENERGY STAR Appliances	1,007 (+15.4%)
Other Energy Efficiency Technologies	873 (+10.3%)
Electric Vehicles	637 (+38.1%)
Storage	524 (+11.5%)
Wind Electric Power Generation	470 (+28.4%)
All Other Clean Energy Electric Power Generation	379 (+4.5%)
Other Grid	277 (+25.1%)
Smart Grid	261 (+70.0%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Potomac River by Jeffrey Walters

State Clean Energy Jobs Fact Sheet 2016-2019

MARYLAND

Maryland has an ambitious plan to reduce greenhouse gas emissions by at least 40 percent from 2006 levels by 2030, in a way that positively impacts the state's economy, protects existing manufacturing jobs, and creates new jobs. The state has also focused on making new targets on solar development, including community solar, and is working to grow the offshore wind supply chain. In order to be more energy-efficient, Maryland adopted dedicated funding sources to increase assistance for energy efficiency in homes and businesses. Maryland is also addressing the needs of low-to-moderate income (LMI) Marylanders by investing in community organizations that deliver energy efficiency retrofits as well as weatherization.

Clean Energy Job Growth (2016-19)

7.2%

Total Clean Energy Jobs in 2019

86,241

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR® & Efficient Lighting
Traditional HVAC

(Table 2)

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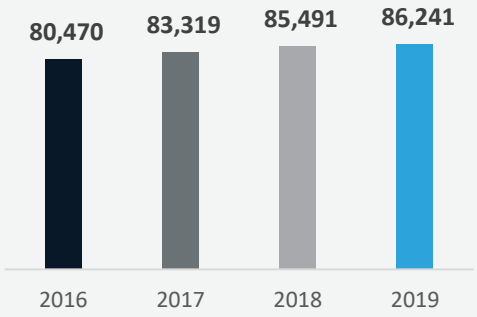
Additionally, Maryland has adopted California's Low-Emission Vehicle Standards and set goals for zero-emissions vehicles by 2020 and 2025. The state continues to address both long- and short-term climate resiliency and coastal hazard mitigation by creating technical assistance, training opportunities, and financial assistance. For example, Maryland recently launched the Resilient Maryland Program. The program provides feasibility assessment and planning and design funds to local governments, commercial entities, and others to identify opportunities for microgrids and other resilient power systems to help protect critical resources, vulnerable communities, and key economic sectors from power system disruptions.

Figure 1. Maryland Clean Energy Jobs Growth, 2016-2019



Maryland climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Maryland residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	26,707
High Efficiency HVAC and Renewable Heating and Cooling	19,488
ENERGY STAR and Efficient Lighting	12,103
Advanced Materials	9,311
Solar Electric Power Generation	6,631
Other Energy Efficiency Technologies	3,728
Hybrid Electric Vehicles	1,309
Nuclear Electric Power Generation	1,162
Wind Electric Power Generation	999
Storage	767

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR & Efficient Lighting	1,623 (+15.5%)
Traditional HVAC	1,616 (+6.4%)
High Efficiency HVAC & Renewable Heating & Cooling	958 (+5.2%)
Wind Electric Power Generation	369 (+58.7%)
Bioenergy & Combined Heat & Power	301 (+244.4%)
Microgrid	282 (+199.4%)
Hybrid Electric Vehicles	217 (+19.9%)
Storage	212 (+38.1%)
Other Grid Modernization	194 (+99.9%)
Other Energy Efficiency Technologies	187 (+5.3%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Bass Harbor Head Lighthouse by Mark Tegethoff

State Clean Energy Jobs Fact Sheet 2016-2019

MAINE

Maine advanced nation-leading clean energy and climate legislation in 2019 that is now being implemented. Several clean energy policies and programs were enacted and are underway, including an ambitious Renewable Portfolio Standard of 80 percent by 2030, distributed generation programs, and initiatives around beneficial electrification of heating and transportation. In June 2019, the Maine Climate Council was created with bipartisan support to develop plans to meet the state's greenhouse gas reduction targets of 45 percent below 1990 levels by 2030 and 80 percent by 2050, promote workforce development in the transition to a lower carbon economy, and support community climate resilience.

Clean Energy Job Growth (2016-19)

12.4%

Total Clean Energy Jobs in 2019

13,712

(Figure 1)

Largest Clean Energy Industries

High Efficiency HVAC/ Renewable Heating & Cooling

Other Energy Efficiency Technologies

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR® & Efficient Lighting

(Table 2)

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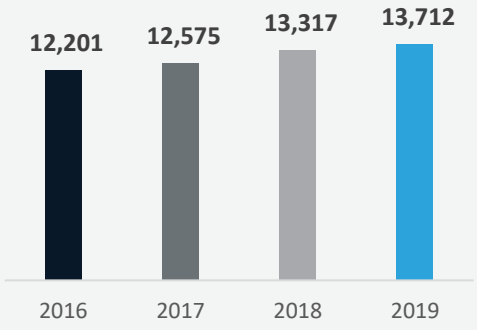
The Climate Council is also directed to provide recommendations to meet Maine's commitment to be carbon neutral by 2045, which was established by an Executive Order from Governor Janet Mills. These clean energy and climate policies demonstrate a strong commitment to advancing renewable energy and energy efficiency development as well as mitigating and preparing for the impacts of climate change. Supporting and growing Maine's clean energy sector will generate economic benefits, grow Maine's workforce, reduce greenhouse gas emissions, spur clean energy development, and improve public health.

Figure 1. Maine Clean Energy Jobs Growth, 2016-2019



Maine climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Maine residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
High Efficiency HVAC & Renewable Heating & Cooling	4,056
Other Energy Efficiency Technologies	2,403
Traditional HVAC	1,308
Wind Electric Power Generation	1,267
Solar Electric Power Generation	798
ENERGY STAR & Efficient Lighting	735
Woody Biomass	667
Bioenergy & Combined Heat & Power	378
Advanced Materials	378
Hybrid Electric Vehicles	332

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	385 (+41.8%)
ENERGY STAR & Efficient Lighting	370 (+101.6%)
Bioenergy & Combined Heat & Power	258 (+214.9%)
High Efficiency HVAC & Renewable Heating & Cooling	224 (+5.8%)
Woody Biomass	151 (+29.4%)
Advanced Materials	138 (+57.2%)
Traditional Hydropower	61 (+37.4%)
Microgrid	43 (+134.6%)
Energy Storage	39 (+15.3%)
Wind Electric Power Generation	33 (+2.7%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Tahquamenon Falls State Park by Dennis Buchner

State Clean Energy Jobs Fact Sheet 2016-2019

MICHIGAN

Soon after taking office in January 2019, Michigan Governor Gretchen Whitmer signed Executive Directive 2019-12, pledging to join the U.S. Climate Alliance. Recently, she built on that commitment with Executive Directive 2020-10 and Executive Order 2020-182, committing Michigan to achieve economy-wide carbon neutrality by 2050. To execute this vision, Governor Whitmer has created a Council on Climate Solutions and has also created a lead-by-example plan that will make state facilities, parks, fish hatcheries, and prisons more sustainable as well as ensuring that all new state buildings, facilities, and major renovations be carbon neutral by 2040.

