

**Table C-1. State Minimum Renewable Electricity Requirements (as of December 2004)**

State	Requirement	Status	Technology Eligibility	Comments
Arizona	0.2% in 2001 + 0.2%/yr 1% by 2005 + 0.05%/yr to 1.1% in 2007, through 2012	Commission Decision and Amended Rules On Electric Competition in 1998 ( <a href="http://www.cc.state.az.us/rules/elec.htm">http://www.cc.state.az.us/rules/elec.htm</a> ) Rulemaking complete (Decision nos. 63364 and 63486) <a href="http://www.cc.state.az.us/utility/electric/environmental.htm">http://www.cc.state.az.us/utility/electric/environmental.htm</a> Comprehensive review of policy completed in June 2003 ( <a href="http://www.cc.state.az.us/utility/electric/CostEvalRpt.pdf">http://www.cc.state.az.us/utility/electric/CostEvalRpt.pdf</a> )	60% solar PV and solar thermal electric by 2004  40% solar hot water and in-state landfill gas, wind and biomass by 2004	<ul style="list-style-type: none"> <li>• Applies to all IOUs and Coops. Electric Service Providers included beginning in 2004.</li> <li>• Extra credits for in-state development or content, manufacturing, distributed solar, early installation, and utility green pricing programs.</li> <li>• Can use Environmental Portfolio Surcharge funds for compliance.</li> <li>• Utility distribution companies may request waiver under "extreme circumstances".</li> <li>• Based on results of 6/03 policy review, the Commission voted in 2/04 to allow the RES to continue increasing to 1.1% in 2007-2011, per the original ruling.</li> <li>• In 2/04, the Commission instructed staff to conduct additional workshops on possible future changes to the RES, including increasing the total requirement, adjusting funding levels and sources, extending the RES term, and changing/eliminating the solar requirement.</li> </ul>
California	Utilities increase total renewable energy sales by minimum 1% annually until they reach 20%. Must be at 20% by 2017.	SB 1078 signed by Gov. Davis in September 2002. ( <a href="http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_1051-1100/sb_1078_bill_20020912_chaptered.pdf">http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_1051-1100/sb_1078_bill_20020912_chaptered.pdf</a> ). CEC issues order on RPS proceeding and CPUC collaborative guidelines (3/03) ( <a href="http://www.energy.ca.gov/portfolio/notices/2003-03-17_RPS_ORDER.PDF">http://www.energy.ca.gov/portfolio/notices/2003-03-17_RPS_ORDER.PDF</a> ). CPUC issues order initiating the implementation of the RPS (6/03) ( <a href="http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/27360.pdf">http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/27360.pdf</a> ). CPUC issues order instituting a new RPS rulemaking proceeding (4/04) ( <a href="http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/36206.doc">http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/36206.doc</a> ). CPUC issues two implementation decisions (6/04) ( <a href="http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/37401.PDF">http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/37401.PDF</a> ) ( <a href="http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/37383.PDF">http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/37383.PDF</a> )	Solar PV, solar thermal, wind, biomass, landfill gas, digester gas, geothermal, and ocean.	<ul style="list-style-type: none"> <li>• Applies to 3 largest IOUs. Direct access service providers included beginning in 2006.</li> <li>• Authorizes CEC to use funds from the CA systems benefit charge to buy down above-market costs of renewables. Exempts utilities from requirement if sufficient funds are unavailable.</li> <li>• Legislation permits CPUC to issue penalties for non-compliance through their general authority.</li> <li>• Law requires CEC and CA PUC to adopt rules.</li> <li>• Small hydro (&lt; 30 MW), geothermal in operation prior to 9/26/96, and MSW (w/restrictions) can be used to determine utility's baseline level.</li> <li>• Minimum 10-year contracts required.</li> <li>• 4/04 CPUC order sets baseline levels of RE generation for each utility, sets their 2004 Annual Procurement Target (APT), identifies outstanding issues to be resolved, and process for RES implementation completion.</li> <li>• 6/04 CPUC decisions (1) adopt standard contract terms and conditions, ordering utilities to file renewable procurement plans, and clarifying 2004 APT; and (2) adopt a methodology for determining the long-term market price of electricity.</li> <li>• CPUC directs two utilities to conduct RPS solicitations between June 30 and July 15, 2004 (6/04).</li> </ul>

Source: Updated from *Powerful Solutions: Seven Ways to Switch America to Renewable Electricity*, Union of Concerned Scientists, January 1999, available on-line at [www.ucsusa.org/clean\\_energy/index.cfm](http://www.ucsusa.org/clean_energy/index.cfm) (tables updated December 2004). Contact: Jeff Deyette at (617) 547-5552 or [jdeyette@ucsusa.org](mailto:jdeyette@ucsusa.org).

