Overview
Americans have heard for some time about the future clean energy revolution. After decades of stagnant investment in energy infrastructure, a raft of new technologies would unlock new value and reverse the long term job decline the sector has been experiencing. With supporting policies in place in many parts of the country and the technical milestones that have been achieved in the last few years, we can now definitively say we have entered the clean energy future. This new energy economy comprises some of the fastest growing industries in the United States, and is driving job growth across America. This jobs revolution is particularly apparent in rural America, where communities have embraced this new industrial base to reverse years of job decline. In recent years, clean energy has shown to be one of the biggest sources of new income in rural U.S. and it is projected to continue to be a thriving source of growth.

Between 2000 and 2010, rural America lost over a quarter of its traditional manufacturing jobs, while seeing a dramatic increase in energy production jobs. The abundance of land allowed for a doubling in wind, ethanol, and natural gas production. While natural gas contributed the most economic impact during the previous decade, employment in this sector peaked in 2014 with 538,000 jobs. By 2016, natural gas production employment declined by 26%, with a loss of more than 142,000 jobs. Meanwhile; wind, solar, and ethanol jobs are continuing to grow rapidly in rural areas, and employment in the clean energy industry far exceeds that of the oil, gas, and coal industry nationwide. Unlike the mature fossil fuel industry, clean energy is being expanded rapidly, creating job growth in rural America. Solar and wind jobs are growing twelve times faster than the rest of the economy; over the last two years solar jobs have grown by 24% and wind jobs have grown 32%. With continued technological progress and the right policies in place, clean energy jobs can drive sustained economic growth, with rural America at the center of this middle class industrial renaissance.

Clean Energy Highlights and Projected Growth
This report highlights the growing clean energy economy and compares the number of clean energy jobs to the fossil fuel jobs in the United States based on the 2017 U.S. Department of Energy’s Energy and Employment Report (USEER) data. The USEER shows that in 2016, while 1.1 million people worked in coal, oil, and gas, over 2.7 million people worked in the clean energy economy. The industry has grown to include almost 2.2 million working in energy efficiency, 374,000 in solar, 102,000 in wind, over 50,000 in ethanol, and 56,000 in hydro. In 41 out of 50 states, there are more clean energy and efficiency jobs than fossil fuel jobs.
As the American Wind Energy Association (AWEA) points out, 99% of wind farms are in rural areas, generating over 100,000 wind related jobs in the U.S., and this number is expected to increase in 3 years to 250,000 jobs. A majority of these jobs currently are in the Southeast and rust belt of America; for example, Ohio now has 62 factories where workers produce parts for wind turbines. Wind turbine technicians are in high demand; it is currently the fastest growing job in the country, bringing economic security to men and women who live in rural areas.

U.S. wind farms also create significant revenue for rural landowners in the U.S., providing $222 million of revenue annually. One U.S. Department of Energy report projected this amount could triple to $650 million dollars each year to rural landowners all without significantly impeding the lands use for other activities such as farming, by 2030. The revenue from wind energy is also helping revitalize the tax base of rural communities - one town in upstate New York was able to completely eliminate local taxes for eight years due to payments from local wind projects.

In 2015, the biofuels industry contributed nearly $44 billion in GDP, with most of that economic activity in rural communities. The Renewable Fuels Association (RFA) reported that, as of last year, ethanol production supported 74,420 direct jobs in renewable fuel production and related agriculture in the U.S., as well as 264,756 indirect and induced jobs across all sectors of the economy. Meeting our legislative goal for renewable fuels would triple the number of jobs by 2020, to 225,000 direct jobs. RFA also reported that of the ten states with the lowest unemployment rates, half of them are among the highest in ethanol production. Moreover, rural counties with ethanol plants attributed nearly a third of the county-wide employment growth to the development of a local bio refinery.

The tremendous growth of the solar industry is also making a real difference in rural economies. With an average wage for a solar worker having risen to $26 per hour, according to the Solar Foundation, solar represented one out of every fifty new jobs added last year. In 2016 alone, 14.6 GW of solar was installed in the US; and it is projected that over 100GW of solar will be installed by 2021. About 70% of these installations were utility scale, the vast majority of which are built in rural locations, these projects will continue to drive middle-class job growth throughout the Midwest and Southeast, where other industries have seen stagnant growth or retraction. Public excitement around solar in rural America is driving a boom in community solar that is expanding opportunity for energy independence and job growth across the country. Two years ago, rural cooperatives hosted 33 community solar programs and by the end of this year this number is projected to hit 230. One rural utility in Iowa has seen 1 out of every 5 of its customers buy into their community solar project, keeping their customers happy while creating new economic opportunity.

Finally, there is a tremendous amount of untapped economic potential for rural areas in wind, solar, and renewable fuels. In contrast to the mature fossil fuel industry, which has steadily lost coal and mining jobs to technological change over the last thirty years, innovation in the clean energy industry is powering economic growth and job creation in rural America. Continued progress will depend on continued attention from policymakers to accelerate the transition to a clean energy economy. If the right policies and investments are made then rapid economic growth will occur in the regions of America that need it most.
50 State Fact Sheets
The data from the USEER was used to create the 50 state fact sheets. For each state, the overall clean energy jobs (solar, wind, hydro, ethanol, biomass, and energy efficiency) are compared to the fossil fuel jobs (oil, natural gas, and coal). The clean energy jobs are further broken down by technology type. Job numbers related to alternative fuel vehicles and nuclear are not included, as the USEER did not explicitly report those numbers.

State policies related to solar, wind, energy efficiency, ethanol, and biofuels are also highlighted. This data was compiled from the U.S. Department of Energy’s Database of State Incentives for Renewables & Efficiency (DSIRE) the Alternative Fuels Data Center, and the American Council for an Energy Efficient Economy (ACEEE). New Energy America will annually rank each state according to their clean energy policies to determine how well the state is encouraging clean energy jobs.

The state legislature representation is also shown, with blue indicating the majority party is Democrat and red indicating the majority party is Republican.

Industry Data
The state factsheets in this report are based on the USEER data but it is important to note that some associations report their own national job numbers for their industry. Below is more information regarding the association numbers.

