



# Illinois Renewable Portfolio Standard

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## Legislation from the 95<sup>th</sup> General Assembly of Illinois

Public Act 095-0481, commonly known as the Illinois Power Agency Act created the Illinois Power Agency to oversee an Electrical Procurement Plan with a Renewable Portfolio Standard for State Jurisdictional Public Utilities.





## The statute requires that:

- The procurement plans must include cost-effective renewable energy resources.
  - A minimum percentage of each utility's total supply to serve the load of eligible retail customers.
- A separate statute applies a renewable portfolio standard requirement to alternative retail electric suppliers.





## The statute defines renewable energy resources as:

- wind, solar thermal energy, photovoltaic cells and panels, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, hydropower that does not involve new construction or significant expansion of hydropower dams, landfill gas produced in Illinois and other alternative sources of environmentally preferable energy.
  - To the extent available, 75% of the resources to meet the renewable portfolio standard shall come from wind.





# The requirements of the statute can be satisfied by procurement of:

- renewable energy credits (REC); or
- energy <u>and</u> its associated renewable energy credit.





## Rate Impact Cap

- The statute establishes a Renewable Energy Resource Budget (RRB) that serves as a maximum rate impact cap for meeting the renewable energy volume goals.
  - In the event that the rate impact cap is reached, purchases of renewable energy resources are to be curtailed, leaving the annual volumetric goal unmet.





## **Calculating the Renewable Energy Resource Budget**

- The statute sets forth two separate ways of calculating each planning year's Renewable Energy Resource Budget and directs that the higher of the two calculations be annually adopted.
  - Incremental increase on annual unit cost method
  - Percentage increase over Base Year unit cost method





## The statute establishes locational preference for Renewable Energy Resources

### Through June 1, 2011

- 1. In Illinois
- 2. Adjoining States
- 3. Elsewhere

### <u>After June 1, 2011</u>

- 1. In Illinois or adjoining States
- 2. Elsewhere

This means that (prior to June 1, 2011), if cost effective renewable energy products are located in Illinois, they must be procured from Illinois. Only if cost effective renewable products are not available in Illinois, may the purchaser look to adjoining states. After June 1, 2011, the preference expands to include adjoining states.





# A Renewable Energy Credit Pricing Benchmark is annually established

- A Renewable Energy Credit pricing benchmark is annually set at a level that takes into account relevant market prices for renewable energy resources in the region and the economic development benefits of instate resources.
  - Renewable Energy Credit bids priced above the benchmarks are rejected.





## **Renewable Energy Credit Tracking**

- The acquisition of Renewable Energy Credits in amounts equal to the statutory requirement ensures compliance.
  - PJM's Generation Attribute Tracking System (GATS) and the Midwest Renewable Energy Tracking System (M-RETS) are used to independently verify the location of generation, resource type and month and year of generation.
    - GATS tracks generation attributes and the ownership of the attributes as they are traded or used to meet renewable portfolio standards, typically for generators whose energy is settled in the PJM market or whose facility is located in the PJM region.
    - M-RETS tracks renewable energy generation and assists in verifying compliance with renewable portfolio standards requirements or voluntary programs, typically for generators located in the Midwest ISO region and other RTOs outside of PJM.



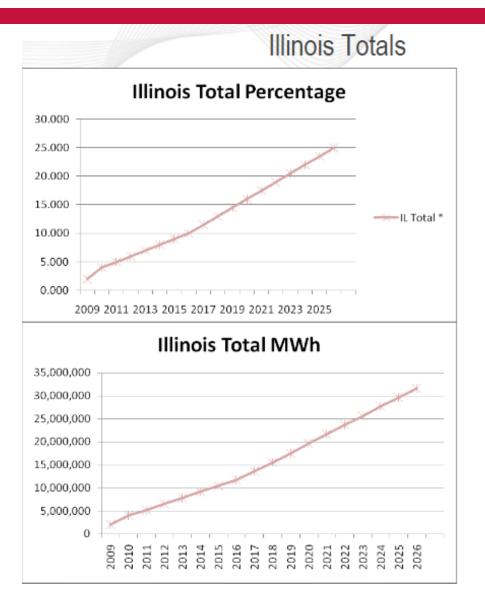


### **Renewable Portfolio Standard Minimum Purchase Requirement**

Year	Minimum Requirement
2008	2%
2009	4%
2010	5%
2011	6%
2012	7%
2013	8%
2014	9%
2015	10%
2016	11.5%
2017	13%
2025	25%











