

Comparison of Renewable Portfolio Standards (RPS) Programs in PJM States

	NJ	MD	DC	PA	DE
Regulation or Legislation	N.J.A.C 14:4-8 - NJ Renewable Portfolio Standards Rules (effective April 19, 2004) A.B. 3520 (effective 7/1/2010)	HB 1308 / SB 869 (2004) SB 595 (2007) HB 375 (2008) SB 277 (5/2010)	Bill 15-747 (effective 4/12/2005) Bill 17-0492 (effective 10/6/2008)	SB 1030 (Printer's No 1973), Act 213 HB 1203 (2007) HB 2200 (2008), Act 129	SB 74 (2005) SB 19 (2007) SB 328 (2008) SB 119 (7/2010)
Geographic Eligibility	Energy shall be generated within or delivered into the PJM region. If the latter, the Energy must have been generated at a facility that commenced construction on or after January 1, 2003. Solar resources must be connected with distribution grid serving NJ.	Source must be (1) located in the PJM Region or (2) in a control area that is adjacent to the PJM Region, if the electricity is delivered into the PJM Region. Resources in states adjacent to PJM are accepted until 12/31/10. After 12/31/11 solar resources must be connected with distribution grid serving MD.	Source must be: (1) located in the PJM Region or in a state that is adjacent to the PJM Region; or (2) outside the area described in item (1) but in a control area that is adjacent to the PJM Region, if the electricity is delivered into the PJM Region. Electricity suppliers must first buy Solar RECs from sources connected to the DC distribution grid.	Sources located inside the geographical boundaries of this Commonwealth or within the service territory of any regional transmission organization that manages the transmission system in any part of this Commonwealth.	"Eligible Energy Resources" include energy resources located within or imported into the PJM region. Customer-sited resources must be located in DE.
Reporting Period	June 1st to May 31 st . Compliance reports due 10/1.	January 1 st to December 31 st . Compliance reports due 4/1.	January 1 st to December 31 st . Compliance reports due 5/1.	June 1 st to May 31 st . Compliance reports due 9/1.	June 1st to May 31 st . Compliance reports due 10/1.
Banking	RECs and SRECs can be used for compliance during the energy year in which it was generated or the following two energy years (as of the effective date of A.B. 3520)	A Renewable Energy Credit shall exist for 3 years from the date created.	A Renewable Energy Credit shall exist for 3 years from the date created.	Alternative Energy credits can be banked for compliance in either or both of the two subsequent reporting years (as of the effective date of this Act)	An unused renewable energy credit shall exist for 3 years from the date created.
Credit Multipliers	No	For generating facilities placed in service after January 1, 2004: a. 120% credits for wind Energy before 12/31/2005, and 110% credits between 1/1/2006 and 12/31/2008 b. 110% credits for Methane from landfill or sewage treatment until 12/31/2008	a). 120% credits for wind or solar Energy before 12/31/2006 b). 110% credits for wind or solar Energy between 1/1/2007 and 12/31/2009 c). 110% credits for Methane from landfill or sewage treatment until 12/31/2009	No	a). 300% credit for (1) in-state solar electric or (2) renewable fuel cells installed on or before 12/31/2014. b). 150% credit for wind energy installations sited in Delaware on or before 12/31/2012. c). 350% credit for DPL wind energy installations sited off the DE coast on or before 5/31/2017. d). 110% credit for solar or wind installations sited in Delaware for which at least 50% of the equipment or components are manufactured in Delaware or installed with a minimum 75% state workforce.