The Solar Foundation –
The Solar Foundation collaborated with the U.S. Department of Energy for the USEER. The Solar Foundation reported a total of 260,077 solar jobs in the country in 2016, a 25% growth from 2015. The USEER reports 374,000 individuals work, in whole or in part, for solar firms, with more than 260,000 of those employees spending the majority of their time on solar.

American Wind Energy Association (AWEA) –
AWEA promotes the USEER data, and reports that there are over 100,000 people employed by this industry.

Renewable Fuels Association (RFA) –
The Renewable Fuels Association reported in 2016, ethanol production supported 74,420 direct jobs in renewable fuel production and related agriculture in the U.S., as well as 264,756 indirect and induced jobs across all sectors of the economy.

National Hydropower Association (NHA) –
The NHA reported that in 2016, the industry currently employs up to 300,000 workers, from project development to manufacturing to facilities operations and maintenance.
Alabama

Energy policy highlights:
- No net metering laws
- No Renewable Portfolio Standard
- Companies in AL that invest in the development of a biofuel production facility may be eligible for a tax credit of 3% of the previous year’s employee wages
- Ranked last (50th) in RILA’s (Retail Industry Leaders Association) index of all 50 states examining how easily companies could use clean energy like solar and wind power to meet their electricity needs
- AL is one of the 29 states to offer E15
- Ranked 39th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Alaska

Energy policy highlights:

- Net metering enacted in 2015 is available for PV systems up to 25 kW, limited to 1.5% of average demand
- No Renewable Portfolio Standard
- The tax rate on fuel containing ethanol is $0.06 per gallon less than the tax rate on other motor fuels in certain geographic areas
- Renewable Energy Fund, which assists utilities, independent power producers, local governments for feasibility studies, $50 million funding available until 2023
- AL is not one of the 29 states to offer E15
- Ranked 41st in the 2016 state energy efficiency scorecard by ACEEE
Arizona

Energy policy highlights:
- Net metering since 2009
- Renewables Portfolio Standard, goal of 15% by 2025
- State vehicle acquisition and fuel use requirements - at least 75% of light-duty state fleet vehicles operating in counties with a population of more than 250,000 people must be capable of operating on alternative fuels
- AZ is not one of the 29 states to offer E15
- Ranked 18th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Arkansas

Energy policy highlights:

- Net metering since 2001
- No Renewable Portfolio Standard
- In 2010, the Sustainable Energy Resource Action Plan was passed, directing the state’s four electric and three natural gas investor-owned utilities to implement the energy efficiency measures
- Alternative fuels tax and reporting, excise taxes on alternative fuels are imposed on a gasoline gallon equivalent (GGE) basis
- AR is one of the 29 states to offer E15
- Ranked 27th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Chart]

Representation in State Legislature

![Representation in State Legislature Chart]
California

Energy policy highlights
- Renewable Portfolio Standard, 50% by December 31, 2030
- Net metering since 1996 and applies to all utilities except LADWP, capped at 5% of the utility’s aggregate customer peak demand
- Biofuel Volume rebate program - offers a rebate to qualified fleet customers for monthly purchases of more than 500 gallons of biodiesel blends and E85
- Career training programs: Alternative Fuel and Advanced Vehicle training and Low Emission Vehicle Incentives and Technical training
- CA is not one of the 29 states to offer E15
- Ranked 1st in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>Coal</th>
<th>Oil</th>
<th>Solar</th>
<th>Wind</th>
<th>Hydro</th>
<th>Ethanol</th>
<th>Biogas</th>
<th>Energy Efficiency</th>
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<tbody>
<tr>
<td>27,647</td>
<td>2,187</td>
<td>49,262</td>
<td>152,947</td>
<td>4,635</td>
<td>11,890</td>
<td>1,236</td>
<td>2,629</td>
<td>301,348</td>
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</table>

Clean Jobs v Fossil Fuel Jobs
- Fossil Fuel: 14%
- Clean Energy: 86%

Representation in State Legislature
- Governor
- Senate: +14
- House: +29
Colorado

Energy policy highlights:
- Net metering since 2005
- A statewide PACE program that allows property owners to finance 100% of the up-front costs of an energy efficiency, renewable energy, or water conservation improvement
- Renewables Energy Standard requires investor-owned utilities to obtain 30% renewables by 2020
- The Colorado Corn Blender Pump Program provides funding assistance for each qualified station dispensing mid-level ethanol blends
- The Colorado Department of Personnel and Administration (DPA) requires all state-owned diesel vehicles and equipment to be fueled with a fuel blend of 20% biodiesel (B20), subject to the availability of the fuel
- CO is one of the 29 states to offer E15
- Ranked 14th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>Jobs</th>
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</thead>
<tbody>
<tr>
<td>natural gas</td>
<td>10,331</td>
</tr>
<tr>
<td>coal</td>
<td>6,082</td>
</tr>
<tr>
<td>oil</td>
<td>14,047</td>
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<tr>
<td>solar</td>
<td>8,027</td>
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<tr>
<td>wind</td>
<td>7,124</td>
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<tr>
<td>hydro</td>
<td>1,014</td>
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<tr>
<td>ethanol</td>
<td>2,699</td>
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<tr>
<td>woody biomass</td>
<td>3,941</td>
</tr>
<tr>
<td>en. efficiency</td>
<td>29,756</td>
</tr>
</tbody>
</table>

Clean Jobs v Fossil Fuel Jobs

- Fossil Fuel: 37%
- Clean Energy: 63%

Representation in State Legislature

- Governor
- Senate +1
- House +9

Governor

Senate +1

House +9
Connecticut

Energy policy highlights:
- Net metering since 1998
- CT Clean Energy Fund, $20 million annually allocated
- Renewables Portfolio Standard, goal of 27% by 2020
- Ethanol Labeling Requirement - any motor vehicle fuel sold at retail containing more than 1% ethanol or methanol must be labeled
- CT is not one of the 29 states to offer E15
- Ranked 5th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature

Governor

Senate +0

House +7
Delaware

Energy policy highlights:
- Net metering since 1999
- Renewables Portfolio Standard of 25% by compliance year 2025-2026
- Alternative fuel and advanced vehicle acquisition requirements for all new light-duty vehicles that DE state agencies purchase
- Taxes imposed on alternative fuels used in official vehicles for the United States government or any DE state government agency, including volunteer fire and rescue companies, are waived
- DE is not one of the 29 states that offer E15
- Ranked 22nd in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
District of Columbia