Clean Energy Job Growth (2016-19)

0.1%

Total Clean Energy Jobs in 2019

136,595

(Figure 1)

Largest Clean Energy Industries

Advanced Materials

ENERGY STAR® & Efficient Lighting

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR & Efficient Lighting

High Efficiency HVAC & Renewable Heating & Cooling

(Table 2)

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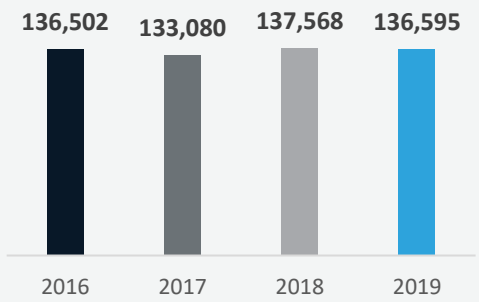
A particular highlight for Michigan is the decline of overall coal usage from 66 to 37 percent between 2008 and 2017, with additional retirements announced. To address the impacts on communities from this transition, Governor Whitmer directed the state to develop an Energy Transition Impact Project to minimize negative impacts and dislocation. In an effort to promote electric vehicles, the state has created an Office of Future Mobility and Electrification and analyzed opportunities to optimize EV charger placements.

Figure 1. Michigan Clean Energy Jobs Growth, 2016-2019



To date, Michigan ranks third among U.S. Climate Alliance states in terms of total clean energy jobs. Michigan climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Michigan residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Advanced Materials	47,058
ENERGY STAR & Efficient Lighting	15,233
Other Energy Efficiency Technologies	13,396
Hybrid Electric Vehicles	11,099
High Efficiency HVAC & Renewable Heating & Cooling	6,415
Traditional Hydropower Generation	5,991
Electric Vehicles	5,594
Solar Electric Power Generation	5,337
Plug-In Hybrid Vehicles	5,050
Wind Electric Power Generation	4,818

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR & Efficient Lighting	2,122 (+16.2%)
High Efficiency HVAC & Renewable Heating & Cooling	1,913 (+42.5%)
Traditional HVAC	1,818 (+129.6%)
Hybrid Electric Vehicles	1,471 (+15.3%)
Plug-In Hybrid Vehicles	1,177 (+30.4%)
Bioenergy & Combined Heat & Power	543 (+122.1%)
Storage	336 (+15.4%)
Natural Gas Vehicles	299 (+30.8%)
Wind Electric Power Generation	259 (+5.7%)
Electric Vehicles	196 (+3.6%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Tettegouche State Park by Josh Hild

State Clean Energy Jobs Fact Sheet 2016-2019

MINNESOTA

Minnesota is working towards incorporating solar energy into businesses and homes by adding more community solar projects and implementing its solar energy standard. The Sustainable Buildings 2030 Energy Standard is a program that works to conserve energy to reduce the state's carbon footprint. Minnesota plans to accelerate sales of electric vehicles and build more charging stations.

Clean Energy Job Growth (2016-19)

10.4%

Total Clean Energy Jobs in 2019

66,648

(Figure 1)

Largest Clean Energy Industries

High Efficiency HVAC & Renewable Heating & Cooling

ENERGY STAR® & Efficient Lighting

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR & Efficient Lighting

(Table 2)

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The state is also taking action in lower income communities to create new green infrastructure. In the future, Minnesota seeks to take particular emission reduction efforts around forestry and agriculture.

Minnesota climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Minnesota residents as they rebuild their economy.

Figure 1. Minnesota Clean Energy Jobs Growth, 2016-2019

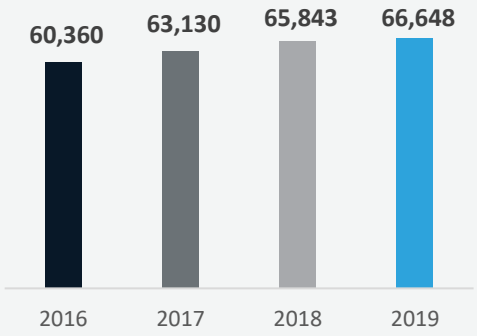

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
High Efficiency HVAC & Renewable Heating & Cooling	13,261
ENERGY STAR & Efficient Lighting	12,656
Traditional HVAC	8,925
Other Energy Efficiency Technologies	8,024
Solar Electric Power Generation	4,927
Advanced Materials	4,248
Wind Electric Power Generation	2,352
Storage	1,948
Nuclear Electric Power Generation	1,814
Corn Ethanol Fuels	1,472

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	1,504 (+20.3%)
ENERGY STAR & Efficient Lighting	1,295 (+11.4%)
Solar Electric Power Generation	1,127 (+29.7%)
High Efficiency HVAC & Renewable Heating & Cooling	934 (+7.6%)
Corn Ethanol Fuels	496 (+50.8%)
Advanced Materials	416 (+10.8%)
Wind Electric Power Generation	386 (+19.6%)
Microgrid	244 (+193.1%)
Storage	233 (+13.6%)
Other Grid Modernization	163 (+94.1%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Glacier National Park by Saul Mercado

State Clean Energy Jobs Fact Sheet 2016-2019

MONTANA

The Montana Climate Solutions Council developed recommendations for meeting the goal of net-zero emissions across the economy by 2050, established by Governor Bullock. Previous state actions include creating incentives for clean generation and carbon capture and storage technologies, establishing clean vehicle standards, and improving agricultural soil carbon management. Over the past six years, Montana has doubled wind capacity, quadrupled solar capacity, and increased the number of solar-powered homes and businesses by 250 percent.

Clean Energy Job Growth (2016-19)

8.1%

Total Clean Energy Jobs in 2019

11,061

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC
ENERGY STAR® & Efficient Lighting

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR & Efficient Lighting
High Efficiency HVAC & Renewable Heating & Cooling

(Table 2)

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The state is the fifth largest producer of hydroelectric power in the country and more than half of all its power is renewable. A state tax law issues an income tax credit for certain investments in energy efficiency. In Montana, all vehicles must meet or exceed the Corporate Average Fuel Economy Standards. The state also works to proactively support community resilience in the face of natural, human-caused, and economic challenges.

Montana climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Rhode Island residents as they rebuild their economy.