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Colorado	<p>3% in 2007-2010 6% in 2011-2014 10% in 2015 and each year thereafter</p> <p>4% of total required generation must come from solar technologies (half of the 4% must come from customer-sited resources)</p>	<p>Colorado Ballot Initiative 37 – Renewable Energy Standard (passed by 53% to 47% vote) (<a href="http://www.renewableenergyyes.com/learnmore/Initiativetextfull.html">http://www.renewableenergyyes.com/learnmore/Initiativetextfull.html</a>)</p> <p>Amends Article 2 of title 40, Colorado Revised Statutes</p>	<p>Solar, wind, geothermal, biomass (includes LFG, wastewater by-products, and animal wastes), hydro (&lt;=10 MW), fuel cells using eligible renewable resources</p>	<ul style="list-style-type: none"> <li>• Applies to all retail electric service providers with more than 40,000 customers.</li> <li>• The CO PUC shall create tradable RECs system that can be used to meet requirement. Use of a regional RECs system is also permitted.</li> <li>• Both new and existing renewable energy facilities can be used to meet the requirements.</li> <li>• No in-state deliverability of renewable generation is required, but a multiplier of 1.25 is awarded for each kWh of renewable energy that is generated in-state.</li> <li>• 50-cents/month-rate cap for the avg. res. customer, as determined by the net of new non-renewable alternatives. RES cost cap applies to all customer classes.</li> <li>• Minimum 20-year contracts are required, but the RES allows for full utility cost recovery.</li> <li>• Eligibility of resources used in green power programs to meet the requirements shall be determined by the PUC.</li> <li>• Munis and coops can opt-out by developing a similar RES, or by affirmative vote from a utility's customers.</li> <li>• Establishes a solar rebate program of \$2/watt (up to 100 kW per installation), and net metering.</li> <li>• PUC must open a rulemaking process before April 1, 2005, and must complete it by March 31 2006.</li> </ul>
Connecticut	<p>Class I technologies 1% in 2004 +0.5%/yr to 2% by 2006 +1.5%/yr to 5% by 2008 +1%/yr to 7% in 2010 and thereafter</p> <p>Class I or II technologies 3% in 2004 and thereafter</p>	<p>Restructuring law in 1998 H.5005 (<a href="http://www.cga.state.ct.us/ps98/act/pa/pa%2D0028.htm">www.cga.state.ct.us/ps98/act/pa/pa%2D0028.htm</a>)</p> <p>Licensing regulations involving RPS in 1998. (Docket # 98-0615)</p> <p>Law revised in 1999 (see comment)</p> <p>Law revised in 2003 - Public Act 03-135 in 2003 (Sub.SB 733, see comment) (<a href="http://www.cga.state.ct.us/2003/act/Pa/2003PA-00135-R00SB-00733-PA.htm">http://www.cga.state.ct.us/2003/act/Pa/2003PA-00135-R00SB-00733-PA.htm</a>)</p>	<p>Class I: solar, wind, sustainable biomass, landfill gas, run of river hydro (&lt; 5 MW), fuel cells, low-e RE conversion tech</p> <p>Class II: hydro, MSW, other biomass</p>	<ul style="list-style-type: none"> <li>• 2003 revision to law closes standard offer (non-switching) customers exemption loophole, adjusts targets, and adds new technologies to Class I.</li> <li>• Applies to investor owned utilities only.</li> <li>• Credit trading program implemented using New England Generator Information System (GIS).</li> <li>• 5.5 cents per kilowatt-hour penalty for non-compliance.</li> <li>• By 2007, utilities must file with DPUC long-term (not less than 10 yrs.) contracts totaling at least 100 MW of Class 1 renewables that receive funding from the state Renewable Energy Investment Fund.</li> <li>• 1999 revision to law allows DPUC to delay the RPS targets by up to 2 years, if it finds that the requirements cannot be reasonably met. (HB 6621, sec. 19)</li> <li>• CT DPUC will adopt regulations according to provisions in 2003 law.</li> </ul>