Energy policy highlights:
- Net metering since 2000
- Renewable Portfolio Standard, goal of 50% by 2032
- PACE financing is available
- DC has committed to procure 100% of the district government’s total electricity consumption from renewable energy sources
- Alternative Fuel Vehicle (AFV) and Infrastructure Tax Credit - businesses and individuals are eligible for an income tax credit of 50% of the incremental or conversion cost for qualified AFVs, up to $19,000 per vehicle
- Alternative Fuel Vehicle exemption from driving restrictions
- Ranked 15th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart](chart)

Clean Jobs v Fossil Fuel Jobs

- Fossil Fuel: 3%
- Clean Energy: 97%

Representation in State Legislature

- Mayor
- Council +11
Florida

Energy policy highlights:
- Net metering since 2008
- No Renewable Portfolio Standard
- Florida mandates that buildings constructed and financed by the state must comply with the USGBC’s LEED rating system
- Ethanol Production Credit - county governments are eligible to apply waste reduction credits towards their recycling goal, up to one-half of the goal
- Alternative Fuel Economic Development - landowners may apply to amend the local government plan to expand uses of rural agricultural industrial centers to include facilities that prepare biomass materials that can be used for the production of fuel, renewable energy, bioenergy, or alternative fuel
- Fuel-Efficient Vehicle Acquisition Requirements - all Florida state agencies and universities must select the vehicles with the greatest fuel efficiency available
- FL is one of the 29 states to offer E15
- Ranked 25th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
**Georgia**

**Energy policy highlights:**
- No net metering program, in 2015, the Governor passed a law, to allow residential and commercial customers to enter into third party financing deals for solar systems
- No Renewable Portfolio Standard
- GA Power energy efficiency rebate program for commercial buildings and home improvement
- Exemption for biomass materials from the state’s sales and use taxes
- Alternative Fuel and Advanced Vehicle Job Creation Credit, an annual tax credit for 5 years for businesses that manufacture alternative energy products for use in battery, biofuel, and electric vehicle enterprises
- GA is one of the 29 states to offer E15
- Ranked 35th in the 2016 state energy efficiency scorecard by ACEEE

![Energy Jobs by Sector](image)

![Clean Jobs v Fossil Fuel Jobs](image)

![Representation in State Legislature](image)
Hawaii

Energy policy highlights:

- In 2015, the PUC ended net metering in favor of: a grid supply option and a self supply option, customers with applications before 10/12/2015 can continue net metering
- Renewable Portfolio Standard of 100% by 2045
- Solar and Wind Energy credit (residential or commercial) - 20% of the cost of equipment and installation of a wind system and 35% of the cost of equipment and installation of a solar energy system
- Ethanol Production Incentive - for 30% of a production facility’s capacity
- Green Infrastructure Bonds for renewable energy and energy efficiency to secure low-cost financing for clean energy installations
- Renewable Fuels production incentive - renewable fuels produced from renewable feedstocks may qualify for an income tax credit
- HI is not one of the 29 states to offer E15
- Ranked 15th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>1,121</td>
</tr>
<tr>
<td>Coal</td>
<td>464</td>
</tr>
<tr>
<td>Oil</td>
<td>2,419</td>
</tr>
<tr>
<td>Solar</td>
<td>4,883</td>
</tr>
<tr>
<td>Wind</td>
<td>159</td>
</tr>
<tr>
<td>Hydro</td>
<td>0</td>
</tr>
<tr>
<td>Ethanol</td>
<td>3,507</td>
</tr>
<tr>
<td>Woody biomass</td>
<td>11</td>
</tr>
<tr>
<td>En. efficiency</td>
<td>5,117</td>
</tr>
</tbody>
</table>

Clean Jobs v Fossil Fuel Jobs

Governor

Representation in State Legislature

Senate +25

House +41
Idaho

Energy policy highlights:
- No net metering policy; State’s three investor-owned utilities have net metering tariffs on file with the Idaho Public Utilities Commission
- No official target for renewable energy
- Alternative fuels tax exemption and refund for government fleet vehicles
- Income tax deduction for energy efficiency upgrades; homeowners can quality for 100% of the cost
- ID is not one of the 29 states to offer E15
- Ranked 33rd in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Illinois

Energy policy highlights:

- Net metering since 2007; in 2016, community solar and meter aggregation were made eligible for net metering under the terms of the legislation. The 5% aggregate cap remains in place and a new compensation process will be developed when the cap is reached (a net billing process is the default).
- Renewable Portfolio Standard - 25% by compliance year 2025 – 2026
- Sales tax exemption for wind energy - the incentive is 100.00 %, minimum of 0.50 MW
- Biofuels tax exemption - sales and use taxes apply to 80% of the proceeds from the sale of fuel blends containing between 1% and 10% biodiesel and the sale of fuels containing 10% ethanol (E10).
- The Illinois Alternate Fuels Rebate Program provides a rebate for 80%, up to $4,000, of the incremental cost of purchasing an AFV
- IL is one of the 29 states to offer E15
- Ranked 13th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

[Chart showing energy jobs by sector]

Clean Jobs v Fossil Fuel Jobs

- Fossil Fuel 24%
- Clean Energy 76%

Representation in State Legislature

- Governor
- Senate +15
- House +16
Indiana

Energy policy highlights:
- Net metering since 2004; in May 2017, changes were made to IN’s compensation system for distributed generation, including an eventual phase out of retail rate net metering (to occur by July 1, 2022, or when individual utilities reach 1.5% peak summer load caps, whichever is earlier)
- In 2014, the electric efficiency standard ended, making all utility targets voluntary
- Clean Energy Portfolio standard sets a voluntary goal of clean energy by 2025
- Biodiesel blend tax exemption - blends of at least 20% (B20) that are used for personal, noncommercial use are exempt from the special fuel license tax
- IN is one of the 29 states to offer E15
- Ranked 42nd in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature

Governor
Iowa

Energy policy highlights:

