Approved: _	February 27, 2009
	Dote

MINUTES OF THE HOUSE ENERGY AND UTILITIES COMMITTEE

The meeting was called to order by Chairman Carl Holmes at 9:00 a.m. on February 3, 2009, in Room 783 of the Docking State Office Building.

All members were present.

Committee staff present:

Mary Galligan, Kansas Legislative Research Department Cindy Lash, Kansas Legislative Research Department Renae Hansen, Committee Assistant

Conferees appearing before the committee:

Tom Thompson, Sierra Club Nancy Jackson, CEP Mark Schreiber, Westar Paul Snider, KCPL Kimberly Gencur, Wind working groups. Philo Wages, KEPCo Earl Watkins, Sunflower Dave Springe, CURB Alan Pollum, Nature Conservancy

Others attending:

Thirty-four including the attached list.

Hearing on:

HB 2127 - Establishing the renewable energy standards act and net metering and easy connection act, and establishing energy efficiency standards for state buildings.

Melissa Doeblin, Kansas Revisors office explained HB 2127 section by section to the committee

Questions were asked and comments made by Representative Tom Sloan.

Proponents:

Tom Thompson, Sierra Club (<u>Attachment 1</u>), spoke to the committee in favor of <u>HB 2127</u> noting that this legislation would allow Kansas to be more energy efficient keeping energy costs down while decreasing the need to increase energy generation especially that generating from greenhouse gas producing fossil fuels.

Nancy Jackson, CEP (Attachment 2 & 3), presented testimony in support of HB 2127. She noted that the historical increase in rates is about 1%. Additionally she handed out (Attachment 4) a brochure that shows the number of long term economic impact from businesses that would be added to the state economy by passage of the bill.

Mark Schreiber, Westar (<u>Attachment 5</u>), offered the committee testimony in support of <u>HB 2127</u>. He commented that the start date on this bill is 2010 compared to <u>HB 2013</u> and <u>HB 2038</u> which is 2012.

Paul Snider, KCPL, (<u>Attachment 6</u>), came forward with supporting testimony for <u>HB 2127</u>. He noted the wind generation in which KCPL has invested, and also noted the future wind/renewable energy generation that they are planning to construct (400 MW). He commented about certain improvements and additions that could be made to the legislation to improve it.

Kimberly Gencur-Svaty, The Wind Coalition, (<u>Attachment 7</u>), spoke to the committee in support of <u>HB 2127</u> noting the economic benefits that would occur should we move forward with an RPS standard in the state of Kansas. She distributed a map that shows the RPS legislation (<u>Attachment 8</u>) that is in statute across the

CONTINUATION SHEET

Minutes of the House Energy And Utilities Committee at 9:00 a.m. on February 3, 2009, in Room 783 of the Docking State Office Building.

United States and additionally, noted the states that have impending legislation before their legislature.

Written Proponent:

Sally Howard, Governors Office (Attachment 9), presented written testimony in support of HB 2127.

Trudy Aron, AIA (Attachment 10), offered written testimony in support of HB 2127.

Opponents:

Phil Wages, KEPCo (<u>Attachment 11</u>), presented testimony in opposition to <u>HB 2127</u>. He commented that they were opposed to a certain part of the legislation only. He commented about the sources of energy that KEPCo uses that are from renewable sources.

Earl Watkins, Sunflower (<u>Attachment 12</u>), offered testimony in opposition to <u>HB 2127.</u> He noted that they are in opposition to two pieces of the legislation only. Attached to the testimony were the companies suggested amendments to <u>HB 2127.</u>

Dave Springe, CURB (<u>Attachment 13</u>), came forward with testimony in opposition to <u>HB 2127.</u> He noted that they do not support a renewable mandate. Additionally, he offered other changes that would clean up the language of the proposed legislation in <u>HB 2127</u>.

Alan Pollum, Nature Conservancy, (<u>Attachment 14</u>), presented testimony speaking to <u>HB 2127</u> noting the portion of the bill they are opposed to. He commented the concern for wildlife is safety that is resulting from increased renewable energy production, which are primarily wind turbines. Included was a map that showed current remaining tall grass prairie compared to the original tall grass prairie areas. He spoke about further unintended consequences to implementing a fast and sturdy renewable portfolio standard.

Neutral:

Erik Stafford, Association of General Contractors (<u>Attachment 15</u>), offered testimony from a neutral standpoint on <u>HB 2127</u> noting some of the concerns for the legislation as it is written.

David Kerr, Hutchinson/Reno County Chamber of Commerce, (<u>Attachment 16</u>), presented written testimony from a neutral standpoint primarily in support of <u>HB 2127</u>.

Questions were asked and comments were made by Representatives: Tom Sloan, Josh Svaty, Tom Moxley, Carl Holmes, Joe Seiwert, Richard Proehl, Milack Talia, Cindy Neighbor, and Don Myers.

Marilyn Jacobson, Secretary of Administration was also available to answer questions to the committee on **HB 2127.**

The hearing on HB 2127 was closed.

The next meeting is scheduled for February 4, 2009.

The meeting was adjourned at 10:50 a.m.

HOUSE ENERGY AND UTILITIES COMMITTEE **GUEST LIST**

DATE: _____February 3, 2009

NAME	REPRESENTING
Toe Duk	KCBPY
TOM DAY	KCC
Mari Tucher	Dept of Commerce
Nothan Elerthe	LKM
LARRY GERC	MIDWEST SURVEY
Shaw Mbredl	K D H C=
ERIK SORTORIUS	City of Overland Park
John Don (ky	KS Lusk, Ass'n
Scott Jones	KCPC
Wagn Leund	Jullows Elistre
STUARE LOWRY	KEC
Bob Johnson	Sun flower & let rie
Doug Shepherd	KEC
Carol MeDowell	talfrass Ranchers
Marge Petty	KCC
Tom Thompson	Siema Club
James Jados	CEL
ALAN POLICA	TNC
5, slly Howard	Covernor
Jenn ifer Knorr	General

HOUSE ENERGY AND UTILITIES COMMITTEE GUEST LIST

DATE: February 3, 2009

NAME	REPRESENTING
LES EVANS	KEK.
Mat Casey	GB A
Dane HolTHAus	KFC
Man Tucher	Det of Commerce
Earl Wetheras	Suit /www.
Wapa time	((
PHIL WAGES	KUPCO
Yaul Smide- 11	KLAL
Kircherly John Srahy	Wend Cealehon
Jim Gartner	ATAT
Kon Seeber	URI
Jamys Roberts	GRACE

Testimony before the House Energy and Utilities Committee February 3, 2009 Supporting H.B. 2127

Chairperson Holmes and Honorable Members of the Committee:

My name is Tom Thompson and I represent the Kansas Chapter of the Sierra Club. I have come today to speak in support of H.B. 2127.

The Sierra Club supports many of the concepts presented in this bill. It supports the Renewable Portfolio Standard that results in 20% of Kansas Energy coming from renewable energy sources by the year 2020 using peak demand, a true net metering proposal that uses one meter and the energy efficiency requirements for government buildings. HB 2127 also allows for consideration of new renewable technology to be considered for inclusion in these programs in the future.

This legislation will allow Kansas to be more energy efficient keeping energy costs down while decreasing the need to increase energy generation especially that generating from greenhouse gas producing fossil fuels.

The Sierra Club believes 2127 will move Kansas toward being a leader in renewable energy. This will result in more jobs for Western Kansas where the wind is greatest and the development of customer generation especially in areas where electric rates are highest. Furthermore, efficient state buildings will save us all money in the long run.

The net metering portion of 2127 is the one meter version the Sierra Club supports that pays the same rate whether going backwards of forwards. It gives the utility credit toward the RPS and is set up so that the utility does not directly pay the customer generator. Although the Sierra Club would like to see the customer paid at the end of a fiscal year if energy credits carry over, this aspect of 2127 is a benefit to the utility.

The Sierra Club encourages the committee to support 2127. It believes the concepts in this bill will better position the state for a cap and trade which will most likely happen in late 2009 or early 2010.

Sincerely Tom Thompson, Sierra Club

HOUSE ENERGY AND UTILITIES

DATE: 2/3/2009

ATTACHMENT |



P.O. Box 442217 Lawrence, KS 66044 Declimateandenergy.org

Mr. Chairman, members of the committee, good morning, and thank you for the opportunity to address you regarding HB 2127.

CEP supports a Renewable Energy Standard rising to 20% by 2020. Benefit for Kansas, based on 1,000 additional MW of wind energy:

- Revenue. Direct payments of over \$2 million/year to landowners and over \$4 million/year to counties that host turbines.
- Jobs. Over 150 permanent, local operations and maintenance jobs, following more than 900 short-term construction jobs. 425 Kansas companies are capable of manufacturing the 8,000 parts that make a modern wind turbine – REPP projects 11,000 jobs.
- Levelized cost. Zero fuel cost and no carbon liability provide a critical hedge against volatile fossil fuel prices and regulatory costs, lowering long-term rates.
- No water. Wind saves precious water for agricultural and domestic use.
- **Reduced pollution**. Wind emits no sulfur dioxide, nitrous oxide, particulates, mercury, or carbon dioxide, improving Kansans' health.
- Energy security. Kansas resources reduce our dependence on imports, foreign and domestic, and decrease our vulnerability to supply disruption. Plug-in hybrid vehicles will allow us to drive on Kansas wind rather than Middle East oil.

For a modest short-term cost - no more than 1% rate increase according to Lawrence Berkeley National Lab – we can lock in long-term benefits that include rate advantage.

Consumers will appreciate that HB 2127 gives utilities flexibility to meet RES in early years through RECs and caps rate increase to 1%. Retail rate impact, determined against new nonrenewable sources as outlined in New Sec 5, appears sensible. If the purpose of an RES is to stimulate new renewable development, however, New Sec 3 (c) might provide "extra credit" for generation installed after January 1, 2009.

Net metering proponents will appreciate: bidirectional meter; 1:1 credit for energy delivered; sensible limits of 25 kilowatts for residential and 200 kilowatts for commercial, industrial, school, agricultural, institutional and government generators; and a simplified application process. Coops and muni's will appreciate exclusion from this act. Amendment to K.S.A. 2008 Supp. 66-1,184 might retain minimum payment terms of 150% of avoided cost.

Energy efficiency is our most important, least expensive, most available source to meet new demand. So maximum lifecycle energy efficiency in new state buildings would be welcome and provide a best practice model. CEP encourages the Committee to consider broadening access to energy efficiency through consideration of EE performance standards and/or incentives for utilities and minimum state-wide building standards to protect citizens from rising electric rates.

www.climateandenergy.org

| Nancy Jackson | Executive Director, CEP | jackson@climateand HOUSE ENERGY AND UTILITIES

ATTACHMENT

WIND POWER

Kansas has a unique, abundant natural resource: wind. Wind can be captured to provide a clean, reliable, renewable, and secure source of energy. Wind Development will also strengthen our economy and provide opportunities for Kansans today and well into the future.

one The Situation:

TOP 3 KS has the third best wind resources in the US.

NO. 1

Wind energy is the fastest growing renewable energy technology worldwide

7,000+

U.S. Department of Energy projections for MW of wind installed in KS by 2030

3,000

MW of wind installed in Nolan County, TX today

\$0.00

Cost of fuel for wind power

10,000

Number of jobs created in 2007 & 2008 at turbine component manufacturing plants in twelve states

TWENTY MILLION

Dollars to Kansas counties each year with 7,000 MW installed

2-10K

Dollars paid to landowners every year for turbines on their land

1,837,500

Number of homes that could be run by 7000 MW of wind power

two The Details:

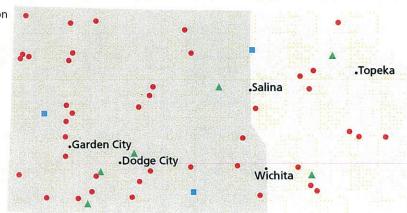
Revitalizing Rural Kansas

Wind energy's economic development benefits are distributed across Kansas counties and towns, often with substantial direct payments to farmers.

Under Construction

Proposed





•

Land Area Needed for Wind in Kansas

The white square in the middle represents the projected installed wind capacity in the state. The black square inside it represents the actual land dedicated to the turbine.

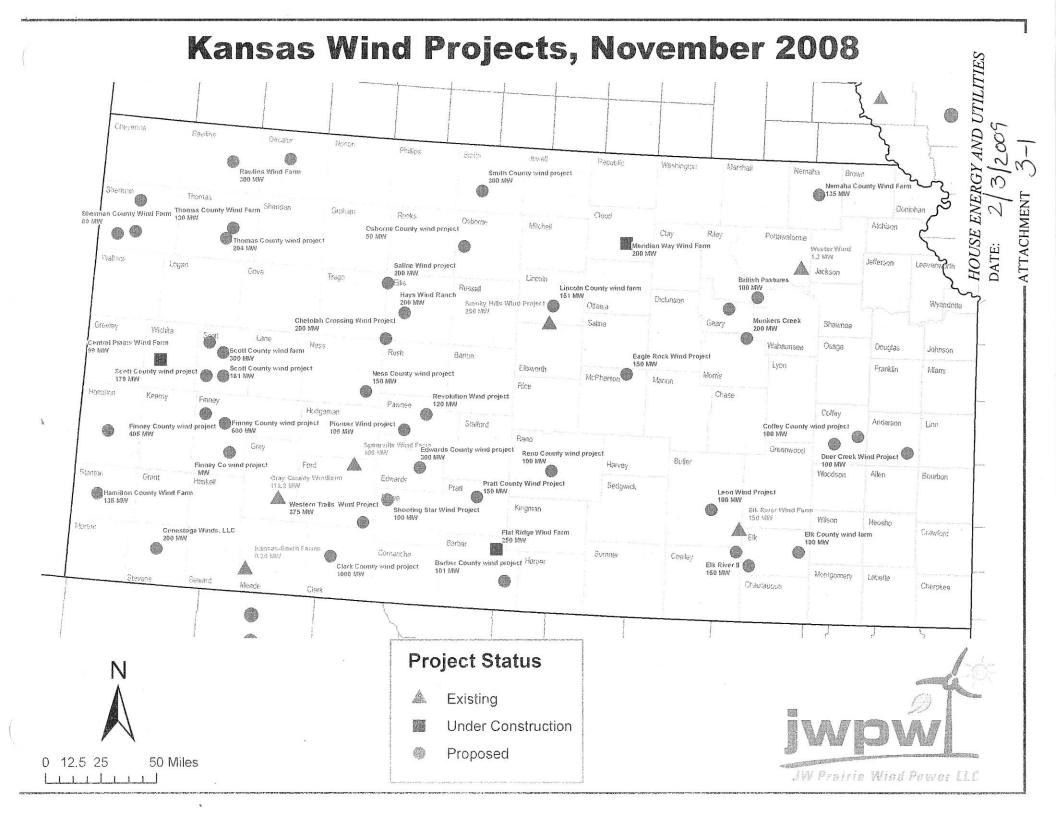
Does wind energy require 1:1 backup?