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Hawaii	7% in 2003 8% in 2005-2009 10% in 2010-2014 15% in 2015-2019, and 20% in 2020.	2004 Senate Bill 2474 S.D. 3 H.D.2, signed by the Governor (6/3/04) <a href="http://www.capitol.hawaii.gov/session_current/bills/sb2474_hd2_.htm">http://www.capitol.hawaii.gov/session_current/bills/sb2474_hd2_.htm</a>	Wind, solar, hydro, LFG, MSW, geothermal, ocean, biomass, hydrogen fuels, fuel cells  Also eligible: electrical savings from SWH energy conservation measures, co-gen and CHP	<ul style="list-style-type: none"> <li>• Applies to the net electricity sales by all utilities in the state.</li> <li>• Electric utilities and their electric utility affiliates may aggregate their renewable portfolios in order to achieve the RES.</li> <li>• Allow PUC to relieve responsibility of utilities to meet the requirements if they cannot be met in a cost-effective manner (i.e. "at or below avoided costs").</li> <li>• New and existing renewables can count toward targets.</li> <li>• Requires the PUC to develop and to adopt rules and implement a ratemaking structure for meeting the RES by 12/31/06, and to report on its impacts.</li> <li>• Requires the PUC to evaluate and recommend changes to the RES in 2009, and every five years thereafter.</li> </ul>
Iowa	105 average MW ~ 2% of 1999 sales	Alternate Energy Production Law (1983) revised (1991)	Solar, wind, methane recovery, biomass	<ul style="list-style-type: none"> <li>• Applies to investor owned utilities only.</li> <li>• ~500 MW of mostly wind installed.</li> <li>• 2003 revision to law allows IOUs to own the generation required to meet the standard.</li> </ul>
Maine	30% of sales in 2000 (start of competition) and thereafter as a condition of licensing.	Restructuring law in 1997 LD1804 and Public Law Chapter 316 ( <a href="http://janus.state.me.us/legis/statutes/35-a/title35-asec3210.html">http://janus.state.me.us/legis/statutes/35-a/title35-asec3210.html</a> ) Regulations final. Docket 97-584 Law revised in May 1999 Regulations amended June 2003, Docket 2002-494, Ch. 311 ( <a href="http://www.state.me.us/mpuc/rules/Part%203/ch-311.pdf">http://www.state.me.us/mpuc/rules/Part%203/ch-311.pdf</a> )	Fuel cells, tidal power, solar, wind, geothermal, hydro, biomass, and MSW (under 100 MW)  High efficiency cogen. systems of unlimited size	<ul style="list-style-type: none"> <li>• Eligible renewables = over 50% of sales in 1998.</li> <li>• ME PUC makes recommendations for changes to legislature no later than 5 years after beginning of retail competition.</li> <li>• Penalty for non-compliance.</li> <li>• RES to be met on a product basis.</li> <li>• Regulations amended by the PUC in 6/03 require that electricity providers in the ISO-NE control area meet the targets by acquiring GIS certificates. Electricity providers with contractual rights to certificates from PURPA QFs can use the contractual entitlements to demonstrate compliance in the event that the QF does not provide them with the associated GIS certificates. This new rule creates the potential for double counting, wherever the certificates are traded in the New England Power Pool.</li> </ul>
Maryland	Tier 1 Renewables: 1% in 2006, increasing 1% biannually to 7% in 2018, increasing to 7.5% in 2019, and thereafter  Tier 1 or 2 Renewables: 2.5% 2006-2018, 0% in 2019 and thereafter	2004 House Bill 1308, signed by Governor (5/26/04). <a href="http://mlis.state.md.us/2004rs/bills/hb/hb1308e.rtf">http://mlis.state.md.us/2004rs/bills/hb/hb1308e.rtf</a>	Tier 1: solar, wind, biomass, landfill gas, geothermal, ocean, fuel cells (renewable sources only), and small hydro (< 30 MW)  Tier 2: hydro, MSW, and incineration of poultry litter	<ul style="list-style-type: none"> <li>• Applies to all retail electricity sales, except annual sales in excess of 300 mil kWh of industrial process load to a single customer. Sales to rate-capped res. customers and coops with pre-10/04 power purchase contracts are also exempt until those agreements expire.</li> <li>• New and existing renewables count toward requirements.</li> <li>• Law instructs PUC to establish and maintain REC trading program. Double credits are given to solar, and extra credit (ranging 10-20%) are given to early (pre-2009) development of wind and LFG facilities. RECs can be banked for 3 yrs.</li> </ul>