Technology - Specific Requirements (set asides)	Solar	Solar	Solar	Solar	Solar

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Class I or Tier I Renewable Energy Sources	<p>Class I renewable sources:</p> <ul style="list-style-type: none"> • solar technologies • photovoltaic technologies • wind Energy • fuel cells powered by renewable fuels • geothermal technologies • wave or tidal action • methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner. 	<p>Tier 1 Renewable sources:</p> <p>(1) solar; (2) wind; (3) qualifying biomass; (4) methane from a landfill or wastewater treatment plant; (5) geothermal; (6) ocean; (7) a fuel cell powered by methane or biomass; (8) a small hydroelectric plant (less than 30 MW); (9) poultry litter incineration facilities in Maryland.</p>	<p>Tier 1 Renewable sources:</p> <p>(1) solar (including solar thermal); (2) wind; (3) qualifying biomass; (4) methane from a landfill or wastewater treatment plant; (5) geothermal; (6) ocean, including Energy from waves, tides, currents, and thermal differences; and (7) a fuel cell that produces electricity from a tier 1 renewable source under item (3) or (4) of this subsection.</p>	<p>Tier I alternative Energy sources:</p> <p>(1) Solar photovoltaic and solar thermal energy. (2) Wind power. (3) Low-impact hydropower. (4) Geothermal Energy. (5) Biologically derived methane gas. (6) Fuel cells. (7) Biomass Energy. (8) Coal mine methane.</p>	<p>Electricity derived from:</p> <p>a. solar; b. wind; c. ocean; d. geothermal; e. fuel cell powered by Renewable Fuels; f. combustion of gas from the anaerobic digestion of organic material; g. small hydroelectric facility (30 megawatts or less); h. sustainable biomass, excluding waste to energy; i. landfill methane gas;</p>
Class II or Tier II Sources	<p>Class II renewable sources:</p> <ul style="list-style-type: none"> • resource recovery facility (subject to qualifications) • small hydro power facility (less than 30 MW) 	<p>Tier 2 Renewable sources:</p> <p>(1) hydroelectric power other than pump storage generation (2) thermal decomposition incineration of poultry litter (3) waste-to-Energy</p> <p>For (1) and (3), the facility must have existed and been operational as of January 1, 2004.</p>	<p>Tier 2 Renewable sources:</p> <p>(1) hydroelectric power other than pump storage generation (2) waste-to-Energy</p> <p>For Tier 2 sources, the facility must have existed and been operational as of January 1, 2004.</p> <p>The incineration of solid waste cannot be used to meet more than 20% of the standard for tier two renewable sources for a given year</p> <p>After December 31, 2012, the incineration of solid waste shall not be eligible to generate renewable Energy credits.</p>	<p>Tier II alternative Energy sources:</p> <p>(1) Waste coal. (2) Distributed generation systems. (3) Demand-side management. (4) Large-scale hydropower (including pumped storage). (5) Municipal solid waste. (6) Generation of electricity utilizing by-products of the pulping process and wood manufacturing process including bark, wood chips, sawdust and lignin in spent pulping liquors (in-state resources are now Tier 1). (7) Integrated combined coal gasification technology.</p>	<p>“New Renewable Generation Resources” are those in commercial operation after 12/31/1997. No more than 1% of each year’s sales may come from resources that aren’t New.</p>