No. Marginal reserves back up all generation, wind, coal, and nuclear alike. When the wind blows, we back down more expensive generation. As one farmer said, "When it rains, we take what nature gives, and irrigate to cover the rest. We should do the same with the wind."

Wind & Hydro <2% Natural Gas 4% Nuclear 20% Coal 75%

Sources:

- www.awea.org
- www.windpoweringamerica.gov
- www.kansasenergy.org - www.doe.gov
- www.earthpolicy.org

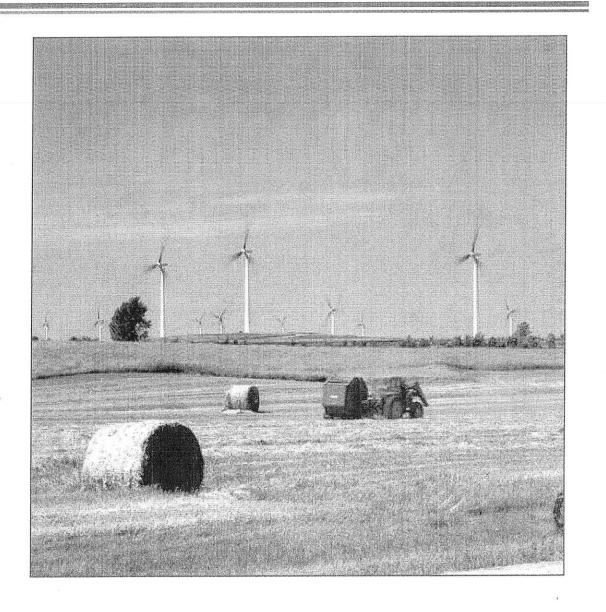




Case Study: Iowa

240-MW lowa wind project

- \$640,000/yr in lease payments to farmers (\$2,000/turbine/yr)
- \$2M/yr in property taxes
- \$5.5M/yr in O&M income
- 40 long-term O&M jobs
- 200 short-term construction jobs
- Doesn't include multiplier effect





POYERING AMERICA

Colorado – Economic Impacts

from 1000 MW of new wind development

Wind energy's economic "ripple effect"

Direct Impacts

Payments to Landowners:

• \$2.5 Million/yr

Local Property Tax Revenue:

• \$4.6 Million/yr

Construction Phase:

- 912 new jobs
- \$133.6 M to local economies

Operational Phase:

- 181 new long-term jobs
- \$19.3 M/yr to local economies

Indirect & Induced Impacts

Construction Phase:

- 807 new jobs
- \$92.7 M to local economies

Operational Phase:

- 129 local jobs
- \$15.6 M/yr to local economies

Totals

(construction + 20yrs)

Total economic benefit = \$924.3 million

New local jobs during construction = 1.719

New local long-term jobs

= 310

All jobs rounded to the nearest 50 jobs; All values greater than \$10 million are rounded to the nearest million

Construction Phase = 1-2 years Operational Phase = 20+ years

Kansas – Economic Impacts

Average Capacity Factor (35%) Scenario 3400 MW of new wind development

Wind energy's economic "ripple effect"

Direct Impacts

Payments to Landowners:

• \$9.1 million/year

Local Property Tax Revenue:

• \$9.9 million/year (PILOT)

Construction Phase:

- 5,450 new jobs
 - •5,300 Const. Sector only
- \$641 M to local economies

Operational Phase:

- 850 new long-term jobs300 O&M only
- \$72 M/yr to local economies

Indirect & Induced Impacts

Construction Phase:

- 5,350 new jobs
- \$467 M to local economies

Operational Phase:

- 600 local jobs
- \$57 M/yr to local economies

Totals

(construction + 20yrs)

Total economic benefit =

\$3.7 billion

New local jobs during construction = 10,750

New local long-term jobs

= 1450







Soaring Demand Spurs Expansion of U.S. Wind Turbine Manufacturing

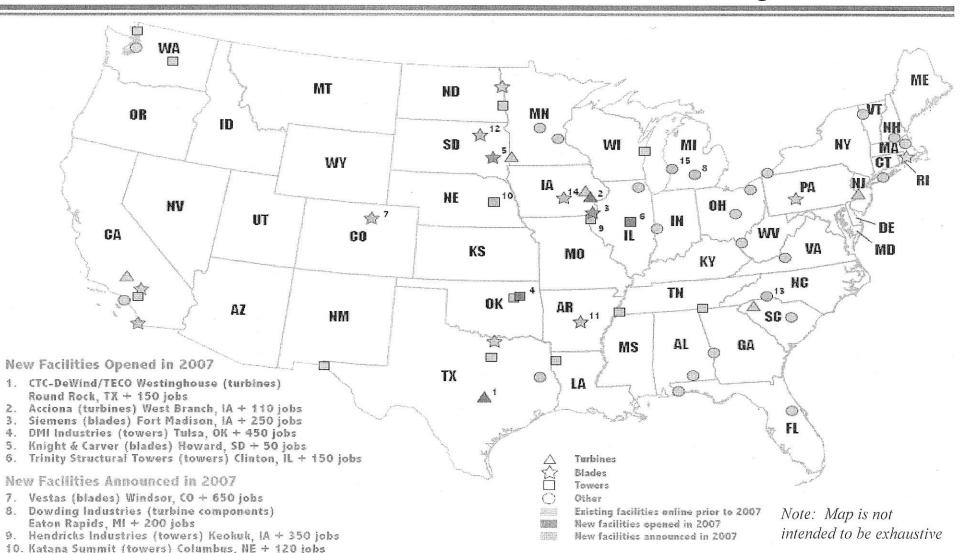


Figure includes wind turbine and component manufacturing facilities, as well as other supply chain facilities, and excludes corporate headquarters and service-oriented facilities. The facilities highlighted here are not intercled to be exhaustive. Those facilities designated as "turbines" may include turbine assembly as well as component manufacture including, in some cases, towers and blades.



13. PPG Industries (fiberglass) Shelby, NC + not available 14. TPI Composites (blades) Newton, IA + 500 jobs

11. LN Glasfiber (blades) Little Rock, AR + 1,000 jobs

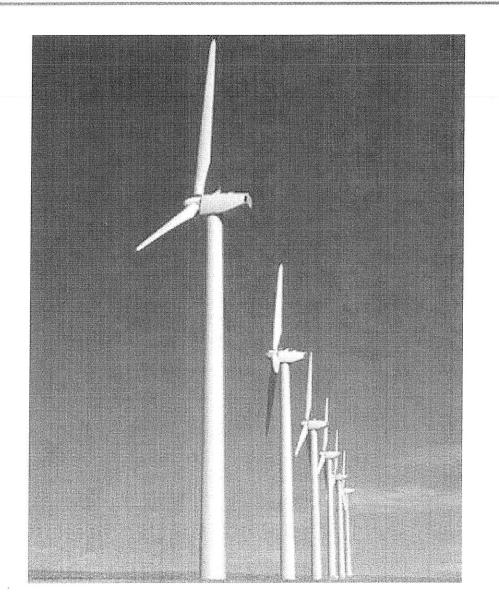
12. Molded Fiberglass (blades) Aberdeen, SD + 750 jobs

15. Genzink Steel (nacelles) Holland, MI + 10 jobs



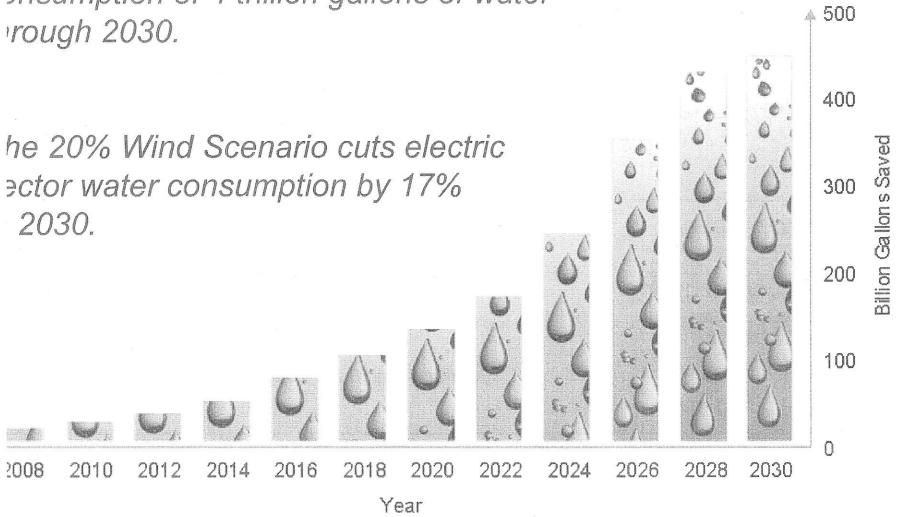
Environmental Benefits

- No SOx or NOx
- No particulates
- No mercury
- No CO2
- No water



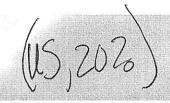
Significant Water Use Savings

umulatively, the 20% Wind Scenario would avoid the onsumption of 4 trillion gallons of water rough 2030.





Summary: Costs & Benefits (15,20%)



Incremental direct cost to society	\$43 billion 50 cents/month/ household
Reduction in emissions of greenhouse gasses and avoided carbon regulation costs	825 million tons of CO ₂ \$50 to \$145 billion
Reduction in water consumption	8% through 2030 17% in 2030
Jobs supported and other economic benefits	500,000 total with 150,000 direct jobs \$2 billion in local annual revenues
Reduction in nationwide natural gas use and likely savings for all gas consumers	11% \$86-214 billion

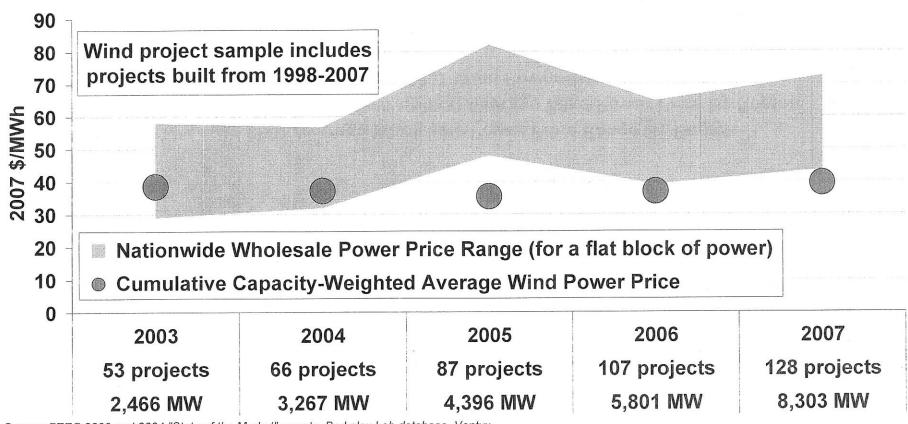
Sources: DOE, 2008 and Hand et al., 2008

Note: All dollar values are in NPV





Wind Has Been Competitive with Wholesale Power Prices in Recent Years

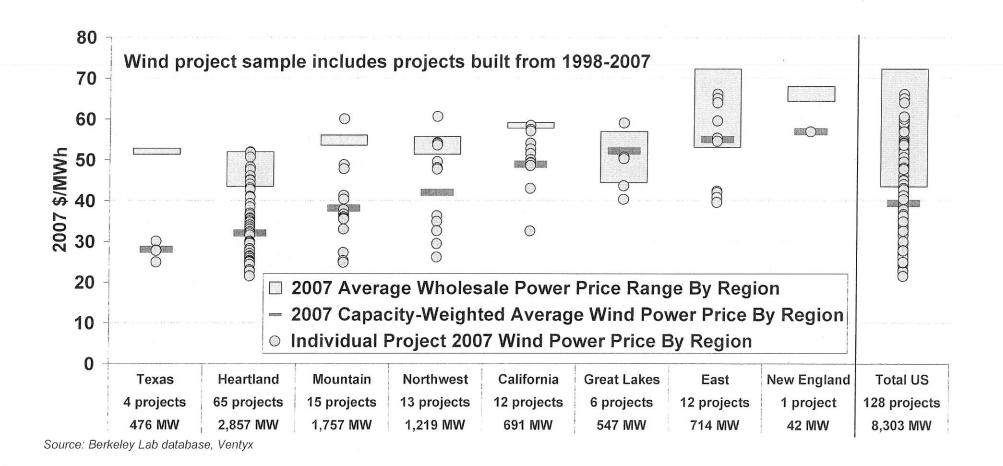


Source: FERC 2006 and 2004 "State of the Market" reports, Berkeley Lab database, Ventyx

- Wholesale price range reflects flat block of power across 23 pricing nodes (see previous map)
- · Wind prices are capacity-weighted averages from cumulative project sample

APREL

Wind Built After 1997 Was Competitive with Wholesale Prices in Most Regions in 2007

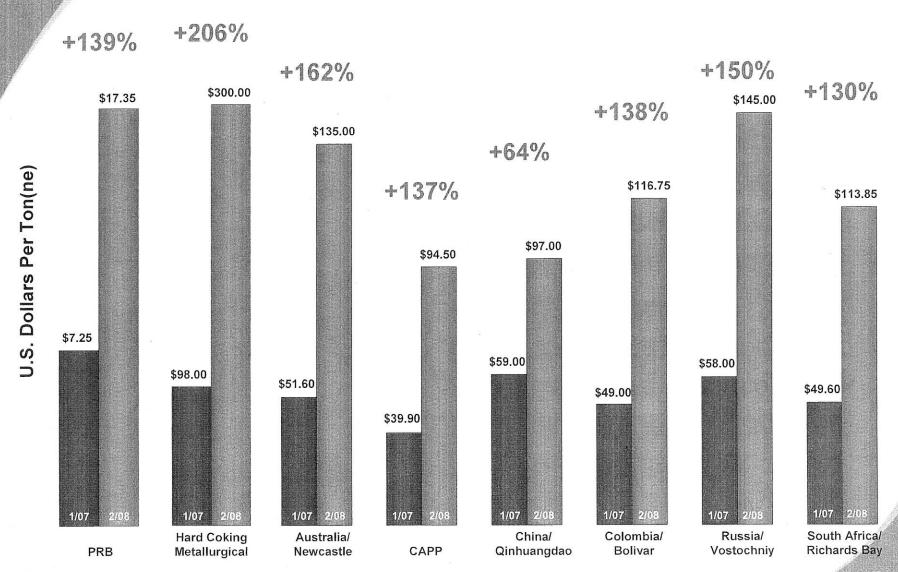


Note: Even within a region there are a range of wholesale power prices because multiple wholesale price hubs exist in each area (see earlier map)

Prahadi

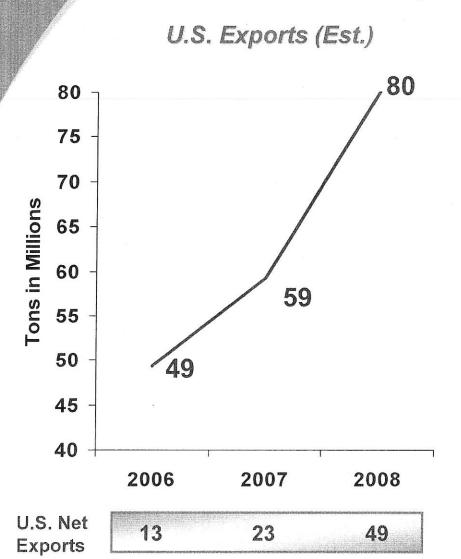
3-11

Coal Prices Reaching Record Highs in Current Markets



Source: Global Coal Newcastle Index; McCloskey's Coal Report; Industry Reports. (Updated February 29, 2008.)

