Approved: February 27. 2009
Date

MINUTES OF THE HOUSE ENERGY AND UTILITIES COMMITTEE

The meeting was called to order by Chairman Carl Holmes at 9:00 a.m. on January 29, 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 Sloan, Representative
Hans Nettelblad, American Institute of Architects
Dave Springe, CURB
Phil Wages, KEPCo
Nancy Jackson, Climate Energy Project
Dave Sampson, Oak Grove Fabrication
Mark Schrieber, Westar
Scott Jones, KCPL
Tom Krebs, Kansas Association of School Boards
Val Defever, Schools for Quality Education
Stuart Lowry, Electric Cooperatives
Tom Thompson, Sierra Club
Brad Mears, Kansas Municipal Utilities
Nathan Eberline, League of Kansas Municipalities
Randall Allen, Kansas Association of Counties
Eloise Tichener, Jefferson County Planning and Zoning
Jason Fizell, Kansas Land Trust
Allen Pollum, Nature Conservancy
Roger Kroh, City of Lenexa

Others attending:
Forty-nine including the attached list.

Hearing on:

HB 2020 - Establishing the renewable energy incentive program.

Melissa Doeblin explained **HB 2020.**

Proponents:

Tom Sloan, Representative, (Attachment 1), spoke in support of **HB 2020** and explained the rational for the proposed legislation. Additionally, he presented proposed amendments to the bill (Attachment 2).

Hans Nettelblad, American Institute of Architects, (Attachment 3), spoke in favor of **HB 2020.** The AIA believes that we need to do all we can to use renewable resources.

Opponents:

Dave Springe, CURB, (Attachment 4), spoke in opposition to **HB 2020.** He noted that with no limits in this proposed legislation rates could be forced higher.

Phil Wages, KEPCo, (Attachment 5), spoke in opposition to **HB 2020** primarily about the economics portion of the bill.

Minutes of the House Energy And Utilities Committee at 9:00 a.m. on January 29, 2009, in Room 783 of the Docking State Office Building.

Neutral:

Nancy Jackson, Climate Energy Project, (Attachment 6), offered testimony concerning **HB 2020.**

Questions were asked and comments made by Representative Margaret Long.

The hearing was closed on **HB 2020.**

Hearings on:

HB 2043 - Establishing the net metering and easy connection act for wind generation.

And

HB 2051 - Establishing the net metering and easy connection act for solar generation.

Melissa Doeblin, Kansas Revisor, explained **HB 2043** and **HB 2051** to the committee.

Questions were asked and comments made by Representative Tom Sloan.

Proponents:

Dave Sampson, Oak Grove Fabrication, Alta Vista, Kansas (Attachments 7 & 8), spoke in favor of **HB 2043** and **HB 2051.** He noted how these bills would stimulate the economy in the rural countryside.

Hans Nettelblad, American Institute of Architects, (see Attachment 3), spoke in favor of **HB 2043** and **HB 2051** bringing to the committee's attention the chart in their testimony that shows which other states have established some form of net metering.

Mark Schrieber, Westar, (Attachments 9 & 10) spoke as a proponent to **HB 2043** and **HB 2051.**

Scott Jones, KCPL, (Attachments 11 & 12), spoke as a proponent to **HB 2043** and **HB 2051** asking for net metering for all forms of electricity.

Tom Krebs, Kansas Association of School Boards, (Attachment 13), spoke as a proponent to **HB 2043** and **HB 2051.**

Written Proponent:

Val Defever, Schools for Quality Education, (Attachment 14), presented written testimony in support of **HB 2043** and **HB 2051.**

Opponents:

Stuart Lowry, Electric Cooperatives, (Attachment 15), offered testimony in opposition to **HB 2043** and **HB 2051.**

Tom Thompson, Sierra Club, (Attachment 16 & 17), spoke in opposition to **HB 2043** and **HB 2051** noting that they do support net metering, but not in the form presented in these bills.

Brad Mears, Kansas Municipal Utilities, (Attachment 18), spoke in opposition to **HB 2043** and **HB 2051**, noting their concern relates to the removal of local regulatory control.

Minutes of the House Energy And Utilities Committee at 9:00 a.m. on January 29, 2009, in Room 783 of the Docking State Office Building.

Nathan Eberline, League of Kansas Municipalities, (Attachment 19), spoke in opposition to **HB 2043** and **HB 2051**.