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				<ul style="list-style-type: none"> <li>Establishes alternate compliance mechanism (ACM). Credits prices are capped at 2¢/kWh for Tier 1 renewables and 1.5¢/kWh for Tier 2. For all industrial process load sales, ACM credits for Tier 1 are capped at 0.8¢/kWh in 2006 and gradually decline to 0.2¢/kWh in 2017 and later. For Tier 2 renewables, the ACM credits prices are set at 0.</li> <li>Creates a renewable energy fund to support Tier 1 resources using the fees collected through the ACM.</li> <li>Legislation instructs the PUC to develop regulations to implement the RES, and a tech. advisory group to recommend regulations to the PUC for the siting of wind facilities.</li> </ul>
Massachusetts	<p>1% of sales from new renewables by 2003 +0.5%/yr. to 4% in 2009 +1% per year thereafter until date determined by Division of Energy Resources.</p> <p>Preliminary proposal does not include standard for existing renewables (~7%).</p>	<p>Restructuring law in 1997 (<a href="http://www.magnet.state.ma.us/legis/laws/seslaw97/sl970164.htm">www.magnet.state.ma.us/legis/laws/seslaw97/sl970164.htm</a>)</p> <p>MA Division of Energy Resources (DOER) discussing RPS design proposal. White papers: <a href="http://www.state.ma.us/doer/programs/renew/rps.htm">http://www.state.ma.us/doer/programs/renew/rps.htm</a></p> <p>Final proposed regulations published in February 2002.</p>	<p>Solar, wind, ocean thermal, wave, tidal, landfill gas, and low-emission advanced biomass beginning commercial operation or representing increase in capacity at existing facility after 12/31/97. Hydro and MSW qualify as existing.</p>	<ul style="list-style-type: none"> <li>Applies to investor owned utilities only.</li> <li>+1% new renewables requirement may start one year after any renewable within 10% of avg. spot market price.</li> <li>Legislation does not explicitly require support for existing level of renewables. MA DOER will consider a standard for existing renewables if significant attrition occurs.</li> <li>Using the New England GIS to track REC trading and RES compliance. Utilities can apply RECs to subsequent years, but not for more than 30% of that year's requirement.</li> <li>Alternative compliance mechanism allows utilities to pay 5¢/kWh into the state Renewable Energy Trust Fund to meet its requirements.</li> <li>Monies from the state trust fund are being used to stimulate RES-eligible renewables by offering guaranteed contracts for RECs to various developers.</li> </ul>
Minnesota	<p>425 MW of wind and 125 MW of biomass by 2002</p> <p>400 MW more wind by 2006</p> <p>10% by 2015 above existing requirements. At least 0.5% of this total must come from biomass in 2005, increasing to 1% in 2010.</p> <p>~19% of Xcel's 2015 sales</p>	<p>Radioactive Waste Management Facility Authorization Law in 1994 (Minn. Stat. 216B.2423)</p> <p>MN PUC order Docket E-002/RP-98-32</p> <p>Radioactive Waste Management Facility Authorization Law amended in May 2003 (HF9, 2003 1<sup>st</sup> Special Session).</p>	<p>Original requirement: wind and biomass, with preference for in-state projects</p> <p>10% requirement: solar, wind, small hydro (&lt; 60 MW), biomass, MSW, LFG, and hydrogen (from renewable sources only after 2010)</p>	<ul style="list-style-type: none"> <li>Xcel allowed to build temporary dry cask storage of nuclear waste at Prairie Island nuclear plant in exchange for renewable energy development.</li> <li>1999 PUC order determined 400 more MW of wind by 2012 was in the public interest.</li> <li>2003 PUC order moved 400 MW additional wind requirement up to 2006 from 2012.</li> <li>Law amended in May 2003 making Xcel's 10% by 2015 renewable energy objective mandatory, and doubling its contribution to the renewable energy fund. The 10% requirement is in addition to Xcel's existing renewable energy obligations.</li> <li>10% requirement is subject to least cost planning criteria. If implementation affects reliability or is not economic, then the requirement may be temporarily waived.</li> </ul>