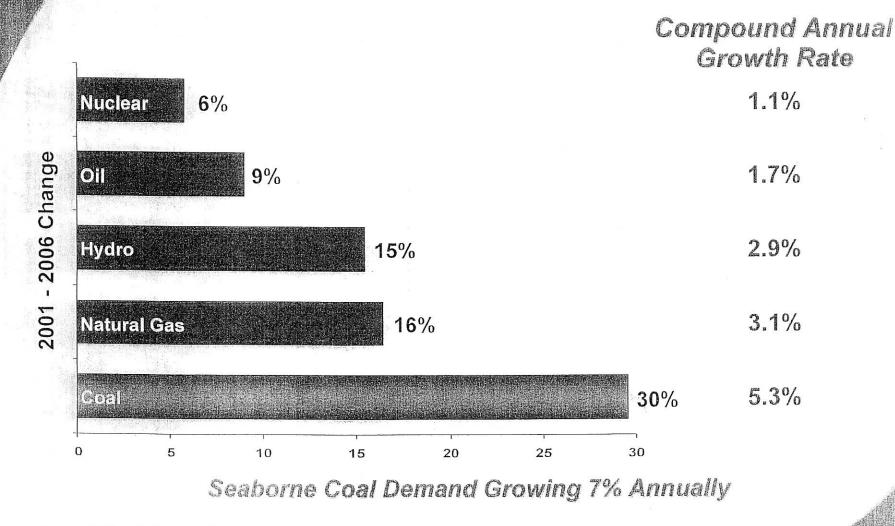
U.S. Net Exports Expected to More Than Triple Over Two Years

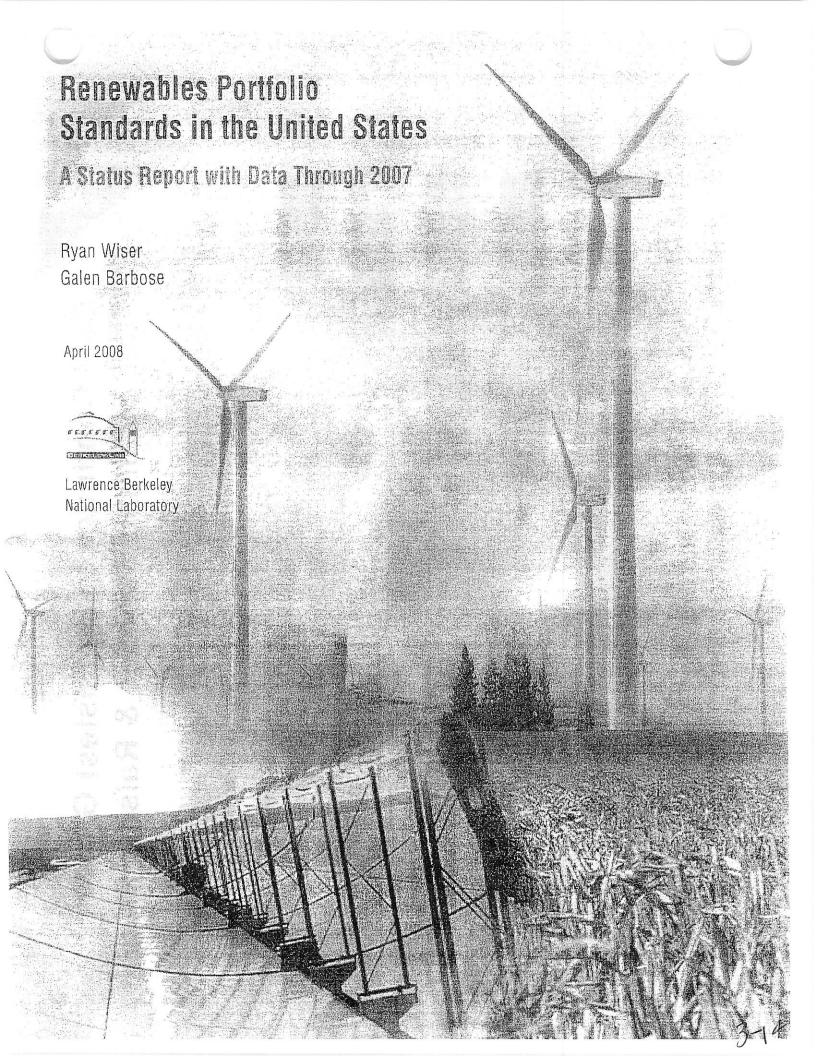


- Net exports grow due to global coal shortages,
 European demand, weak dollar and reduced
 U.S. imports
- Net export increases will further reduce stockpiles
- Creates pull to PRB and Colorado markets
- Peabody exports coal from CAPP, NAPP, Illinois
 Basin, Colorado and PRB

Coal Continues to Be Fastest Growing Fuel, Straining Supplies & Raising Pricing

Five-Year Change in Global Energy Consumption





The Price Impacts of State RPS Policies Are Not Always Observable, But Have Been Modest in Most Cases So Far

State RPS policies could have substantial impacts on electricity markets, ratepayers, and local economies. Unfortunately, the actual costs (and benefits) of state RPS policies have not been compiled in a comprehensive fashion, in part because of the early status of policy implementation and in part because of methodological complexities and data availability constraints. Despite these limitations, it is reasonably clear that the cost impacts of state RPS policies have varied by state but, at the same time, there is little evidence of a sizable impact on average retail electricity rates so far.

Translating unbundled REC prices, as well as the renewable electricity contracts that predominate in traditionally-regulated states, into retail rate impacts is challenging. Nonetheless, if one assumes (a) that REC prices represent the incremental above-market cost of renewable energy, (b) that the short-term REC prices presented in Figures 14 and 15 are representative of all RECs used for RPS compliance, and (c) that certain state-specific funding caps are binding, then 2007 RPS-induced retail rate increases, averaged over all obligated load in each state, can be estimated, as shown in Figure 16.²⁹

Though the results vary across states, in most cases, rate increases are estimated at 1% or less in 2007. Moreover, the rate impacts shown here may, in some states, be biased upwards due to at least two factors: (1) longer-term REC contracts are likely to be priced below the short-term REC prices used for these calculations; and (2) the rate estimates presented here ignore the potential impact of renewable energy in reducing natural gas and wholesale electricity prices. At the same time, however, rate impacts will presumably grow over time as RPS obligations increase, unless REC prices or RPS funding levels simultaneously decline.

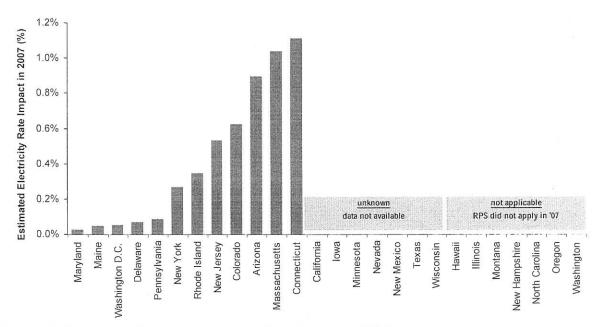


Figure 16. Estimated Rate Impacts of State RPS Policies in 2007

²⁹ Rate impacts are estimated on a calendar year basis, using the average compliance obligation during 2007.

In states where long-term renewable electricity contracts (rather than purchases of unbundled RECs) predominate as the mode of state RPS compliance, retail rate impacts are more difficult to estimate, due primarily to the confidentiality of contract terms. As such, these states are shown in Figure 16 as having "unknown" rate impacts in 2007 (those states listed as "not applicable" had no RPS obligation in 2007).³⁰ In a number of these states, however, there is at least some evidence that the renewable energy contracted in recent years has been priced competitively with conventional sources of generation. In California, for example, the majority of the renewable electricity brought under contract by the state's IOUs since 2002 has been signed at prices that are below the "market price referent" - the estimated cost of new gas-fired generation. Anecdotal evidence suggests historically low renewable energy prices in many of the other states listed as having "unknown" rate impacts in Figure 16 as well. In these instances, it is not clear whether state RPS policies are leading to higher, or lower, retail electricity prices.³¹

Notwithstanding these conclusions, it is also evident that renewable electricity prices have increased in recent years. Wind power contract prices for projects built in 2006, for example, were substantially higher than for projects built from 2000 through 2005.³² At the same time, the cost of new gas and coal facilities has also been on the rise, making any long-term "incremental" cost of RPS programs difficult to estimate.

Given uncertainty about the future costs of RPS policies, state policymakers have developed a variety of approaches to limit the maximum impact of these policies on electricity rates, as shown in Table 9. Common approaches include alternative compliance payments that can be made in lieu of purchasing RECs, direct retail rate caps, renewable energy funding caps, renewable energy contract price caps, per-customer electric bill impact limits, and financial penalties that can serve as cost caps in certain circumstances. In addition, though not presented here, a number of states have established force majeure mechanisms that allow electricity suppliers to limit their renewable energy purchases if they are able to persuade regulators that those purchases would unduly raise electricity rates. Where calculable, Table 9 also translates the effective cost caps into the maximum possible incremental retail rate increase caused by RPS policies, for the year in which the state RPS achieves its highest percentage target. Though a sizable range exists, the majority of states have capped incremental rate impacts at well below 10%, and in eight states rate impacts are capped at or below 2%.

³⁰ Texas is included among these states. Though short-term REC pricing is transparent in Texas, many electricity suppliers have complied with their RPS obligations through long-term, renewable electricity contracts. Short-term REC prices are therefore not likely to be a good indicator of rate impacts in that state.

³² See Wiser, R. and M. Bolinger. 2007. "Annual Report on U.S. Wind Power Installation, Cost, and Performance Trends:

2006." Berkeley, Calif.: Lawrence Berkeley National Laboratory.

Another approach to estimating impacts is to review state RPS cost-impact projections. A Berkeley Lab report completed in 2007, for example, provides a summary of 28 state RPS cost-impact projections. See: Chen, C., R. Wiser and M. Bolinger. 2007. "Weighing the Costs and Benefits of Renewables Portfolio Standards: A Comparative Analysis of State-Level Policy Impact Projections." Berkeley, Calif.: Lawrence Berkeley National Laboratory.



Home > Electricity > EPM > Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State

Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State

Electric Power Monthly with data for October 2008 Report Released: January 15, 2009 Next Release Date: Mid-February 2009

Table 5.6.A. xls format Electric Power Monthly

Table 5.6.A. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, October 2008 and 2007 (Cents per kilowatthour)

