

| BASIC INFORMATION | | | | MARKET MECHANISMS | | | | RESOURCE REQUIREMENTS | | | | RESOURCE INCENTIVES | | | | AUTHORITY AND OVERSIGHT | | | | | | | | |
|-------------------|--|------|--|---------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--------------------------------------|--|---------------|------------------------------------|----------------------|
| State | Target | Year | Notes / Incremental targets | Progress by 2029* | Applicability | REC Trading | REC Banking | Cost Constraints | Alternative Compliance | Efficiency Included in RPS/AERS | Separate EERS (elect) | Carve-outs/Classes/Tiers | Hydro | Incentives | Authority | Amendments | Overseeing Agency / Agencies | | | | | | | |
| AZ | 15% | 2025 | --- | 6.1% (includes 0.2% nonhydro) | IOUs, Rural Cooperatives, Retail Suppliers | Yes, no tracking system in place; energy must be delivered to AZ customers | | | Discretionary financial penalty with no cost recovery | No | Mandatory | 30% of annual requirement from distributed energy by 2012 and thereafter; half from residential and half from non-residential, non-utility | s10 MW installed after 1/1/2006; new incremental hydro for pre-1997 facilities; or pre-1997 facilities used to firm other eligible renewables. | Up to 1.3x multiplier for early installations. | Regulatory Action | AC 016-2-1900 (2007) | Arizona Corporation Commission | | | | | | | |
| CA | 33% | 2020 | 20% by end of 2013; 25% by end of 2016 | 30.8% (includes 15.2% nonhydro) | Munis, IOUs, Electric Service Providers, Community Choice Aggregators | Yes, WREGIS. Limit of 25% of utility obligation through 2013, 10% by 2017; \$50 cost cap | WREGIS RECs do not expire | \$50 cost cap for RECs | Explicit financial penalties with no automatic cost recovery | No | Mandatory | Municipal solid waste (MSW) conversion is allowed; MSW combustion is not allowed except in Stanislaus County and operational prior to 9/24/1996. | Eligible sources: solar thermal, PV, landfill gas, wind, biomass, geothermal, MSW, energy storage, anaerobic digestion, small hydro, tidal, wave, ocean thermal, bio diesel, fuel cells using renewable fuels | s30 MW for hydro in place before 9/12/2002 and efficiency upgrades. | Legislation | SBX1-2 (2011) | SB 107 (2006) | SB 1036 (2007) | California Energy Commission and California Public Utilities Commission | | | | | |
| CO | 20% | 2020 | 3% by 2007; 5% by 2008; 12% by 2011; 20% by 2015; 30% by 2020 | 9.9% (includes 6.3% nonhydro) | IOUs | Yes; no tracking system in place | | | Discretionary financial penalty with no cost recovery | Recycled energy only | Mandatory | 4% solar, of which at least half must come from customer-sited generation | 3% of retail sales by 2020 must come from DG, half of this must be 'retail DG' serving on-site load | Eligible sources: solar thermal, PV, landfill gas, biomass, hydro, geothermal, recycled energy, anaerobic digestion, fuel cells using renewable fuels | s10 MW for new hydro; s30 MW for hydro in place before 1/1/2005. | 1.25x multiplier for in-state sources | Ballot Initiative | Amendment 37 (2004) | Legislation, HB 1281 (2007) | HB 1061 (2010) | Colorado Public Utilities Commission | | | |
| | 10% | 2020 | 1% by 2008; 3% by 2011; 6% by 2015; 10% by 2020 | | Rural cooperatives, Munis serving more than 40,000 customers | | | | | Recycled energy only | | | | | | Ballot Initiative | Amendment 37 (2004) | Legislation, HB 1281 (2007) | HB 1061 (2010) | Colorado Public Utilities Commission | | | | |
| CT | 27% | 2020 | Annual goal: 1/12 goal is 9% class I, 3% class II or 8.4% class III | 6.1% (includes 4.5% nonhydro) | Munis, IOUs, Retail Suppliers | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year; Class I or II RECs can be used during the year following creation | \$150 maximum for zero emission RECs in first year; PUC can reduce this by 3-7% per year; \$200 maximum for low emission RECs in first year. | \$0.055/kWh; no automatic cost recovery | Yes, Class III | Part of RPS (class III) | Class I (20%): advanced renewable energy conversion technologies, fuel cells, methane from landfills, ocean thermal, some hydro, solar, sustainable biomass <500 kWh constructed before 7/1/2003, tidal, wave, wind. | Class I or II (3%): biomass facilities in operation before 7/1/1998, some hydro, trash-to-energy facilities. | Class III: CHP, waste heat recovery, in-state conservation and load management programs | Class I run-of-the-river hydro <5 MW that began operation after 7/1/2003; Class II: run-of-the-river hydro <5 MW that began operation before 7/1/2003. | --- | Legislation | SB 5005 (1998) | SB 7432 (2007) | SB 1243 (2011) | Connecticut Department of Public Utility Control | | | |
| DC | 20% | 2020 | Annual goals; 2012 goal is 5% tier 1, 2.5% tier II, 0.50% solar | 0% | IOUs, Retail Suppliers | Yes, PIM-GATS | 3 years | | \$0.05/kWh Tier 1; \$0.01/kWh Tier 2; \$0.50/kWh solar through 2015, declining to \$0.05/kWh in 2023. Possible cost recovery. | No | No | Tier I (20%): Solar, wind, qualifying biomass, biogenic methane, geothermal, ocean, tidal, wave, fuel cells with renewable fuel source. | Tier II (declining percentages; 0% in 2020): Hydro (other than pumped storage), waste-to-energy (up to 20% until 12/31/2012). | 0.4% solar | --- | DC Council | DC Law 15-340 (2005) | DC Law 17-250 (2008) | --- | DC Public Service Commission | | | | |