Dave Springe, Citizens' Utility Ratepayer Board (Attachments 20 & 21) spoke in opposition to **HB 2043** and **HB 2051.** He noted that he is concerned about the subsidy that is created using this mechanism for net metering.

Randall Allen, Kansas Association of Counties, (Attachment 22 & 23), offered testimony in opposition to **HB 2043** and **HB 2051.** They are not opposed to net metering but to the language in new section 19 that fundamentally strips counties (and cities) of the most basic right to regulate land use within their jurisdictions.

Eloise Tichener, Jefferson County Planning and Zoning, (Attachment 24), offered testimony in opposition to **HB 2043** and **HB 2051**.

Jason Fizell, Kansas Land Trust, (Attachment 25) spoke in opposition to **HB 2043** noting they are opposed to the section 18 and commented it is incidental and immaterial to the overall purpose and goals of the bill.

Allen Pollum, Nature Conservancy, (Attachments 26 & 27) offered testimony in opposition to **HB 2043** and **HB 2051.** He noted they are proposing removal of new sections 18 and 19.

Written Opposition:

Roger Kroh, City of Lenexa, (Attachments 28 & 29) presented testimony opposing **HB 2043** and **HB 2051**.

Neutral:

Nancy Jackson, Climate Energy Project, (Attachments 30 & 31), offered testimony speaking to **HB 2043** and **HB 2051**. Attachment 31 is a briefing to the Senate Committee on Environment and Public Works regarding federal electricity subsidies to all sources of energy.

Questions were asked and comments made by Representatives: Forrest Knox, Carl Holmes, Don Myers, Tom Sloan, Annie Kuether, Dan Johnson, Milack Talia, Joe Seiwert, Vince Wetta, and Tom Moxley.

The hearings on **HB 2043** and **HB 2051** were closed.

The next meeting is scheduled for February 2, 2009.

The meeting was adjourned at 10:55 a.m.

HOUSE ENERGY AND UTILITIES COMMITTEE
GUEST LIST

DATE: January 29, 2009

NAME	REPRESENTING
Carol McDowell	Tallgrass Ranchers
Jason Fizell	Kansas Land Trust
Eloise Tichenor	Kansas Assn of County Planning & Zoning Off.
Dave Sampson	Oak Grove Fabrication
Mark Hazlett	CEP
Colin Hansen	KMU
Brad Meaps	KMU
Nathan Eberline	League of Kansas Municipalities
Phil Wages	ICCPCO
Larry Berg	MIDWEST ENERGY
Monica Cameron	Diamond Solar Solutions
Joe Dick	KCBPU
Mick Urban	Kansas Gas Service
Keith Dabney	Douglas County
Nancy Jackson	CEP
Mark Schreiber	Westar Energy
Tom DAY	KCC
Joe Mosimann	Heim Law Firm
James Roberts	GPACE
Diane Hallmann	KEC

HOUSE ENERGY AND UTILITIES COMMITTEE
GUEST LIST

DATE: January 29, 2009

NAME	REPRESENTING
Whitney Jarman	Empire
David Martin	Empire
Tom Thompson	Sierra Club
David Springe	Cuch
Catherine McLeod	Paul Davis
Kimberly Shaver Svaty	KMU
Scott Jones	KCPL

TOM SLOAN
REPRESENTATIVE, 45TH DISTRICT
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STATE OF KANSAS

TOPEKA

HOUSE OF

REPRESENTATIVES

COMMITTEE ASSIGNMENTS
CHAIRMAN: VISION 2020

MEMBER: ENERGY AND UTILITIES
GOVERNMENT EFFICIENCY
AND FISCAL OVERSIGHT
JOINT COMMITTEE ON ENERGY
AND ENVIRONMENT

Testimony on HB 2020 – Renewable Energy Incentive Program

Mr. Chairman, Members of the Committee: HB 2020 seeks to change the discussion about net metering, community wind, and economic and environmental benefits of renewable energy from one based on emotion to one based on the value of the energy produced.

There are two components of electric generation – energy and capacity. Energy is the electrons produced; capacity is the amount of time that such energy is available. Higher capacity values are more important to electric utilities and customers than is energy value because of enhanced system reliability (i.e., the lights stay on).