New England	Census Division	Reside	ential	Comm	ercial ¹	Indus	trial ¹	Transpor	tation[1]	All Se	ctors
Connecticut 20.09 18.74 11.61 14.86 13.52 12.34 6.77 12.31 15.93 15.72 Maine 16.26 16.29 12.93 12.22 11.58 14.16	and State	Oct-08	Oct-07	Oct-08	Oct-07	Oct-08	Oct-07		Oct-07	Oct-08	Oct-07
Maine 16.26 15.29 12.93 12.22 11.55 11.16 — — 13.54 12.87 Massachusetts 19.7 16.04 16.95 14.62 15.94 14.34 7.96 5.54 17.56 14.98 New Hampshire 16.63 15.18 14.96 14.39 13.73 11.58 — — 15.74 14.09 Rhode Island 17.57 14.13 15.3 12.81 12.98 12.45 — — 15.7 13.23 Vermont 14.88 14.49 13.24 18.96 8.66 — — 12.02 12.02 12.02 12.02 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.02 12.03 12.03 12.03 12.03 12.03 12.03 12.03 12.03 12.03 12.03 12.03	New England	18.75	16.43	15.98	14.3	13.77	12.65	7.49	8.01	16.4	14.66
Massachusetts 19.7 16.04 16.95 14.62 15.94 14.34 7.96 5.54 17.56 14.98 New Hampshire 16.63 15.18 14.98 14.39 13.73 11.58 15.34 14.98 Rhode Island 17.57 14.13 15.35 12.81 12.86 1.62 12.30 12.07 Middle Atlantic 14.99 14.38 13.94 13.01 10.18 16.75 16.62 12.88 12.98 New York 17.57 17.46 16.38 15.72 9.78 9.25 12.13 13.14 15.96 15.5 Pennsylvania 11.84 11.38 9.48 15.72 9.78 9.25 12.13 13.14 15.96 15.5 Pennsylvania 11.13 10.0 9.04 8.56 6.7 5.84 9.06 7.19 8.8 7.91 Illinois 12.06 9.04 8.56 6.72 5.84 9.06	Connecticut	20.09	18.74	16.1	14.86		12.34	6.77	12.31	16.93	
New Hampshire 16.63 15.18 14.96 14.39 13.73 11.58 14.56 15.34 14.90 16.60 15.34 14.90 14.88 14.55 12.65 12.44 8.06 12.45 12.45 12.05 12.07 13.23 12.45 14.84 14.55 12.56 12.44 8.06 7.94 11.36 12.02 13.02 12.47 18.94 18.94 18.94 18.95	Maine	16.26	15.29	12.93	12.22	11.55	11.16			13.54	
Name	Massachusetts	19.7	16.04	16.95	14.62	15.94	14.34	7.96	5.54	17.56	14.98
Vermont Middle Atlantic 14.88 14.59 14.38 13.94 13.24 8.06 7.94 11.36 11.36 12.47 12.47 Middle Atlantic 14.99 14.38 13.94 13.24 8.06 7.94 11.36 12.58 12.45 12.47 New Jersey 15.87 13.97 14.49 13.01 10.18 10.67 16.62 12.58 14.38 12.98 New York 17.57 17.46 16.38 15.72 9.78 9.25 12.13 13.14 15.06 15.5 12.58 14.38 12.98 New York 17.57 17.46 16.38 15.72 9.78 9.25 12.13 13.14 15.06 15.5 12.58 14.38 13.94 15.50 15.5 12.03 13.14 15.06 15.5 12.03 13.14 15.06 15.5 12.03 13.14 15.06 15.5 12.03 13.14 15.06 15.5 12.03 13.14 15.06 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.5 12.03 13.14 15.05 15.	New Hampshire	16.63	15.18	14.96	14.39	13.73					
Middle Atlantic 14.99 14.38 13.94 13.24 8.06 7.94 11.36 12.02 13.02 12.98 New Jork 15.87 13.97 14.49 13.01 10.18 16.62 12.58 14.30 12.98 New York 17.57 17.46 16.38 15.72 9.78 9.25 12.13 13.14 15.96 15.98 Pennsylvania 11.84 11.38 9.48 9.13 7.11 6.9 7.4 8.03 9.05 East North Central 11.13 10 9.04 8.56 6.7 5.84 9.06 7.19 8.8 7.91 Illindian 9.97 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Michigan 11.14 9.88 9.54 8.84 6.88 6.15 10.37 11.51 9.11 8.26 Ohio 10.64 9.49 9.54 8.84 6.88 6.15 10.37 <td>Rhode Island</td> <td>17.57</td> <td>14.13</td> <td>15.3</td> <td>12.81</td> <td>12.98</td> <td>12.45</td> <td></td> <td></td> <td>15.7</td> <td>13.23</td>	Rhode Island	17.57	14.13	15.3	12.81	12.98	12.45			15.7	13.23
New Jersey New York 15.87 13.97 14.49 13.01 10.18 10.67 16.62 12.58 14.38 12.52 9.78 9.25 12.13 13.14 15.96 15.5 Pennsylvania 11.84 11.38 9.48 15.72 9.78 9.25 12.13 13.04 15.56 15.5 15.6 6.77 5.84 9.06 7.19 8.05 6.65 16.04 9.95 4.86 6.80 5.51 11.47 9.95 7.62 6.56 11.43 10.14 9.98 9.54 8.84 6.88 6.65 10.37 11.13 9.11 2.62 6.68 6.62 2.2 6.56 6.24 6.24 6.24 4.9 6.11 6.91 6.93 6.24	Vermont	14.88	14.59	12.56	12.44	8.96	8.66			12.36	12.07
New York 17.57 17.46 16.38 15.72 9.78 9.25 12.13 13.14 15.96 15.5 Pennsylvania 11.84 11.38 9.48 9.13 7.11 6.9 7.4 8.03 9.38 9.05 East North Central 11.13 10 9.04 8.56 6.7 5.84 9.06 7.17 9.56 8.65 Indiana 9.97 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Indiana 9.97 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Indiana 9.97 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Michigan 11.14 9.88 9.54 8.86 6.45 5.76 11.45 10.82 8.59 7.75 Wisconsin 11.91 10.92 9.22 8.5 6.64 6.22 <td>Middle Atlantic</td> <td>14.99</td> <td>14.38</td> <td>13.94</td> <td>13.24</td> <td>8.06</td> <td>7.94</td> <td>11.36</td> <td>12.02</td> <td>13.02</td> <td>12.47</td>	Middle Atlantic	14.99	14.38	13.94	13.24	8.06	7.94	11.36	12.02	13.02	12.47
Pennsylvania 11.84 11.38 9.48 9.13 7.11 6.9 7.4 8.03 9.38 9.05 East North Central 11.13 10 9.04 8.56 6.7 5.84 9.06 7.19 8.8 7.91 Indicina 12.06 11.13 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Michigan 11.14 9.88 9.54 8.84 6.88 6.15 10.37 11.51 9.11 8.26 Ohio 10.64 9.49 9.54 8.64 6.85 5.76 11.45 10.82 8.59 7.75 Wisconsin 11.91 10.92 9.22 8.5 6.66 6.22 6.21 11.45 10.82 8.59 7.75 West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.48 Iowa 10.33 9.55 7 6.84	New Jersey	15.87	13.97			10.18		16.62	12.58		12.98
Part	New York	17.57	17.46	16.38	15.72	9.78	9.25	12.13	13.14	15.96	15.5
Illinois 12.06 11.13 8.7 8.93 8.26 6.38 8.75 6.77 9.56 8.65 Indiana 9.97 8.77 8.15 7.22 6.09 5.01 10.47 9.95 7.62 6.56 Michigan 11.14 9.88 9.54 8.84 6.88 6.15 10.37 11.51 9.11 8.26 Ohio 10.64 9.49 9.54 8.64 6.45 5.76 11.45 10.82 8.59 7.75 Wisconsin 11.91 10.92 9.22 8.5 6.66 6.22 8.97 8.29 West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.48 Iowa 10.33 9.55 7 6.84 4.75 5.28 7.43 6.75 6.54 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.86 7.61 7.02 Missouri 8.25 7.17 6 5.66 6.47 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.65 5.45 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 10.32 8.75 9.38 7.82 6.59 5.81 6.98 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03	Pennsylvania	11.84	11.38	9.48	9.13	7.11	6.9		8.03	9.38	
Indiana	East North Central	11.13	10	9.04	8.56	6.7	5.84	9.06	7.19	8.8	7.91
Michigan 11.14 9.88 9.54 8.84 6.85 6.15 10.37 11.51 9.11 8.26 Ohio 10.64 9.49 9.54 8.64 6.45 5.76 11.45 10.82 8.59 7.75 Wisconsin 11.91 10.92 9.22 8.5 6.66 6.22 8.97 8.29 West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.54 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Misnasouri 8.25 7.77 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 6.84 6.63 South Dakota 8.24 7.89 6.87 6.64 5.65 5.45	Illinois	12.06	11.13	8.7	8.93	8.26					
Ohio 10.64 9.49 9.54 8.64 6.45 5.76 11.45 10.82 8.59 7.75 Wisconsin 11.91 10.92 9.22 8.5 6.66 6.22 8.97 8.29 West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.54 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.66 7.61 7.02 Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17	Indiana	9.97					5.01	10.47	9.95		
Wisconsin 11.91 10.92 9.22 8.5 6.66 6.22 8.97 8.29 West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.48 Iowa 10.33 9.55 7 6.84 4.75 4.6 NM 7.83 6.75 6.54 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.66 7.61 6.72 Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17	Michigan	11.14	9.88		8.84	6.88	6.15	10.37	11.51	9.11	
West North Central 9.06 8.19 6.8 6.42 5.28 4.9 6.41 6.91 6.95 6.42 Iowa 10.33 9.55 7 6.84 4.75 4.6 NM 7.83 6.75 6.54 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Minsouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.62 4.94 4.9 6.35 6.28 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.34 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 6.34 6.63 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 <	Ohio	10.64	9.49	9.54	8.64	6.45		11.45	10.82	8.59	
Iowa 10.33 9.55 7 6.84 4.75 4.6 NM 7.83 6.75 6.84 Kansas 9.02 8.17 7.39 6.74 5.95 5.28 — — 7.43 6.72 Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.86 7.61 7.02 Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 — — 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.45 — — 6.33 7.03 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 — — 6.84 6.63 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74	Wisconsin	11.91	10.92	9.22	8.5	6.66	6.22			8.97	8.29
Kansas 9.02 8.17 7.39 6.74 5.95 5.28 7.43 6.72 Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.86 7.01 7.02 Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.84 6.63 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 12.59 12.86 11.87 10.79	West North Central	9.06	8.19						6.91	6.95	
Minnesota 10.07 9.1 7.44 6.95 5.95 5.38 7.94 8.86 7.61 7.02 Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 -2.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.08 Florida 10.29 11.3 10.54 9.71 8.95 7.9<	lowa	10.33	9.55	7	6.84			NM	7.83		
Missouri 8.25 7.17 6 5.66 4.74 4.26 4.74 5.1 6.44 5.87 Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.	Kansas	9.02	8.17	7.39	6.74	5.95		-		7.43	
Nebraska 7.94 7.54 6.55 6.29 4.94 4.9 — — 6.35 6.2 North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 — — 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 — — 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 — — — 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59	Minnesota	10.07	9.1	7.44	6.95	5.95	5.38				
North Dakota 8.24 7.89 6.87 6.64 5.6 5.45 6.84 6.63 South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2	Missouri	8.25	7.17	6	5.66			4.74	5.1		
South Dakota 9.01 8.6 7.01 6.72 5.41 5.17 — — 7.33 7.03 South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 — — 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09	Nebraska			6.55	6.29	4.94					
South Atlantic 11.34 10.34 9.75 8.68 6.64 5.76 13.78 9.71 9.74 8.76 Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.38 8.95 8.02 6.47 6.2	North Dakota										
Delaware 14.85 13.77 12.59 11.24 9.76 9.39 12.44 11.58 District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28	South Dakota	9.01									
District of Columbia 13.89 12.04 13.94 12.86 11.87 10.79 19.74 12.05 14.05 12.68 Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West South Central 10.25 8.58 9.58 8.06 6.4	South Atlantic	11.34						13.78	9.71		
Florida 12.09 11.3 10.54 9.71 8.95 7.9 10.73 9.75 11.19 10.38 Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.1	Delaware										
Georgia 10.32 8.75 9.38 7.82 6.59 5.23 6.9 5.55 8.95 7.46 Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4	District of Columbia										
Maryland 14.45 13.18 13.87 11.65 10.2 9.9 14.89 11 13.55 12.03 North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33	Florida										
North Carolina 10.43 9.97 7.97 7.61 6.09 5.81 6.98 8.43 8.03 South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississippi 10.78 9.54 10.12 8.89 7.18 5.95	Georgia	10.32									
South Carolina 10.53 9.37 8.62 7.58 5.81 5.07 8.12 7.13 Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississispipi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 1											
Virginia 10.38 8.95 8.02 6.47 6.28 5.09 8.79 6.94 8.49 7.09 West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississippi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 <td></td>											
West Virginia 7.57 7.17 6.3 6 4.31 4.02 5.4 5.75 5.68 5.37 East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississispipi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48											
East South Central 10.25 8.58 9.58 8.06 6.44 5.12 10.48 14.49 8.44 7 Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississispipi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48											
Alabama 11.41 9.36 10.6 8.66 7.04 5.4 9.38 7.53 Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississippi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48											
Kentucky 8.6 7.48 7.34 6.58 5.34 4.33 6.5 5.57 Mississippi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48									5000000000		
Mississippi 10.78 9.54 10.12 8.89 7.18 5.95 9.33 8.11 Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48											
Tennessee 10.13 8.19 10.01 8.18 7.14 5.55 10.48 14.49 9.03 7.29 West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48											
West South Central 12.42 11.43 10.19 9.54 8.41 7.13 9 8.69 10.39 9.48	* * *										
Trock Could Contact Taria Time Total Contact Taria											
Arkaneae 0.02 8.72 7.86 6.0 5.00 5.2 - $-$ 7.81 6.84											
Till direction of the state of	Arkansas	9.92	8.72								6.84
Louisiana 11.1 9.71 10.7 9.33 8.92 6.79 12.2 14.12 10.23 8.61	Louisiana	11.1	9.71	10.7	9.33	8.92	6.79	12.2	14.12	10.23	8.61

Oklahoma	10.02	9.27	8.45	7.73	6.38	5.6			8.36	7.66
Texas	13.44	12.48	10.58	10.14	8.96	7.8	8.69	8.36	11.07	10.31
Mountain	10.05	9.57	8.33	8.21	6.14	5.87	8.16	7.77	8.2	7.94
Arizona	10.44	10.18	8.95	8.81	6.64	6.31			9.17	8.94
Colorado	10.27	9.27	7.95	8.19	6.58	5.73	8.07	7.36	8.3	7.87
Idaho	7.41	6.77	6.02	5.38	4.49	3.58			5.9	5.18
Montana	9.32	9.09	8.55	8.11	5.94	6.13			7.73	7.78
Nevada	12.08	12.59	10.19	10.45	7.82	8.44	8.68	9.51	9.75	10.07
New Mexico	10.25	9.38	8.65	8.05	6.37	5.64		22	8.33	7.61
Utah	8.31	7.95	7.08	6.95	4.93	5	8.16	7.92	6.73	6.61
Wyoming	8.95	8.22	6.96	6.49	4.92	4.25			5.98	5.44
Pacific Contiguous	11.83	10.87	12.02	11.84	8.04	8.43	8.44	8.39	11.08	10.78
California	13.64	12.43	13.55	13.42	10.29	10.63	8.48	8.42	12.96	12.55
Oregon	8.59	8.65	8.35	7.97	4.5	4.56	6.66	6.82	7.35	7.27
Washington	7.79	7.59	6.81	6.66	4.98	4.89	NM	6.31	6.62	6.57
Pacific	28.1	22.24	24.47	18.92	24.85	18.96			05.00	40.05
Noncontiguous	20.1	22.24	24.47	10.92	24.05	10.90			25.68	19.95
Alaska	16.43	15.77	13.43	12.35	12.96	15.08			14.29	14.05
Hawaii	35.74	26.11	32.82	23.73	29.1	20.14			32.28	23.11
U.S. Total	11.86	10.81	10.49	9.79	7.24	6.44	10.91	10.46	10.02	9.18
[1] Coo TooksissIssissis	E									

^[1] See Technical notes for additional information on the Commercial, Industrial and Transportation sectors.

Source: Energy Information Administration, Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions Report."