| DE | 20% | 2019 | Annual goals; 2012 goal is 8.5%, including 4% PV | 3.4% (3.4% nonhydro) | Munis, IOUs, Rural Electric Cooperatives, Retail Suppliers | Yes, PIM-GATS | 3 years | State energy coordinator can freeze schedule for commission-regulated electric companies if compliance costs exceed 3% of total retail electricity costs. PV threshold is 1%. Muni and coop targets must be frozen if cost of compliance results in increase of 4% or more in average customer's monthly bill. | 1st deficient year: \$25 per non-solar REC; \$400 per solar REC. 2nd deficient year: \$50 per non-solar REC; \$400 per solar REC. Subsequent years: \$80 per non-solar REC; \$500 per solar REC. Possible cost recovery. | No | Mandatory | 2,005 solar PV | Solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, fuel cells fused with renewables, anaerobic digestion, tidal, wave, ocean thermal | s30 MW and meets environmental standards. | 3.5x multiplier for off-shore wind off the Delaware coast sited before 6/1/2017 | 3x multiplier for fuel cells and customer-sited PV in Delaware installed before 1/1/2015 | 1.5x multiplier in-state wind before 12/31/2002 | Legislation | SB 74 (2006) | SB 19 (2007) | SB 328 (2007) | SB 124 (2011) | Delaware Energy Office | |
| HI | 40% | 2030 | 10% by 2011, 15% by 2015, 25% by 2020; 30% by 2030 | 7.9% (7.3% nonhydro) | IOUs, Rural electric cooperatives | No | No | | PUC assesses penalties for missed targets; no cost recovery | Yes, but only up to 50% of target and only until 1/1/2015 | Mandatory (separate from RPS starting in 2015) | Until 2015, energy efficiency will qualify under the RPS, after which it will qualify only for the EERS: heat pump water heating, ice storage, ratepayer-funded efficiency programs, CHP excluding fossil facilities that sell to utilities and central power station projects | Generation: wind, solar, hydro, biogas including digester gas, geothermal, tidal, wave, ocean thermal, biomass, MSW, biofuels, hydrogen from renewable sources | Beginning 1/1/15, customer-sited, grid-connected renewable generation counts as well | Renewable displacement or offset also counts: solar water heating, seawater AC, solar AC | --- | Legislation | SB 2478 (2006) | SB 3180 (2006) | SB 1466 (2009) | Hawaii Strategic Industries Division | | | |
| IA | 105 MW 2015 MW | 2015 | Voluntary goal | 15.8% (14.0% nonhydro) | IOUs | N/A | N/A | N/A | N/A | No | Mandatory | Eligible sources: solar, wind, waste management, resource recovery, refuse-derived biomass, small hydro | --- | --- | --- | --- | --- | --- | --- | --- | Governor's goal | 1983 2002 | 1991 2001 | Iowa Utilities Board |
| IL | 25% | 2025 | Separate annual goals for IOUs and retail suppliers; IOU 2011: 5%; Retail suppliers 2011: 5% | 1.9% (1.8% nonhydro) | IOUs, Retail Suppliers | Yes, M-RETS, PIM-GATS | | Procurement limited to 'cost-effective' in-state resources until 2011. Cost increases to 2011 to retail customers cannot exceed 2% over 2007 or 0.5% over previous year. Thereafter cost is limited to greatest of 2.015% amount paid in 2007 or the incremental amount paid in 2011. | For retailers - \$0.211-\$0.256/MWh depending on territory | No | Mandatory | 75% must be met with wind for IOUs, 60% for retail suppliers | 6% of annual requirement must be PV in 2015-16 and thereafter. | 1% of annual requirement must be DG in 2015-16 and thereafter (IOUs only) | Eligible resources: solar thermal, PV, landfill gas, wind, biomass, hydro, anaerobic digestion, bio diesel | No construction of new dams or expansion of existing dams. | Legislation | Public Act 095-0981 (2007) | Public Act 095-0677 (2009) | --- | Illinois Commerce Commission | | | |
| KS | 20% | 2020 | 20% of peak demand capacity; 10% by 2011, 15% by 2016 | 5.5% (5.5% nonhydro) | IOUs, Rural electric cooperatives | Yes, tracking system TBD | 2 years | | Twice market value of RECs that would have been required to meet standard. Penalties may vary after evaluation of mitigating circumstances or evidence of good faith efforts to comply. No automatic cost recovery | No | No | Eligible sources: solar space heat, solar thermal, PV, landfill gas, wind, biomass, hydro, fuel cells using renewable fuels | Existing hydro; new hydro s30 MW. | 1.1x multiplier for in-state capacity installed after 1/1/2000 | Legislation | SB 2369 (2009) | --- | --- | Kansas Corporation Commission | | | | | |
| MA | 15% (Class I) | 2020 | 1% annual increase after 2020. Annual targets; 6% by 2012 | 9.1% (5.8% nonhydro) | IOUs, retail suppliers | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year | | \$64.02/REC in 2012, adjusted annually for inflation; \$550/Solar REC in 2012. Automatic cost recovery | No | Mandatory, also an element in AEPS | Class I: Renewables installed after 12/31/1997; eligible biomass, biofuels, fuel cells using renewable fuels, geothermal, certain hydro facilities, landfill gas, marine or hydrokinetic energy, ocean thermal, solar PV, solar thermal electric, tidal, wave, and wind | s25 MW constructed after 12/31/1997; meets environmental standards, and results in no new diversions. | Legislation | Chapter 164 of the Acts of 1992 | SB 2768 (2008) | Massachusetts Division of Energy Resources | | | | | | | |
