RENEWABLE PORTFOLIO STANDARDS IN THE UNITED STATES OF AMERICA



October 2010

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Southern States Energy Board

Renewable Portfolio Standards In the United States of America



About the Southern States Energy Board

The Southern States Energy Board is an interstate compact, comprised of governors and state legislators from sixteen southern states, Puerto Rico and the U.S. Virgin Islands, as well as a presidential appointee. The Board's mission is to promote economic development and enhance the quality of life in the South, through innovations in energy and environmental programs, policies and technologies.

Our Mission

Through innovations in energy and environmental policies, programs, and technologies, the Southern States Energy Board enhances economic development and the quality of life in the South.

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The enclosed information is compiled from the Database of State Incentives for Renewables and Efficiency (DSIRE). The original summary can be found at: <u>http://www.dsireusa.org/summarytables/rrpre.cfm</u>

<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit Trading
AZ	15% by 2025	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Geothermal Heat Pumps, CHP/Cogeneration, Solar Pool Heating (commercial only), Daylighting (non- residential only), Solar Space Cooling, Solar HVAC, Additional technologies upon approval, Anaerobic Digestion, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier	Distributed Generation: 30% of annual requirement in 2012 and thereafter (4.5% of sales in 2025); half of this must be from residential installations and half from non-residential, non-utility installations	Yes
CA	20% by 2010 33% by 2020	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric, Municipal Solid Waste, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Biodiesel, Fuel Cells using Renewable Fuels	Municipal Utility, Investor-Owned Utility, Retail Supplier	No	No
CO	Investor-owned utilities: 30% by 2020 Electric cooperatives: 10% by 2020 Municipal utilities serving more than 40,000 customers: 10% by 2020	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, "Recycled Energy," Anaerobic Digestion, Fuel Cells using Renewable Fuels	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, (Only Municipal Utilities Serving 40,000+ customers)	Distributed Generation (IOUs only): 3% of retail sales by 2020; half of requirement must be "retail distributed generation" serving on-site load	Yes
СТ	27% by 2020	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Fuel Cells, Municipal Solid Waste, CHP/Cogeneration, Low E Renewables, Tidal Energy, Wave Energy, Ocean Thermal	Municipal Utility, Investor-Owned Utility, Retail Supplier	Class I: 20% by 2020 Class I or Class II: 3% by 2010 Class III: 4% by 2010	Yes





<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit Trading
DE	25% by compliance year 2025-2026	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Fuel Cells using Renewable Fuels	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier	Solar Photovoltaics: 3.5% by compliance year 2025- 2026	Yes
FL*	7.5% by 2015	Photovoltaics, Landfill Gas, Wind, Biomass, Municipal Solid Waste	Municipal Utility	No	N/A
HI	40% by 2030	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Geothermal Heat Pumps, Municipal Solid Waste, CHP/Cogeneration, Hydrogen, Seawater AC, Solar AC, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Ethanol, Methanol, Biodiesel, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Rural Electric Cooperative	No	No
IL	25% by compliance year 2024-2025	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Biodiesel	Investor-Owned Utility, Retail Supplier	Wind (IOUs): 75% of annual requirement (18.75% of sales in compliance year 2024-2025) Wind (ARES): 60% of annual requirement (15% of sales in compliance year 2024-2025) PV (All): 6% of annual requirement in compliance year 2015-2016 and thereafter (1.5% of total sales in compliance year 2024-2025)	Yes

<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit Trading
IA	105 MW of renewable generating capacity	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Municipal Solid Waste, Anaerobic Digestion	Utility	No	N/A
KS	20% of peak demand capacity by 2020	Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Small Hydroelectric, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Rural Electric Cooperative	No	Yes
ME	Total: 40% by 2017 Class I (New Resources): 10% by 2017	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, CHP/Cogeneration, Tidal Energy, Other Distributed Generation Technologies	Investor-Owned Utility, Retail Supplier	No	Yes
MD	20% by 2022	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Fuel Cells using Renewable Fuels	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier, Retail Electricity Suppliers	Solar-Electric: 2% by 2022	Yes
MA	Class I (New Resources): 15% of by 2020 and an additional 1% each year thereafter Class II (Existing Resources): 7.1% in 2009 and thereafter (3.6% renewables and 3.5% waste-to- energy)	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, (Cleanwood biomass technologies temporarily suspended under the MA RPS), Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Renewable Fuels, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Retail Supplier	In-state Photovoltaics: Mandated Target of 400 MW	Yes