Alternative Compliance Payment (ACP)	<p>Class I & II (ACP) - \$50/MWh Solar (SACP) – was \$300/MWh initially. For 2008/2009 it is \$711/MWh, declining over eight years to \$594 in 2015/16.</p>	<p>Tier 1 - \$40 / MWh Tier 2 - \$15 / MWh Solar - \$400 / MWh in 2009 thru 2014, declining to \$50 / MWh in 2023</p>	<p>Tier 1 - \$50/MWh Tier 2 - \$10/MWh Solar - \$300/MWh in 2007 and 2008, \$500/MWh in 2009 thru 2018</p>	<p>Tier I (except solar) and Tier II - \$45 / MWh Solar – 200% of the average market value for solar RECs sold in the RTO.</p>	<p>\$25 for 1st deficient year. \$50 for 2nd deficient year. \$80 for subsequent years. Solar ACP is \$400, \$450, and \$500, respectively.</p>

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Beneficiary of ACP	ACP's fund renewable energy projects through the Clean Energy Program. SACP's will be refunded to ratepayers as a result of A.B. 3520.				MD Strategic Energy Investment Fund, to be used to support the creation of Tier 1 and solar sources in the state.			DC Renewable Energy Development Fund, to be used to support the creation of new solar sources in the District.			PA's Sustainable Energy Funds, to fund projects that increase electric Energy generated from alternative Energy resources.			Delaware Green Energy Fund		
Solar Requirements	Solar REC Requirement (see below) is stated in % through 2009/10, and GWs thereafter. Solar ACP Schedule: 08/09 – \$711 12/13 – \$641 09/10 – \$693 13/14 – \$625 10/11 – \$675 14/15 – \$609 11/12 – \$658 15/16 – \$594				Solar REC Requirement: 2007 – 0.000% 2015 – 0.400% 2008 – 0.005% 2016 – 0.500% 2009 – 0.010% 2017 – 0.550% 2010 – 0.025% 2018 – 0.900% 2011 – 0.050% 2019 – 1.200% 2012 – 0.100% 2020 – 1.500% 2013 – 0.200% 2021 – 1.850% 2014 – 0.300% 2022 – 2.000%			Solar REC Requirement: 2007 – 0.005% 2015 – 0.170% 2008 – 0.011% 2016 – 0.210% 2009 – 0.019% 2017 – 0.250% 2010 – 0.028% 2018 – 0.300% 2011 – 0.040% 2019 – 0.350% 2012 – 0.070% 2020 – 0.400% 2013 – 0.100% 2014 – 0.130%			Solar requirement: 06/07 – .0013% 13/14 – .0840% 07/08 – .0030% 14/15 – .1440% 08/09 – .0063% 15/16 – .2500% 09/10 – .0120% 16/17 – .2933% 10/11 – .0203% 17/18 – .3400% 11/12 – .0325% 18/19 – .3900% 12/13 – .0510% 19/20 – .4433% 20/21 – .5000%			Solar requirement is included in Total requirement.		
RPS Percentages	Solar	Class I	Class II	Total	Tier I (incl solar)	Tier 2	Total	Tier 1	Tier 2	Total (w/o solar)	Tier I (incl solar)	Tier II	Total	n/a	Solar	Total (incl solar)
2004, or 04/05	0.010	0.740	2.5	3.25%												
2005, or 05/06	0.017	0.983	2.5	3.5%												
2006, or 06/07	0.0393	2.037	2.5	4.5763%	1.0%	2.5%	3.5%				1.5%	4.2%	5.7%			
2007, or 07/08	0.0817	2.924	2.5	5.5057%	1.0%	2.5%	3.5%	1.5%	2.5%	4.0%	1.5%	4.2%	5.7%			2.0%
2008, or 08/09	0.160	3.840	2.5	6.5%	2.005%	2.5%	4.505%	2.0%	2.5%	4.5%	2.0%	4.2%	6.2%		0.011%	3.0%
2009, or 09/10	0.221	4.685	2.5	7.406%	2.01%	2.5%	4.51%	2.5%	2.5%	5.0%	2.5%	4.2%	6.7%		0.014%	4.0%
2010, or 10/11	306	5.492	2.5	8.297%	3.025%	2.5%	5.525%	3.0%	2.5%	5.5%	3.0%	6.2%	9.2%		0.018%	5.0%
2011, or 11/12	442	6.320	2.5	9.214%	5.0%	2.5%	7.5%	4.0%	2.5%	6.5%	3.5%	6.2%	9.7%		0.20%	7.0%
2012, or 12/13	596	7.143	2.5	10.14%	6.5%	2.5%	9.0%	5.0%	2.5%	7.5%	4.0%	6.2%	10.2%		0.40%	8.5%
2013, or 13/14	772	7.977	2.5	11.098%	8.2%	2.5%	10.7%	6.5%	2.5%	9.0%	4.5%	6.2%	10.7%		0.60%	10.0%
2014, or 14/15	965	8.807	2.5	12.072%	10.3%	2.5%	12.8%	8.0%	2.5%	10.5%	5.0%	6.2%	11.2%		0.80%	11.5%
2015, or 15/16	1150	9.649	2.5	13.077%	10.5%	2.5%	13.0%	9.5%	2.5%	12.0%	5.5%	8.2%	13.7%		1.00%	13.0%
2016, or 16/17	1357	10.485	2.5	14.103%	12.7%	2.5%	15.2%	11.5%	2.0%	13.5%	6.0%	8.2%	14.2%		1.25%	14.5%
2017, or 17/18	1591	12.325	2.5	16.158%	13.1%	2.5%	15.6%	13.5%	1.5%	15.0%	6.5%	8.2%	14.7%		1.50%	16.0%
2018, or 18/19	1858	14.175	2.5	18.247%	15.8%	2.5%	18.3%	15.5%	1.0%	16.5%	7.0%	8.2%	15.2%		1.75%	17.5%
2019, or 19/20	2164	16.029	2.5	20.365%	17.4%	0.0%	17.4%	17.5%	0.5%	18.0%	7.5%	8.2%	15.7%		2.00%	19.0%