- Net metering is available to customers of Iowa’s two investor-owned utilities, MidAmerican Energy and Interstate Power and Light (IPL)
- Since 2008, Iowa Utilities Board (IUB) is required to create energy savings standards (electricity and natural gas) for all rate-regulated utilities
- Biodiesel blend tax exemption - biodiesel blends of at least 20% (B20) that are used for personal, noncommercial use by the individual that produced the biodiesel portion of the fuel are exempt from the special fuel license tax
- Biodiesel price preference - a governmental body, state educational institution, or instrumentality of the state that performs essential governmental functions on a statewide or local basis is entitled to a 10% price preference for the purchase of fuels containing at least 20% biodiesel
- IA is one of the 29 states to offer E15
- Ranked 15th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Kansas

Energy policy highlights:

- Net metering available with the following limits: before July 1, 2014: 200 kW for non-residential and schools; 25 kW for residential, on or after July 1, 2014: 100 kW for non-residential; 15 kW for residential; 150 kW for school
- Renewable energy goal – 20% renewable by 2020. In 2015 it was changed from a standard to a voluntary goal
- Biodiesel rebates - Kansas residents are eligible for a rebate from the Kansas Soybean Commission of up to $2,000 for fleets ($200 for individuals), for using biodiesel blends above 5% in diesel-powered vehicles
- Alternative Fueling Infrastructure tax credit - an income tax credit is available for 40% of the total cost to install alternative fueling infrastructure after 1/1/2009
- State-owned diesel-powered vehicles and equipment must use a biodiesel blend that contains at least 2% biodiesel (B2), where available
- KS is one of the 29 states to offer E15
- Ranked 48th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Chart showing energy jobs by sector]

Clean Jobs v Fossil Fuel Jobs

![Pie chart showing fossil fuel vs clean energy jobs]

Representation in State Legislature

![Image showing representation in state legislature]

Governor
Senate +22
House +45
Kentucky

Energy policy highlights:

- In April 2008, KY expanded its net metering law by requiring utilities to offer net metering to customers that generate electricity with photovoltaic (PV), wind, biomass, biogas or hydroelectric systems up to 30 (kW) in capacity
- No Renewable Portfolio Standard
- Biodiesel production and blending tax credit - qualified biodiesel producers or blenders are eligible for an income tax credit of $1.00 per gallon of pure biodiesel (B100) or renewable diesel produced or used in the blending process
- KY is one of the 29 states to offer E10 and E15
- Ranked 30th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs]

Representation in State Legislature

![Representation in State Legislature]
Louisiana

Energy policy highlights:

- Net metering since 2003; in 2016, LA adopted changes to the net metering rules. The modifications include: i) clarifies definition of excess net metered energy (excess generation), ii) provides for transferability of interconnection agreements, and iii) require utilities to continue accepting net metering applications after reaching net metering cap, but to compensate the excess generation at the utility’s avoided cost
- No Renewable Portfolio Standard
- Green jobs tax credit - corporate or income tax credit for qualified capital green infrastructure projects, for 10% to 25% of the project costs, up to $1 million
- LA offers an income tax credit of 36% of the cost of converting a vehicle to operate on an alternative fuel, the incremental cost of purchasing an original equipment manufacturer AFV, and the cost of alternative fueling equipment
- LA is one of the 29 states to offer E15
- Ranked 47th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Maine

Energy policy highlights:
- In 2017, the PUC issued an order replacing net metering with a "buy-all, sell-all" compensation structure, which will gradually reduce the credit rate for energy produced by customer-generators from retail rate to the avoided cost rate.
- Renewable Portfolio Standard - 40% by 2017 (including 10% from new resources that came online after 9/1/2005)
- Alternative tax fuel rates - Blended fuels that contain at least 10% gasoline or diesel are taxed at the full tax rates of gasoline ($0.30 per gallon) or diesel ($0.312 per gallon)
- ME is not one of the 29 states to offer E15
- Ranked 11th in the 2016 state energy efficiency scorecard by ACEEE
Maryland

Energy policy highlights:
- Net metering is available statewide until the aggregate capacity of all net-metered systems reaches 1,500 MW, this limit is approximately 10% of the peak demand in 2014, limit of 2 MW
- Renewable Portfolio Standard goal of 25% by 2022 (increase from 20%)
- Clean energy grant program - Commercial: $30-$60/kW for PV (must not exceed 200 kW); $10-$20/sq. ft. for solar water heating (SWH); $90-$180/ton for geothermal heating and cooling (GHC)
- State income tax credit for 10% of qualified research and development expenses for cellulosic ethanol
- Alternative fuel use requirement - at least 50% of state vehicles using petroleum diesel fuel must use a minimum blend of 5% biodiesel (B5) or other biofuel
- MD is not one of the 29 states to offer E15
- Ranked 9th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

- Clean Jobs v Fossil Fuel Jobs
- Representation in State Legislature
Massachusetts

Energy policy highlights:

- In MA, state's investor-owned utilities are required to offer net metering, municipal utilities are not obligated to offer net metering, but they may do so voluntarily; MA has three categories of net metering according to the size
- Renewable Portfolio Standard - Class I (New Resources): 15% by 2020 and an additional 1% each year thereafter. Solar PV: Mandated target of 1600 MW by 2020
- MA Clean Energy Center (MassCEC) - provides programs for residents, businesses, nonprofits, and government agencies to finance clean energy projects
- MA is not one of the 29 states to offer E15
- Ranked 1st the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

- Fossil Fuel: 7%
- Clean Energy: 93%

Representation in State Legislature

- Governor: 1
- Senate: 27
- House: 88
Michigan

Energy policy highlights:
- Net metering applies only to rate-regulated utilities and alternative electric suppliers, capped at 0.75% of utility’s peak load during previous year for systems up to 150 kW
- Renewable Portfolio Standard, goal of 15% by 2021 for all utilities
- Alternative Fuel Development property tax exemption - A tax exemption may apply to industrial property used for the creation or synthesis of biodiesel fuel
- MI is one of the 29 states to offer E15
- Ranked 11th in the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Minnesota