Higher capacity values for renewable energy are important because less fossil-fuel "back-up" generation is needed to address the intermittency problems (sun does not shine, wind does not blow). If less fossil-fuel back-up is necessary, potential greenhouse gas emissions are reduced.

In simple terms, higher electricity capacity has a higher value to utilities and consumers. HB 2020 recognizes and rewards renewable energy with capacity values of 80% or greater by requiring utilities (investor-owned, rural electric cooperative, municipal) to purchase such power (from 5 MW or less generation units) for at least 75% of residential retail rates.

For renewable energy generation with capacity factors of less than 80%, utilities (investor-owned, rural electric cooperative, municipal) shall purchase the power for at least 60% of residential retail rates.

The intent of the bill is to promote Kansan-owned generation and to protect both utilities and consumers from unreasonable cost increases. Utilities justly must recover costs associated with being the provider of last resort and consumers should be protected from subsidizing their "richer" neighbors who can afford to install wind turbines, solar generators, bio-mass systems, etc. HB 2020 rewards small Kansas generators for the actual value (energy and capacity) of their generation, while ensuring that utilities and consumer interests are protected.

Revisions necessary: As drafted, the bill does not adequately recognize that many municipal and rural electric cooperatives do not have the generating capacity, distribution/transmission system infrastructure, or customer base to handle a 5 MW renewable generator. This can be addressed by including language indicating that the new generator must pay for the necessary infrastructure improvem

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ents (similar to the Southwest Power Pool policies) or that the incumbent utility can project be appropriately sized to customer load and infrastructure capabilities.

The second revision would recognize that the Kansas Municipal Utilities, Inc. and Kansas Electric Cooperatives require any proposed, Inc., rather than the Kansas Corporation Commission, are the appropriate bodies to develop standardized interconnection protocols for their members.

Under the current Parallel Generation Statute, electric utilities may limit such independent generators connected to their system to 4% of the utility's peak load. Bills introduced to promote net metering establish much lower generation thresholds (e.g., generally less than 100 kv). This bill specifically targets community wind-size projects in which the Kansas investors seek to meet their own electric requirements and assist in meeting the state's larger needs. This bill should be amended to mirror the Parallel Generation Statute limitation of 4%. It may also be necessary to prohibit full service requirement contracts that do not permit such locally owned renewable energy generation from being purchased by municipal and rural electric cooperatives.

Mr. Chairman, advocates of net metering will argue that this proposal does not sufficiently reward persons investing in renewable energy generation. I believe that HB 2020 recognizes and rewards the actual value of the energy generated and is fair both to the small generator and the utility's other customers. Utility representatives will argue that they have to pay more for energy that they may not want. I believe that HB 2020 reflects a balance between the public's support for renewable energy produced by individuals (and the attendant income benefits for "community wind," renewable energy cooperatives, etc.) and the utilities' semi-stranded investment necessary to fulfill its provider of last resort responsibilities.

I encourage Committee Members to examine the underlying premise of HB 2020 – that generators and utilities should sell/purchase electricity based on the intrinsic value of that electricity – i.e., the capacity value. More reliable renewable energy receives a higher compensation than less reliable energy. Not only is this a common sense approach, but it provides a middle ground between small generator and utility interests that protects other consumers. If you accept the premise, but disagree with the numbers used (either/both capacity factor or compensation rates), suggest alternatives. Remember, it is easy to say "no," but much harder to offer constructive suggestions.

Thank you Mr. Chairman. I will respond to questions at the appropriate time.

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HOUSE BILL No. 2020

By Committee on Energy and Utilities

1-14

AN ACT establishing the renewable energy incentive program.

Be it enacted by the Legislature of the State of Kansas:

Section 1. (a) As used in this section:

(1) "Capacity factor" means the ratio of actual output of a power plant over a period of time and its output if the plant operated at full nameplate capacity, and is calculated by totaling the energy the plant produced during a period of time and dividing that total energy by the energy the plant would produce at full nameplate capacity. The formula for "capacity factor" is net actual generation divided by the multiplier of period hours, the number of hours in a period being reported that the power plant was active, and the net maximum capacity, multiplied by 100%.

(2) "Commission" means the state corporation commission.