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Nevada	<p>5% of electricity sales to retail customers by 2003, growing 2% biannually to 15% in 2013, and thereafter.</p> <p>Minimum 5% of total renewables sold each year must come from solar.</p>	<p>RES bill (SB372)  <a href="http://www.leg.state.nv.us/71st/bills/SB/SB372_EN.html">http://www.leg.state.nv.us/71st/bills/SB/SB372_EN.html</a></p> <p>SB 372 codified in 2001 as NRS 704.7801 through 704.7828  <a href="http://www.leg.state.nv.us/NRS/NRS-704.html#NRS704Sec780">http://www.leg.state.nv.us/NRS/NRS-704.html#NRS704Sec780</a></p> <p>Final order issued by PUC in 5/02, and codified as NAC 704.8831 through 704.8893.  <a href="http://www.leg.state.nv.us/NAC/NAC-704.html#NAC704Sec8831">http://www.leg.state.nv.us/NAC/NAC-704.html#NAC704Sec8831</a></p> <p>RES amended by AB 296 (5/03)  <a href="http://www.leg.state.nv.us/72nd/bills/AB/AB296_EN.pdf">http://www.leg.state.nv.us/72nd/bills/AB/AB296_EN.pdf</a></p> <p>RES amended by AB 429 (6/03)  <a href="http://www.leg.state.nv.us/72nd/bills/AB/AB429_EN.pdf">http://www.leg.state.nv.us/72nd/bills/AB/AB429_EN.pdf</a></p> <p>PUC issued permanent regulations for REC trading program (4/04)  <a href="http://www.puc.state.nv.us/R_and_I/dkt_03-8010/03-8010o3.pdf">http://www.puc.state.nv.us/R_and_I/dkt_03-8010/03-8010o3.pdf</a></p>	<p>Wind, solar, hydro (&lt;30MW), geothermal, and biomass (includes agricultural, wood, animal waste, MSW, and aquatic plants), and energy recovery facilities &lt; 15 MW</p>	<ul style="list-style-type: none"> <li>• SB 372 repeals previous RES of 0.2% in 2001, rising 0.2% biannually to 1% in 2009 from 1997 restructuring law (NRS 704.989).</li> <li>• Applies to all retail electricity suppliers, but not coops, munis or general improvement districts.</li> <li>• Final renewable credit trading program is in place, RECs began accruing 1/1/03, and can be banked for up to 4 years.</li> <li>• AB 296 gives 2.4 times RECs for customer-sited solar PV, 1.15 times RECs for other onsite renewables generation, and 0.7 times RECs for waste tire facilities using "reverse polymerization" technology.</li> <li>• Minimum 10-year contracts required.</li> <li>• NV PUC may impose financial penalties for non-compliance.</li> <li>• AB 429 adds hydro (&lt;30MW) and qualified energy recovery processes to eligible resources list.</li> </ul>
New Jersey	<p>Class I or II Technologies: 2.5% by 2004-2008.</p> <p>Class I technologies: 0.74% in 2004; 0.983% in 2005; 1.964% in 2006; 2.924% in 2007; and 3.84% in 2008.</p> <p>Solar Electric: 0.01% in 2004; 0.017% in 2005; 0.036% in 2006; 0.076% in 2007; and 0.16% in 2008.</p> <p>NJBPU sets requirements for 2009 and after, but must be at or above 2008 levels.</p>	<p>Restructuring law in 1999.</p> <p>Interim regs. published in June 2001  <a href="http://www.bpu.state.nj.us/wwwroot/energy/portfoliostands.pdf">http://www.bpu.state.nj.us/wwwroot/energy/portfoliostands.pdf</a>.</p> <p>Renewable Energy Task Force report released in April 2003  <a href="http://www.bpu.state.nj.us/renewEnergy/renEnergyReport.pdf">http://www.bpu.state.nj.us/renewEnergy/renEnergyReport.pdf</a>.</p> <p>NJBPU adopts final regulations in March 2004  <a href="http://www.bpu.state.nj.us/wwwroot/secretary/RPSrules_20040419.pdf">http://www.bpu.state.nj.us/wwwroot/secretary/RPSrules_20040419.pdf</a>.  See comments.</p>	<p>Class I: solar, wind, geothermal, wave, tidal energy, landfill gas, fuel cells, sustainable biomass</p> <p>Class II: MSW or hydro (&lt;30 MW) that meets high environmental standards</p>	<ul style="list-style-type: none"> <li>• Standard applies to retail and basic generation suppliers.</li> <li>• NJBPU issues final regulations in March 2004 that accelerates the Class 1 requirement by 4 years to 4% in 2008, and creates a solar electric tier, which could stimulate as much as 90 MW of new solar PV by 2008.</li> <li>• Establishes a system of tradable RECs for RES compliance. RECs will be tracked by a regional tracking system, once it is finalized and approved by the NJBPU.</li> <li>• Establishes an alternative compliance mechanism to meet the Class I and II, and Solar requirements. For 2004, the ACP and SACP prices are set at \$50/MWh and \$300/MWh respectively. Prices shall be reviewed annually, and adjusted as necessary to reflect changing market conditions. Monies collected through the ACP will be used to support renewable energy through the NJ Clean Energy Program (CEP), with SACP monies earmarked strictly to solar energy projects.</li> <li>• Penalties for non-compliance.</li> <li>• Electricity generated through renewable energy projects funded by the NJ Societal Benefits Charge or the CEP is eligible to meet RES requirements.</li> </ul>

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New Mexico	5% of retail sales in 2006 + 1%/yr. to 10% in 2011. Remains at 10% thereafter with no sunset.	Final rule issued by PRC in December 2002 ( <a href="http://www.nmprc.state.nm.us/utility/pdf/3619finalrule.pdf">http://www.nmprc.state.nm.us/utility/pdf/3619finalrule.pdf</a> ) SB 43 or "Renewable Energy Act" signed in March 2004 ( <a href="http://legis.state.nm.us/Sessions/04/%20Regular/final/SB0043.pdf">http://legis.state.nm.us/Sessions/04/%20Regular/final/SB0043.pdf</a> )	Wind, solar, biomass, geothermal, hydro (5 MW or less), landfill gas, fuel cells	<ul style="list-style-type: none"> <li>12/02 PRC RES ruling repeals RES rule from October 2000 (NMPRC Rule 591, 17 NMAC 9.591), which established 5% of standard offer service RPS by 2002.</li> <li>Applies to all retail electricity suppliers under PRC jurisdiction (not coops or munis). Texas-New Mexico Power Company is exempt at least until their all-requirements contract expires or is renegotiated.</li> <li>Establishes credit-trading program with 1 REC/kWh for wind &amp; hydro, 3 RECs for solar, and 2 RECs for all other renewables.</li> <li>Requires PRC to develop enforcement rules.</li> <li>Preference given to in-state resources, requires minimum 10-year procurement contracts.</li> <li>Requires PRC to undergo a biannual (starting in 2005) review to examine utility progress &amp; impact on customers.</li> <li>SB 43 places the 12/02 PRC ruling in to statute and establishes additional requirements, including: Caps RES costs for large-scale customers (&gt; 10 million kWh) at \$49,000 in 2006, rising \$10,000 annually to \$99,000 in 2011.</li> <li>Requires PRC to research and establish by 12/31/04 a "reasonable cost threshold", above which a public utility will be exempt from meeting its requirement. This reasonable cost threshold can be changed (after notice and hearing) as circumstances warrant.</li> <li>RECs must represent generation delivered into NN and can be banked for 4 years. RECs generated by PURPA QFs are the property of the purchasing utility.</li> </ul>
New York	New renewables requirement: 0.8% in 2006, increasing ~0.8%/yr to 6.56% in 2013.  Customer-sited tier is 2% of total annual RES targets.  With existing baseline renewables and generation expected from state purchase requirement, renewables increase from 19.45% in 2003 to 24% in 2013.	Final rule issued by PSC in September 2004, Case 03-E-0188. ( <a href="http://www.dps.state.ny.us/03e0188.htm">http://www.dps.state.ny.us/03e0188.htm</a> )	Main Tier: wind, solar, ocean, biomass, biogas, fuel cells, incremental hydro, and low-impact run-of-river hydro > 30 MW  Customer Tier: solar, wind (>300kW), and fuel cells	<ul style="list-style-type: none"> <li>RES applies to IOUs only; NYPA and LIPA are encouraged to participate.</li> <li>RES is administered by NYSEERDA using a central procurement model. A RES surcharge is collected from customers by utilities and passed on to NYSEERDA who will distribute funds in a competitively neutral manner to secure enough renewable generation to meet annual RES targets.</li> <li>Facilities commencing operation after 1/1/03 are eligible for the RES. "Maintenance resource" exceptions for existing small hydro (&gt;5MW), wind, and biomass facilities will be granted based on a case-by case demonstrated need to receive RES support.</li> <li>Renewable energy must be delivered into the New York control area to count toward RES.</li> </ul>