| | 7.1% (Class II) (3.6% renewables and 3.5% waste-to-energy) | 2009 | Based on kWh sales to end-use customers | | IOUs, retail suppliers | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year | | \$26.26/REC in 2012, adjusted annually for inflation; \$10.15/ waste-to-energy MWh in 2012, adjusted annually for inflation. Automatic cost recovery. | No | | Class II (3.6%): Renewable resources installed before 12/31/1997; also waste to energy | Class III (3.5%): Municipal solid waste | s5 MW constructed after 12/31/1997; meets environmental standards, and results in no new diversions. | Legislation | SB 2768 (2008) | Massachusetts Division of Energy Resources | | | | | | | |
| | 5% (alternative energy) | 2020 | 1% by 2009, rising 0.5% per year until 1.5% in 2014, rising 0.25% per year to 2020. 0.25% annual increase after 2020 | | IOUs, retail suppliers | No | APS Alternative Generation Attributes can be used in either of both of 2 subsequent years following generation | | \$20/MWh starting in 2009, adjusted annually based on CPI | Yes, CHP | | Alternative energy portfolio standard: gasification, CHP/waste heat, flywheel energy storage, paper-derived fuel, efficient steam technology | Not included | Legislation | SB 2768 (2008) | M.G.L. ch. 26A, s.14E, § 2 (2008) | 225, CHB, s.100 (2009) | Massachusetts Division of Energy Resources | | | | | | |
| MD | 20% | 2022 | Annual goals; 6.4% tier 1 by 2011 and 2.5% tier 2 (hydro and waste to energy) | 5.8% (1.7% nonhydro) | Munis, IOUs, Rural Electric Cooperatives, Retail Suppliers | Yes, PIM-GATS | 3 years | If actual cost for buying tier 1 RECs is 10% (1% for solar) or above total annual electricity sales revenues in MD, supplier may request a 1 year delay on RPS target. Delay will continue until cost drops below threshold. | Tier 1: \$40/REC; Tier 2: \$15/REC; Solar: \$400/REC 2009-2014, declining to \$50/REC in 2023. Possible cost recovery. | No | Mandatory | Tier 1 (18%, including 2% solar): Fuel cell from renewable sources, geothermal, methane from anaerobic decomposition, ocean, qualifying biomass, small hydro, solar, tidal, wave, wind | Tier 2 (sunsets after 2018): Hydro, poultry litter, waste-to-energy. | --- | Legislation | SB 1308 (2004) | SB 1016 (2007) | SB 209 (2008) | Maryland Public Service Commission | | | | | |
| ME | Class II: 40% total; Class I: 10% new resource | 2017 | --- | 57.5% (28.5% nonhydro) | IOUs, Retail Suppliers | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year | | \$60.93/REC in 2010 for Class I. ACP & adjusted annually for inflation. | Yes, CHP counts toward Class II goal | Voluntary / directed at consumers | Class I (10% new generation by 2017): Biomass, fuel cells, geothermal, hydro, landfill gas, solar, tidal, and wind. | Class II (30% of kWh sales from eligible resources by 2000): Class I resources and hydro, municipal solid waste, and qualifying cogeneration. | All non-wind sources must come from facilities s100 MW | --- | Legislation | LD 1884 (1997) | LD 1920 (2007) | LD 1075 (2009) | Maine Public Utilities Commission | | | | |
| MI | 10% | 2015 | 600 MW from Detroit Edison & 500 MW Consumers Energy. Annual goals; 20% of gap between baseline and 10% by 2012 | 3.6% (2.4% nonhydro) | Munis, IOUs, Rural Electric Cooperatives, Retail Suppliers | Yes, MIRECS. Up to 50% of the installed RECs may be met with RECs produced by utility-owned facilities | 3 years (RECs created in first 120 days of year can also be used for previous year) | Rate impact cost ceilings: \$3/month residential; \$16.58/month secondary commercial; \$187.50/month primary commercial and industrial. | Explicit financial penalties with no automatic cost recovery | Yes, up to 10% of obligation. Advanced Clean Energy Credits (such as co-gen) can also be traded for RECs at a 10:1 ratio | Mandatory. Part of RPS law but discrete efficiency targets | s10% of energy conservation, energy efficiency, or advanced cleaner energy: renewable energy and advanced cleaner energy credits can also be used to fulfill up to 10% of the state's EERS. | Advanced cleaner energy: gasification, industrial cogeneration, coal-fired nuclear; renewable energy and advanced cleaner energy credits can also be used to fulfill up to 10% of the state's EERS. | Eligible sources: Solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, MSW, CHP, Coal w/ CCS, gasification, anaerobic digestion, tidal energy, wave energy | Constructed prior to 10/6/2008 and efficiency improvements to existing hydropower. | 2x multiplier for solar | 1.2x multiplier for non-wind resources or stored renewable energy used during peak demand | 1.1x multiplier for systems constructed in state or by Michigan residents (first 3 years only) | Legislation | SB 211 (2008) | --- | --- | Michigan Public Service Commission | |