More Tables on the Average Retail Price of Electricity	J	ats	
Table ES. Summary Statistics for the United States	html	pdf	xls
Table 5.3. Average Retail Price of Electricity to Ultimate Customers: Total by End-Use Sector	html		xls
Table 5.6.B. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, Year-to-Date	html		xls
Table ES1.A. Total Electric Power Industry Summary Statistics,	html		xls
Table ES1.B. Total Electric Power Industry Summary Statistics, Year-to-Date	html		xls
Average Price by State by Provider (EIA-861)			xls
Current and Historical Monthly Retail Sales, Revenues and Average Revenue per Kilowatthour by State and by Sector (Form EIA-826)			xls
Form EIA-861 Database			DBF
Table 7.4. Average Retail Price of Electricity to Ultimate Customers by End-Use Sector	html	pdf	xls
"Electric Sales, Revenue and Average Price"	html	0.00	

see also:
Electric Power Monthly
Electric Power Annual
annual electricity statistics back to 1949
projected electricity capacity to 2030
international electricity statistics

Contact Us • Feedback • Privacy/Security • Careers • About EIA

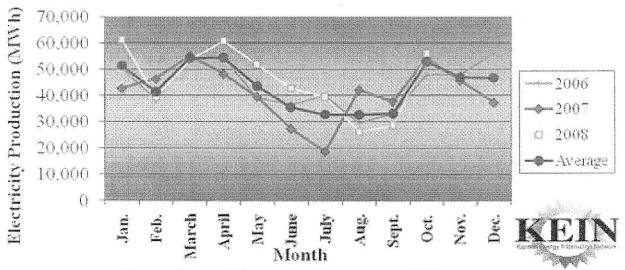
Fedstats • USA.gov • Dept. of Energy

NM = Not meaningful due to large relative standard error or excessive percentage change.

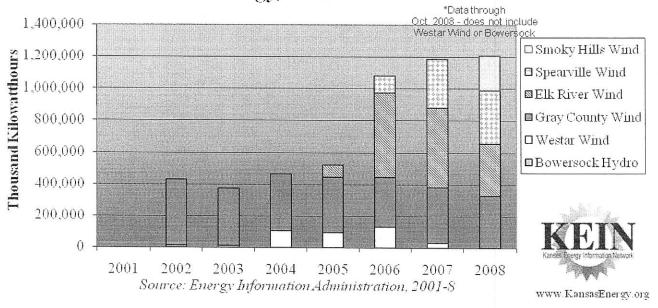
Notes: See Glossary for definitions. Values for 2007 and 2008 are preliminary estimates based on a cutoff model sample.

See Technical Notes for a discussion of the sample design for the Form EIA-826. Utilities and energy service providers may classify commercial and industrial customers based on either NAICS codes or demands or usage falling within specified limits by rate schedule. Changes from year to year in consumer counts, sales and revenues, particularly involving the commercial and industrial consumer sectors, may result from respondent implementation of changes in the definitions of consumers, and reclassifications. Retail sales and net generation may not correspond exactly for a particular month for a variety of reasons (i.e., sales data may include imported electricity). Net generation is for the calendar month while retail sales and associated revenue accumulate from bills collected for periods of time (28 to 35 days) that vary dependent upon customer class and consumption occurring in and outside the calendar month. Totals may not equal sum of components because of independent rounding.

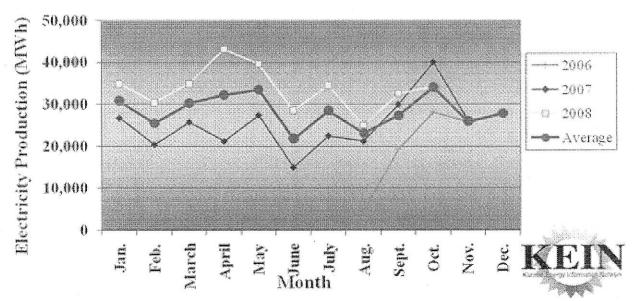
Elk River Wind Farm Monthly Production



Kansas Electricity Production from Renewable Energy, 2001-2008



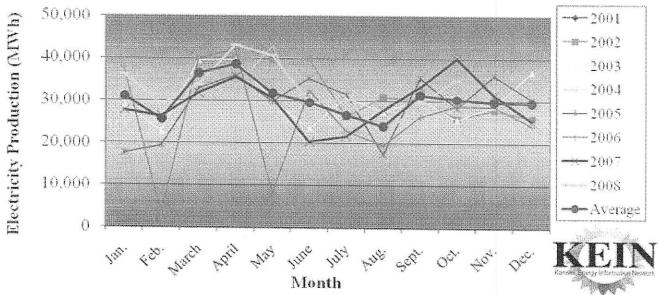
Spearville Wind Farm Monthly Production



Source: Energy Information Administration, 2008

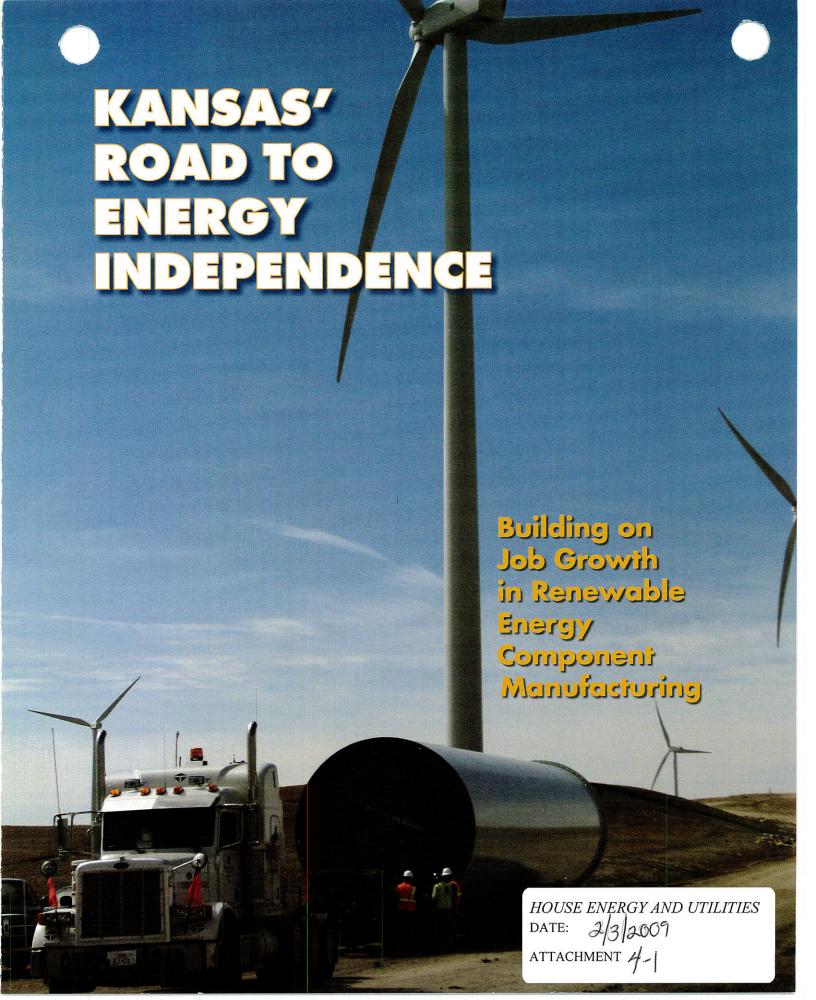
www.KansasEnergy.org

Gray Co. Wind Farm Monthly Production



Source: Energy Information Administration, 2001-2008

www.KansasEnergy.org



NEW CLEAN ENERGY JOB GROWTH

a report developed by the Renewable Energy Policy Project clearly demonstrates, a major commitment to renewable electric generation will reduce our national security exposure, stabilize climate and provide a multi-billion dollar investment and reindustrialization program that will lead to new job growth in Kansas.

Analyzing the Demand for Components

The Renewable Energy Policy Project recently completed a state-by-state analysis of the job-creating potential of renewable energy technologies. The results of this analysis were very encouraging both for the country as a whole and for Kansas in particular.

A national program to develop renewable energy will benefit the regions and states that have the best renewable resource base - solar, wind, biomass and geothermal. It will also create a demand for billions of dollars of components, the parts that make up the finished renewable plants. This demand could, if accompanied by appropriate incentives, provide important new markets for domestic manufacturers

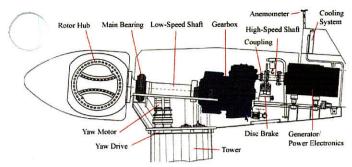
that are already manufacturing equipment similar to the components that go into new renewable generation.

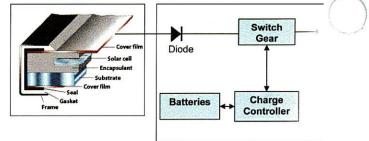
More than 75% of the potential new demand can be expected to flow to the 20 states that have suffered the greatest job losses. A program that supported the development of renewable energy projects while simultaneously supporting the development of a strong, advanced component manufacturing industry would benefit many states and regions.

The report breaks renewable generation technologies down into their component parts and then examines where traditional industries exist that could, if provided with appropriate incentives, become suppliers of the billions of dollars of new parts that will be necessary.

The Report analyzes the renewable energy industry assuming that the United States moves to stabilize carbon emissions. Stabilizing emissions of carbon requires adding 18,500 MW of new renewable projects each year for the next ten years. The Report looks at the total demand generated by this ten-year stabilization program and tracks that demand down to the individual industries capable of manufacturing the components.

Manufacturing .	Jobs and Inve					
Location	# of Firms	Jobs Wind	Jobs Solar	Jobs Geothermal	Jobs Biomass	Jobs Total
Illinois	2,289	30,010	19,298	3,396	3,875	56,579
Wisconsin	1,331	25,179	4,943	2,037	2,974	35,133
Missouri	785	10,260	7,532	2,907	2,097	22,796
Minnesota	1,070	9,246	5,238	1,477	2,444	18,405
Kansas	425	3,934	5,430	719	1,408	11,491
Oregon	655	2,805	6,403	645	1,338	11,191
lowa	457	4,914	2,889	648	779	9,230
Washington	790	3,902	3,190	618	852	8,562
Nebraska	200	2,817	2,368	294	7 31	6,210
South Dakota	109	2,253	64	944	217	3,478
Idaho	1 <i>97</i>	820	1,347	155	153	2,475





Revitalizing Kansas' Manufacturing

The national demand is allocated to individual states and eventually to the county level. This report outlines the potential for Kansas from a national commitment to accelerate renewable energy development.

In all, there are more than 425 firms in Kansas that are currently active in the industrial sectors that could supply the component parts to meet the demand necessary to deliver a 15% reduction in global warming emissions.

A major program to develop renewable energy will create a demand for the component parts that go into the renewable developments. A major portion of the potential benefits flowing from the development of renewable energy will go to the manufacturers who supply the component parts. In order to capture as much of that potential as possible for domestic industry,

the first step is to understand where the potential manufacturers are located and then devise the incentives that allow them to move efficiently into the industry.

In addition, the demand can support the creation of thousands more new jobs related to the expanded manufacturing activity.

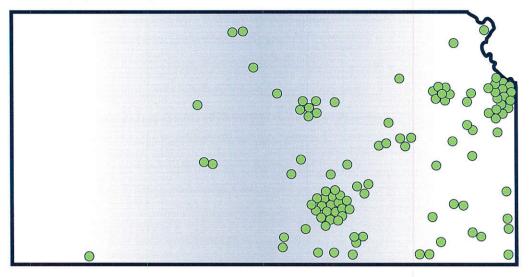
Benefits to Kansas from a national renewable energy program:

- 11,491 new jobs
- \$1.97 billion in investment
- 425 existing manufacturing firms expand

Top 20 Counties in Kansas Ranked by Impact

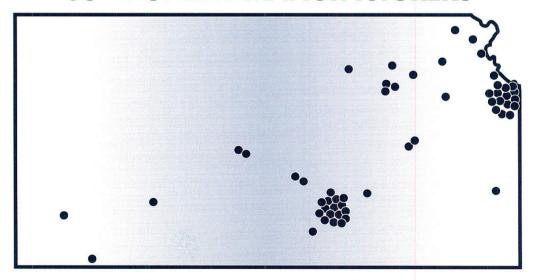
10p 20 G0	Wind		Solar		Geothermal		Biomass		TOTALS	
	Millions \$	Jobs	Millions \$	Jobs	Millions \$	Jobs	Millions \$	Jobs	Millions \$	Jobs
Saline	\$25.50	161	\$402.10	2.112	\$0.00	0	\$3.30	20	\$430.90	2,293
Johnson	\$72.60	462	\$284.20	1.332	\$48.80	346	\$9.10	60	\$414,70	2,200
Sedgwick	\$158.20	1,097	\$28.50	179	\$8.00	43	\$36.00	249	\$230.70	1.568
Ellis	\$7.00	41	\$200.60	1,054	\$0.20	1	\$0.10	0	\$207.90	1,096
Wyandotte	\$19.60	125	\$103.60	547	\$13.00	73	\$10.50	68	\$146.70	813
Barton	\$0.30	672	\$102.00	0	\$0.00	21	\$0.00	5	\$102.30	698
Montgomery	\$96.50	2	\$0.00	439	\$4.00	0	\$0.90	0	\$101.40	441
Crawford	\$1.90	14	\$4.80	26	\$11.00	79	\$38.20	272	\$55.90	391
Reno	\$5.10	30	\$0.40	3	\$11.00	79	\$37.80	270	\$54.30	382
Ford	\$54.10	368	\$0.00	0	\$0.10	0	\$0.00	0	\$54.20	368
Neosho	\$0.90	8	\$0.30	3	\$11.00	79	\$37.80	270	\$50.00	360
Franklin	\$27.20	203	\$0.70	1	\$1.00	1	\$0.90	12	\$29.80	217
Cowley	\$25.50	161	\$0.20	6	\$0.20	5	\$1.70	5	\$27.60	177
McPherson	\$16.10	124	\$1.40	2	\$0.00	0	\$2.60	10	\$20.10	136
Republic	\$0.00	94	\$19.80	0	\$0,00	1	\$0.00	8	\$19.80	103
Butler	\$14.00	97	\$0.00	0	\$0.20	1	\$0.10	0	\$14.30	98
Douglas	\$12.40	0	\$0.00	78	\$0.20	0	\$1.10	0	\$13.70	78
Miami	\$10.80	0	\$0.00	1	\$0.30	16	\$0,20	53	\$11.30	70
Bourbon	\$0.00	0	\$0.00	0	\$2.20	16	\$7.70	54	\$9.90	70
Anderson	\$0.00	62	\$0.10	0	\$2.20	1	\$7.50	1	\$9.80	64

POTENTIAL WIND POWER COMPONENT MANUFACTURERS



3,934 NEW JOBS

POTENTIAL SOLAR POWER COMPONENT MANUFACTURERS



5,430 NEW JOBS



Prepared by the Blue Green Alliance 2929 University Ave. SE #150 Minneapolis, MN 55414 www.bluegreenalliance.org Photo by Jason Becker.