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				<ul style="list-style-type: none"> <li>Facilities that count toward the RES must forego funds from the NY systems benefits funds.</li> <li>An implementation plan must be submitted to the PSC by NYSERDA on 3/1/05. The RES surcharge will commence on 10/1/05, and the RES begins on 1/1/06.</li> <li>A full review of the RES program is required in 2009.</li> </ul>
Pennsylvania	<p>Tier I technologies: 1.5% by 2007; 2% by 2008; increasing by 0.5% annually to 8% by 2020, remaining at 8% each year thereafter.</p> <p>Tier II technologies: 4.2% from 2006-2009; 6.2% from 2010-2014; 8.2% from 2015-2019; 10% in 2020; remaining at 10% each year thereafter.</p> <p>Solar PV set-aside: 0.0013% in 2006-2009; 0.0203% in 2010-2014; 0.25% in 2015-2019; 0.5% in 2020; remaining at 0.5% each year thereafter.</p>	<p>Alternative Energy Portfolio Standards Act (SB1030) signed by governor in 12/04.  <a href="http://www.legis.state.pa.us/WU01/LI/BI/BT/2003/0/SB1030P1973.HTM">http://www.legis.state.pa.us/WU01/LI/BI/BT/2003/0/SB1030P1973.HTM</a></p> <p>Restructuring law in 1996.  Implementation of various utility settlement cases in 1998.</p>	<p>Tier 1: Solar PV, wind, low-impact hydro, geothermal, LFG, biomass, fuel cells, and coal mine methane</p> <p>Tier 2: Waste coal, distributed generation, demand-side management, large-scale hydro/pumped storage, MSW, wood manufacturing and pulping process by-products, and IGCC technologies</p>	<ul style="list-style-type: none"> <li>SB1030 replaces renewable energy requirements on several utilities established as a result of settlement cases in 1998 following a utility restructuring law in 1996.</li> <li>Applies to IOUs only. Rural coops are exempt, but must offer energy efficiency programs to customers. Electric distribution companies (Discos) and sales from electric generation suppliers within Disco territory are exempt from the AEPS until they reach the end of their cost-recovery period established during restructuring.</li> <li>Renewable energy generation from new or existing facilities counts toward AEPS, except MSW (existing only).</li> <li>Establishes alternative energy credit trading program to track AEPS compliance. Credits can be banked for up to two years. An alternative compliance payment (ACP) of \$45/MWh (or 200% of avg. market value for solar credits) can also be made to meet AEPS requirements.</li> <li>ACP monies are placed in a newly established Sustainable Energy Fund, to be used for increasing alternative energy resources.</li> <li>Includes force majeure language allows PUC to modify a utility's requirement if resources are not reasonably available in the market.</li> <li>Allows for full utility cost recovery of expenses.</li> <li>Requires PUC to draft AEPS regulations, establish state-wide net metering rules, and conduct a comprehensive review of AEPS in 6 years, with recommendations for adjusting targets beyond 2020.</li> <li>AEPS is effective starting February 2005.</li> </ul>
Rhode Island	<p>3% by 2007, increasing 0.5%/yr. to 4.5% in 2010, then increasing by 1%/yr. to 8.5% in 2014, then increasing by 1.5%/yr. to 16% in 2019.</p> <p>Requirement remains at 16% in 2020 and thereafter</p>	<p>Renewable Energy Standard law (H 7375) signed by governor in 7/04.  <a href="http://www.rilin.state.ri.us/Billtext/BillText04/HouseText04/H7375Aaa.pdf">http://www.rilin.state.ri.us/Billtext/BillText04/HouseText04/H7375Aaa.pdf</a></p>	<p>Solar, wind, ocean, geothermal, biomass, co-firing, hydro (&gt; 30 MW), fuel cells using renewable resources</p>	<ul style="list-style-type: none"> <li>Applies to all utilities except Block Island Power Company and the Pascoag Utility District.</li> <li>RES to be met on a product basis and voluntary green power purchases by end-use customers cannot be applied to a utility's requirement. Projects supported by the RI SBC can be used to meet the RES.</li> <li>No more than 2% of each year's requirement can be met with existing (pre-1998) renewable resources.</li> </ul>