<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit
N A I	All utilition 100/ by	Solar Thormal Electric Dhotovaltaina Landfill	Municipal Litility	No	<u>Tracing</u>
IVII	2015	Gas Wind Biomass Hydroelectric Geothermal	Investor-Owned Litility	NO	res
	Detroit Edison: 300	Electric. Municipal Solid Waste.	Rural Electric		
	MW of new	CHP/Cogeneration, Coal-Fired w/CCS,	Cooperative, Retail		
	renewables by	Gasification, Anaerobic Digestion, Tidal Energy,	Supplier		
	2013 and 600 MW	Wave Energy			
	by 2015				
	Consumers				
	of new renewables				
	by 2013 and 500				
	MW by 2015				
MN	Xcel Energy: 30%	Solar Thermal Electric, Photovoltaics, Landfill	Municipal Utility,	Wind or Solar (Xcel only):	Yes
	by 2020	Gas, Wind, Biomass, Hydroelectric, Municipal	Investor-Owned Utility,	25% by 2020; maximum of	(limitations
	Other utilities: 25%	Solid Waste, Hydrogen, Co-Firing, Anaerobic	Rural Electric	1% from solar	apply)
	by 2025	Digestion	Cooperative		Maa
MO	15% Dy 2021	Solar Thermal Electric, Photovoltaics, Landill	Investor-Owned Utility	Solar-Electric: 2% of annual	res
		Small Hydroelectric Fuel Cells using		in 2021	
		Renewable Fuels		11 2021)	
MT	15% by 2015	Solar Thermal Electric, Photovoltaics, Landfill	Investor-Owned Utility,	No	Yes
	-	Gas, Wind, Biomass, Hydroelectric, Geothermal	Retail Supplier		
		Electric, Anaerobic Digestion, Fuel Cells using			
N IV /	050/1 0005	Renewable Fuels			N/
NV	25% by 2025	Solar Water Heat, Solar Space Heat, Solar	Investor-Owned Utility,	Solar: 5% of annual	Yes
		Photovoltaics Landfill Cas Wind Biomass	Retail Supplier	(1.2% of sales in 2015); 6%	
		Hydroelectric Geothermal Electric Municipal		for 2016-2025 (1.5% of	
		Solid Waste, Waste Tires (using microwave		sales in 2025)	
		reduction), Energy Recovery Processes, Solar		/	
		Pool Heating, Anaerobic Digestion, Biodiesel,			
		Geothermal Direct-Use			

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<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	<u>Credit</u> Trading
NH	23.8% by 2025	Solar Water Heat, Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric, Hydrogen, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Ethanol, Biodiesel	Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier, (all electricity suppliers, except municipal suppliers)	New Renewables (General): 16% by 2025 New Solar-Electric: 0.3% by 2014 Existing Biomass: 6.5% by 2011 Existing Small Hydro: 1% by 2009	Yes
NJ	22.5% by compliance year 2020-2021	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Resource-Recovery Facilities approved by the DEP, Anaerobic Digestion, Tidal Energy, Wave Energy, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Retail Supplier	Solar-Electric: 5,316 GWhs by compliance year 2025- 2026, Offshore Wind: 1,100 MW (standard must be defined in % terms by BPU, sufficient to reach this level of generating capacity)	Yes
NM	Investor-owned utilities: 20% by 2020; Rural electric cooperatives: 10% by 2020	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Zero emission technology with substantial long-term production potential, Anaerobic Digestion, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Rural Electric Cooperative	For IOUs only in 2020 Solar: 20% of RPS requirement (4% of sales) Wind: 20% of RPS requirement (4% of sales) Geothermal, biomass, certain hydro facilities and other renewables: 10% of RPS requirement (2% of sales) Distributed Renewables: 3% of RPS requirement (0.6% of sales)	Yes
NY	29% by 2015	Solar Water Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Fuel Cells, CHP/Cogeneration, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Ethanol, Methanol, Biodiesel	Investor-Owned Utility	Customer-Sited: Target of ~7.0% of the annual incremental requirement (0.4788% of state sales in 2015)	No



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<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit Trading
NC	Investor-owned utilities: 12.5% by 2021 Electric cooperatives, municipal utilities: 10% by 2018	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Geothermal Electric, CHP/Cogeneration, Hydrogen, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	Solar: 0.2% by 2018 Swine Waste: 0.2% by 2018 Poultry Waste: 900,000 MWh by 2014	Yes
ND	Goal: 10% by 2015	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Hydrogen, Electricity from Waste Heat, Anaerobic Digestion	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	Yes
ОН	25% alternative energy resources by 2025	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, Waste Heat, Energy Storage, Clean Coal, Advanced Nuclear, Anaerobic Digestion, Microturbines	Investor-Owned Utility, Retail Supplier	Renewables: 12.5% by 2024 (includes solar- electric minimum) Solar-Electric: 0.5% by 2024	Yes
ОК	Goal: 15% by 2015	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, Anaerobic Digestion, Small Hydroelectric, Fuel Cells using Renewable Fuels, Other Distributed Generation Technologies	Utility	No	No
OR	Large utilities: 25% by 2025 Small utilities: 10% by 2025 Smallest utilities: 5% by 2025	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, Hydrogen, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative, Retail Supplier	PV (IOUs): 20 MW sized 500 kW to 5 MW by 2020	Yes