UNITY AND STRENGTH FOR WORKERS

UNITED STEELWORKERS



MARK A. SCHREIBER Director, Government Affairs

Testimony of Mark Schreiber Director Government Affairs, Westar Energy Before the House Energy and Utilities Committee On HB 2127 February 3, 2009

Good morning Chairman Holmes and members of the committee. Thank you for the opportunity to provide testimony in support of HB 2127.

This bill places into statute a requirement for a percentage of our generation portfolio to be met by renewable resources. Soon, Westar will have approximately 300 megawatts of wind energy in its generation portfolio, which represents about 6% of our peak load. To meet the 10% requirement in 2010, Westar would need to build another 200 megawatts of renewable capacity. Although this is an aggressive timeline, we believe we can meet this schedule. If we are unable to meet the deadline for some unforeseen reason such as inclement weather, the bill allows for the use of RECs to meet the standard until construction can be completed. You have heard HB 2013 and HB 2038 this year regarding a renewable portfolio standard. All three bills have an ultimate goal of 20% renewables by 2020. Westar is prepared to meet that goal.

HB 2127 also places a requirement for investor-owned utilities to provide, within certain parameters, net metering to their customers. Net metering is similar to the current parallel generation act, except for the price we pay for the customergeneration. Net metering requires that the utility credit at retail price the amount of electricity it receives from the customer. At the end of the calendar year, any net excess generation is granted to the utility at no cost. The parallel generation act requires the utility to pay 150% of our monthly average avoided cost (e.g. our fuel cost).

The bill restricts the amount of customer-generation to 1% of our peak load. For Westar, that would mean about 50 megawatts, fully subscribed. Currently, Westar has about 30 customers on the parallel generation tariff. In 2008, we received 12,851 kwh from those customers and paid \$355.28. With the restrictions in HB 2127, net metering can provide an incentive for small renewable generation without significant impact for the retail customer base.

Thank you again for the opportunity to testify in support of HB 2127. I will stand for questions at the appropriate time.

818 South Kansas Avenue / P.O. Box 889 / Topeka, Kansa HOUSE ENERGY AND UTILITIES
Telephone: (785) 575-8369 / Fax: (785) 575-8119 / Mobile: (78 DATE: 2/3/2005
mark.schreiber@WestarEnergy.com
ATTACHMENT



Testimony of Paul Snider Before the House Energy and Utilities Committee In Support of House Bill 2127 February 3, 2009

Kansas City Power & Light supports renewable energy and net metering mandates. Both this year and last, KCP&L has supported reasonable initiatives to make Kansas more sustainable.

HB 2127 is a step forward on these issues.

KCP&L first invested in wind energy in 2006 and has plans to add up to 400 MW of wind energy by the end of 2012 to serve our customers in Kansas and Missouri, pending approval by regulators.

Last fall, KCP&L supported Proposition C in Missouri, which, like this bill, calls for certain percentages of power come from renewable sources. A key part of Prop C, and HB 2127, is a provision that limits the cost exposure for companies and customers. This is an important consumer protection and should be included in any RPS bill debated in Kansas.

KCP&L believes this bill, and the other RPS bills this session, could be improved with the following additions:

- Allow energy efficiency to be used to meet a portion of the RPS requirement (similar to Sen. Bingaman's bill, and others, in Congress);
- Clarify language on cost recovery and which assets may be counted toward compliance;
- Clarify language on the use of RECs;
- Remove restrictions on the use of hydropower;
- Provide reasonable variances for the lack of transmission and credit rating effects of additional investments; and,
- Allow reasonable timeframes for compliance.

We believe a state RPS and net metering availability are important for Kansas and we look forward to visiting with Rep. Knox and his subcommittee on these issues.

Paul Snider – KCP&L Senior Manager, Government Affairs 816-556-2111; paul.snider@kcpl.com

HOUSE ENERGY AND UTILITIES

DATE: 2/3/2009

ATTACHMENT 6



100 Congress Ave., Ste. 800 Austin, Texas 78701 Paul Sadler, Executive Director

Testimony on HB 2127

The Wind Coalition supports the implementation of a meaningful renewable portfolio standard (RPS) in Kansas. An RPS that results in measurable increases in the demand for Kansas will encourage the development of the rich wind power resources within the state and significantly increase direct and indirect economic development at a time when it is sorely needed.

The nation is focused on energy more today than perhaps at any time in history. The recent experiences of the nation in being held hostage to the whims of oil rich countries abroad and sky rocketing prices coupled with a realization that America's national security is in part tied to energy has provided us with a focused resolve to become more energy independent. The development of wind energy moves the nation toward addressing these goals.

The popularity of investing in more American made clean energy is growing. The majority of states now require significant levels of renewable energy among their states' utilities. The most recent addition in Missouri was passed in November through an initiative petition winning garnering nearly 70% of the votes cast.

For Kansas and other states in the plains region of the country, this will mean billions of dollars of new economic development. Today Kansas has approximately 1000 MW of wind power in the state. According to the National Energy Renewable Energy Laboratory, the addition of these generators translates into over a billion dollars in cumulative economic benefit.

"We forecast the cumulative economic benefits from 1000 MW of development in Kansas to be \$1.08 billion, annual CO2 reductions are estimated at 3.2 million tons, and annual water savings are 1,816 million gallons." NREL

The future possibilities of additional positive economic impact are impressive. Kansas is third in the nation, according to NREL, in the total potential for wind energy development. The fact that Kansas has an enormous amount of wind resource is not the only factor that will influence this development. In order to realize the state's potential, Kansas should ensure that the landscape for investors making decisions on where to build the wind generation and manufacturing facilities is competitive with other states. Adopting a meaningful Renewable Portfolio Standard (RPS) would send a positive signal to the wind industry by providing additional certainty in the minimum levels of demand for wind energy. Having a RPS has proven to be impactful to both developers and manufacturers. Several States that have adopted standards have seen an influx of investment. For example, Colorado established an RPS while

HOUSE ENERGY AND UTILITIES
DATE: 2/3/2009

ATTACHMENT 7-

also addressing the lack of transmission to windy areas through regulatory policies. This duel effort, along with actively recruiting companies to locate wind manufacturing facilities in the state, signaled a welcome mat for the wind industry. Subsequent investment in new wind farms and new manufacturing that followed shows Colorado as a rising wind power state.

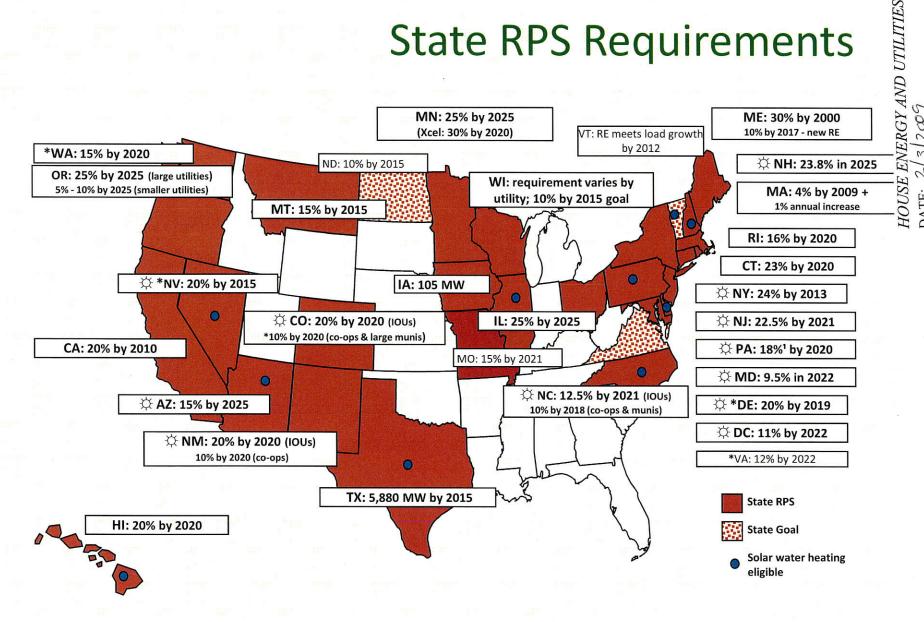
Two years before the goal set by Governor Sebelius, Kansas has eclipsed the goal of building 1000 MW of wind generation in the state. With the vast wind resources at the disposal of the state it will not be difficult to attain the levels set in out this bill. Kansas could easily achieve higher levels and not only become a user of wind energy, but an exporter of wind energy as well. The Wind Coalition requests that the Legislature consider amending the legislation to increase the use of Kansas domestic resources either by establishing standards that are a percentage of energy consumed or by raising the percentages. The Coalition also asks that the Committee give consideration to adding a special provision mandating that the state government's energy consumption of Kansas renewable energy be established. Recently, Oklahoma University issued a statement that it intended to reach a goal of having 100% of its energy come from renewable sources. Establishing a significant minimum level of renewable energy consumption for state facilities would send a strong message that the legislature believes in investing in the economically competitive development of its home grown wind resources.

Wind energy is a critical element in the fight for our national security and energy independence. The development of wind energy has been proven to be a cost effective clean source of energy. In fact, wind energy has competed head to head with other traditional energy sources. In many instances, wind energy has been on par with or less expensive than new coal, natural gas or nuclear resources. The level of demand across the country is increasing and there is great opportunity for the state to capitalize on the potential to develop its rich wind resources.

As this body knows well, issues such as transmission development are critical to wind energy development. The future expansion of any type of energy development will depend on the construction of a delivery system to export Kansas wind energy, and other traditional energy resources, to other parts of the nation. The level of investment that occurs in Kansas is also dependent on the policies and messages sent by Kansas policy makers about the support that exists within the state for wind development and the likelihood for growth in demand. Passing a meaningful RPS will send just that kind of message, giving Kansas a recruiting advantage over surrounding wind states that have not yet passed a Renewable Portfolio Standard. It will act as a bridge in ensuring that a minimum level of demand will be present within the state in the near term, giving Kansas an additional tool in recruiting development in these challenging economic times. The Wind Coalition supports the passage of legislation instituting a renewable portfolio standard.

State RPS Requirements

ATTACHMENT



²S: Renewable Portfolio Standard, also known as Renewable Energy Standards

Economic Impacts to Kansas

from 7158 MW of new wind development by 2030

Wind energy's economic "ripple effect"

Direct Impacts

Payments to Landowners:

- \$20.8 million/year
 Local Property Tax Revenue:
- \$19 million/year
 Construction Phase:
- 11,133 new construction jobs
- \$1.35B to local economies Operational Phase:
- 1805 new long-term jobs
- \$152M/yr to local economies

Indirect Impacts

Construction Phase:

- 5,000 new jobs
- \$424M to local economies

Operational Phase:

- 438 local jobs
- \$43 M/yr to local economies

Induced Impacts

Construction Phase:

- 6,223 new jobs
- \$559 M to local economies

Operational Phase:

- 850 local jobs
- \$76 M/yr to local economies

Totals (construction + 20 yrs)

Total economic benefit to Kansas = \$7.8 billion New local jobs during construction = over 23,000 New long-term jobs for Kansans = over 3,000



KATHLEEN SEBELIUS, GOVERNOR

Testimony on House Bill 2127

Submitted to
House Energy and Utilities Committee
by
Sally Howard
Office of Governor Kathleen Sebelius

February 3, 2009

Mister Chairman and Members of the Committee:

Good morning and thank you for allowing me the opportunity to testify in favor of House Bill 2127, which reflects the Governor's proposal for a mandatory renewable energy standard, net-metering, and state building efficiency standards. In drafting this proposal, we looked at best practices being implemented in other states, considered prior legislation, reviewed recommendations of the Kansas Energy Council, and talked with utilities and other stakeholders. My testimony provides an overview of the key components of House Bill 2127.

I. Renewable Energy Standards

Kansas is ranked third in the country in its potential for wind energy¹. Other states are developing incentives to promote their wind resources, and mandatory renewable energy standards are viewed as an effective tool to stimulate investment in wind energy. It's also viewed by wind turbine manufacturers as an indication of how favorable markets in the state will likely be for their product. Kansas is one of only sixteen states in our country that does not have a mandatory renewable energy standard. The RES set forth in House Bill 2127 provides the following:

- Goals:
 - o 10% of gross generation capacity by 2010
 - o 15% of gross generation capacity by 2016
 - o 20% of gross generation capacity by 2020

HOUSE ENERGY AND UTILITIES

DATE: $\frac{\lambda}{3}/200^{c_1}$

ATTACHMENT 9-1

¹ American Wind Energy Association Fact Sheet, http://www.awea.org/pubs/factsheets/top20.pdf

- Who's covered: Investor-owned utilities and rural cooperatives regulated by the KCC;
- Renewable energy credits can be used as part of compliance;
- Retail rate out clause: allows non-compliance if cost to comply would increase ratepayers rate more than one percent;
- Incentive for renewable generating facilities located in Kansas

II. Net-Metering

Kansas is one of only six states that do not offer net-metering. There are a number of arguments about how "customer generators" should be compensated for net excess generation. Thirty states and the District of Columbia allow net excess generation to be credited to utility bills on a retail basis. States are split on how to handle net excess generation after a calendar year, with some paying customer generators and others granting the power to the utilities. States are also split on a number of other policy issues including size of individual generators allowed, and total percentage of capacity that must be allowed. The net-metering provision in House Bill 2127 provides as follows:

- Only Investor-owned utilities are included
- Total system size is equal to one percent of the utility's peak demand for the prior year;
- Individual system size:
 - o 25 Kw for residences
 - o 200 Kw for commercial, industrial, school, local government, agricultural, institutional
 - O Customer-generators must be sized to meet users expected load.
- Net excess generation credited to next month's bill on a one to one basis (retail rate)
- Any net excess generation remaining at end of calendar year expires

III. State Building Efficiency Standards

One of the Kansas Energy Council's recommendations was that the State adopt building efficiency standards requiring that new state buildings be designed to meet the "silver" rating under the Leadership in Energy and Environmental Design ("LEED") standards. A growing number of states are moving in this direction. A number of states also allow use of the Green Globes rating system. This green building system is newer than LEED, and is viewed by many as more flexible and less cumbersome to use than LEED. Both ratings systems generally look at the following: 1) Energy Use; 2) Water Use; 3) Pollution; 4) Material/Product Inputs; 5) Indoor Air Quality & Occupant

² Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Minnesota, Nevada, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Vermont, Virginia, Washington, West Virginia Wisconson, Wyoming, *See* Database of State Incentives for Renewables and Efficiency, http://www.dsireusa.org

Comfort; 6) Transport; 7) Site Ecology; and 8) Other Sustainable Design. The building efficiency standards in House Bill 2127 are as follows:

- Only apply to state buildings
- New buildings must achieve either the
 - o Silver rating under LEED³
 - o Two Globes under Green Globes⁴
- Where state buildings are renovated, accomplish maximum energy efficiency where cost-effective based on construction and operating costs over life cycle of building.