| MN | 25% | 2025 | All providers except Xcel Energy; 12% by 2013, 17% by 2017, 20% by 2021 | 13.6% (12.5% nonhydro) | Munis, IOUs, Rural Electric Cooperatives | Yes, M-RETS; cannot buy from Xcel until 2021; RECs must remain whole in M-RETS | 4 years | PUC authorized to modify or delay the implementation of the standards if the commission determines it is in the public interest to do so. | Penalty equal to estimated cost of achieving compliance. No cost recovery. | No | Mandatory | Eligible sources: solar thermal, PV, landfill gas, wind, biomass, hydro, MSW, hydrogen, anaerobic digestion | <100MW | --- | Legislation | RF 722 (2001) | HF 3 (2003) | HF 4 (2007) | Minnesota Department of Commerce | | | | | |
| | 30% | 2020 | Xcel Energy; 12% by 2011, 18% by 2013, 25% by 2017 | | Xcel Energy | Yes, M-RETS; RECs must remain whole in M-RETS | | | | No | | Wind must be at least 25% of requirement | Solar capped at 3% of requirement | <100MW | --- | Legislation | RF 722 (2001) | HF 3 (2003) | HF 4 (2007) | Minnesota Department of Commerce | | | | |
| MO | 15% | 2021 | Previous RPS a legislatively established goal (SB 54, 2007); 2% by 2011; 5% by 2014; 10% by 2018 | 2.6% (0.6% nonhydro) | IOUs (Columbia has a local RPS for its munis) | Yes, NAR. No geographic or electricity delivery requirements for eligible resources. | 3 years after generation date | Utilities may be excused for events beyond their control or if compliance cost increases retail rates by more than 1% in any year. If the cap is exceeded, the annual target will be adjusted downward to a point where the cap is not violated. | Penalty at least twice market value of RECs. No automatic cost recovery. | No | Voluntary | 0.3% solar | PV, solar thermal, wind, small hydro, biogas, landfill gas, wastewater treatment plants, pyrolysis and thermal depolymerization of waste materials, biomass, fuel cells using renewable fuel, other renewable energy resources as approved by MO DNR | s10 MW that does not require a new appropriation, diversion, or impoundment of water. | 1.25x multiplier for energy generated in state | Ballot Initiative | Clean Energy Initiative (2008) | --- | --- | Missouri Public Service Commission | | | | |

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| State | Target | Year | Notes / Incremental targets | Progress by 2009* | Applicability | REC Trading | REC Banking | Cost Constraints | Alternative Compliance | Efficiency Included in RPS/AERS | Separate EERS (elec) | Carve-outs/Classes/Tiers | Hydro | Incentives | | | | Authority | Amendments | Overseeing Agency / Agencies | | | | | | |
| MT | 15% | 2015 | 5% by 2008; 10% by 2010 | 35.9% (12.9% nonhydro) | IDUs, Retail Suppliers, Mains and co-ops with 5,000 or more customers must implement an RPS that recognizes the intent of the legislature to encourage new renewables while recognizing rate impacts and reliability. | Yes, M-RETS or WREGIS depending on region | WREGIS RECs do not expire; there is also a 90 day grace period for compliance. If an entity exceeds the standard in any year, it may carry forward the amount by which the standard was exceeded to comply with the standard in either or both of the subsequent years. | | \$10 per REC, cannot be recovered through rates | No | No | Public utilities must purchase at least 75 MW from community renewable projects. | Eligible facilities must begin operation after 1/1/05 and must be located in MT or another state and be delivering electricity into MT | Eligible sources: wind, solar, geothermal, hydro, landfill or farm-based methane, wastewater-treatment gas, biomass, fuel cells with renewable fuels | \$10 MW that does not require a new appropriation, diversion, or impoundment of water. | | | | Legislation | SB 445 (2005) | HB 684 (2007) | Montana Public Service Commission | | | | |
| NC | 12.5% | 2021 | 3% by 2012, 6% by 2015, 10% by 2018 | 5.2% (0.9% nonhydro) | | Yes, NC-RETS. Unbundled RECs from out of state can be used for up to 25% of standard | REC must be purchased 3 years after generation, and must be retired 7 years after cost recovery | Annual cost caps per customer account. 2012-2014: \$12 residential, \$150 commercial, \$1000 industrial. 2015 forward: \$14 residential, \$150 commercial, \$1000 industrial | Enforcement at PUC discretion | Yes: "energy efficiency measures" allowed to account for 25% of requirement until 2021, 40% after 2021; "electricity demand reduction" allowed to account for 100% | No | <25% of requirement can be met through efficiency up to 2021; after 2021, up to 40% can be met through efficiency. | <25% of the requirement can come from out-of-state RECs. | 0.2% new solar electric or solar thermal facilities and 0.2% swine waste. | 900,000 MW from poultry waste and poultry bedding material. | | | | Legislation | SB 3 (2007) | SB 75 (2011) | North Carolina Utilities Commission | | | | |
| | 10.0% | 2018 | | | Electric cooperatives and mains | | | | | | | <30% hydroelectric. | <25% of the requirement can come from out-of-state RECs. | 0.2% new solar electric or solar thermal facilities and 0.2% swine waste. | 900,000 MW from poultry waste and poultry bedding material. | | | | Legislation | SB 3 (2007) | SB 75 (2011) | North Carolina Utilities Commission | | | | |