(3) ~~"New renewable generation unit" means any generation unit having a capacity of 5 MW or less constructed after July 1, 2009, owned by one or more Kansas residents and solely using renewable resources or technologies to generate electricity.~~

(4) "Renewable resources or technologies" means any wind, solar, photovoltaic, biomass, hydropower, animal and human biowaste, municipal waste and landfill gas resources or technologies.

(5) "Utility" means every electric utility, as defined by K.S.A. 66-104, and amendments thereto, and also means any municipally owned or operated electric utility.

(b) On or before September 1, 2009, the commission shall establish standard provisions, including applicable connection fees, safety procedures and other provisions the commission deems appropriate, for agreements providing for interconnection between the facilities of an electric public utility and a new renewable generation unit which generates electricity from renewable resources or technologies. Utilities and new renewable generation units shall abide by commission-established interconnection standards.

(c) Every utility which provides retail electric services in this state shall enter into a contract for renewable generation service with the operator of any new renewable generation unit who is a customer of such utility.

Balloon 1

"New renewable generation unit" means any generati unit constructed after July 1, 2009, owned by one or more Kansas residents and solely using renewable resources or technologies to generate electricity. For purposes of this section:
(A) For utilities with peak loads of 500 MW or greater capacity, "new renewable generation unit" means any generation unit having a capacity greater than 1.5 MW with a maximum capacity of 5 MW; and
(B) for utilities with peak loads less than 500 MW capacity, "new renewable generation unit" means any generation unit having a capacity of 1.5 MW or less.

for utilities regulated by the commission, not including municipally owned and operated utilities,

For cooperatives, as defined in K.S.A. 66-104d, and amendments thereto, the requirements of this subsection to establish the above-described standard provisions shall be determined by the Kansas electric cooperatives, inc. For municipally owned and operated utilities, the requirements of this subsection to establish the above-described standard provisions shall be determined by the Kansas municipal utilities, inc.

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(1) For new renewable generation units with 80% or greater capacity factor, the utility shall purchase such power at a rate of at least 75% of the utility's residential retail rate.

(2) For new renewable generation units with less than 80% capacity factor, the utility shall purchase such power at a rate of at least 60% of the utility's residential retail rate.

(3) For new renewable generation units that combine different renewable resources or technologies on the same site and are owned by the same person or persons with an 80% or greater capacity factor, the utility shall purchase the combined power at a rate of at least 75% of the utility's residential retail rate.

(d) The utility and the new renewable generation unit shall annually agree on a capacity factor for the unit. If an agreement on capacity factor of the unit cannot be reached, either party may appeal to the commission for a determination.

(e) The utility and the new renewable generation unit shall annually agree on a payment schedule for energy produced by the unit and purchased by the utility. Payment shall be entered into the utility's billing system and shall be made no later than 30 days after the end of the agreed-upon period. If an agreement on payment schedule period cannot be reached, either party may appeal to the commission for a determination.

Sec. 2. This act shall take effect and be in force from and after its publication in the Kansas register.

For the purpose of calculating a utility's residential retail rate in this subsection, federally-imposed surcharges shall be excluded.

(f) The requirements of this section and the requirements of K.S.A. 66-1,184, and amendments thereto, for the capacity of small generation units owned by customers shall be no more than 4% of the utility's peak load for the previous year.

(g) For the purpose of calculating retail rates federally-imposed surcharges shall be excluded.

2-2

AIA Kansas
A Chapter of the American Institute of Architects

January 29, 2009

TO: House Energy and Utilities Committee

FROM: Hans Nettelblad, AIA

RE: Support for HB 2020, 2043, and 2051

Good Morning, Chair Holmes and Members of the Committee. I am Hans Nettelblad representing the American Institute of Architects in Kansas.

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, aiming to meet the "triple bottom line": economy , people and environment.

We are providing our testimony on all three bills at one time, since they are related in content.

HB 2020 – AIA Kansas supports the establishment of the renewable energy incentive program. Kansas is the one of the windiest states in the U.S. (see attachment 1) and yet lags behind neighboring states –in its wind power capacity. Colorado, for example, has three times the renewable power capacity as Kansas. Kansas must embrace and encourage the generation and use of clean, renewable energy. This bill will establish statewide standards for both utilities and the renewable generation provider. We believe it is critical that a statewide standard be established to counter widely differing standards set by utilities, which often place the renewable energy generator at a disadvantage.