We believe HB 2127 is Kansas' next step toward a clean energy future. This legislation to promote the generation of renewable energy and improve efficiency efforts in state buildings is part of a larger, comprehensive energy plan that also includes legislation to create green jobs and attract businesses. The passage of this comprehensive energy package will send a clear signal to our citizens, private investors and renewable manufacturers that Kansas is embracing a clean energy future, and will help to spur investment and innovation. Kansas will become a hub of wind power, a heartland center for green industries, and together we will lead the country in renewable, clean and sustainable energy use.

⁴ Two Globes means scoring 35-54% of points possible.

³ Silver level means a point score of 33-38 points out of possible 69 points.



AIA Kansas

A Chapter of the American Institute of Architects

President
David S. Heit, AIA
Topeka
President Elect
J. Michael Vieux, AIA
Leavenworth
Secretary
Hans Nettelblad, AIA
Overland Park
Treasurer
Nadia Zhiri, AIA
Lawrence

Richard Brown, AIA Wichita Christie Carl, AIA Abilene Randle L. Clark, AIA McPherson Keith Diaz-Moore, AIA Lawrence Dale R. Duncan, AIA Olathe Gwenda S. Gigous, AIA Topeka David Livingood, AIA Lawrence Peter Magyar, Assoc, AIA Manhattan Katherine Nichols, Assoc. AIA Gary Nevius, AIA Overland Park C. Stan Peterson, FAIA Topeka Daniel Sabatini, AIA Lawrence Charles Smith, AIA Daniel (Terry) Tevis, AIA Lenexa Jason VanHecke, AIA

February 3, 2009

TO:

House Energy and Utilities Committee

FROM:

Trudy Aron, Executive Director

RE:

Support for HB 2127

Good Morning Chair Holmes and Members of the Committee. I am unable to be with you today but would like to provide this written testimony in support of HB 2127.

AIA Kansas is a statewide association of architects and intern architects. Most of our 700 members work in over 120 private practice architectural firms designing a variety of project types for both public and private clients. Our members are designing tomorrow's building today. These buildings are meeting the triple bottom line: environment, people and economy.

HB 2127 requires the State to adopt energy efficiency performance standards for new and, to the extent possible, renovated State buildings. It requires buildings to be designed and constructed to achieve energy consumption levels that meet one of the following: LEED Silver, Green Globes, or the equalivant rating system accredited by the American National Standards Institute. It also provides for net metering.

AIA Kansas, as we testified in HB 2015, supports energy efficiency performance standards for new and renovated State buildings. We also support policies that reduce our "carbon footprint" by designing and renovating buildings that save water, waste and the use of fossil fuels when transporting materials needed for these projects. The standards in this bill will get us further down that road. Using the life-cycle of the building for measuring its cost effectiveness is crucial to making sound decisions at the design and construction phase.

HB 2127 also includes provisions for net metering with bidirectional meters. AIA Kansas strongly support this. The use of renewables must be part of Kansas' energy mix. We would strongly encourage an increase in the amount of renewables that is allowed to connect to the grid. 1% is not enough.

Please let me know when we may provide more information to the Committee or Sub-committee. Thank you.

Executive Director Trudy Aron, Hon. AIA, CAE info@aiaks.org

Wichita

700 SW Jackson, Suite 209 · Topeka, KS 66603 · 800-444-9853 or 785-357-5308 · www.aiaks.org

HOUSE ENERGY AND UTILITIES

211.21

ATTACHMENT

10



HOUSE ENERGY AND UTILITIES COMMITTEE H.B. 2020 ス12円

Testimony on behalf of Kansas Electric Power Cooperative, Inc.

Mr. Chairman and members of the committee:

I am Phil Wages, Director of Member Services, Government Affairs, and Business Development for Kansas Electric Power Cooperative, Inc (KEPCo). KEPCo is a not-for-profit generation and transmission utility, providing electricity to nineteen member rural electric cooperatives serving the eastern two-thirds of the state.

KEPCo stands in opposition of HB 2127 for what KEPCo believes is an oversight in the language of the bill.

KEPCo's resources include nuclear (6% of Wolf Creek), hydropower, and power purchased from other utilities with the majority coming from Westar. Approximately fifty percent of KEPCo's energy resources are already non-greenhouse gas emitting. As part of this fifty percent, twenty percent of KEPCo's energy is hydropower from the Southwest Area Power Administration (SWAPA) and the Western Area Power Administration (WAPA). KEPCo has received energy from SWAPA and WAPA since the 1980's.

In KSA 79-201, hydropower is listed as a renewable energy resource without limitation.

In New Section 2 (9) of HB 2127, which defines renewable energy resources, hydropower is limited to a name plate rating of ten megawatts or less. This would eliminate consideration of KEPCo's hydropower resources, which is KEPCo's least expensive energy resource.

KEPCo believes that restricting the amount of hydropower in the definition of renewable energy resources was an oversight by the drafter of the bill with an unintended consequence to utilities that rely upon hydroelectric power as part of their energy resources.

KEPCo respectfully asks the Committee to strike "and that has a nameplate rating of 10 megawatts or less" from New Section 2 (9).

Phone: 785.273.7010 Fax: 785.271.4888 www.kepco.org

P.O. Box 4877 Topeka, KS 66604-0877

> 600 Corporate View Topeka, KS 66615

A Touchstone Energy* Cooperative

HOUSE ENERGY AND UTILITIES
DATE: 2/3/2009ATTACHMENT | |

February 3, 2009 Before the House Energy and Utilities Committee

House Bill 2127 - Establishing the Renewable Energy Standards Act

Conferee: Earl Watkins, President and Chief Executive Officer

POSITION: Sunflower is opposed to this legislation, as written, but could support this bill if modified as outlined in this testimony.

SUMMARY:

- The term "affected utility" should only apply to public utilities generating electricity thereby affecting investor-owned and generation and transmission cooperatives.
- We will always advocate that the term capacity not be used with regard to renewable generation because the term does not have the same meaning when used by public utilities and regional power pools.
- In Section 3, our markups are intended to allow a utility to use renewable energy credits to achieve a capability requirement. However, we are concerned that a utility relying heavily on renewable energy credits could face significant financial risks that would be associated with potential market manipulation and volatility. With these changes, Sunflower supports the RPS requirements contained in this bill. In addition, we would be willing to consider an alternate system using the same percentages of energy provided (instead of capacity or capability) if the requirements pertained strictly to its member cooperative's retail loads.
- If the Committee prefers using the language in this bill, we would suggest you make the changes shown below.
- Two important changes we think should be made are to:
 - Count the renewable generators installed after January 1, 2000. If not, the Gray County Wind Farm would not be counted in our renewable portfolio assets.
 - If you decide to continue with a capability based approach, allowable assets counted in the portfolio should include those that are contracted. All of Sunflower's renewable assets have been acquired through contract purchases.
- In the parallel generation statute revisions we suggest that it should be clear these generators be appropriately sized. We also suggest that utilities be allowed full access to any customer's interconnection facility.

301 West 13th Street ~ P.O. Box 1020 ~ Hays, Kansas 67601-1020 ~ Tel. 785.628.2845 ~ Fax 785.623.3395 ~ www.sunflower.net

ATTACHMENT 12-

COMMENTS ON NEW SECTION 2

- The term "affected utility" should only apply to public utilities generating electricity. This would make these provisions applicable to investor-owned utilities and generation and transmission cooperatives, but they would not be applicable to distribution cooperatives.
- The term capacity should never be used with regard to renewable generation because the term does not have the same meaning when used by public utilities and regional power pools. Using the term "nameplate capability" is a more accurate term to use because renewable energy resources are intermittent by nature and therefore cannot be seen as having a capacity rating equivalent to conventional power generation resources.
- In subsection (d) peak demand should only apply to utilities generating electricity. However, generation and transmission cooperatives do not serve retail customers, so the calculation of peak demand should be the sum of the retail loads of the distribution cooperatives that own the generation and transmission cooperatives,

New Sec. 2. As used in the renewable energy standards act:

- (a) "Affected utility" means any public utility generating electricity, but does not include any portion of any municipally owned or operated electric utility.
 - (b) "Commission" means the state corporation commission.
- (c) "Net renewable generation nameplate capability" means the gross generation capability of the renewable energy resource when not limited by ambient conditions, equipment, operating or regulatory restrictions less auxiliary power required to operate the resource, and refers to resources located in the state or resources serving ratepayers in the state.
- (d) "Peak demand" means the demand imposed by the affected utility's retail load in the state. For generation and transmission cooperatives, the peak demand would be the sum of their member cooperative's retail loads.
- (e) "Renewable energy credit" means a credit representing energy produced by renewable energy resources issued as part of a program that has been approved by the state corporation commission.
 - (f) "Renewable energy resources" means net renewable generation capability from:
 - (1) Wind:
 - (2) solar thermal sources;
 - (3) photovoltaic cells and panels;
 - (4) dedicated crops grown for energy production;
 - (5) cellulosic agricultural residues;

Deleted: as defined in K.S.A. 66-101a, and amendments thereto,

Deleted: capacity

Deleted: capacity

Deleted: located over a four-hour

Deleted: capacity

- (6) plant residues;
- (7) methane from landfills or from wastewater treatment;
- (8) clean and untreated wood such as pallets;
- (9) hydropower, not including pumped storage, that does not require a new diversion or impoundment of water and that has a nameplate rating of 10 megawatts or less;
- (10) fuel cells using hydrogen produced by one of the above-named renewable energy resources; and
- (11) other sources of energy, not including nuclear power, that become available after the effective date of this section, and that are certified as renewable by rules and regulations established by the commission, pursuant to section 7, and amendments thereto.

COMMENTS ON NEW SECTION 3

- This section tries to combine a renewable portfolio standard (RPS) based both on generating capability (megawatts) and one based on renewable energy credits (based on megawatt hours). Our suggestion is that the Committee decide that the standard be based on one system or the other, but not both. Sunflower supports the RPS contained in HB2013, but would be willing to consider a system using the renewable energy credits if the requirements pertained strictly to its member cooperative's retail loads.
- If the Committee prefers using the language in this bill, we would suggest you make the changes shown below.
- Two important changes we think should be made are to:
 - Count the renewable generators installed after January 1, 2000. If not, the Gray County Wind Farm would not be counted in our renewable portfolio assets.
 - If you decide to continue with a renewable credit component, allowable assets counted in the portfolio should be those that are either owned or contracted. All of Sunflower's renewable assets have been acquired through contract purchases.

New Sec. 3. (a) The commission shall establish by rules and regulations a portfolio requirement for all affected utilities to generate or purchase electricity generated from renewable energy resources or purchase renewable energy credits. For the purposes of calculating the capability from renewable energy credit purchases, the affected utility shall use its actual capability factor from its owned and/or contracted renewable generation from the immediately previous calendar year. Such portfolio requirement shall provide net renewable generation capability that shall constitute the following portion of each affected utility's peak demand:

Deleted: capacity

Deleted: capacity

Deleted: Renewable energy credits may only be used to meet a portion of portfolio requirements for the years 2010, 2016 and 2020, unless otherwise allowed by the commission.

Deleted: capacity

- (1) Not less than 10% of the affected utilities' coincidental peak demand for calendar years 2010 through 2015, based on the average demand of the prior three years of each year's requirement;
- (2) not less than 15% of the affected utilities' coincidental peak demand for calendar years 2016 through 2019, based on the average demand of the prior three years of each year's requirements; and
- (3) not less than 20% of the affected utilities' coincidental peak demand for each calendar year beginning in 2020, based on the average demand of the prior three years of each year's requirement.
- (b) The portfolio requirements described in subsection (a) shall apply to all power sold to Kansas retail consumers whether such power is self-generated or purchased from another source in or outside of the state.

The <u>capability</u> of all net metering systems interconnected with the affected utilities under the net metering and easy connection act in section 8 et seq., and amendments thereto, shall count toward compliance.

- (c) Each megawatt of eligible <u>capability</u> in Kansas installed after January 1, <u>2000</u>, shall count as 1.25 megawatts for purposes of compliance.
- (d) The commission shall establish rules and regulations required in this section within six months of the effective date of this act.

New Sec. 10. Each utility shall:

- (a) Make net metering available to customer-generators on a first-come, first-served basis, until the total rated generating <u>capability</u> of all net metered systems equals or exceeds one percent of the utility's peak demand during the previous year. The commission may increase the total rated generating <u>capability</u> of all net metered systems to an amount above one percent after conducting a hearing pursuant to K.S.A. 66-101d, and amendments thereto;
- (b) offer to the customer-generator a tariff or contract that is identical in electrical energy rates, rate structure and monthly charges to the contract or tariff that the customer would be assigned if the customer were not an eligible customer-generator and shall not charge the customer-generator any additional standby, capability, interconnection or other fee or charge that would not otherwise be charged if the customer were not an eligible customer-generator;
- (c) provide a bidirectional meter to the customer-generator at no charge, but may charge the customer-generator for the cost of any additional metering or distribution equipment necessary to accommodate the customer-generator's facility; and
- (d) disclose annually the availability of the net metering program to each of its customers with the method and manner of disclosure being at the discretion of the utility.

Deleted: capacity

Deleted: 2005

Deleted: capacity

Deleted: capacity

Deleted: capacity

Deleted: residential class

Deleted: capacity

Deleted: capacity

New Sec. 16. The estimated generating <u>capability</u> of all net metered facilities operating under the provisions of this act shall count toward the affected utility's compliance with the renewable energy standards act in sections 1 through 7, and amendments thereto.

COMMENTS ON NEW SECTION 18

- In subsection (a) the language should be included requiring the generators be appropriately sized
- In subsection (3), we believe the word reasonable should be stricken. The nature of the utility business may require crews to access the interconnection facilities at unreasonable times if conditions warrant.
- In subsection (5), we believe the word renewable should be replaced by parallel in the two places listed below.