| NH | 23.8% | 2025 | 10.65% by 2012, 13.8% by 2015 | 16.8% (8.8% nonhydro) | IDUs, rural electric cooperatives, retail electric suppliers, any others other than mains | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year | | 2012: \$64.02/REC Class I; \$168.12/REC Class II; \$31.39/REC Class III; \$31.39/REC Class IV. Adjusted annually based on CPI. Automatic cost recovery. | No | No | Class I (16%): Eligible biomass, geothermal, hydrogen derived from biofuels or biologically derived methane, hydroponic, biologically derived methane, ocean thermal, wave, current, or tidal; solar beyond Class II requirements; solar water heating; wind; began operation after 1/1/2006. | Class II (0.3%): Solar electric; began operation after 1/1/2006. | Class III (5.5%): Eligible biomass >25 MW or biologically derived methane, in operation prior 1/1/2006. | Class IV (11%): Hydroponic, in operation before 1/1/2006. | Class V: Incremental new hydroponic production; Class IV: <5 MW and compliant with environmental criteria. | | | Legislation | HB 871 (2007) | HB 226 (2009) | New Hampshire Office of Energy and Planning | | | | |
| NJ | 30.38% + 5316 GWh solar | 2021, 2026 for solar | Annual targets: 2012 target is 6.32% class I, 2.5% class II | 1.9% (1.8% nonhydro) | IDUs, Retail Suppliers | Yes, PIM-GATS | Class I and Solar RECs can be used during generation year or following 2 years | | Non-solar: \$50/REC. Solar: \$675/REC in 2016, declining to \$594/REC in 2016. Automatic cost recovery | No | No | Class I (17.8%): Anaerobic digesters, biomass, fuel cells using renewable fuel sources, geothermal, solar PV, solar thermal, tidal, wave, and wind. | Class VII (2.5%): Hydro and resource recovery facility. | Solar (2.12%) | Eligible resources must be delivered within or generated in the PIM area. | <30 MW. | | | Legislation | Electric Discount and Energy Competition Act (1999) | A.B. 1520 | S.B. 2036 | N.J.A.C. 14:18, 7.2 and 7.3 (2011) | New Jersey Board of Public Utilities | | |
| NM | 20% | 2020 | 5% by 2006; 10% by 2011; 15% by 2015 | 4.6% (3.9% nonhydro) | IDUs | Yes, WREGIS | WREGIS RECs do not expire. RECs not used for compliance, sold, or otherwise transferred may be carried forward up to 4 years | Utilities excused from diversification targets if costs raise electricity costs by more than 2% or if reaching targets would impair reliability. Cost threshold for compliance is 2% in 2011, rising to 3% by 2015. If threshold is exceeded, annual target can be waived. Cost caps also exist for large individual customers. | Enforcement at PUC discretion | No | Mandatory | Fully diversified RPS: 20% wind, 20% solar, 10% other renewables, 3% distributed generation | Eligible resources: solar, wind, biomass, geothermal, hydro, fuel cells fueled by renewables, landfill gas, anaerobically digested waste biomass | | Hydropower resources brought into service after 7/1/2007. | | | | Regulatory Action | Electric Discount and Energy Competition Act (1999) | SB 549 (2011) | | New Mexico Public Regulation Commission | | | |
| | 10% | 2020 | | | Rural cooperatives | | | Costs do not need to exceed 1% of gross receipts from preceding calendar year. | | | | | | | | Hydropower resources brought into service after 7/1/2007. | | | Legislation | SB 43 (2004) | SB 418 (2007) | | New Mexico Public Regulation Commission | | | |
| NV | 25% | 2025 | 6% by 2005, increase of 3% every 2 years until 20% by 2015; 22% by 2020 | 13.0% (5.5% nonhydro) | IDUs, Retail Suppliers | Yes, NVTREC | 4 years after compliance year in which credits are issued | | Discretionary financial penalty with no cost recovery | Yes, up to 25% of total standard in any particular year | No | 6% solar | Efficiency: must be implemented after 1/1/05, sited or implemented at retail customer's location, partially or fully subsidized by utility. Must reduce energy demand | Eligible resources: biomass, geothermal, wind, hydro, energy recovery processes, waste tires using microwave reduction, solar heating, solar electric, PV, landfill gas, MSW, anaerobic digestion, biodiesel | <30 MW and requires no new diversions. | 2.4x multiplier for on-site generation | 2x multiplier for electricity generation saved during peak load periods | 1.05x multiplier for energy efficiency | 0.7x multiplier for waste tires using reverse polymerization | Legislation | SB 372 (2001) | AB 3 (2005) | AB 1 (2007) | SB 358 (2009) | Public Utilities Commission of Nevada | |
| NY | 30% | 2015 | 1% expected to be met from voluntary green market sales | 24.0% (4.0% nonhydro) | IDUs, Long Island Power Authority has a separate goal | No (currently under discussion) | | | N/A | No | Mandatory | Main Tier (93%): biogas, biomass, liquid biofuel, fuel cells, hydroelectric, solar PV, ocean, tidal, waste-to-energy using eligible biomass, wind. | Customer-Sited Tier (7%): Anaerobic digesters, fuel cells, solar PV, solar hot water, wind. | | Incremental increases and new run-of-the-river facilities of <30 MW. | | | | Regulatory Action | Case 03-E-188 | Case 03-E-0188 (2010) | | New York Public Service Commission | | | |