<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	<u>Technology Minimum</u>	<u>Credit</u> Trading
ΡΑ	18% alternative energy resources by compliance year 2020-2021	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Geothermal Heat Pumps, Municipal Solid Waste, CHP/Cogeneration, Waste Coal, Coal Mine Methane, Coal Gasification, Anaerobic Digestion, Other Distributed Generation Technologies	Investor-Owned Utility, Retail Supplier	Tier I: 8% by compliance year 2020-2021 (includes PV minimum) Tier II: 10% by compliance year 2020-2021 PV: 0.5% by compliance year 2020-2021	Yes
RI	16% by 2019	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Biodiesel, Fuel Cells using Renewable Fuels	Investor-Owned Utility, Retail Supplier	No	Yes
SD	Goal: 10% by 2015	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, Hydrogen, Electricity Produced from Waste Heat, Anaerobic Digestion	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	Yes
ТХ	5,880 MW by 2015; goal of 10,000 MW by 2025	Solar Water Heat, Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Geothermal Heat Pumps, Tidal Energy, Wave Energy, Ocean Thermal	Investor-Owned Utility, Retail Supplier, (Municipal Utilities and Coops may Opt-in)	Non-Wind: Goal of 500 MW	Yes
UT	Goal: 20% of adjusted retail sales by 2025	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, CHP/Cogeneration, Hydrogen, Coal Mine Methane, Compressed Air Energy Storage, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	Yes





<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	Credit Trading	
VT	Goal: 20% by 2017, Minimum obligation: (1) any increase in retail electric sales between 2005- 2012 that is also at least 5% of 2005 sales; OR (2) 10% of retail electric sales in 2005	Solar Water Heat, Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Anaerobic Digestion, Fuel Cells using Renewable Fuels	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	N/A	
VA	Goal: 15% of base year (2007) sales by 2025	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Energy from Waste, Anaerobic Digestion, Tidal Energy, Wave Energy	Investor-Owned Utility	No	Yes	
WA	15% renewables by 2020 and all cost-effective conservation	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Anaerobic Digestion, Tidal Energy, Wave Energy, Ocean Thermal, Biodiesel	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	Yes	
WV	Goal: 25% alternative and renewable energy resources by 2025	Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, Other Non-Renewable Alternative Energy Resources, Anaerobic Digestion, Small Hydroelectric, Biodiesel	Investor-Owned Utility, Retail Supplier, (serving more than 30,000 customers)	At least 90% must come from eligible resources other than natural gas	Yes	
WI	Statewide target of 10% by 2015; requirement varies by utility	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Geothermal Heat Pumps, Municipal Solid Waste, Solar Light Pipes, Solar Pool Heating, Anaerobic Digestion, Tidal Energy, Wave Energy, Fuel Cells using Renewable Fuels, Geothermal Direct-Use	Municipal Utility, Investor-Owned Utility, Rural Electric Cooperative	No	Yes (limitations apply)	12

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<u>State</u>	RPS Standard	Eligible Technologies	Applicable Sectors	Technology Minimum	<u>Credit</u> Trading
DC	20% by 2020	Solar Water Heat, Solar Space Heat, Solar Thermal Electric, Solar Thermal Process Heat, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, Solar Space Cooling, Cofiring, Tidal Energy, Wave Energy, Ocean Thermal	Investor-Owned Utility, Retail Supplier	Solar: 0.4% by 2020	Yes
PR	20% by 2035	Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Fuel Cells, Municipal Solid Waste, Hydrokinetic, Anaerobic Digestion, Small Hydroelectric, Tidal Energy, Wave Energy, Ocean Thermal, Renewable Fuels	Utility, (Retail electric providers selling 50,000 MWh/year)	No	Yes
VI	20% by 2015; 25% by 2020; 30% by 2025; increasing until 51% of generating capacity is derived from renewable or alternative energy	"Renewable Resources" is not specifically defined in the law	Utility	No	No

* The Florida RPS comes from a Memorandum of Understanding between JEA and the Sierra Club and the American Lung Association of Florida to formalize the municipal utility's commitment to generate at least 7.5% of its electric capacity from green energy sources by 2015.



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Arkansas		Oklahoma
Florida	SOUTHERN STATES	Puerto Rico
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