Energy policy highlights:
- Net metering for all investor-owned utilities, municipal utilities, and electric cooperatives.
- In 2007, the voluntary renewable energy objective became a mandatory renewable portfolio standard with the following goals: Xcel Energy: 31.5% by 2020, other IOUs: 26.5% by 2025, other utilities: 25% by 2025.
- Biofuel production grant program – MN Department of Agriculture provides grants to biofuel producers for up to $2.1053 per million British Thermal Unit (MMbtu) for advanced biofuel produced from cellulosic biomass and $1.053 per MMbtu for advanced biofuel produced from sugar- or starch-based crops
- MN biofuels replacement goals – 18% by 2017, 25% by 2020, 30% by 2025
- MN is one of the 29 states to offer E15
- Ranked 10th the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Mississippi

Energy policy highlights:
- The net metering policy adopted by MS does not meet DSIRE’s standards for a typical net metering policy; net metering policy allows a customer to offset all of their electricity consumption on a 1:1 parity basis within the billing period, the policy adopted by MS only allows instantaneous generation and use to be credited at retail rate; all of the electricity exports are credited at the utility’s avoided cost plus a premium
- No Renewable Energy Standard
- MS is one of the 29 states to offer E15
- Ranked 46th the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Missouri

Energy policy highlights:

- MO enacted legislation in June 2007 requiring all electric utilities—investor-owned utilities, municipal utilities, and electric cooperatives—to offer net metering to customers with systems up to 100 kW
- Energy Efficiency goals - in 2009, MO enacted the Missouri Energy Efficiency Investment Act, creating a framework for energy savings and peak reduction for investor-owned electric utilities through voluntary investment in demand-side management with increasing annual benchmarks beginning in 2012
- Renewable Portfolio standard goal - requires investor-owned utilities to use renewable energy technologies to meet of 15% of annual retail sales by 2021
- Biodiesel use requirement - at least 75% of the Missouri Department of Transportation (MoDOT) vehicles and heavy equipment that use diesel fuel must be fueled with biodiesel blends of at least 20% (B20)
- MO is one of the 29 states to offer E15
- Ranked 32nd the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

[Graph showing energy jobs by sector]

Clean Jobs v Fossil Fuel Jobs

[Pie chart showing clean energy 87% and fossil fuel 13%]

Representation in State Legislature

[Diagram showing Governor, Senate +15, House +70]
Montana

Energy policy highlights:

- MT’s net-metering law, applies to all customers of investor-owned utilities, system limit is 50 kW
- Renewable Portfolio Standard for all utilities - goal of 15% by 2015 and for each year thereafter
- Energy efficiency standards for state buildings - energy efficiency building standards apply to new construction and major renovation projects
- Biodiesel blending tax credit - Businesses and individuals are eligible for a tax credit of up to 15% of the cost of qualified equipment used for storing or blending biodiesel with petroleum diesel offered for sale
- Alternative Fuel Vehicle conversion tax credit - income tax credit of up to 50% of the equipment and labor costs for converting vehicles to operate using alternative fuels for businesses and individuals
- MT is not one of the 29 states to offer E10 and E15
- Ranked 37th the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector
Nebraska

Energy policy highlights:
- Net metering for all utilities, 1% of utility’s average monthly peak demand and systems capped at 25 kW
- No Renewable Portfolio Standard
- Ethanol and Biodiesel Tax Exemption - Motor fuels sold to an ethanol or biodiesel production facility and manufactured at an ethanol or biodiesel facility are exempt from certain motor fuel tax laws
- NE provides innovation grants to qualified bioscience businesses for innovative biofuels projects thought 2021
- NE is one of the 29 states to offer E15
- Ranked 42nd the 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Chart]

Representation in State Legislature

![Representation in State Legislature Chart]
Nevada

Energy Policy Highlights:

- Net metering was restored in June, 2017, restoring net metering rates close to the retail level for residential customers; this reversed the 2015 decision to reduce compensation
- Renewable Portfolio Standard goal of 25% by 2025
- NV State energy reduction plan is to reduce grid-based energy purchases for state-owned buildings by 20% by 2015
- Alternative Fuel Vehicle requirements - fleets containing 50 or more vehicles that are owned, leased, or operated by the state, a state agency, must acquire AFVs (or ULEVs)
- NV is one of the 29 states to offer E15
- Ranked 37th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

[Chart showing energy jobs by sector]

Clean Jobs v Fossil Fuel Jobs

[Chart showing percentage of clean energy jobs vs. fossil fuel jobs]

Representation in State Legislature

[Chart showing representation in the governor, senate, and house]
New Hampshire

Energy policy highlights:

- Net metering is required by all utilities, distinguishes between small and large customers, and in 2016 the cap was raised from 50 MW to 100 MW
- Renewable Portfolio Standard - goal of 24.8% by 2025
- Biodiesel blend purchase requirement - Diesel fuel that the NH Department of Transportation purchases must contain at least 5% biodiesel (B5)
- The NH Office of Energy Planning prepared a 10 year energy strategy
- NH is not one of the 29 states to offer E15
- Ranked 21st on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

Clean Energy 88%

Fossil Fuel 12%

Representation in State Legislature

Governor

Senate +5

House +49
New Jersey

Energy policy highlights:

- Net metering is required by all state owned utilities - the system must be sized so that energy production does not exceed customer's annual on-site energy consumption.
- Renewable Portfolio Standard goal is 24.39% by 2028.
- New Jersey Clean Energy Program (NJCEP) offers the Pay for Performance incentive program for comprehensive energy efficiency and whole-building improvements.
- Low Emission bus acquisition requirement - all buses purchased by the NJ Transit Corporation must be: 1) equipped with improved pollution controls that reduce particulate emissions; or 2) powered by a fuel other than conventional diesel.
- NJ is not one of the 29 states to offer E15.
- Ranked 24th on 2016 state energy efficiency scorecard by ACEEE.

Energy Jobs by Sector

[Bar chart showing energy jobs by sector with categories like natural gas, coal, oil, solar, etc., and the highest bar representing energy efficiency with 31,679 jobs.]

Clean Jobs v Fossil Fuel Jobs

[Pie chart showing 31% for Fossil Fuel and 69% for Clean Energy.]