### **Summary of Renewable Energy Credit Procurement Results**

RPS Compliance Period		PERCENT OF SALES	MW	ding		
From	То	REQ.	Goal		•	
1-Jun-08	31-May-09	2%	796,049	796,040	\$18,683,750	\$18,483,740
1-Jun-09	31-May-10	4%	1,564,366	1,564,360	\$39,747,813	\$30,147,973
1-Jun-10	31-May-11	5%	1,887,014	1,887,014	\$57,523,728	\$9,203,237
1-Jun-11	31-May-12	6%	2,117,054		\$76,262,590	

RPS Compliance Period		PERCENT OF SALES	AMEREN MWH Spending					
From	То	REQ.	Goal	Actual				
1-Jun-08	31-May-09	2%	414,392	415,000	\$8,052,533	\$7,208,250		
1-Jun-09	31-May-10	4%	719,383	720,000	\$16,601,474	\$11,420,450		
1-Jun-10	31-May-11	5%	860,860	860,860	\$24,394,776	\$3,486,252		
1-Jun-11	31-May-12	6%	952,145		\$30,180,309			





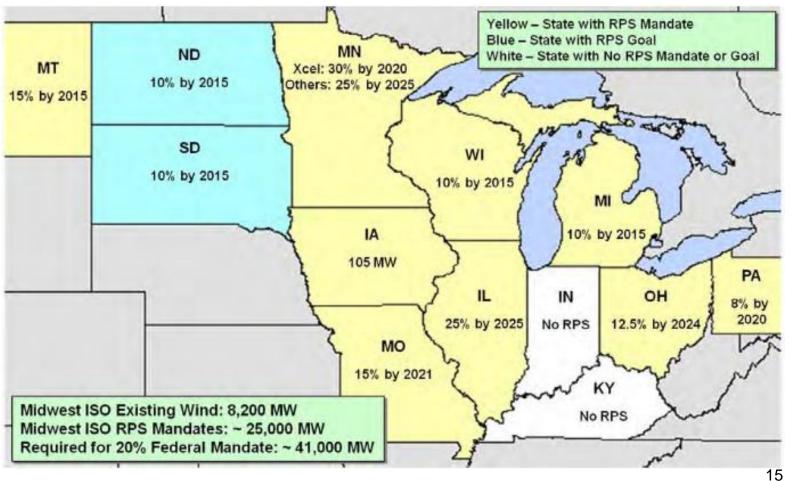
## Renewable Portfolio Standard Requirements of Midwest States

Year	wi	MN (w/o Xcel)	Xcel MN	IL	МІ	он	MO	МТ	PA	SD	ND	IA
	(Of energy served)										(MW)	
2015	10.0%	12.0%	18.0%	10.0%	10.0%	3.5%	5.0%	15.0%	5.5%	10.0%	10.0%	105
2016	10.0%	17.0%	25.0%	11.5%	10.0%	4.5%	5.0%	15.0%	6.0%	10.0%	10.0%	105
2017	10.0%	17.0%	25.0%	13.0%	10.0%	5.5%	5.0%	15.0%	6.5%	10.0%	10.0%	105
2018	10.0%	17.0%	25.0%	14.5%	10.0%	6.5%	10.0%	15.0%	7.0%	10.0%	10.0%	105
2019	10.0%	17.0%	25.0%	16.0%	10.0%	7.5%	10.0%	15.0%	7.5%	10.0%	10.0%	105
2020	10.0%	20.0%	30.0%	17.5%	10.0%	8.5%	10.0%	15.0%	8.0%	10.0%	10.0%	105
2021	10.0%	20.0%	30.0%	19.0%	10.0%	9.5%	15.0%	15.0%	8.0%	10.0%	10.0%	105
2022	10.0%	20.0%	30.0%	20.5%	10.0%	10.5%	15.0%	15.0%	8.0%	10.0%	10.0%	105
2023	10.0%	20.0%	30.0%	22.0%	10.0%	11.5%	15.0%	15.0%	8.0%	10.0%	10.0%	105
2024	10.0%	20.0%	30.0%	23.5%	10.0%	12.5%	15.0%	15.0%	8.0%	10.0%	10.0%	105
2025	10.0%	25.0%	30.0%	25.0%	10.0%	12.5%	15.0%	15.0%	8.0%	10.0%	10.0%	105