Sec. 18. K.S.A. 2008 Supp. 66-1,184 is hereby amended to read as follows: 66-1,184. (a) Except as provided in subsection (b), Every public utility which provides retail electric services in this state shall enter into a contract for parallel generation service with any person who is a customer of such utility, upon request of such customer, whereby such customer may attach or connect to the utility's delivery and metering system an apparatus or device for the purpose of feeding excess electrical power which is generated by such customer's energy producing system into the utility's system. Such generator shall be appropriately sized for such customer's anticipated electric load. No such apparatus or device shall either cause damage to the public utility's system or equipment or present an undue hazard to utility personnel. Every such contract shall include, but need not be limited to, provisions relating to fair and equitable compensation on such customer's monthly bill for energy supplied to the utility by such customer.

- (b) (1) For purposes of this subsection:
- (A) "Utility" means an electric public utility, as defined by K.S.A. 66-101a, and amendments thereto, any cooperative, as defined by K.S.A. 17-4603, and amendments thereto, or a nonstock member-owned electric cooperative corporation incorporated in this state, or a municipally owned or operated electric utility;
- (B) "school" means Cloud county community college and Dodge City community college.
- (2) Every utility which provides retail electric services in this state shall enter into a contract for parallel generation service with any person who is a customer of such utility, if such customer is a residential customer of the utility and owns a renewable generator with a capacity of 25 kilowatts or less, or is a commercial customer of the utility and owns a renewable generator with a capacity of 200 kilowatts or less or is a school and owns a renewable generator with a capacity of 1.5 megawatts or less.

Such generator shall be appropriately sized for such customer's anticipated electric load. A commercial customer who uses the operation of a renewable generator in connection with irrigation pumps shall not request more than 10 irrigation pumps connected to renewable generators be attached or connected to the utility's system. At the customer's delivery point on the customer's side of the retail meter such customer may attach or connect to the utility's delivery and metering system an apparatus or device for the purpose of feeding excess electrical power which is generated by such customer's energy producing system into the utility's system. No such apparatus or device shall either cause damage to the utility's system or equipment or present an undue hazard to utility personnel.

Every such contract shall include, but need not be limited to, provisions relating to fair and equitable compensation for energy supplied to the utility by such customer. Such compensation shall be not less than 100% of the utility's monthly system average cost of energy per kilowatt hour except that in the case of renewable generators with a capacity of 200 kilowatts or less, such compensation shall be not less than 150% of the utility's monthly system average cost of energy per kilowatt hour. A utility may credit such compensation to the customer's account or pay such compensation to the customer at least annually or when the total compensation due equals \$25 or more.

(c) The following terms and conditions shall apply to contracts entered into under subsection (a) or (b):

- (1) The utility will supply, own, and maintain all necessary meters and associated equipment utilized for billing. In addition, and for the purposes of monitoring customer generation and load, the utility may install at its expense, load research metering. The customer shall supply, at no expense to the utility, a suitable location for meters and associated equipment used for billing and for load research;
- (2) for the purposes of insuring the safety and quality of utility system power, the utility shall have the right to require the customer, at certain times and as electrical operating conditions warrant, to limit the production of electrical energy from the generating facility to an amount no greater than the load at the customer's facility of which the generating facility is a part;
- (3) the customer shall furnish, install, operate, and maintain in good order and repair and without cost to the utility, such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the utility as being required as suitable for the operation of the generator in parallel with the utility's system. In any case where the customer and the utility cannot agree to terms and conditions of any such contract, the state corporation commission shall establish the terms and conditions for such contract. In addition, the utility may install, own, and maintain a disconnecting device located near the electric meter or meters. Interconnection facilities between the customer's and the utility's equipment shall be accessible at all times to utility personnel. Upon notification by the customer of the customer's intent to construct

Deleted: reasonable

and install parallel generation, the utility shall provide the customer a written estimate of all costs that will be incurred by the utility and billed to the customer to accommodate the interconnection. The customer may be required to reimburse the utility for any equipment or facilities required as a result of the installation by the customer of generation in parallel with the utility's service. The customer shall notify the utility prior to the initial energizing and start-up testing of the customerowned generator, and the utility shall have the right to have a representative present at such test;

- (4) the utility may require a special agreement for conditions related to technical and safety aspects of parallel generation; and
- (5) the utility may limit the number and size of <u>parallel</u> generators to be connected to the utility's system due to the <u>capability</u> of the distribution line to which such <u>parallel</u> generator would be connected, and in no case shall the utility be obligated to purchase an amount greater than 4% of such utility's peak power requirements.
- (d) (c) Service under any contract entered into under subsection (a) or (b) shall be subject to either the utility's rules and regulations on file with the state corporation commission, which shall include a standard interconnection process and requirements for such utility's system, or the current federal energy regulatory commission interconnection procedures and regulations.
- (e) In any case where the owner of the renewable generator and the utility cannot agree to terms and conditions of any contract provided for by this section, the state corporation commission shall establish the terms and conditions for such contract.
- (f) The governing body of any school desiring to proceed under this section shall, prior to taking any action permitted by this section, make a finding that either: (1) Net energy cost savings will accrue to the school from such renewable generation over a 20 year period; or (2) that such renewable generation is a science project being conducted for educational purposes and that such project may not recoup the expenses of the project through energy cost savings. Any school proceeding under this section may contract or enter into a finance, pledge, loan or lease purchase agreement with the Kansas development finance authority as a means of financing the cost of such renewable generation.
- (g) For the purpose of meeting the governor's stated goal of producing 10% of the state's electricity by wind power by 2010 and 20% by 2020, the parallel generation of electricity provided for in this section shall be included as part of the state's energy generation by wind power.

Deleted: renewable

Deleted: capacity

Deleted: renewable

Citizens' Utility Ratepayer Board

Board Members: Gene Merry, Chair Randy Brown, Vice-Chair Carol I. Faucher, Member Laura L. McClure, Member A.W. Dirks, Member



David Springe, Consumer Counsel 1500 S.W. Arrowhead Road Topeka, Kansas 66604-4027 Phone: (785) 271-3200 Fax: (785) 271-3116 http://curb.kansas.gov

HOUSE UTILITIES COMMITTEE H.B. 2127

Testimony on Behalf of the Citizens' Utility Ratepayer Board By David Springe, Consumer Counsel February 3, 2009

Chairman Holmes and members of the committee:

Thank you for this opportunity to offer testimony on H.B. 2127. The Citizens' Utility Ratepayer Board is opposed to this bill for the following reasons:

Sections 1 through Section 7 of HB 2127 mandate that Kansas electric utilities, except municipal utilities, acquire set levels of renewable energy by set dates in the future. CURB is supportive of the efforts of Kansas utilities to increase the level of renewable electric generation resources in their generation portfolios. Each Kansas utility, to varying degrees, has added wind resources to its resource portfolio in the last few years.

However, CURB does not support a prescriptive mandate as to (1) the level of renewable resources required, or (2) the timing of adding renewable resources to a utility's system. Each utility system is different from a resource perspective and from a finance perspective. Arbitrarily dictating the level and timing of adding resources, regardless of cost or other considerations, is not in the interest of consumers. HB 2127 is a prescriptive mandate that disregards what may be in the best interest of consumers. CURB has not supported other bills setting rigid renewable portfolio standards and does not believe that this bill offers anything to alleviate the agency's concerns.

Section 8 through Section 16 of the bill establishes the net metering and easy connection act, mandating that each electric utility make net metering available to all customer generators. The bill does appear to cap the requirement at 1% of the utility's peak demand, unless expanded by the commission, but the bill requires full retail tariff net metering, specifically precluding the charging of any standby, capacity, interconnection or other fee or charge. As with the other net metering bills this year and in previous years CURB opposes this bill because it creates subsidies for customers that can afford a very expensive renewable generator paid for by customers that cannot afford such generation. Full retail net metering ignores the fact that fixed costs are incurred to provide utility service, and must be paid by each customer.

CURB supports the current law at K.S.A. 66-1,184, the Kansas parallel generation act. After much debate, the legislature has determined that the economic incentives in the current law are correct.

HOUSE ENERGY AND UTILITIES

DATE: 2/3/2009

ATTACHMENT /3

Kansas Chapter 700 SW Jackson Street, Suite 804 Topeka, KS 66603 tel [785] 233.4400 fax [785] 233.2022

nature.org/kansas

February 3, 2009

Testimony in Opposition to HB 2127
Before the House Energy and Utilities Committee
By Alan Pollom- State Director
On behalf of the Kansas Chapter of The Nature Conservancy

Thank you Chairman Holmes and Members of the Committee for the opportunity to testify in **Opposition to HB 2127**.

While there are many commendable aspects of this bill, unfortunately, the "renewable portfolio" mandate creates the potential of unintended consequences for our wildlife and wild lands. In today's circumstances, the only feasible way to reach the mandated renewable requirements is by the development of large scale wind energy facilities. A growing body of knowledge is pointing to a variety of negative potential impacts to wildlife that can be attributed to such developments.

In fact, the concern over site specific and cumulative impacts has resulted in the creation of a new organization, the American Wind Wildlife Institute (AWWI). I am a founding board member and treasurer of the AWWI. The members of AWWI include the nation's largest environmental organizations and the world's largest wind energy developers (see attached logos). One of AWWI's initiatives is the creation of a mapping tool that will identify environmentally sensitive areas that should be avoided and areas of low wildlife risk where wind development should be prioritized. The initial map product for the contiguous US states is expected to be available by this summer and is supported by so many industry stakeholders as a way to encourage responsible development.

The renewable portfolio mandate in this bill has the potential to encourage reckless development in inappropriate locations. Westar, KCP&L and Empire District have all been making good faith efforts to avoid purchasing or producing power from wind facilities in inappropriate locations like the Flint Hills. Their actions to date are already on track to "voluntarily" meet the bill's desired goals.

I believe everyone at this hearing is well aware of the push to build new transmission capacity, an effort that hopefully will be accelerated by passage of the pending federal stimulus bill. These new transmission lines will open up vast new areas for properly sited wind facilities. It would be ill advised to mandate timelines and targets that could force utilities to make business decisions in haste and against their corporate preference to avoid damaging important natural areas within Kansas.

As a result, I urge an unfavorable report on HB 2127.

HOUSE ENERGY AND UTILITIES

DATE: 2/3/2009

ATTACHMENT /4-/



Thank you to our founders.



























BABCOCK&BROWN

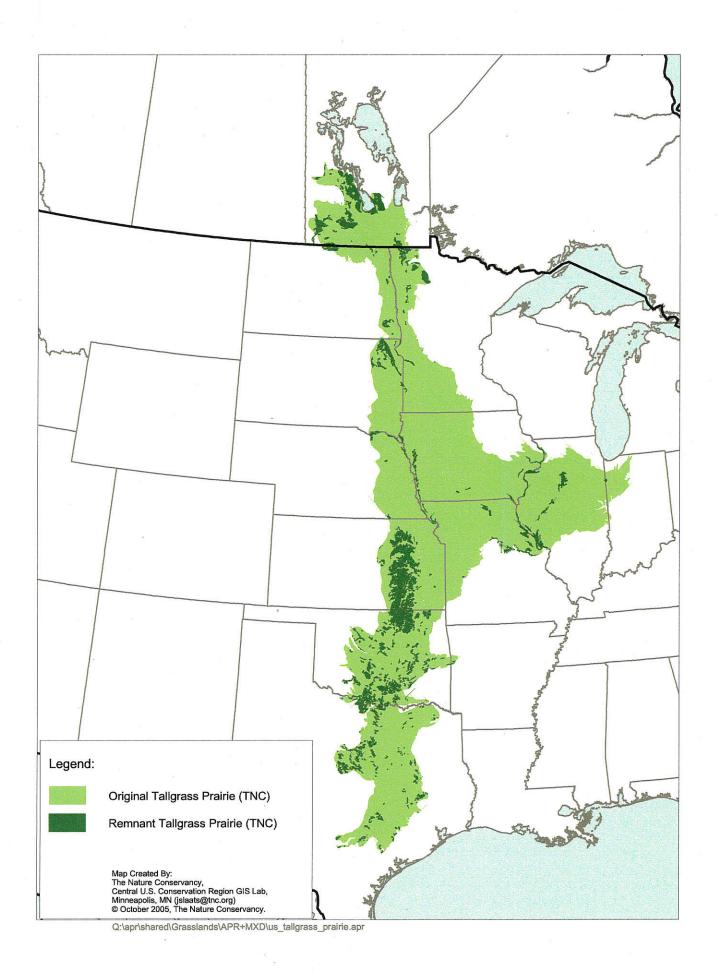






American Wind Wildlife Institute Board Meeting

January 6, 2009 Boulder, CO





Building a Better Kansas Since 1934 200 SW 33rd St. Topeka, KS 66611 785-266-4015

TESTIMONY OF ASSOCIATED GENERAL CONTRACTORS OF KANSAS BEFORE HOUSE COMMITTEE ON ENERGY AND UTILITIES HB 2127

February 3, 2009

By Eric Stafford, Associated General Contractors of Kansas, Inc.

Mister Chairman and members of the committee, my name is Eric Stafford. I am the Director of Government Affairs for the Associated General Contractors of Kansas, Inc. The AGC of Kansas is a trade association representing the commercial building construction industry, including general contractors, subcontractors and suppliers throughout Kansas (with the exception of Johnson and Wyandotte counties).

AGC of Kansas stands neutral on HB 2127 as written with concerns.

AGC fully supports owners who adopt energy efficiency standards for buildings if it is cost effective in the life cycle of the facility. Additionally, HB 2127 requires new construction and renovations to achieve maximum energy efficiency on a cost-effective basis. LEED or "green" construction can be expensive. AGC is cautious of legislation establishing specific standards that might deter owners from renovations or new construction.

Again, the AGC of Kansas stands neutral on HB 2127 as written with concerns. Thank you for your consideration.

HOUSE ENERGY AND UTILITIES

DATE: 2/3/2009

ATTACHMENT



Chairperson and Members of the Committee:

Over the last few months, I have had the opportunity to talk with several wind development companies and wind equipment manufacturers. All of them recognize the potential for wind development in, and possible power export from, Kansas. However, to date, there have been no major wind equipment manufacturers locate in Kansas. The actual development of our wind resource has also lagged behind that which has occurred in states with significantly less desirable wind resources.

There are at least two obvious reasons for this unfortunate set of circumstances. In large measure, I am convinced manufacturing has not come to Kansas because Kansas has not established a competitive set of financial incentives to attract these highly desirable companies. Furthermore, we have also failed to pass some straightforward policy incentives that would have encouraged both manufacturing and development companies to do business here. The passage of a Renewable Portfolio Standard (RPS) would provide some predictability to the marketplace and would send a signal to wind developers and manufacturers that Kansas is open for business. I would urge your serious consideration of this legislation.

Dave Kerr President Hutchinson/Reno County Chamber of Commerce