Representation in State Legislature

[Chart showing representation with 25 House seats for clean energy, 8 Senate seats for Governor, and 8 Senate seats for clean energy.]
New Mexico

Energy policy highlights:
- Net metering is available to all "qualifying facilities" up to 80 MW with no cap
- Renewable Portfolio Standard - goal to generate 20% of total retail sales from renewable energy resources, and rural electric cooperatives are required to generate 10% of total retail sales from renewable energy resources
- Biofuels tax reduction and production tax reduction - the cost of purchasing qualified biomass feedstocks to be processed into biofuels, and associated equipment, may be deducted and entities and individuals that receive or manufacture and deliver biodiesel within the state for blending or resale are eligible for a tax deduction
- Alternative Fuel Vehicle acquisition requirement - A minimum of 75% of state government and educational institution fleet vehicles purchased must be HEVs or bi-fuel or dedicated AFVs
- NM is not one of the 29 states to offer E15
- Ranked 35th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Diagram]

Representation in State Legislature

![Representation in State Legislature Diagram]
New York

Energy policy highlights:
- Transitioning from Net Metering to Value of Distributed Energy Resource tariff
- NYSERDA has allocated $325,000 for FY 2017 to energy projects in low to moderate income communities
- In 2016, the PUC approved a $5 billion Clean Energy Fund
- Renewable Portfolio Standard goal of 50% by 2030
- Biofuel production tax credit - biofuel producers in NY may qualify for a state tax credit of $0.15 per gallon of biodiesel (B100) or denatured ethanol produced after the production facility has produced 40,000 gallons of biofuel per year
- NY is not one of the 29 states to offer E15
- Ranked 5th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
North Carolina

Energy policy highlights:
- Net metering is required by the state’s three investor-owned utilities, several provisions in 2017 related to net metering including each utility must file revised net metering rates with the North Carolina Utilities Commission and the rates must be nondiscriminatory and established only after an investigation of the costs and benefits of customer-sited generation
- Renewable Energy and Energy Efficiency Portfolio Standard - investor-owned utilities goal: 12.5% by 2021 and Electric cooperatives, municipal utilities goal: 10% by 2018
- Biodiesel tax exemption - an individual who produces biodiesel for use of private passenger vehicle is exempt from the state motor fuel excise tax
- Alternative Fuel Vehicle acquisition goal - at least 75% of new or replacement state government light-duty cars and trucks with a gross vehicle weight rating of 8,500 pounds or less must be AFVs or low emission vehicles
- NC is one of the 29 states to offer E15
- Ranked 30th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
North Dakota

Energy policy highlights:
● Net metering is available to customers of investor-owned electric utilities; not available to customers of municipal utilities/electric cooperatives, 100 kW limit
● No Renewable Portfolio Standard
● Biodiesel sales equipment tax credit - qualified retailers may be eligible for a corporate income tax credit of 10% of the direct costs incurred to adapt or add equipment to a facility so that it may sell diesel fuel containing at least 2% biodiesel or green diesel
● ND Industrial Commission’s Renewable Energy Program provides matching grants and other forms of assistance to support research and development projects involving advanced and sugar-based biofuel
● Alternative fuel tax rates - a special excise tax rate of 2% is imposed on the sale of propane and an excise tax of $0.23 per gallon is imposed on all special fuels sales and deliveries, including compressed natural gas liquefied natural gas
● ND one of the 29 states to offer E15
● Ranked 51st on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Ohio

Energy policy highlights:
- Energy Loan Fund provides low-cost financing for energy efficiency and renewable energy improvements to Ohio-based businesses with less than 500 employees, $11.25 million allocated for FY 2017
- Net-metering law requires electric distribution utilities to offer net metering to customers with no specific cap
- Energy Efficiency Portfolio standard - In 2014, OH made significant changes by freezing the energy savings requirements for 2 years, allowing large customers an option of opting out of the energy efficiency requirements
- Alternative Portfolio Energy Standard - mandatory goal of 12.5% by 2026
- Alternative Fuel Vehicle requirement - with the exception of law enforcement vehicles, all new state agency vehicles must be capable of using an alternative fuel and use the relevant alternative fuel if reasonably priced
- OH is one of the 29 states to offer E15
- Ranked 29th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
**Oklahoma**

**Energy policy highlights:**

- Net metering is available to all customer classes, there is no limit on the amount of aggregate net-metered capacity, and utilities are not allowed to require new liability insurance as a condition for interconnection, after 2014 utilities are allowed to apply a fixed charge to customer-generators.
- Renewable Energy Portfolio - the goal was 15% by 2015.
- Energy standards for state buildings - in 2013, the high-performance building certification program was repealed but OH is still required by statute to adopt planning and construction standards for state buildings that conserve energy and optimize the energy performance of new buildings.
- Biofuels tax exemption - Biodiesel or biofuels produced by an individual from feedstocks grown on the individual’s property and used in the individual’s own vehicle are exempt from the state motor fuel excise tax.
- Alternative Fuel technician certificate - the Department of Labor will issue a certificate to anyone who passes the appropriate alternative fuels equipment, alternative fuels compression, or electric vehicle technician examination.
- OK is one of the 29 states to offer E15.
- Ranked 44th on 2016 state energy efficiency scorecard by ACEEE.

**Energy Jobs by Sector**

![Energy Jobs by Sector](image)

**Clean Jobs v Fossil Fuel Jobs**

![Clean Jobs v Fossil Fuel Jobs](image)

**Representation in State Legislature**

![Representation in State Legislature](image)
Oregon

Energy policy highlights:
- Net Metering required by all utilities and utilities may not limit the total cumulative capacity of net metered systems beyond a cumulative capacity of 0.5% of the utility’s historic peak load
- Energy Trust of OR offers commercial businesses a menu of services and incentives for new building construction or major renovation projects which utilize energy efficient equipment and design standards
- Renewable Portfolio Standard goal of 50% renewable energy by 2040
- Alternative Fuel Vehicle tax credit for businesses - tax credit of 35% of eligible costs for qualified alternative fuel infrastructure projects, or the incremental or conversion cost of two or more AFVs
- Renewable fuels mandate - All gasoline sold must be blended with 10% ethanol
- OR is not one of the 29 states to offer E15
- Ranked 7th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

[Bar chart showing energy jobs by sector]