Renewable energy can stimulate the state's economic development. Power created from renewable source development brings several benefits to adjoining communities including construction and high-tech employment opportunities, lease payments to land owners, and tax revenues to support public schools and local municipalities. We believe that Kansas should, as many other states have done, diversify our energy sources. Environmentally, we cannot continue to pollute our skies and threaten the health of future generations with harmful emissions. These increased emissions further threaten the state's economic livelihood by making Kansas more vulnerable to penalties from future regulation and controls. Therefore, AIA Kansas asks that the committee support of HB 2020 and make Kansas a better place to live, work and raise our families now and for generations to come.

HB 2043 and HB 2051 – AIA Kansas supports these bills as they are both address the subject of net metering – one for wind power, one for solar power. 43 states

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(see attachments 2 and 3) and *all* of the states contiguous to Kansas currently allow net metering. HB 2043 and HB 2051 are a start, however, we are disappointed that the bills do not provide the customer with full retail value for the electricity they generate. While these bills provide more payback than the current "parallel generation" program, they are still short of what is needed.

There is little incentive to install renewable energy technology with the small payback. Therefore, AIA Kansas encourages the Committee to amend the bill to provide customers with the full retail value of the energy they generate. With this change, the bill will encourage the installation of renewable energy technologies, stimulate Kansas' economy and put us on track for the future.

Thank you for your consideration of this change. AIA Kansas would be happy to work with the revisors to amend our changes into the bills. These amendments will take us from a small improvement over the current system to ones that will make the investment in clean, renewable electric generation affordable for many Kansans.

I'll be happy to answer any questions you may have.

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

Top 20 States with Wind Energy Resource Potential

The United States has tremendous wind energy resources. Although California gave birth to the modern U.S. wind industry, 16 states have greater wind potential.

Installed wind energy generating capacity is now over 20,000 MW. The installed wind power fleet is expected to generate an estimated 48 billion kilowatt-hours (kWh) of wind energy in 2008, just over 1% of U.S. electricity supply, powering the equivalent of over 4.5 million homes.

By contrast, the total amount of electricity that could potentially be generated from wind in the United States has been estimated at 10,777 billion kWh annually—more than twice the electricity generated in the U.S. today.

Germany is the world leader in terms of installed wind power, with over 22,000 MW installed, yet it has only a fraction of the wind energy potential that North Dakota alone has.

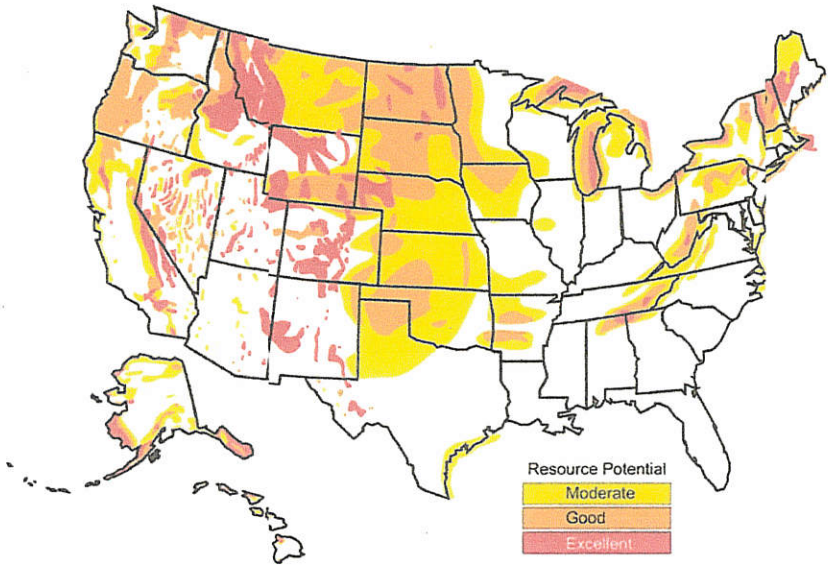
Large wind systems require average wind speeds of 6 meters/second (13 mph)

In graph below, "moderate" means wind speeds of 6.4-7 meters per second (m/s) at a 50-meter height, "good" means 7-7.5 m/s, and "excellent" means 7.5 m/s and higher.