Figure 1. Montana Clean Energy Jobs Growth, 2016-2019

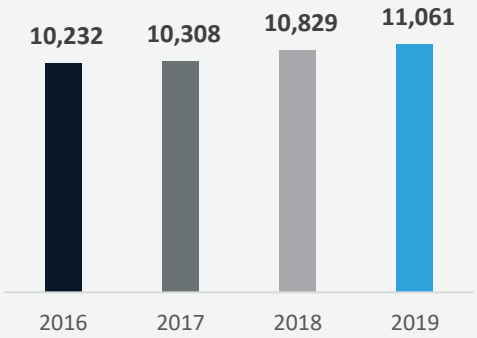

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	3,550
ENERGY STAR & Efficient Lighting	2,361
High Efficiency HVAC & Renewable Heating & Cooling	1,353
Advanced Materials	1,232
Traditional Hydropower Generation	417
Other Energy Efficiency Technologies	342
Solar Electric Power Generation	321
Hybrid Electric Vehicles	279
Woody Biomass Fuels	248
Storage	219

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR & Efficient Lighting	241 (+11.4%)
High Efficiency HVAC & Renewable Heating & Cooling	241 (+21.7%)
Traditional HVAC	227 (+6.8%)
Solar Electric Power Generation	96 (+42.7%)
Other Energy Efficiency Technologies	58 (+20.5%)
Woody Biomass Fuels	47 (+23.2%)
Wind Electric Power Generation	42 (+97.8%)
Bioenergy & Combined Heat & Power	38 (+559.5%)
Storage	36 (+19.7%)
Advanced Materials	22 (+1.8%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Blue Ridge Mountains by Bruce Wilson

State Clean Energy Jobs Fact Sheet 2016-2019

NORTH CAROLINA

North Carolina continues to reduce greenhouse gas emissions and transition to a clean energy economy. Governor Cooper issued Executive Order 80 in 2018 setting goals for a 40 percent statewide reduction in greenhouse gas emissions, a 40 percent reduction in energy consumption in cabinet agency buildings, and 80,000 zero-emissions vehicles by 2025. The 2019 N.C. Clean Energy Plan recommends actions for an equitable clean energy transition through increased use of zero-emission energy resources, and the N.C. Zero-Emission Vehicle Plan includes recommendations for improved education, affordability, convenience, and policy to achieve state EV targets.

Clean Energy Job Growth (2016-19)

9.2%

Total Clean Energy Jobs in 2019

116,500

(Figure 1)

Largest Clean Energy Industries

ENERGY STAR® & Efficient Lighting

Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

High Efficiency HVAC & Renewable Heating & Cooling

(Table 2)

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The N.C. Department of Commerce's recent Clean Energy and Clean Transportation Workforce Assessment concluded that the state has a large clean economy workforce that is supported by a strong education system and can meet the needs of changing energy and transportation sectors.

North Carolina climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance Clean Energy Jobs Report indicates that North Carolina achieved steady clean energy job growth from 2016 to 2019, with particularly high concentrations of solar energy jobs. Reports from the N.C. Department of Commerce and the N.C. Department of Environmental Quality show that during roughly this same period of time, North Carolina's GDP grew, and its greenhouse gas emissions declined. This shows that in North Carolina, strong climate action and economic growth go hand-in-hand.

Figure 1. North Carolina Clean Energy Jobs Growth, 2016-2019

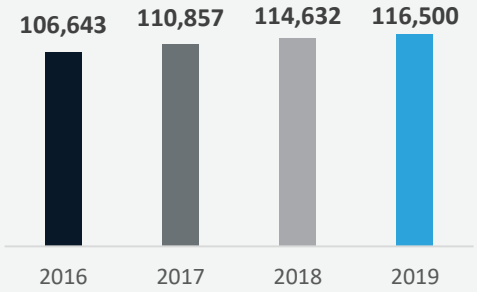

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
ENERGY STAR & Efficient Lighting	42,621
Traditional HVAC	20,766
High Efficiency HVAC & Renewable Heating & Cooling	12,582
Solar Electric Power Generation	8,930
Advanced Materials	6,641
Other Energy Efficiency Technologies	5,391
Hybrid Electric Vehicles	3,276
Electric Vehicles	1,651
Bioenergy & Combined Heat & Power	1,597
Nuclear Electric Power Generation	1,596

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	2,373 (+12.9%)
High Efficiency HVAC & Renewable Heating & Cooling	2,023 (+19.2%)
ENERGY STAR & Efficient Lighting	1,555 (+3.8%)
Advanced Materials	716 (+12.1%)
Bioenergy & Combined Heat & Power	594 (+59.2%)
Wind Electric Power Generation	459 (+77.3%)
Hybrid Electric Vehicles	435 (+15.3%)
Other Grid Modernization	393 (+79.2%)
Microgrid	392 (+108.7%)
Other Energy Efficiency Technologies	363 (+7.2%)

UNITED STATES
CLIMATE ALLIANCE

Photo: High Point State Park by Robert Thiemann

State Clean Energy Jobs Fact Sheet 2016-2019

NEW JERSEY

New Jersey continues to work towards its goal of 100 percent clean energy by 2050. The state has a very ambitious climate agenda that includes advancing offshore wind, expanding the solar market, promoting green job training, and increasing clean energy accessibility for all state residents. New Jersey has already achieved its goal of reaching 1990 emission levels by 2020 but continuously strives for more. Governor Murphy has also signed an order to develop guidance on how state departments can incorporate environmental justice into their plans. In the transportation sector, New Jersey has committed to getting 330,000 zero-emission vehicles on the road by 2025. The state provides grants to install electric vehicle charging infrastructure and incentives for drivers with fuel-efficient vehicles. The state is addressing climate resilience through infrastructure, regulation, and planning.

Clean Energy Job Growth (2016-19)

15.7%

Total Clean Energy Jobs in 2019

60,452

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC

Solar Electric Power Generation

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR® & Efficient Lighting

(Table 2)

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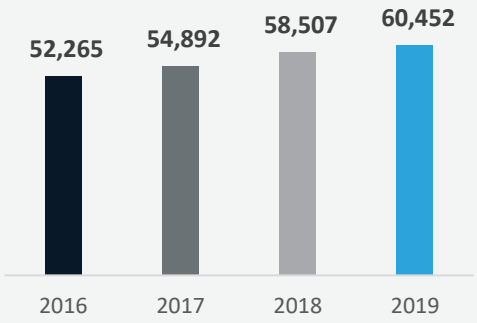
Governor Murphy also banned offshore drilling in New Jersey in efforts to protect the state waters. The NJ Board of Public Utilities passed an ambitious transition on energy efficiency, overhauling existing programs and putting a major focus on workforce development. The New Jersey Wind Port, announced in May 2020, will provide allocation for essential staging, assembly, and manufacturing activities related to offshore wind (OSW) projects along the East Coast. Construction is planned to begin in 2021, creating up to 1,500 manufacturing, assembly, and operations jobs, as well as hundreds of construction jobs in the state. The New Jersey Wind Institute will coordinate workforce development and training opportunities, looking at all aspects of the OSW space, from high school and vocational programs to working with organized labor and others who want to pivot to OSW opportunities.