2020, or 20/21	2518	17.880	2.5	22.5%	18.0%	0.0%	18.0%	20.0%	0.0%	20.0%	8.0%	10.0%	18.0%		2.25%	20.0%
2022, or 21/22	2928				18.7%	0.0%	18.7%								2.50%	21.0%
2023, or 22/23	3433				20.0%	0.0%	20.0%								2.75%	22.0%
2024, or 23/24	3989														3.00%	23.0%
2025, or 24/25	4610														3.25%	24.0%
2026, or 25/26	5316														3.50%	25.0%

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Regulation or Legislation	Public Act 095-0481, the Illinois Power Agency Act of August 2007 PA 096-159 (Aug 2009)	SB 221 (May 2008)	SB 3 (August 2007)	Public Act 295, (October 6, 2008)	HB 203 (June 2009) HB 408 (Nov 2009) SB 350 (April 2010)
Geographic Eligibility	Eligible resources must be located in IL. If there are insufficient cost-effective in-state resources, resources can be procured from adjoining states, and if these are also not cost-effective, resources can be procured from other regions of the country.	At least 50% of the renewable energy requirement must be met by in-state facilities and the remaining 50% with resources that can be shown to be deliverable into the state.	Utilities may use unbundled RECs from out-of-state renewable energy facilities to meet up to 25% of the portfolio standard. Qualifying out-of-state facilities are (1) hydroelectric power facilities with a generation capacity up to 10 MW, or (2) renewable energy facilities placed into service on or after January 1, 2007.	Renewable energy credits used to satisfy the renewable energy standards shall be either 1) located anywhere in this state or 2) located outside of this state in the retail electric customer service territory of a utility recognized by the Michigan PSC.	Electricity must be generated from a facility located in West Virginia or in the PJM service territory
Reporting Period	June 1 st to May 31 st . Compliance reports due 9/1.	January 1 st to December 31 st . Compliance reports due 4/15.	January 1 st to December 31 st .	January 1 st to December 31 st .	January 1 st to December 31 st . Compliance reports due 3/31.
Banking		RECs have a lifetime of five years following their purchase or acquisition	On or after January 1, 2008 an Energy supplier can receive and accumulate RECs. Excess REC's can be applied to the next year's compliance target.		An electric utility may bank credits and use them to meet the Portfolio Standard requirement in a subsequent year.
Credit Multipliers	No	No	Triple credit for every one REC generated by the first 20 MW of a biomass facility located at a "cleanfields renewable energy demonstration park."	<ul style="list-style-type: none"> • Solar receives an additional 2 credits per MWh • Lesser bonuses awarded for on-peak production, storage, and using in-state labor or equipment 	<ul style="list-style-type: none"> • One credit for each MWh of electricity from an alternative energy resource facility. • Two credits for each MWh of electricity from a renewable energy resource facility • Three credits for each MWh of electricity from a renewable energy resource facility located on a reclaimed surface mine in West Virginia

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Technology - Specific Requirements (set asides)	<ul style="list-style-type: none"> At least 75% of renewable energy resources must come from wind generation. 6% of annual requirement from solar PV in compliance year 2015-2016 and thereafter 	<ul style="list-style-type: none"> 0.5% from solar energy resources by 12/31/2024. 	<ul style="list-style-type: none"> 0.2% solar by 2018 0.2% energy recovery from swine waste by 2018 900,000 MWh of electricity derived from poultry waste by 2014. 	None.	None.