| OH | 25% | 2025 | AEPS. Annual compliance targets: 2012 goal is 1.5% | 0.6% (0.2% nonhydro) | IDUs, Retail Suppliers | Yes, M-RETS, PIM-GATS | RECs last 5 years following purchase or acquisition | Utility not required to meeting annual target if it reasonably expects costs to rise by 3% or more. PUC may reduce a utility's obligation if petitioned and determines that resources are not reasonably available. Under these circumstances, utility may be required to make additional purchases in subsequent years. | Non-solar: \$45/REC, adjustable for inflation; Solar: \$400/REC 2010-2011, reduced by \$50 every two years thereafter. No automatic cost recovery. | Yes | Mandatory. Part of RPS law but discrete efficiency targets | 12.5% must be from renewables, of which half must be from in-state facilities. 0.5% solar. To qualify, all energy facilities must be in place after 1/1/1998. | Renewable: PV, solar thermal, wind, geothermal, biomass, biological methane, landfill gas, certain non-treated waste biomass products, solid waste without combustion, fuel cells, certain storage, some hydro | Advanced nuclear, CHP, fuel cells, certain solid waste conversion technologies, demand side management, energy efficiency | <12.5% advanced energy sources: any process technology that increases electric generation output without additional CO ₂ production | | | Legislation | SB 271 (2009) | | | | Public Utilities Commission of Ohio | | | |
| | 25% | 2025 | Large utilities (3% or more of state load). 5% by 2011, 15% by 2015, 20% by 2020 | 71.6% (7.7% nonhydro) | Mains, IDUs, Rural Electric Cooperatives, Retail Suppliers | Yes, WREGIS, within US only. Unbundled RECs can only meet 20% of a large utility's compliance obligation and 50% of a large consumer-owned utility's obligation | WREGIS RECs do not expire. RECs acquired before March 31 can be used for previous year's standard | Not required to comply to extent compliance costs would exceed 4% of utility's annual revenue requirements for the compliance year. | \$50/REC, adjustable by PUC every other year. PUC authorized to set ACP for consumer-owned utilities. Possible cost recovery. | No | Voluntary | Goal: 8% of electricity from small-scale generators (<20 MW) by 2025 | HB 3039 established a feed-in-tariff for solar PV systems. Also established a requirement for the three IDUs to have 20 MW of large solar projects on-line by 2025. | Eligible sources: solar, wind, hydro, ocean thermal, wave, tidal, geothermal, hydrogen using anhydrous ammonia from certain renewable resources, MSW, biomass, biogas, anaerobic digestion | Efficiency upgrades after 1/1/2005 or meets certain environmental standards, up to 50 MW/year from low-impact hydro. | | | | Legislation | SB 838 (2007) | HB 3039 (2009) | | Oregon Department of Energy | Oregon Public Utility Commission | | |
| OR | 10% | 2025 | Small utilities (between 1.5% and 3% of state load) | | | | | | | | | | | | | | | | | | | | | | | |
| | 5% | 2025 | Smallest utilities (less than 1.5% of state load) | | | | | | | | | | | | | | | | | | | | | | | |
| PA | 18% | 2020 | Annual targets; 2012 target is 3.5% Tier I, 6.2% Tier II | 3.0% (1.8% nonhydro) | IDUs, Retail Suppliers | Yes, PIM-GATS | AECs can be banked during 2 reporting years following generation year | If the PUC determines that utilities are unable to comply with the standard despite good faith efforts, it may alter the obligations for a given year. The PUC may then require higher obligations in subsequent years. | Non-solar: \$45/MWh; Solar: 200% of the average market value for solar RECs sold in the RTO. ACP generally not fully recoverable from ratepayers. | Yes, Tier II | Mandatory | Tier I (8%): Biogenic methane, biomass, coal mine methane, fuel cells, geothermal, low-impact hydro, solar PV (0.5%), solar thermal, wind. | Tier II (10%): Demand-side management, distributed energy systems, IGCC, large-scale hydro, municipal waste, pulp and wood byproducts, waste coal, solar thermal that does not produce electricity. | | Large and small facilities eligible under different tiers. | | | | Legislation | SB 1050 (2004) | HB 1201 (2007) | HB 2200 (2008) | | Pennsylvania Public Utility Commission | | |
| RI | 16% | 2019 | Annual targets; 2012 target is 6.5% | 2.9% (2.9% nonhydro) | IDUs, Retail Suppliers | Yes, NEPOOL-GIS | NEPOOL-GIS RECs can be banked for 1 year | | \$60.93/REC in 2010. Automatic cost recovery. | No | Mandatory | <2% of total retail electricity sales can come from renewable resources in operation before 12/31/1997 | Long-Term Contracting Standard for Renewable Energy requires distribution companies to enter long-term contracts with renewable energy facilities. 22.5MW by 2011, ramping up to 90MW by 2014 | Eligible sources: solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, anaerobic digestion, tidal, wave, ocean thermal, biodiesel, fuel cells using renewable fuels | Small hydro facilities, <30 MW, and no new diversions. | | | | Legislation | H 7375 (2004) | S 1082 (2004) | | | Rhode Island Public Utilities Commission | | |
| TX | 5880 MW by 2015; Target of 10,000 by 2025 | 2015 | | 5.9% (5.6% nonhydro), 10,000MW target surpassed in 2009 | IDUs, retail suppliers, Mains and co-ops may opt-in. San Antonio and Austin have local programs | Yes, ERCOT | | | Administrative penalty of \$50/REC. No automatic cost recovery. | No | Mandatory | Goal: 500 MW from non-wind resources | Also includes a voluntary target of 10,000 MW by 2025 | Solar heating, solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, tidal, wave, ocean thermal | | | | | Legislation | SB 7 (1999) | SB 20 (2005) | | | Public Utility Commission of Texas | | |