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State	Requirement	Status	Technology Eligibility	Comments
	unless the PUC determines it is no longer necessary.			<ul style="list-style-type: none"> <li>• Deliverability into the NEPOOL region is required for renewable generation to meet the RES.</li> <li>• Establishes REC trading system using the New England Generator Information System to track RES compliance. RECs can be banked for up to two years (with a 30% cap).</li> <li>• Establishes an Alternative Compliance Payment system for meeting the RES. The price of the ACP is set at \$50/MWh (adjusted by inflation), with the money going into a newly created renewable energy development fund, administered by the RI Economic Development Corporation.</li> <li>• Rate recovery of all prudent incremental costs is permitted.</li> <li>• HB 7375 also establishes energy source disclosure requirements for RI utilities.</li> <li>• The PUC must develop RES regulations by 12/31/05, and must conduct a review of the RES in 2010 and 2014 to determine if supplies are adequate or if a delay in the requirement schedule is warranted.</li> </ul>
Texas	1280 MW by 2003 1730 MW by 2005 2280 MW by 2007 2880 MW by 2009, until 2019. (existing = 880 MW) ~3% of 2009 sales	Restructuring law in 1999 (SB 7) <a href="http://www.capitol.state.tx.us/cgi-bin/tlo/">http://www.capitol.state.tx.us/cgi-bin/tlo/</a> Rulemaking complete 12/99. <a href="http://www.puc.state.tx.us/rules/rulemake/22200/22200arc/22200arc.cfm">http://www.puc.state.tx.us/rules/rulemake/22200/22200arc/22200arc.cfm</a> RPS began in 2002, with early compliance in 2001. Amendment to rule adopted in 1/04 <a href="http://www.puc.state.tx.us/rules/subrules/electric/25.173/28407adt.pdf">http://www.puc.state.tx.us/rules/subrules/electric/25.173/28407adt.pdf</a>	Solar, wind, hydro, geothermal, wave, tidal, biomass, biomass-based waste products, including landfill gas	<ul style="list-style-type: none"> <li>• Rule establishes credit trading program, administered by ERCOT ISO. RECs have a compliance life of 3 years.</li> <li>• Munis and co-ops subject to requirement if they opt in to retail competition.</li> <li>• Rule requires 2,000 MW new renewables by 2009 and translates capacity targets into energy-based standard. Conversion factor set at 35% for 2002-2003, and can be readjusted every two years.</li> <li>• ~900 MW of new wind additions installed in 2001, and another ~200 MW added in 2003.</li> <li>• Out of state generation is not eligible unless there is a dedicated transmission line into the state.</li> <li>• Penalty for non-compliance is set at \$50/MWh.</li> <li>• 1/04 RUC rule makes changes to the formula for calculating REC requirements, and other minor changes to the REC trading system.</li> <li>• City of Austin, TX has adopted a 20% by 2020 RES. <a href="http://www.austinenenergy.com/About%20Us/Newsroom/Reports/strategicPlan.pdf">http://www.austinenenergy.com/About%20Us/Newsroom/Reports/strategicPlan.pdf</a></li> </ul>
Washington, D.C.	Tier 1 Renewables: 1.5% in 2007, increasing 0.5% per year to 7.5% in 2019, increasing to 8.5% in 2020, 9.5% in 2021, and 11% in 2022 and thereafter	Renewable Energy Portfolio Standard Act of 2004 (B15-747), signed by Mayor (12/04). <a href="http://www.dccouncil.washington.dc.us/">http://www.dccouncil.washington.dc.us/</a>	Tier 1: solar, wind, qualifying biomass (including co-firing), landfill gas, geothermal, ocean, and fuel cells (from Tier	<ul style="list-style-type: none"> <li>• Applies to all retail electricity sales.</li> <li>• New and existing renewables count toward Tier 1 requirements, Tier 2 requirements are for existing (pre-2004) resources only. Tier 1 resources can also be used to meet Tier 2 requirements.</li> <li>• Deliverability into the PJM region from a facility in PJM, or</li> </ul>