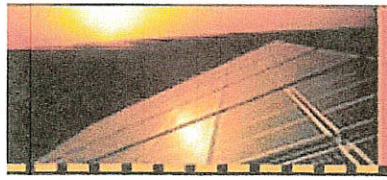
THE TOP TWENTY STATES for wind energy potential, as measured by annual energy potential in the billions of kWhs, factoring in environmental and land use exclusions for wind class of 3 and higher.

1	North Dakota	1,210	11	Colorado	481
2	Texas	1,190	12	New Mexico	435
3	Kansas	1,070	13	Idaho	73
4	South Dakota	1,030	14	Michigan	65
5	Montana	1,020	15	New York	62
6	Nebraska	868	16	Illinois	61
7	Wyoming	747	17	California	59
8	Oklahoma	725	18	Wisconsin	58
9	Minnesota	657	19	Maine	56
10	Iowa	551	20	Missouri	52

Source: *An Assessment of the Available Windy Land Area and Wind Energy Potential in the Contiguous United States, Pacific Northwest Laboratory, 1991.*



Attachment 1

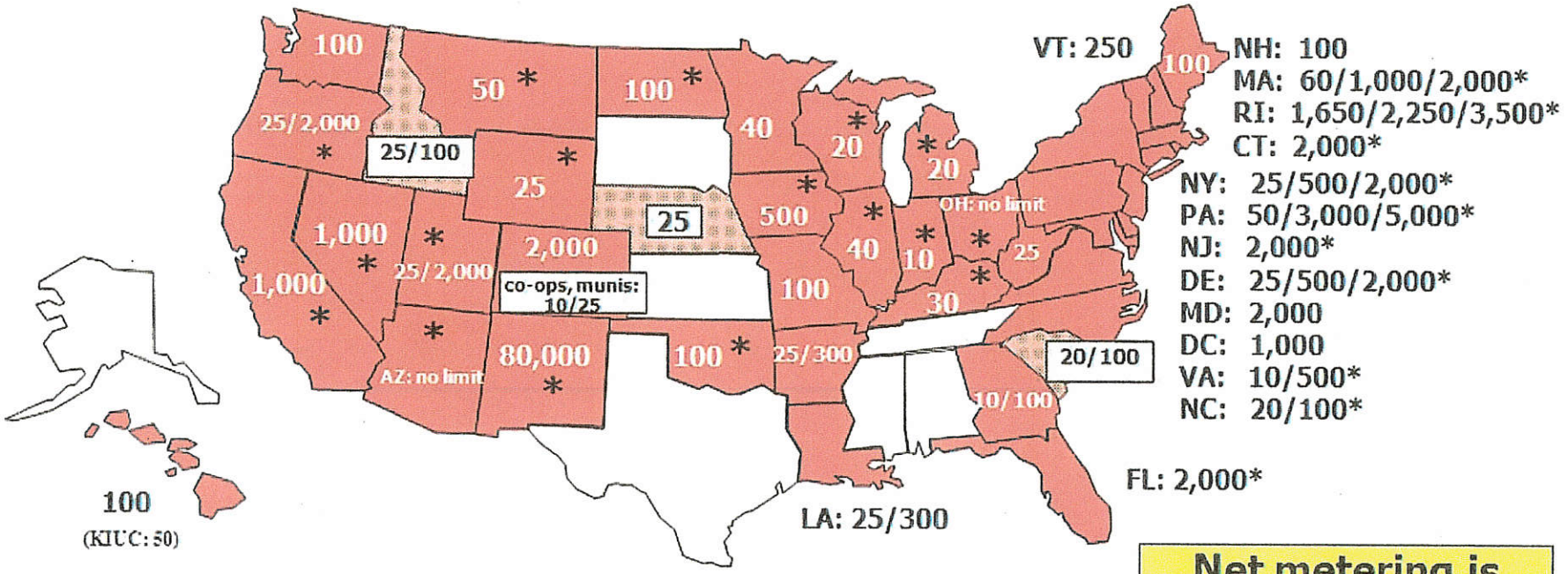


NC State University
North Carolina Solar Center

DSIRE: www.dsireusa.org

January 2009

Net Metering



State-wide net metering for all utility types

* State-wide net metering for certain utility types only (e.g., investor-owned utilities)

Net metering offered voluntarily by one or more individual utilities

Net metering is available in 43 states + D.C.

Note: Numbers indicate individual system size limit in kilowatts (kW). Some states' limits vary by customer type, technology and/or system application; this is the case when multiple numbers appear for one state. Other limits may also apply. For complete details, see www.dsireusa.org.