Renewable Energy Sources	Renewable energy resources: <ul style="list-style-type: none"> wind, solar thermal energy, photovoltaic cells and panels, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, in-state landfill gas, hydropower that does not involve new construction or significant expansion of hydropower dams, and “other alternative sources of environmentally preferable energy.” 	Renewable Energy sources: <ul style="list-style-type: none"> solar photovoltaics (PV), solar thermal, wind, geothermal, biomass, biologically derived methane gas, landfill gas, certain non-treated waste biomass products, fuel cells that generate electricity and qualified hydroelectric facilities. 	Renewable sources: <ul style="list-style-type: none"> solar-electric photovoltaics, solar thermal, wind, hydropower up to 10 MW, ocean or wave energy, biomass, landfill gas, waste heat from renewables, and hydrogen derived from renewables. energy efficiency technologies (up to 25% of requirement), including CHP systems powered by non-renewable fuels. 	Eligible Renewables include: <ul style="list-style-type: none"> biomass, solar and solar thermal, wind, landfill gas, water released through a dam, waves, tides, or currents, geothermal, municipal solid waste Credits from Energy Optimization and Advanced Cleaner Energy Systems (defined below) can be used to satisfy up to 10% of the renewable energy requirement	Renewable Energy Resources include: <ul style="list-style-type: none"> solar-electric, solar thermal energy, wind power, run-of-river hydropower, geothermal energy, fuel cells, recycled energy certain biomass energy and biologically-derived fuels
Alternative Energy Sources	n/a	Advanced Energy Resources include: <ul style="list-style-type: none"> clean coal; generation III advanced nuclear power; distributed combined heat and power (CHP); fuel cells that generate electricity; certain solid waste conversion technologies; and demand side management or efficiency improvements. 	n/a	Energy Optimization may include: energy efficiency, load management, or energy conservation. Advanced Cleaner Energy System is any of the following: <ul style="list-style-type: none"> Gasification, industrial cogeneration, and coal-fired facilities that capture and sequester (CCS) 85% of carbon dioxide emissions 	Alternative Energy Resources include: <ul style="list-style-type: none"> coal technology, coal bed methane, natural gas, fuel produced by coal gasification or liquefaction synthetic gas, integrated gasification combined cycle technologies, waste coal, tire-derived fuel, pumped storage hydro

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	IL			OH			NC				MI			WV		
Alternative Compliance Payment (ACP)	For the first compliance year (June 1, 2009, to May 31, 2010) the ACP is \$0.0645/kWh for ARES operating in Ameren territory and \$0.0764/kWh for ARES operating in ComEd territory			REC - \$45/MWh Solar – \$450/MWh in 2009, \$400 in 2010 and 2011, reduced by \$50 every two years thereafter.			None. Recoverable costs are capped.				Not applicable for the Renewable Energy Requirement.			Compliance assessment shall equal the lesser of the following: 1. \$50 per credit 2. 200% of the average market value of credits used for compliance in a given year.		
Beneficiary of ACP	Renewable Energy Resources Fund Alternative Suppliers must meet at least 50% of their renewable quota through ACPs.			Ohio Advanced Energy Fund, which provides financial support to renewable energy and energy efficiency projects within the state.			n/a				n/a			Alternative and Renewable Energy Resources Research Fund, used to award matching grants for projects relating to alternative and renewable energy resources and energy efficiency technologies.		