| VT | Various criteria. Goal is 20% by 2020 | 2012 | One of two criteria must be met: any increase between 2005-2012 that is also at least 3% of 2005 sales be met by renewables, OR 10% of sales in 2005. RPS becomes mandatory if goal not met | 23.7% (6.8% nonhydro) | Mains, IDUs, rural electric cooperatives | N/A | N/A | N/A | N/A | No | Voluntary | Criterion 1: Between 1/1/2005 and 7/1/2012, qualifying resources are >2 total statewide growth in retail electric sales and are equal to at least 5% of the 2005 total retail electric sales. | Criterion 2: Qualifying resources > 10% of 2005 retail electric. | Eligible sources: solar water heat, solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, anaerobic digestion, fuel cells using renewable fuels | Up to 200 MW. | | | | Legislation | Vermont Sustainability, Energy, and Environment Program (2005) | SB 209 (2008) | H 446 (2009) | H 561 (2011) | | Vermont Public Service Board | |
| WA | 15% | 2020 | And all cost-effective conservation. 3% by 2012, 9% by 2016 | 77.2% (4.4% nonhydro) | Mains, IDUs, Rural electric cooperatives | Yes, WREGIS | WREGIS RECs do not expire | | \$50/REC in 2012, adjusted annually for inflation. No automatic cost recovery. | No | Mandatory | Generation must have begun after 3/31/99. Facility must be located in Pacific Northwest or the electricity must be delivered into Washington on a real-time basis | Eligible sources: solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, anaerobic digestion, tidal, wave, ocean thermal, biodiesel | Incremental hydro from improvements to facilities in the Pacific Northwest completed after 3/31/1999. | 1.2x multiplier for facilities that began operation after 12/31/2005 and the developer used an approved apprenticeship program | 2x multiplier for customer-sited generation | 2x multiplier for distributed generation | | | Ballot Initiative | Initiative 937 (2006) | | | | | Washington Utilities and Transportation Commission |
| WI | 10% | 2015 | Legislation calls for credit for electricity displacing technologies. Annual targets based on 2001-2003 utility baselines. | 5.4% (3.2% nonhydro) | Mains, IDUs, rural electric cooperatives | Yes, M-RETS, but electricity must be delivered to WI customers | 4 years after compliance year in which credits are issued | | Explicit financial penalties with no automatic cost recovery | No | Mandatory | Eligible sources (includes electricity displacement): solar heat, solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, MSW, solar lighting, biomass, anaerobic digestion, tidal, wave, fuel cells using renewable fuels | Hydropower <60 MW. | | | | | | Legislation | Act 9 (1999) | Act 141 (2005) | SB 81 (2011) | | Public Service Commission of Wisconsin | | |
| WV | 25% | 2025 | Credits may be awarded for energy efficiency and greenhouse gas emission reduction projects. 10% by 2015, 15% by 2020 | 2.4% (1.0% nonhydro) | IDUs and retail suppliers serving more than 30,000 customers | Yes, PIM-GATS | Excess credits can be used in any future year | PUC can adjust obligations if necessary resources are not reasonably available | Lesser of: \$50 per AEC or 200% of the average market value of credits used for compliance in a given year | Yes | No | Renewable energy resources (no minimum %): PV, solar thermal, wind, run-of-river hydro, geothermal, fuel cells, some biomass | Alternative energy resources: advanced coal (such as supercritical), coal bed methane, natural gas (up to 10% of target), coal gasification or liquefaction, syngas, IGCC, waste coal, tire-derived fuel, pumped storage | PSC authorized to award one credit for each ton of CO ₂ e reduced or offset by approved projects | Efficiency measures also credited, such as CHP and demand side management | Run of the river hydropower. | 2x multiplier for utilities with renewable projects located outside WV, but within service area | 2x multiplier for customer-sited renewables | 3x multiplier utilities with renewable projects located in WV | Legislation | HB 102 (2009) | | | | West Virginia Public Service Commission | |

*Figures include hydro. Note many state RPSs do not count all conventional hydro sources toward the goal, and some count efficiency measures. Source: EIA Electric Power Sector Consumption Estimates, 2009 (http://www.eia.gov/state/seds/hf.jsp?ncfile=sep_sum/html/sum_btu_eu.html)

| States with Voluntary Goals | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|----------------|------|---|-----------------------|--|-------------|-------------|------------------|------------------------|---------------------------------|----------------------|---|----------|------------|--|--|--|-----------|-------------|--------------------|-------------------------|-----------|----------------|--------------------------------------|
| State | Target | Year | Notes / Incremental targets | Progress by 2009* | Applicability | REC Trading | REC Banking | Cost Constraints | Alternative Compliance | Efficiency Included in RPS/AERS | Separate EERS (elec) | Carve-outs/Classes/Tiers | Hydro | Incentives | | | | Authority | Amendments | Overseeing Agency | | | | |