DSIRE
Database of State Incentives for Renewables & Efficiency

Rules, Regulations, & Policies for Renewable Energy

State	PBF	Disclosure	RPS	Net Metering	connection	Exten. Analysis	Contract. License	Equip. Certific.	Access Laws	Constr. & Design	Green Power Purchasing	Req'd Green Power
Alabama												
Alaska									1-S			
Arizona			1-S	1-S 3-U	1-U	1-S	1-S	1-S	1-S	3-S 2-L	1-L	
Arkansas				1-S	1-S					1-S		
California	1-S	1-S	1-S	1-S	1-S		1-S		2-S 8-L	1-S 7-L	4-L	
Colorado	1-L	1-S	1-S 1-L	1-S	1-S	1-S			1-S 1-L	2-S 5-L	2-L	1-S
Connecticut	1-S	1-S	1-S	1-S	1-S		1-S			1-S	1-S 1-L	
Delaware	2-S 1-U	1-S	1-S	1-S	1-S							2-U
Florida		1-S	1-U	1-S 7-U	1-S		1-S	1-S	1-S 1-L	1-S		
Georgia				1-S	1-S				1-S			
Hawaii			1-S	1-S	1-S		1-S		1-S	2-S		
Idaho				3-U					1-S			
Illinois	1-S	1-S	1-S	1-S	1-S					1-S	1-S 1-L	
Indiana				1-S	1-S				1-S	1-S	1-S	
Iowa		1-S	1-S	1-S	1-S				1-S			1-S
Kansas									1-S	1-L		
Kentucky				1-S					1-S			
Louisiana				1-S 1-L	1-S							
Maine	1-S	1-S	1-S	1-S					1-S	1-S	1-S	
Maryland		1-S	1-S	1-S	1-S				1-S	3-S	1-S 2-L	
Massachusetts	1-S	1-S	1-S	1-S	1-S				1-S	3-S	1-S 1-L	
Michigan	1-S	1-S	1-S 1-U	1-S	1-S		1-S			2-S 1-L	3-L	
Minnesota	1-S	1-S	2-S	1-S	1-S			1-S	1-S	1-S		1-S
Mississippi												
Missouri			1-S 1-L	1-S	1-S				1-S	1-S		
Montana	1-S		1-S	1-S 1-U	1-S				1-S			1-S
Nebraska				1-U					1-S			
Nevada		1-S	1-S	1-S	1-S		1-S		1-S			
New Hampshire			1-S	1-S	1-S				1-S	1-L		
New Jersey	1-S	1-S	1-S	1-S	1-S				2-S	2-S		
New Mexico			1-S	1-S 1-U	1-S				1-S	1-S		1-S
New York	1-S	1-S	1-S 1-U	1-S 1-U	1-S				1-S	1-S 1-L	1-S 1-L	
North Carolina			1-S	1-S	1-S				1-S 1-L	1-S 8-L		
North Dakota			1-S	1-S					1-S			
Ohio	1-S	1-S	1-S	1-S 1-U	1-S				1-S	1-S		
Oklahoma				1-S						1-S		
Oregon	1-S	1-S	1-S	1-S 1-U	1-S		1-S		1-S 2-L	2-S 1-L	1-L	1-S
Pennsylvania	1-S	1-S	1-S	1-S	1-S					1-S	1-S 1-L	
Rhode Island	1-S	1-S	1-S	1-S					1-S	1-S		
South Carolina				3-U	1-S					1-S	1-L	
South Dakota			1-S							1-S		
Tennessee									1-S			
Texas		1-S	1-S 1-U 1-L	1-U	1-S	1-S				2-S 6-L	4-L	
Utah			1-S	1-S 3-U	1-S		1-S		1-S	1-L	1-L	
Vermont	1-S		1-S	1-S	1-S							1-S
Virginia		1-S	1-S	1-S	1-S				2-S	1-S 1-L	1-L	
Washington		1-S	1-S	1-S 1-U	1-S				1-S	1-S 1-L	2-L	1-S
West Virginia				1-S								
Wisconsin	1-S		1-S	1-S	1-S		1-L		1-S 1-L	1-S	1-S 1-L	
Wyoming				1-S	1-S							
District of Columbia	1-S	1-S	1-S	1-S	1-S					1-S		
Palau												
Guam			1-S	1-S						1-S		
Puerto Rico				1-S	1-S			1-S				
Virgin Islands				1-S					1-S			
N. Mariana Islands												
American Samoa				1-S								
Totals	21	23	43	74	39	3	10	4	52	82	38	10