Figure 1. New Jersey Clean Energy Jobs Growth, 2016-2019



New Jersey climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for New Jersey residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	11,635
Solar Electric Power Generation	9,340
ENERGY STAR & Efficient Lighting	8,235
High Efficiency HVAC & Renewable Heating & Cooling	7,639
Other Energy Efficiency Technologies	7,574
Advanced Materials	2,899
Nuclear Electric Power Generation	2,615
Hybrid Electric Vehicles	1,973
Bioenergy & Combined Heat & Power	1,582
Electric Vehicles	994

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	2,205 (+23.4%)
ENERGY STAR & Efficient Lighting	1,985 (+31.8%)
High Efficiency HVAC & Renewable Heating & Cooling	1,822 (+31.3%)
Advanced Materials	715 (+32.7%)
Bioenergy & Combined Heat & Power	468 (+42.0%)
Wind Electric Power Generation	375 (+75.0%)
Hybrid Electric Vehicles	324 (+19.7%)
Plug-In Hybrid Vehicles	234 (+35.3%)
Storage	161 (+27.1%)
Low-Impact Hydropower Generation	132 (+33.5%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Angel Peak, NM by Michael Herren, Unsplash

State Clean Energy Jobs Fact Sheet 2016-2019

NEW MEXICO

New Mexico set an ambitious 100 percent carbon free electricity goal with its 2019 Energy Transition Act, and Governor Lujan Grisham signed an executive order in January 2019 that set a greenhouse gas reduction target of 45 percent below 2005 levels by 2030. The state is continuing its leadership in energy savings performance contracting, in part through retrofits of 30 state office buildings that will increase lighting efficiency, improve heating, ventilation, and air conditioning (HVAC) systems, and install solar power. In 2020, New Mexico's legislature passed the Solar Market Development Tax Credit, which will help grow the solar industry. The state has committed to reducing pollutants from vehicles by implementing performance standards, and New Mexico's Climate Change Task Force is evaluating additional options to further reduce greenhouse gas emissions economy-wide.

Clean Energy Job Growth (2016-19)

8.9%

Total Clean Energy Jobs in 2019

12,665

(Figure 1)

Largest Clean Energy Industries

Energy Efficiency

Solar Electric Power Generation

(Table 1)

Fastest Growing Clean Energy Industries

Energy Efficiency

Bioenergy & Combined Heat & Power

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New Mexico climate policy can and should be part of the state's economic recovery. The state Economic Development Department has awarded over $12.3 million to clean energy companies between fiscal years 2019 and 2021, supporting an additional 300 jobs. The Department of Workforce Solutions approved its first solar apprenticeship program this summer and will use a state apprenticeship expansion grant to increase state apprenticeship programs' focus on underrepresented populations and program diversification. The U.S. Climate Alliance Clean Energy Jobs Report indicates that such efforts to prioritize job access and quality through growth of industries poised to reduce the state's greenhouse gas emissions can provide opportunity for New Mexico residents as they rebuild their economy.

Figure 1. New Mexico Clean Energy Jobs Growth, 2016-2019

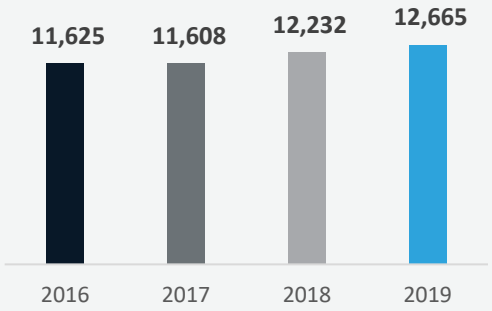

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Energy Efficiency[1]	6,099
Solar Electric Power Generation	3,374
Wind Electric Power Generation	1,092
Storage	370
Hybrid Electric Vehicles	358
Electric Vehicles	181
Plug-in Hybrid Vehicles	163
Other Grid Modernization	135
Smart Grid	135
Microgrid	122

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Energy Efficiency[2]	1,611 (+35.9%)
Bioenergy & Combined Heat & Power	72 (+194.4%)
Storage	58 (+18.7%)
Wind Electric Power Generation	54 (+5.2%)
Smart Grid	33 (+32.5%)
Traditional Hydropower	27 (no jobs in 2016)
Corn Ethanol	19 (+29.2%)
Other Ethanol & Non-Woody Biomass	14 (no jobs in 2016)
Woody Biomass	13 (+16.6%)
Low-Impact Hydropower	10 (+72.7%)

1 This includes ENERGY STAR® and efficient lighting (2,061 jobs); traditional HVAC (1,107 jobs); high efficiency HVAC and renewable heating and cooling (1,552 jobs); advanced building materials (786 jobs); and other energy efficiency technologies (592 jobs).
2 This includes ENERGY STAR® and efficient lighting (+27.7%); traditional HVAC (+65.0%); high efficiency HVAC and renewable heating and cooling (+38.6%); advanced building materials (+24.1%); and other energy efficiency technologies (+31.9%).

UNITED STATES
CLIMATE ALLIANCE

Photo: Valley of Fire State Park by the Nevada Department of Conservation and Natural Resources

State Clean Energy Jobs Fact Sheet 2016-2019

NEVADA

Nevada is aggressively pursuing bold climate action to reduce greenhouse gas emissions and enhance the resilience of its communities and natural resources. In August 2020, Governor Sisolak launched the State of Nevada Climate Initiative (NCI) to ensure a healthy, vibrant, climate-resilient future for the Silver State. Nevada has also committed to reducing greenhouse gas emissions to net-zero by 2050. One of the first projects of the NCI will be to develop a climate strategy, which will provide the framework for future climate action across the state.

Clean Energy Job Growth (2016-19)

45.5%

Total Clean Energy Jobs in 2019

33,952

(Figure 1)

Largest Clean Energy Industries

Solar Electric Power Generation

Energy Storage

(Table 1)

Fastest Growing Clean Energy Industries

Storage

Traditional HVAC

(Table 2)

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The strategy will evaluate the alignment of mitigation policies with the timelines and benchmarks necessary for Nevada to achieve its greenhouse gas emission reduction goals. It will also lay the groundwork for the implementation of climate governance at the state level, outline opportunities for economic recovery and diversification, and provide a platform for future efforts to support adaptation and resilience planning.