| AK | 15% per capita | 2020 | 2010 baseline; no rules made to implement target | 20.1% (0.4% nonhydro) | All energy, not just electricity. Voluntary | | | | | | Voluntary | | | | | | | | Legislation | HB 306 (2009-2010) | | | | |
| IN | 10% | 2025 | Average 4% between 2013-2016; 7% between 2019-2024. | 1.8% (1.4% nonhydro) | IDUs, retail suppliers. Opt-in makes utilities eligible for incentives to pay for compliance projects. Voluntary | Yes | | | | Yes | Mandatory | Unlimited: wind, solar thermal, PV, biomass, hydro, fuel cells, waste to energy, energy storage, geothermal, coal bed methane, industrial byproduct, waste heat recovery, demand side management, energy efficiency | Included | | | | | | Legislation | SB 251 (2011) | 170 IAC 17-1.1 et. seq. | IC R-1-37 | IBC RM 4.11-05 | Indiana Office of Energy Development |

| BASIC INFORMATION | | | | | MARKET MECHANISMS | | | | RESOURCE REQUIREMENTS | | | | RESOURCE INCENTIVES | | | | AUTHORITY AND OVERSIGHT | | | | | | | |
|-------------------|--------------------------------------|------|--|-----------------------|---|--|-------------|---|------------------------|---------------------------------|----------------------|--|---|---|----|----|-------------------------|-------------|----------------------------------|-------------------------|------------------------------|---------------------------------|--|--|
| State | Target | Year | Notes / Incremental targets | Progress by 2025* | Applicability | REC Trading | REC Banking | Cost Constraints | Alternative Compliance | Efficiency Included in RPS/AERS | Separate EERS (elec) | Carve-outs/Classes/Tiers | Hydro | Incentives | | | | Authority | Amendments | | Overseeing Agency / Agencies | | | |
| OK | 15% of installed generation capacity | 2015 | | 8.5% (3.2% nonhydro) | All utilities. Voluntary | No. OK utilizes file annual report listing installed capacity and generation | | | | Yes | No | Target can be met with up to 25% from energy efficiency. Eligible sources: Solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, fuel cells, MSW, anaerobic digestion, other DG technologies | Included | | | | | Legislation | 17 OKL. ST. 801.1 et seq. | | | Oklahoma Corporation Commission | | |
| ND | 10% | 2015 | | 11.7% (7.8% nonhydro) | Munis, IOUs, rural electric cooperatives. Voluntary | Yes (M-RETS) | | New renewable or recycled energy must be cost-effective considering alternatives and must meet its customers' needs | | Yes | No | Eligible Resources: Solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, hydrogen, waste heat, anaerobic digestion | Installed or additional capacity achieved 2007 or later | | | | | Legislation | ND Century Code 49-02-24 et seq. | ND Admin. Code 59-09-08 | ND PSC Order, Case 91-07-318 | | | |
| SD | 10% | 2015 | | 56.8% (5.0% nonhydro) | Munis, IOUs, rural electric cooperatives. Voluntary | Yes | | | | Yes | No | Renewable, recycled, and conserved energy can all be used to satisfy the goal. Eligible sources: solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, MSW, CHP, hydrogen, waste heat, anaerobic digestion | Hydro that began service before 7/1/2008 | -- | -- | -- | -- | Legislation | SB 1123 (2008) | SDCL 49-34A-101 et seq. | SDCL 49-34A-94 et seq. | Docket RM11-001 | South Dakota Public Utility Commission | |
| UT | 20% | 2025 | Of retail sales excluding nuclear and generation with CCS; target to be achieved to the extent that is cost-effective. | 3.3% (1.3% nonhydro) | Munis, IOUs, rural electric cooperatives. Voluntary | Yes (WREGS preferred by legislature, but not adopted by PSC) | | Target to be achieved to the extent that it is cost-effective | | Yes | No | Qualifying electricity must be generated after 12/31/1994 and within the geographic border of the Western Electricity Coordinating Council (WECC). Eligible sources: solar heating, solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, MSW, CHP, hydrogen, coal mine methane, compressed air storage, anaerobic digestion, tidal, wave, ocean thermal | Hydro that began service after 12/31/2007 located within a state the utility provides service to. | 2.5x multiplier for solar PV and solar thermal. | -- | -- | -- | -- | Legislation | SB 202 (2006) | Utah Code 54-12-101 et seq. | Utah Code 10-19-101 et seq. | | Utah Public Service Commission |
| VA | 15% | 2025 | Base year for all targets is 2007, excluding nuclear. 4% by 2010, 7% by 2016, 12% by 2022 | 4.3% (2.2% nonhydro) | IOUs. Voluntary | Yes | Unlimited | | | No | Voluntary | Eligible sources: Solar thermal, PV, landfill gas, wind, biomass, hydro, geothermal, energy from waste, anaerobic digestion, tidal, wave | Included | 2x multiplier for solar and onshore wind, 3x multiplier for offshore wind | -- | -- | -- | -- | Legislation | §1416 (2007) | HB 1994 (2009) | HB 1022 (2010) | VA Code 56-585.2 | Virginia Department of Mines, Minerals, and Energy |

*Figures include hydro. Note many state RPSs do not count all conventional hydro sources toward the goal, and some count efficiency measures. Source: EIA Electric Power Sector Consumption Estimates, 2009 (http://www.eia.gov/state/seds/ht.jsp?incfile=sep_sum/html/sum_bt_u_eu.html)