Solar Requirements	Yes, see below.			Yes, see below.			Yes, see below.				n/a			n/a		
RPS Percentages	Wind	Solar	Total		Solar	Total	Solar	Swine Waste	Poultry Litter (GWh)	Total			Total			Total
2008, or 08/09	1.5%		2.0%													
2009, or 09/10	3.0%		4.0%		0.004%	0.25%										
2010, or 10/11	3.75%		5.0%		0.010%	0.50%	0.02%									
2011, or 11/12	4.50%		6.0%		0.030%	1.0%	0.02%									
2012, or 12/13	5.25%	0.0035%	7.0%		0.060%	1.5%	0.07%	0.07%	170	3.0%			2%			
2013, or 13/14	6.00%	0.12%	8.0%		0.090%	2.0%	0.07%	0.07%	700	3.0%			3.33%			
2014, or 14/15	6.75%	0.27%	9.0%		0.12%	2.5%	0.07%	0.07%	900	3.0%			5%			
2015, or 15/16	7.50%	0.60%	10.0%		0.15%	3.5%	0.14%	0.14%	900	6.0%			10%			10%
2016, or 16/17	8.625%	0.69%	11.5%		0.18%	4.5%	0.14%	0.14%	900	6.0%						10%
2017, or 17/18	9.975%	0.78%	13.0%		0.22%	5.5%	0.14%	0.14%	900	6.0%						10%
2018, or 18/19	10.875%	0.87%	14.5%		0.26%	6.5%	0.20%	0.20%	900	10.0%						10%
2019, or 19/20	12.00%	0.96%	16.0%		0.30%	7.5%	0.20%	0.20%	900	10.0%						10%
2020, or 20/21	13.125%	1.05%	17.5%		0.34%	8.5%	0.20%	0.20%	900	10.0%						15%
2021, or 21/22	14.25%	1.14%	19.0%		0.38%	9.5%	0.20%	0.20%	900	12.5%						15%
2022, or 22/23	15.375%	1.23%	20.5%		0.42%	10.5%										15%
2023, or 23/24	16.50%	1.32%	22.0%		0.46%	11.5%										15%
2024, or 24/25	17.625%	1.41%	23.5%		0.50%	12.5%										15%
2025, or 25/26	18.75%	1.50%	25.0%													25%

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	VA	KY	TN	IN	
Regulation or Legislation	SB 1416 (2007) HB 1994 (2009) HB 1022 (7/2010)	None.	None.	None.	
Geographic Eligibility	Electricity must be generated or purchased in Virginia or in the interconnection region of the regional transmission entity.				
Reporting Period	January 1 st to December 31 st .				
Banking	Excess renewable energy certificates acquired during an RPS goal period can be applied to any future RPS goal.				
Credit Multipliers	<ul style="list-style-type: none"> • Wind and solar power receive a double credit toward RPS goals. • Offshore wind receives triple credit 				
Technology - Specific Requirements (set asides)	None.				
Renewable Energy Sources	Eligible energy resources: <ul style="list-style-type: none"> • solar, • wind, • geothermal, • hydropower, • wave, • tidal, and • biomass energy. 				
Alternative Energy Sources	n/a				
Alternative Compliance Payment (ACP)	None. It is a voluntary goal.				

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	VA			KY			TN			IN					
Beneficiary of ACP	n/a														
Solar Requirements	n/a														
RPS Percentages			Total (% of 2007 sales)												
2008, or 08/09															
2009, or 09/10															
2010, or 10/11			4.0%												
2011, or 11/12			4.0%												
2012, or 12/13			4.0%												
2013, or 13/14			4.0%												
2014, or 14/15			4.0%												
2015, or 15/16			4.0%												
2016, or 16/17			7.0%												
2017, or 17/18			7.0%												
2018, or 18/19			7.0%												
2019, or 19/20			7.0%												
2020, or 20/21			7.0%												
2021, or 21/22			7.0%												
2022, or 22/23			12.0%												
2023, or 23/24															
2024, or 24/25															
2025, or 25/26															