

10-8-2008

# Renewable Energy Portfolio Standards

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Aiken, J. David, "Renewable Energy Portfolio Standards" (2008). *Cornhusker Economics*. 398.  
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# CORNHUSKER ECONOMICS

UNIVERSITY OF  
**Nebraska**  
Lincoln

October 8, 2008

University of Nebraska–Lincoln Extension

Institute of Agriculture & Natural Resources  
Department of Agricultural Economics  
<http://www.agecon.unl.edu/Cornhuskereconomics.html>

## Renewable Energy Portfolio Standards

Greenhouse gas (GHG) emissions trap solar heat in the atmosphere, increasing global temperature by an estimated 1.4 degrees. Increases in GHG emissions resulting largely from energy use have led to more heat being trapped in the atmosphere, leading to global warming. Major impacts of global warming include rising sea levels, higher temperatures and increased global migration of disease-carrying insects.

While there is continuing scientific discussion regarding how quickly the earth's atmosphere will warm and when the adverse global warming impacts will occur, most scientists believe that GHG emissions must be reduced 50-80 percent in the next 50 years to minimize adverse impacts.

Carbon dioxide (CO<sub>2</sub>) accounts for over 80 percent of GHG emissions, and is the principal focus of GHG reduction programs. The United States, with 5 percent of the world's population, generates 25 percent of global GHG emissions. The U.S. has recently been overtaken by China as the largest generator of GHGs. Electricity (generated from coal-fired power plants) is second only to deforestation as a global source of GHG emissions. One way to reduce global warming is to move to cleaner sources of electricity, such as solar energy and wind energy.

**Renewable Energy Portfolio Standards (RPSs):** States can regulate electricity rates and power generation and transmission. As of 2007, 25 states and the District of Columbia require electric utilities to acquire a stated percentage of their power from clean sources, such as alternative energy sources (wind, solar, hydropower, etc.). The states specify what power sources count towards meeting the RPS requirement. In some

Market Report	Yr Ago	4 Wks Ago	10/3/08
<b><u>Livestock and Products,</u></b>			
<b><u>Weekly Average</u></b>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.....	\$90.79	\$98.22	\$96.48
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.....	120.93	123.06	110.53
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.....	118.39	113.93	108.77
Choice Boxed Beef, 600-750 lb. Carcass.....	146.64	159.05	154.40
Western Corn Belt Base Hog Price Carcass, Negotiated.....	56.57	71.85	68.19
Feeder Pigs, National Direct 50 lbs, FOB.....	38.36	30.26	36.43
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.....	60.97	77.37	73.44
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct.....	97.25	96.62	94.62
National Carcass Lamb Cutout, FOB.....	259.90	274.80	269.24
<b><u>Crops,</u></b>			
<b><u>Daily Spot Prices</u></b>			
Wheat, No. 1, H.W. Imperial, bu.....	8.00	6.69	5.58
Corn, No. 2, Yellow Omaha, bu.....	2.98	5.22	4.40
Soybeans, No. 1, Yellow Omaha, bu.....	8.52	11.70	9.32
Grain Sorghum, No. 2, Yellow Dorchester, cwt.....	5.77	8.02	6.23
Oats, No. 2, Heavy Minneapolis, MN, bu.....	*	*	*
<b><u>Feed</u></b>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.....	135.00	190.00	190.00
Alfalfa, Large Rounds, Good Platte Valley, ton.....	87.50	77.50	77.50
Grass Hay, Large Rounds, Premium Nebraska, ton.....	*	85.00	85.00
Dried Distillers Grains, 10% Moisture, Nebraska Average.....	*	169.00	160.00
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.....	38.50	57.75	58.00
*No Market			



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Global and United States GHG Emissions		
	Earth	United States
<b>Deforestation</b>	19%	-----
<b>Electricity</b>	16%	32%
<b>Agriculture</b>	14%	7%
<b>Transportation</b>	13%	28%
<b>Other Fuel Combustion</b>	11%	-----

states, electric utilities can count conservation as part of their RPS requirement, by e.g., providing grants or loans to customers (including consumers) to install building insulation, solar collectors, etc. The California RPS requires 20 percent of electric utilities power to be clean by 2010; and 33 percent by 2020. The European Union has adopted an RPS of 20 percent by 2020. A federal RPS was part of the 2007

energy bill that increased auto mileage standards, but the RPS provision was removed after electric utilities lobbied against it. A federal RPS requirement is likely to be part of 2008 federal energy legislation.

Minnesota RPS requirements have led Minnesota utilities to develop wind farms in Nebraska. The Nebraska Public Power District, the Omaha Public Power District and the Lincoln Electric System are developing, or have also developed wind farms in Nebraska. Nebraska is one of the 25 states that does not have an RPS requirement.

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#### State Renewable Portfolio Standard Requirements, 2007

State	RPS	Year	State	RPS	Year
AZ	15%	2025	NV	20%	2015
CA	20%	2010	NH	23.8%	2025
CN	23%	2020	NJ	22.5%	2021
CO	20%	2020	NM	20%	2020
DL	20%	2019	NY	25%	2013
DC	11%	2022	NC	7.5%	2021
HA	20%	2020	OR	25%	2025
IL	25%	2025	PA	8%	2020
IA	105 mwh	---	RI	16%	2019
ME	30%	2000	TX	6000 mwh	2015
MD	9.5%	2022	WA	15%	2020
MA	4%	2009	WI	10%	2015
MN	25%	2025	NE	---	---
MT	15%	2015			