Clean Jobs v Fossil Fuel Jobs

[Pie chart showing clean energy jobs: 99% green, fossil fuel jobs: 1%

Representation in State Legislature

[Graph showing representation in the state legislature: Governor, Senate +4, House +10]
Pennsylvania

Energy policy highlights:

- Net Metering available for up to 50 kW for Residential, up to 3 MW for Non-residential, up to 5 MW for micro-grid and emergency systems
- Renewable Portfolio Standard requires 18% alternative energy resources by compliance year 2020-2021
- The Solar Energy Program (SEP) program offers financial assistance as loans to eligible applicants to promote manufacturing, research and development, and generation of solar energy in the state, with a 25% cost share requirement
- The Alternative Fuels Incentive Grant (AFIG) program provides financial assistance for qualified projects; information on alternative fuels, AFVs and HEVs
- Renewable Fuel mandate - one year after in-state production has reached 350 million gallons of cellulosic ethanol and sustained for three months, all gasoline sold in PA must contain at least 10% cellulosic ethanol
- PA is one of the 29 states to offer E15
- Ranked 19th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
**Rhode Island**

**Energy policy highlights:**
- Net metering for systems up to 10 MW in capacity that are designed to generate up to 100% of the electricity, includes community virtual net metering
- Renewable Energy Growth (REG) program with the goal to promote installation of grid connected renewable energy, maximum capacity of 5 MW
- Agricultural Energy program provides grants to agricultural businesses in the state to improve their energy efficiency, maximum amount of $20,000
- Biodiesel tax exemption - exempt from the $0.30 per gallon state motor fuel tax
- Alternative fuel vehicle requirements - at least 75% of state motor vehicle acquisitions must be AFVs, and the remaining 25% must be HEVs to the greatest extent possible, by 2025, 25% of state motor vehicle acquisitions must be ZEVs
- RI Office of Energy Resources will prepare a study on strategies to reduce greenhouse gas emissions and promote alternative transportation fuels in RI
- RI is not one of the 29 states to offer E15
- Ranked 4th on 2016 state energy efficiency scorecard by ACEEE

**Energy Jobs by Sector**

![Energy Jobs by Sector chart](image)

**Clean Jobs v Fossil Fuel Jobs**

- Fossil Fuel: 3%
- Clean Energy: 97%

**Representation in State Legislature**

- Governor
- Senate: +27
- House: +54
South Carolina

Energy policy highlights:

● Net metering is offered by utilities at the full retail rate and no new charges or fees distinctly separate from new net metering rates will be imposed
● Distributed Energy Resource program with a target of 2% aggregate generation capacity from renewable energy sources by 2021
● Energy efficiency revolving loan fund - available for businesses, general amount of funds loaned per project is between $50,000 and $1,000,000
● Biodiesel blend distribution mandate - all state-owned diesel fueling facilities must provide fuel containing at least 5% biodiesel (B5) at all diesel pumps
● Biofuels distribution infrastructure tax credit - a 25% tax credit for a taxpayer that purchases, constructs, or installs, and places into service a qualified commercial facility for distributing or dispensing biofuels
● Biofuels production tax credit - a 25% tax credit for a taxpayer that constructs a commercial facility for the production of biofuel
● SC is not one of the 29 states to offer E15
● Ranked 40th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Chart]

Representation in State Legislature

![Representation in State Legislature Chart]
South Dakota

Energy policy highlights:
- Net metering is offered by the utility, Central Electric Cooperative
- No Renewable Portfolio Standard, voluntary goal of 15% by 2015
- Solar and wind projects over 5MW are subject to an alternative taxation calculation in lieu of all taxes on real and personal property levied by the state, counties, municipalities, school districts, and other political subdivisions
- Biodiesel blend tax credit - licensed biodiesel blenders are eligible for a tax credit for special fuel; diesel, blended with biodiesel to create a biodiesel blend
- Biodiesel tax - biodiesel and biodiesel blends are taxed at the state motor fuel excise tax rate of $0.28 per gallon. Once production hits 10 million gallons in one year, the tax rate drops to $0.26 per gallon
- SD is one of the 29 states to offer E15
- Ranked 49th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature

Governor

Senate +23

House +49
**Tennessee**

**Energy policy highlights:**
- No net metering
- No Renewable Portfolio Standard
- Energy Efficiency Schools Initiative, TN appropriated $90 million in 2008 for grants and loans
- Green Energy tax credit - TN provides tax credits to industries in the green energy supply chain that invest more than $250 million into the state
- Pathway Lending’s Energy Efficiency Loan Program provides TN business and non-profit entities with below-market loans for energy efficiency and renewable energy improvements, $33 million allocated in 2010, cap of $5 per project
- Alternative Fuel Vehicle acquisition requirement - TN Department of General Services ensures 25% of newly purchased passenger vehicles procured for use in areas designated as ozone nonattainment areas are all-electric vehicles, hybrid electric vehicles, and natural gas vehicles
- Biodiesel requirement - biodiesel blend stock must be at least 99% biodiesel
- TN is one of the 29 states to offer E15
- Ranked 25th on 2016 state energy efficiency scorecard by ACEEE

**Energy Jobs by Sector**

**Clean Jobs v Fossil Fuel Jobs**

**Representation in State Legislature**
Texas

Energy policy highlights:
- No Net Metering
- Renewable Portfolio Standard - 10,000 MW by 1/1/2025 (already achieved)
- Renewable Energy Property tax exemption - an exemption of 100% of the appraised property value increase arising from the installation or construction of a solar or wind-powered energy device
- PACE financing - authorized in 2009
- Required energy efficiency goals - once a 30% reduction in annual growth in demand is achieved, standard reverts to 0.4% of total peak demand thereafter
- Renewable Portfolio Standard - voluntary goal of 10,000 MW by 2025
- Alternative fueling infrastructure grants - TX Alternative Fueling Facilities Program provides grants for 50% of eligible costs, up to $600,000, to construct, reconstruct, or acquire a facility to store, compress, or dispense alternative fuels
- Alternative fuel use requirements - state agency fleets with more than 15 vehicles must purchase AFVs
- TX is one of the 29 states to offer E15
- Ranked 27th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs Chart](chart.jpg)