Nevada climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Nevada residents as they rebuild their economy.

Figure 1. Nevada Clean Energy Jobs Growth, 2016-2019

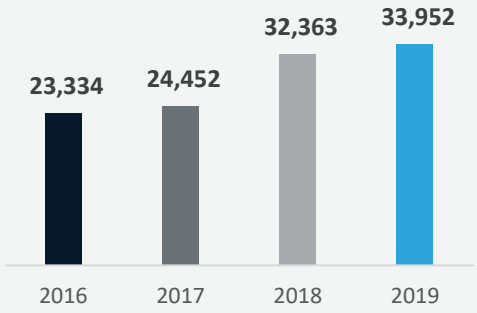

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Solar Electric Power Generation	10,101
Storage	8,634
High Efficiency HVAC & Renewable Heating & Cooling	3,976
ENERGY STAR® & Efficient Lighting	2,253
Traditional HVAC	2,251
Advanced Materials	2,126
Other Energy Efficiency Technologies	1,382
Hybrid Electric Vehicles	599
Bioenergy & Combined Heat & Power	495
Geothermal Electric Power Generation	422

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Storage	8,322 (+2,670.9%)
Traditional HVAC	724 (+47.4%)
ENERGY STAR & Efficient Lighting	683 (+43.5%)
High Efficiency HVAC & Renewable Heating & Cooling	629 (+18.8%)
Advanced Materials	279 (+15.1%)
Bioenergy/ Combined Heat & Power	157 (+46.3%)
Geothermal Electric Power Generation	138 (+48.4%)
Hybrid Electric Vehicles	124 (+26.0%)
Wind Electric Power Generation	123 (+24,077.1%)
Other Energy Efficiency Technologies	114 (+8.9%)

UNITED STATES
CLIMATE ALLIANCE

Photo: NY State Office of Parks, Recreation, and Historic Preservation

State Clean Energy Jobs Fact Sheet 2016-2019

NEW YORK

In 2019, Governor Andrew Cuomo signed the historic Climate Leadership and Communities Protection Act (CLPCA). Under this law, New York is looking to quickly transition to a clean energy economy by creating a carbon-free electricity system by 2040 and reducing greenhouse gas emissions to 85 percent below 1990 levels by 2050. To that aim, Governor Cuomo has announced the nation's largest offshore wind procurement. The New Efficiency: New York policy white paper established an ambitious 2025 Energy Efficiency Target for New York State and proposes a comprehensive energy efficiency initiative to meet that target. The 2025 Statewide Energy Efficiency Target will allow the State to fuel and power more than 1.8 million New York homes by 2025. Pollution from transportation is a big focus, considering New York's population density; the EVolve NY program is going to invest $250 million in the electric vehicle industry by 2025. The Community Risk and Resiliency Act requires New York businesses to consider sea-level projections, extreme weather events, and other climate change impacts in implementing programs.

Clean Energy Job Growth (2016-19)

12.3%

Total Clean Energy Jobs in 2019

163,754

(Figure 1)

Largest Clean Energy Industries

ENERGY STAR® & Efficient Lighting
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC
ENERGY STAR & Efficient Lighting

(Table 2)

Jobs metrics presented for individual states in the appendix are consistent with the policy definitions of clean energy technologies for the respective states. Therefore, aggregated values from the appendix will differ slightly from cumulative values shown in the main report. It should be noted that employment totals represent the last quarter of 2019, before the onset of the global Coronavirus (COVID-19) pandemic. For more information on COVID-19 impacts to the energy and clean energy industry, please see www.bwresearch.com/covid.

In addition, the state is taking steps towards prohibiting the use of hydrofluorocarbons in efforts to decrease atmospheric warming associated with these short-lived pollutants. New York State is also committed to building a talent pool of workers capable of using these clean energy technologies and meeting the demands of this growing industry. Specifically, Governor Cuomo recently launched the $20 million New York Offshore Wind Training Institute funded by NYSERDA, NYSDOL, and SUNY. This and other training hubs across the state complements $100 million in funding that NYSERDA will commit through 2025 for energy efficiency, electrification, energy storage, and other clean energy technologies.

New York climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for New York residents as they rebuild their economy.

Figure 1. New York Clean Energy Jobs Growth, 2016-2019

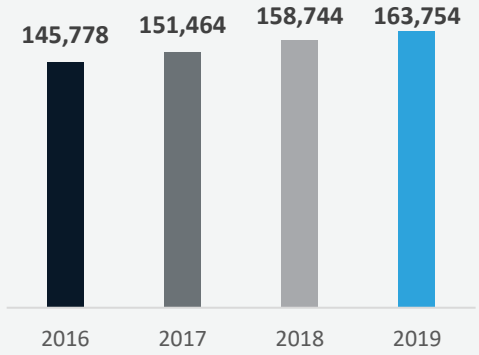

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
ENERGY STAR & Efficient Lighting	37,523
High Efficiency HVAC & Renewable Heating & Cooling	36,803
Traditional HVAC	34,387
Solar Electric Power Generation	12,735
Other Energy Efficiency Technologies	9,461
Advanced Materials	8,565
Traditional Hydropower Generation	5,442
Hybrid Electric Vehicles	3,804
Wind Electric Power Generation	3,751
Electric Vehicles	2,251

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	5,223 (+17.9%)
ENERGY STAR & Efficient Lighting	4,346 (+13.1%)
High Efficiency HVAC/ Renewable Heating & Cooling	3,662 (+11.0%)
Advanced Materials	1,739 (+25.2%)
Other Energy Efficiency Technologies	1,177 (+14.2%)
Wind Electric Power Generation	895 (+31.3%)
Electric vehicles	830 (+58.4%)
Hybrid electric vehicles	737 (+24.0%)
Energy Storage	694 (+60.6%)
Plug-In Hybrid Vehicles	431 (+33.1%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Mount Washington by Dan Meyers

State Clean Energy Jobs Fact Sheet 2016-2019

OREGON

Oregon has set a goal to reduce greenhouse gas emissions with the goal of 75 percent below 1990 levels by 2050, while actively working to mitigate current climate impacts. The Oregon Global Warming Commission works to track trends and make recommendations for greenhouse gas emission reductions. Thanks in large part to the Clean Vehicle Rebate Program, the state is halfway to its goal of 50,000 electric vehicles on the road by 2020. At the same time, Oregon's electricity sector is rapidly decarbonizing through total coal removal and a doubling of renewable energy targets.