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State	Requirement	Status	Technology Eligibility	Comments
	<p>Tier 1 or 2 Renewables: 2.5% 2007-2015, decreasing by 0.5% per year to 0% in 2020 and thereafter</p> <p>Solar PV set-aside: 0.005% in 2007; increasing gradually to 0.028% in 2010; 0.128% in 2015; 0.329% in 2020; 0.386% in 2022 and thereafter.</p>		<p>1 sources only)</p> <p>Tier 2: hydro and MSW. MSW can not be used to meet more than 20% of the annual requirements, and is ineligible after 2012.</p>	<p>in a state or control area adjacent to PJM, is required for renewable generation to meet the RES.</p> <ul style="list-style-type: none"> <li>• PSC instructed to establish a REC trading program, using the PJM generation attributes tracking system. Extra credit (ranging 10-20%) are given to early (pre-2009) development of wind, solar and LFG facilities. RECs can be banked for 3 years.</li> <li>• Establishes alternate compliance payment mechanism (ACM). Credits prices are capped at 2.5¢/kWh for Tier 1 renewables, 1¢/kWh for Tier 2, and 30¢/kWh for solar.</li> <li>• Establishes a renewable energy development fund to support new solar resources in D.C. using the fees collected through the ACM.</li> <li>• Allows for full utility cost recovery of prudently incurred expenses.</li> <li>• PSC instructed to develop regulations to implement the RES, and standards to account for customer generation from eligible renewable resources for RES compliance.</li> </ul>
Wisconsin	<p>0.5% by 2001, increasing to 2.2% by 2011 (0.6% from facilities installed before 1/1/98; mainly hydro )</p>	<p>Reliability 2000, included in state budget (1999 Wis. Act 9)  Rules approved by PSC 11/00.  PSC issues rules for credit trading program in July 2001 (See admin. code, Ch.118  <a href="http://www.legis.state.wi.us/rsb/code/psc/psc118.pdf">http://www.legis.state.wi.us/rsb/code/psc/psc118.pdf</a>).</p>	<p>Wind, solar, biomass, geothermal, tidal, a fuel cell that uses a renewable fuel, hydro under 60 MW</p>	<ul style="list-style-type: none"> <li>• 50 MW new renewables by 2000 included in 1998 Reliability Act is eligible for RPS.</li> <li>• IOUs, munis and co-ops subject to requirement. Xcel Energy already meets requirement.</li> <li>• First state to adopt RPS without retail competition.</li> <li>• Credits awarded to electric providers only for eligible generation in excess of minimum requirement. Credits can be traded to other providers. Unlimited credit banking allowed.</li> <li>• Fines up to \$500,000 for non-compliance.</li> <li>• 10/04 Governor Doyle-requested task force report on energy efficiency and renewable energy calls for increasing the RES to 10% by 2105.</li> </ul>

**Table C-1A. State Minimum Renewable Electricity Goals (as of December 2004)**

State	Goal*	Status	Technology Eligibility	Comments
Illinois	5% in 2010 15% in 2020	2001 Resource Development and Energy Security Act (HB1599) <a href="http://www.legis.state.il.us/legisnet/legisnet92/hbgroups/hb/920HB1599LV.html">http://www.legis.state.il.us/legisnet/legisnet92/hbgroups/hb/920HB1599LV.html</a>	Includes wind, solar thermal energy, PV, dedicated energy crops, organic waste biomass, and existing run-of-river hydro	<ul style="list-style-type: none"> <li>• Applies to energy production and use.</li> <li>• Renewable energy goal does not include an implementation schedule or compliance verification.</li> </ul>
Minnesota	1% of consumer sales by 2005 rising 1% annually to 10% in 2015% (of this total 0.5% must come from biomass in 2005 and 1% in 2010)	MSL Chapter 212-S.F.No. 722 <a href="http://www.revisor.leg.state.mn.us/slaws/2001/c212.html">http://www.revisor.leg.state.mn.us/slaws/2001/c212.html</a> Radioactive Waste Management Facility Authorization Law amended in May 2003 (HF9, 2003 1 <sup>st</sup> Special Session). MN PUC Order issued on 6/1/04 ( <a href="http://www.puc.state.mn.us/docs/orders/04-0075.pdf">http://www.puc.state.mn.us/docs/orders/04-0075.pdf</a> )	Includes wind, solar, geothermal, hydro (< 60 MW), trees or other vegetation, hydrogen fuel cells or landfill gas	<ul style="list-style-type: none"> <li>• Each utility must make a “good faith effort” to meet the renewable energy goal through generation or procurement.</li> <li>• Law amended in June 2003 requiring utilities to report to the PUC every two years on their plans and activities toward meeting the goal.</li> <li>• 6/04 PUC order details criteria and standards for measuring electric utilities’ good faith efforts in meeting the goal.</li> <li>• 6/04 order also states the PUC’s intention to develop a renewable energy tracking system to certify and verify compliance.</li> <li>• Renewable energy procured for green power programs can be used to meet a utility’s goal, as long as consumers are notified.</li> </ul>

**State’s currently considering an RES: Delaware, Illinois, and Virginia.**

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