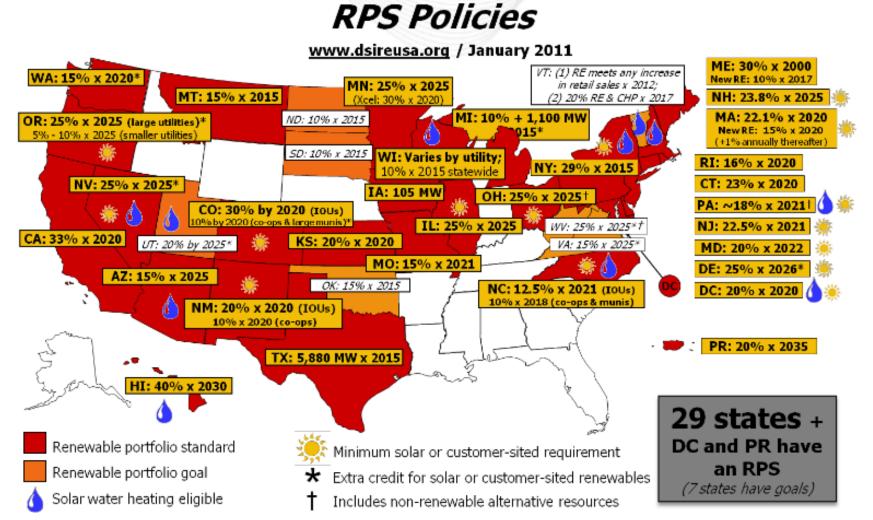


## **RPS Requirements within the Midwest ISO Region**





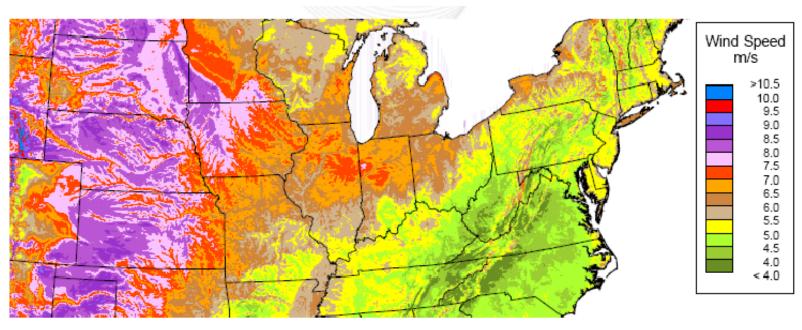








# Wind Potential



- United States Department of Energy National Renewable Energy Laboratory Data
- Offshore wind speed from NJ to VA (not pictured above) ranges from 8 9 m/s
- Data source
  - <u>http://www.windpoweringamerica.gov/pdfs/wind\_maps/us\_windmap\_80meters.pdf</u>





# Solar

- The renewable portfolio standard has a requirement for solar resources.
  - at least the following percentages of the renewable energy resources used to meet the standards must come from photovoltaics on the following schedule:
    - 0.5% by June 1, 2012,
    - 1.5% by June 1, 2013;
    - 3% by June 1, 2014; and
    - 6% by June 1, 2015 and thereafter.





## **Solar Concentration**