Clean Energy Job Growth (2016-19)

3.3%

Total Clean Energy Jobs in 2019

60,840

(Figure 1)

Largest Clean Energy Industries

High Efficiency HVAC & Renewable Heating & Cooling
Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR® & Efficient Lighting
Traditional HVAC

(Table 2)

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The Energy Efficient Schools Program has implemented 3,000 cost-effective energy efficiency projects in K-12 public schools. Additionally, the Climate Change Adaptation Framework—first published in 2010—is being revised to inventory what actions have been taken, update the science and actions to implement, and address any evolved gaps.

Oregon climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Oregon residents as they rebuild their economy.

Figure 1. Oregon Clean Energy Jobs Growth, 2016-2019

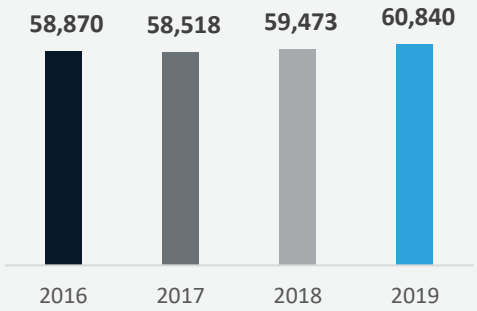

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
High Efficiency HVAC & Renewable Heating & Cooling	11,442
Traditional HVAC	10,952
Advanced Materials	9,702
Solar Electric Power Generation	5,759
Other Energy Efficiency Technologies	5,425
ENERGY STAR & Efficient Lighting	5,414
Woody Biomass Fuels	2,231
Traditional Hydropower Generation	1,625
Wind Electric Power Generation	1,407
Storage	1,348

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR & Efficient Lighting	941 (+21.0%)
Traditional HVAC	757 (+7.4%)
High Efficiency HVAC & Renewable Heating & Cooling	647 (+6.0%)
Other Grid Modernization	630 (+207.1%)
Woody Biomass Fuels	412 (+22.7%)
Bioenergy & Combined Heat & Power	224 (+361.6%)
Wind Electric Power Generation	217 (+18.3%)
Storage	160 (+13.4%)
Corn Ethanol Fuels	140 (+2067.3%)
Plug-In Hybrid Vehicles	80 (+18.1%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Ricketts Glen Falls Trail by Cameron Venti

State Clean Energy Jobs Fact Sheet 2016-2019

PENNSYLVANIA

As a major energy-producing state, Pennsylvania is aware of its responsibility to reduce emissions that contribute to climate change. The state released a comprehensive *Climate Action Plan* which will be updated every three years. The goal is to incorporate sustainable practices into policy, planning, operations, procurement, and regulatory functions. Pennsylvania ordered a call to action for electric distribution companies and generation suppliers to supply eight percent of electricity from Tier I clean energy sources and 10 percent from Tier II sources.

Clean Energy Job Growth (2016-19)

13.2%

Total Clean Energy Jobs in 2019

97,186

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC
High Efficiency HVAC & Renewable Heating & Cooling

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR® & Efficient Lighting
Traditional HVAC

(Table 2)

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Additionally, the state is investing in alternative vehicle deployment through various state incentive programs and is a part of the Transportation Climate Initiative. Governor Wolf has also awarded nearly $30 million in grants for new Solar Energy Program project approvals across the state, further promoting this sub-sector development.

Pennsylvania climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Pennsylvania residents as they rebuild their economy.

Figure 1. Pennsylvania Clean Energy Jobs Growth, 2016-2019

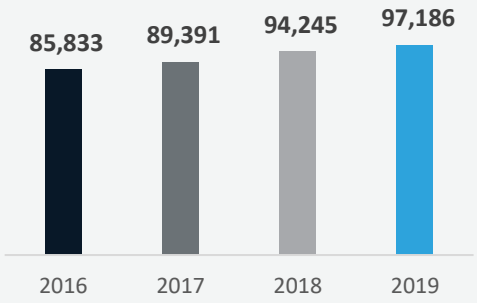

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	19,700
High Efficiency HVAC & Renewable Heating & Cooling	16,513
ENERGY STAR & Efficient Lighting	14,979
Advanced Materials	13,492
Other Energy Efficiency Technologies	6,759
Solar Electric Power Generation	5,173
Nuclear Electric Power Generation	4,488
Wind Electric Power Generation	2,937
Storage	1,770
Electric Vehicles	1,752

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR & Efficient Lighting	3,149 (+26.6%)
Traditional HVAC	3,004 (+18.0%)
High Efficiency HVAC & Renewable Heating & Cooling	2,435 (+17.3%)
Bioenergy & Combined Heat & Power	622 (+104.6%)
Solar Electric Power Generation	503 (+10.8%)
Wind Electric Power Generation	470 (+19.0%)
Storage	331 (+23.0%)
Microgrid	327 (+74.5%)
Other Energy Efficiency Technologies	324 (+5.0%)
Plug-In Hybrid Vehicles	236 (+17.5%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Point Judith Lighthouse, Narragansett by Michael Denning

State Clean Energy Jobs Fact Sheet 2016-2019

RHODE ISLAND

Rhode Island intends to reduce greenhouse gas emissions to 80 percent below 1990 levels by 2050, with Rhode Island's Executive Climate Change Coordinating Council (EC4) overseeing the progress towards the state's goals. In January 2020, Governor Raimondo signed an Executive Order committing Rhode Island to be powered by 100 percent renewable electricity by the end of the decade. In July 2019, Governor Raimondo signed an Executive Order that aims to develop a strategy to advance clean, affordable, and reliable heating—making Rhode Island the first state to actively reshape this high-emission sector. Earlier in 2019, the state awarded an offshore wind energy contract to Revolution Wind.

Clean Energy Job Growth (2016-19)

6.8%

Total Clean Energy Jobs in 2019

16,348

(Figure 1)

Largest Clean Energy Industries

Advanced Materials & Other Energy Efficiency Technologies

Efficient Lighting

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

Efficient Lighting

(Table 2)

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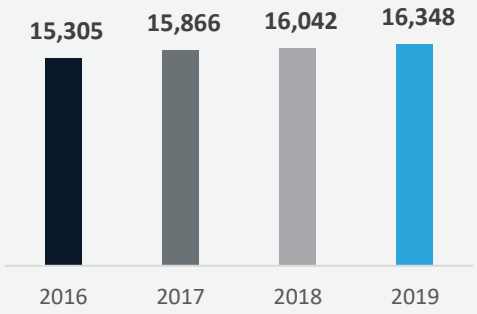
Rhode Island has also invested $10 million in Volkswagen Settlement funds in zero-emission electric buses for public transportation, as well as $1.5 million to enhance public charging infrastructure. The *Beneficiary Mitigation Plan* acknowledges the connection between vehicles emissions and environmental justice and aims to direct its funds in urban, high-traffic-volume areas, as well as bus routes that may be connected to disadvantaged communities.