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs vs Fossil Fuel Jobs](pie_chart.jpg)

Representation in State Legislature

![ Representation in State Legislature](legislature_chart.jpg)
Utah

Energy policy highlights:
- Net metering is available, 20% of 2007 peak demand for Rocky Mountain Power; 0.1% of utility’s 2007 peak demand for co-ops
- Renewable Portfolio Standard - goal is 20% of adjusted retail sales by 2025
- PACE commercial financing available
- U-Save energy efficiency fund - in 2007, created a $5 million revolving loan fund to provide zero-interest loans for energy conservation projects in schools
- Alternative Fuel use requirement - at least 50% of new or replacement light-duty state agency vehicles must meet Bin 2 emissions standards established
- UT is not one of the 29 states to offer E15
- Ranked 20th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Graph](image)

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Pie Chart](image)

Representation in State Legislature

![Representation in State Legislature](image)
Vermont

Energy policy highlights:
- Renewable Portfolio Standard - mandatory goal of 55% by 2017, increasing by an additional 4% every 3 years until reaching 75% by 2032
- Net metering available for solar net metered systems 15 kilowatts (kW) or less
- Clean Energy Development Fund - $5,857,500 allocated in 2017 for primarily renewable energy and combined heat and power (CHP)
- Efficiency Vermont - a volumetric charge on all electric customers’ bills to support energy efficiency programs, 2017 budget is $58.7 million
- Carbon reduction procurement policies - VT Agency of Administration and the Climate Cabinet must revise state acquisition policies to ensure vendor business practices that promote clean energy and address climate change
- VT Agency of Administration developed and oversees the implementation of the State Agency Energy Plan
- Investment tax credit of 7.2% for solar in service on or before 12/31/2019
- VT is not one of the 29 states to offer E15
- Ranked 3rd on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Virginia

Energy policy highlights:
- Net metering available up to 10kW, capped at 1% of utility’s peak-load forecast
- Renewable Energy Portfolio - voluntary goal of 15% of base year (2007) sales by 2025
- Energy efficiency goal of 10% electricity savings by 2022 relative to 2006
- Green Jobs tax credit - for every green job created with a yearly salary of $50,000 or more, company earned $500 income tax credit for five years, ended in 2015.
- Clean Transportation Technology Investment Funding - provides early-stage investment funds for Virginia-based technology, life science, and clean technology companies, technologies may include vehicles, components, batteries, and fuel cells, in addition to biofuels
- Biodiesel Production Tax Credit - biodiesel and green diesel producers are eligible for a tax credit of $0.01 per gallon of fuels produced
- Biofuels Production grants - $0.025 per gallon for biofuels produced in the VA
- VA is one of the 29 states to offer E15
- Ranked 33rd on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs v Fossil Fuel Jobs

Representation in State Legislature
Washington

Energy policy highlights:
- Net metering available up to 100kW, limit of 0.5% of utility's 1996 peak demand
- Renewable Energy Standard - 15% renewables by 2020 and all cost-effective conservation
- Sustainable Energy Program - $7 Million available for low-cost financing for new green construction, energy efficiency upgrades, and renewable energy projects, from 50,000 to 1 million.
- Renewable energy manufacturing program - a two-part financing program for renewable energy manufacturing projects, minimum loan of $2 million
- Energy efficiency and solar grants - $25 million available for high education institutions and schools
- Biofuel Volume rebate program - a rebate, $0.05 per gallon, to fleet customers for monthly purchases of more than 500 gallons of biodiesel blends and E85
- Renewable fuel standard - at least 2% of all diesel fuel sold in WA must be biodiesel or renewable diesel
- WA is not one of the 29 states to offer E15
- Ranked 8th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Chart]

Representation in State Legislature

![Representation in State Legislature Chart]
West Virginia

Energy policy highlights:
- Net metering available up to 25kW, limit of 3% of peak demand during the previous year
- No Renewable Portfolio Standards
- Tax exemption for wind energy generation - Business & Operation tax rate on wind powered turbines that is about 30% of the effective tax rate
- Alternative fuels tax - alternative fuels are subject to an excise tax at a rate of $0.205 per gasoline gallon equivalent, with a variable component equal to at least 5% of the average wholesale price of the fuel
- WV is one of the 29 states to offer E15
- Ranked 44th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs Graph]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Graph]

Representation in State Legislature

![Representation in State Legislature Graph]
Wisconsin

Energy policy highlights:

- Net metering available for systems up to 20 kW, no specified cap
- Renewable Portfolio Standard - Statewide target of 10% by 2015
- Focus on Energy program - provides information, financial assistance, technical assistance to residents, businesses, schools, institutions and local governments on energy efficiency and renewable energy; utilities are required to spend 1.2% of its annual revenue on efficiency and renewables
- Renewables rewards program - solar electric (PV) rebate is 12% of the installed cost, maximum of $2,000 for residential and $4,000 for business customers
- Clean Energy Manufacturing Revolving Fund - offering private sector businesses eligible for low interest loans up to $1 million
- Renewable fuel exemption - The first 1,000 gallons of renewable fuel that an individual produces each year are exempt from the motor vehicle fuel excise tax
- Renewable Fuel Sales Volume Goals - legislature sets goals for minimum annual renewable fuel sales volumes based on annual renewable fuel volumes required under the federal Renewable Fuel Standard
- WI is one of the 29 states to offer E15
- Ranked 22nd on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

Clean Jobs vs Fossil Fuel Jobs

Representation in State Legislature

Governor

Senate +7

House +29
Wyoming

Energy policy highlights:
- Net metering is available for systems up to 25 kW, no cap specified
- No Renewable Portfolio Standard
- Energy Savers loan - WI offers low-interest loans to income qualified homeowners for energy efficient home retrofits
- Wind energy permitting standards - all wind facilities over 0.5 kW must take extra steps to obtain a permit
- WY is one of the 29 states to offer E15
- Ranked 50th on 2016 state energy efficiency scorecard by ACEEE

Energy Jobs by Sector

![Energy Jobs by Sector Chart]

Clean Jobs v Fossil Fuel Jobs

![Clean Jobs v Fossil Fuel Jobs Chart]

Representation in State Legislature

![Representation in State Legislature Chart]