Figure 1. Rhode Island Clean Energy Jobs Growth, 2016-2019



Rhode Island climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Rhode Island residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Advanced Materials & Other Energy Efficiency Technologies	5,177
Efficient Lighting	2,454
High Efficiency HVAC	2,112
Traditional HVAC	1,448
Solar Electric Power Generation	1,419
ENERGY STAR® Appliances	1,309
Wind Electric Power Generation	538
Renewable Heating and Cooling	528
Microgrid	450
Alternative Transportation	331

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	288 (+24.8%)
Efficient Lighting	273 (+12.5%)
High Efficiency HVAC	256 (+13.8%)
ENERGY STAR Appliances	145 (+12.5%)
Advanced Materials & Other Energy Efficiency Technologies	136 (+2.7%)
Renewable Heating & Cooling	64 (+13.8%)
Wind Electric Power Generation	57 (+11.8%)
Alternative Transportation	52 (+18.6%)
Woody Biomass Fuels	19 (+311.7%)
Storage	18 (+14.8%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Peaks of Otter – Sharp Top by Isaac Wendland

State Clean Energy Jobs Fact Sheet 2016-2019

VIRGINIA

Virginia continues to make major strides in the clean and renewable energy sector, with a goal of being 100 percent carbon-free by 2050. Over the last five years, Virginia has seen a dramatic increase in solar capacity in large part due to the success of the Department of Environmental Quality's Permit by Rule program. In July 2019, state leadership helped break ground for the Coastal Virginia Offshore Wind demonstration project which is the first step towards the development of commercial-scale offshore wind. Virginia allocated $82 million from Volkswagen Settlement funding towards electric vehicles, including deploying electric transit and school buses, port electrification, and funding to convert local government fleets.

Clean Energy Job Growth (2016-19)

8.0%

Total Clean Energy Jobs in 2019

102,376

(Figure 1)

Largest Clean Energy Industries

ENERGY STAR® & Efficient Lighting

Traditional HVAC

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

ENERGY STAR & Efficient Lighting

(Table 2)

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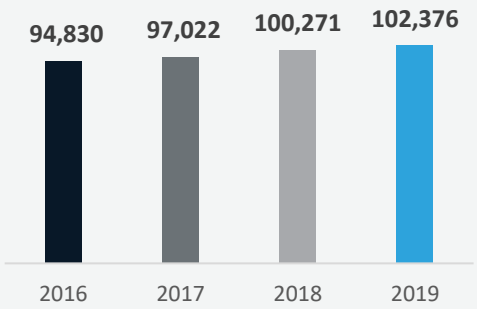
Virginia is also home to a growing cluster of electric truck industries. In 2019, Volvo announced a $400 million investment in their manufacturing facility in southwestern Virginia to add an electric truck line. In August 2020, a new electric commercial vehicle startup was launched nearby that will support manufacturers in addition to building their own vehicles. At the forefront of their efforts, Governor Northam is placing a focus on climate and environmental justice throughout all decision-making processes.

Figure 1. Virginia Clean Energy Jobs Growth, 2016-2019



Virginia climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Virginia residents as they rebuild their economy.

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
ENERGY STAR & Efficient Lighting	21,103
Traditional HVAC	18,169
Other Energy Efficiency Technologies	15,536
High Efficiency HVAC & Renewable Heating & Cooling	14,313
Advanced Materials	11,060
Solar Electric Power Generation	4,726
Nuclear Electric Power Generation	2,494
Hybrid Electric Vehicles	2,418
Wind Electric Power Generation	1,786
Bioenergy & Combined Heat & Power	1,753

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	2,570 (+16.5%)
ENERGY STAR & Efficient Lighting	2,160 (+11.4%)
High Efficiency HVAC & Renewable Heating & Cooling	1,968 (+15.9%)
Bioenergy & Combined Heat & Power	681 (+63.5%)
Wind Electric Power Generation	526 (+41.7%)
Solar Electric Power Generation	387 (+8.9%)
Electric Vehicles	371 (+53.7%)
Hybrid Electric Vehicles	357 (+17.3%)
Plug-In Hybrid Vehicles	243 (+28.4%)
Storage	230 (+33.6%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Okemo State Forest by Aditya Vyas

State Clean Energy Jobs Fact Sheet 2016-2019

VERMONT

Vermont continues to be a leader in deploying renewable energy, transitioning to more efficient vehicles, and helping its residents save money by burning fewer fossil fuels in their homes. In 2017, Governor Scott created the Vermont Climate Action Commission to recommend greenhouse gas emissions reduction strategies consistent with the goals of their *Comprehensive Energy Plan*. Vermont also requires new residential and commercial buildings to meet minimum energy efficiency standards.

Clean Energy Job Growth (2016-19)

-0.9%

Total Clean Energy Jobs in 2019

18,910

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC Goods & Services

ENERGY STAR®/ High AFUE HVAC

(Table 1)

Fastest Growing Clean Energy Industries

ENERGY STAR Appliances & Efficient Lighting

Traditional HVAC Goods & Services

(Table 2)

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As of August 2018, Vermont had the third highest per capita electric vehicle (EV) adoption rate in the country, with the help of programs such as the Low Emission Vehicle Program and Drive Electric Vermont. Additionally, the state launched an EV incentive program focused on getting low-to-moderate income residents into cheaper and cleaner EVs.

Vermont climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Vermont residents as they rebuild their economy.

Figure 1. Vermont Clean Energy Jobs Growth, 2016-2019

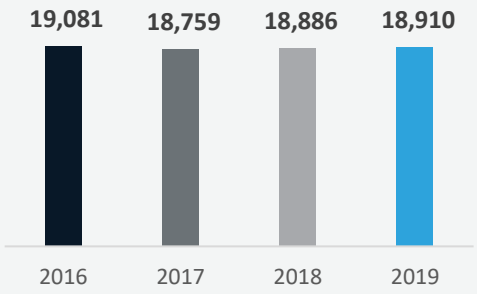

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC Goods & Services	2,278
ENERGY STAR & High AFUE HVAC	2,052
ENERGY STAR Appliances & Efficient Lighting	1,979
Solar Electric Power Generation	1,971
Other Energy Efficiency Technologies	1,732
Advanced Building Materials & Insulation	1,716
Clean Transportation	1,433
Renewable Heating & Cooling	1,275
Woody Biomass Fuels	1,257
Other Clean Energy Technologies	1,634

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
ENERGY STAR Appliances & Efficient Lighting	194 (+10.9%)
Traditional HVAC Goods & Services	188 (+9.0%)
Clean Transportation	157 (+12.3%)
Renewable Heating & Cooling	53 (+4.3%)
ENERGY STAR & High AFUE HVAC	40 (+2.0%)
Storage	36 (+8.4%)
Other Clean Energy Technologies	35 (+5.3%)
Wind Electric Power Generation	32 (+9.7%)
Traditional Hydropower Generation	28 (+25.7%)
Bioenergy/ Biomass Electric Power Generation	28 (+53.7%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Mount Rainier by Lucas Davies

State Clean Energy Jobs Fact Sheet 2016-2019

WASHINGTON

Washington has been working to dramatically reduce greenhouse gas emissions by establishing a clean energy standard, phasing down super-polluting HFCs, implementing some of the nation's strongest energy efficiency standards and energy codes for new buildings, and electrifying its transportation sector. Washington's Clean Energy Transformation Act requires electric utilities in the state to transition to 100 percent clean electricity by 2045 and provides incentives for projects that meet strong workforce labor standards.

Clean Energy Job Growth (2016-19)

5.5%

Total Clean Energy Jobs in 2019

89,361

(Figure 1)

Largest Clean Energy Industries

Traditional HVAC

ENERGY STAR® & Efficient Lighting

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC

High Efficiency HVAC & Renewable Heating & Cooling

(Table 2)

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Washington's *Clean Buildings Act* enacts a first-of-its-kind standard aimed to improve energy performance of thousands of large commercial buildings. Additionally, Washington met its goal of putting 50,000 passenger EVs into use by 2020. As the state continues to pursue decarbonization across its economy, future work will build on these efforts to make progress toward its climate goals and support its clean energy workforce.

Washington climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Washington residents as they rebuild their economy.

Figure 1. Washington Clean Energy Jobs Growth, 2016-2019

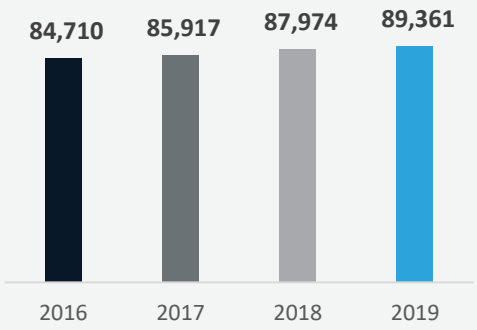

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
Traditional HVAC	19,871
ENERGY STAR & Efficient Lighting	16,449
Other Energy Efficiency Technologies	13,799
High Efficiency HVAC & Renewable Heating & Cooling	7,793
Advanced Materials	7,017
Solar Electric Power Generation	5,081
Wind Electric Power Generation	3,310
Traditional Hydropower Generation	2,501
Storage	2,451
Other Biofuels	1,685

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	1,644 (+9.0%)
High Efficiency HVAC & Renewable Heating & Cooling	1,620 (+26.2%)
ENERGY STAR & Efficient Lighting	1,449 (+9.7%)
Bioenergy & Combined Heat & Power	354 (+42.2%)
Advanced Materials	315 (+4.7%)
Low-Impact Hydropower Generation	304 (+28.0%)
Storage	280 (+12.9%)
Wind Electric Power Generation	217 (+7.0%)
Other Ethanol & Non-Woody Biomass Fuels	216 (+615.9%)
Hybrid Electric Vehicles	211 (+15.8%)

UNITED STATES
CLIMATE ALLIANCE

Photo: Copper Falls Sate Park by Adrian Korpal

State Clean Energy Jobs Fact Sheet 2016-2019

WISCONSIN

Governor Evers is leading Wisconsin in a new direction that embraces science and invests in clean and renewable energy; the first step was the establishment of a state Office of Sustainability and Clean Energy (OSCE). OSCE is helping Wisconsin transition to a clean energy economy, in turn generating thousands of family-supporting jobs. Wisconsin is working diligently to reach their executive goal of 100 percent zero-carbon electricity by 2050. Wisconsin's Focus on Energy program supports investment in energy efficiency for the state's residents and businesses and, since 2011, has delivered more than $1 billion in net economic benefits to the state.

In the transportation sector, Wisconsin is aiming to replace public transit vehicles with cleaner technology and is supporting electrification. The state even offers financial aid for schools who purchase biodiesel fuel for buses.

Clean Energy Job Growth (2016-19)

3.0%

Total Clean Energy Jobs in 2019

79,929

(Figure 1)

Largest Clean Energy Industries

ENERGY STAR® & Efficient Lighting
Advanced Materials

(Table 1)

Fastest Growing Clean Energy Industries

Traditional HVAC
High Efficiency HVAC & Renewable Heating & Cooling

(Table 2)

Another area of interest is Wisconsin's Managed Forest Law and Working Lands Initiative, which offer incentives and tax credits for sustainable forestry practices and land preservation efforts.

Wisconsin climate policy can and should be part of the state's economic recovery. The U.S. Climate Alliance 2020 Clean Energy Employment Report indicates that this is possible, and that reducing the state's greenhouse gas emissions, with the right attention to job quality and access, can provide opportunity for Wisconsin residents as they rebuild their economy.

Figure 1. Wisconsin Clean Energy Jobs Growth, 2016-2019

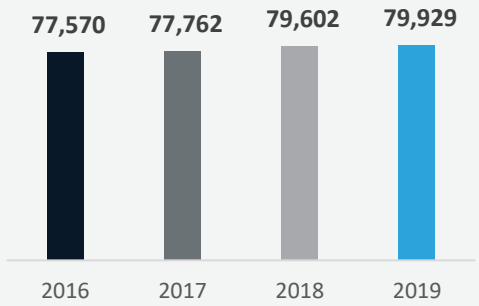

Table 1. Top 10 Clean Energy Industries by Employment, Pre-COVID-19

Industry	2019 Total Clean Energy Jobs
ENERGY STAR & Efficient Lighting	25,854
Advanced Materials	20,658
Traditional HVAC	9,296
High Efficiency HVAC & Renewable Heating & Cooling	6,367
Solar Electric Power Generation	3,798
Hybrid Electric Vehicles	2,128
Wind Electric Power Generation	1,627
Corn Ethanol Fuels	1,497
Other Energy Efficiency Technologies	1,395
Storage	1,149

Table 2. Top 10 Largest Growth Clean Energy Industries, Pre-COVID-19

Industry	Jobs Added 2016-2019
Traditional HVAC	1,251 (+15.6%)
High Efficiency HVAC & Renewable Heating & Cooling	1,106 (+21.0%)
ENERGY STAR & Efficient Lighting	753 (+3.0%)
Other Energy Efficiency Technologies	507 (+57.1%)
Bioenergy & Combined Heat & Power	288 (+164.0%)
Storage	168 (+17.1%)
Plug-In Hybrid Vehicles	168 (+20.9%)
Wind Electric Power Generation	165 (+11.3%)
Hybrid Electric Vehicles	138 (+6.9%)
Microgrid	117 (+52.6%)

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