F = Federal S = State/Territory L = Local U = Utility

Attachment 3

Citizens' Utility Ratepayer Board

State of Kansas
Kathleen Sebelius, Governor

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. 2020

Testimony on Behalf of the Citizens' Utility Ratepayer Board
By David Springe, Consumer Counsel
January 29, 2009

Chairman Holmes and members of the committee:

Thank you for this opportunity to offer testimony on H.B. 2020. The Citizens' Utility Ratepayer Board is opposed to this bill for the following reasons:

HB 2020 creates a requirement that every utility that provides retail electric service in Kansas must enter into a contract for generation service with the operator of any new "renewable generation unit" who is a customer of that utility. A renewable generation unit can be up to 5 MW in size and must be owner by one or more Kansas residents. The price the renewable generator receives for providing power is set in the bill and based percentage of utility's residential retail rates.

A 5 megawatt generator is far larger than a standard residential sized renewable generator. As such, basing the compensation to be paid to the renewable generator on a percentage of residential retail rates is arbitrary. Retail residential rates recover both the fixed cost of providing utility service (generation plant, transmission, distribution, expenses of running the utility, return on capital, taxes) and the variable cost of fuel. There is no rational reason to tie payments to renewable generators to the internal transmission, distribution, return or taxes of a utility system. This arbitrary payment schedule may force utility rates higher in an environment where utility rates are already increasing substantially.

Further, retail residential rates are not uniform across all utilities. This bill creates an incentive for a person that wishes to put up a new renewable generation unit find the utility system with the highest retail residential rate, where they can get the highest payment schedule. And there does not appear to be a cap on either the number of new renewable generation units that the utility is required connect to the system, or the percentage of peak demand that these generators can represent. Again, with no limits in this law, rates could be forced higher for customer already facing high rates.

Thanks you.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 4

Kansas Electric Power Cooperative, Inc.

HOUSE ENERGY AND UTILITIES COMMITTEE
H.B. 2020

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 2020. HB 2020 establishes the size of a renewable generator that can be interconnected for energy production and establishes a fixed price for the energy produced.

HB 2020 has a detrimental effect on small systems like electric cooperatives. Using wind generation as an example, an electric cooperative would have to pay the generator sixty percent of the electric cooperative's retail rate for energy that the electric cooperative already has contracted to purchase the same amount of energy at a much lower cost.

To illustrate, assume a retail rate of eleven cents. Under the bill, the cooperative would pay an interconnecting wind generator approximately 6.6 cents per kWh. KEPCo's average energy cost billed to its member cooperatives for 2008 was approximately 3.63 cents per kWh. Therefore, this bill grants a 182% increase in the cost of energy supplied by the renewable generator.

To further illustrate, using a 1.5 MW wind turbine with a 35% capacity factor, the turbine would produce approximately 4.6 million kWh's in a year. The cooperative in turn would pay the generator approximately $303,000 for the energy. The cooperative's cost for purchasing the same amount of energy from KEPCo would be approximately $167,000, thus resulting in an increase in cost to the members of the respective cooperative in the amount of $136,000. If taken advantage of system-wide, using a peak load of 400 MW, the increase in energy cost to KEPCo's member cooperatives would be approximately $1.5 million. In addition, much of the infrastructure, mainly substations, in the rural areas could not accept a sizeable increase in energy without substantial modification. Establishing this practice as law is not in the best interest of the rate payers of rural Kansas.

KEPCo is committed to working with this Committee and the Legislature on appropriate incentives for customer-owned generation. This bill fixes a price for large scale renewable generation and it is not fair or equitable. KEPCo respectfully requests that the Committee vote HB 2020 unfavorable.

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

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 5

House Bill No. 2020, Renewable Energy Incentive Program

CEP applauds incentives for renewable generation. Farmers, ranchers, and schools would benefit from unit limits larger than 100 kw, so a 5 MW limit would be welcome by many.

A return to customer generators of 60% the utility's retail rate is unusual among such incentives in other states, but certainly worth considering as a way to fairly compensate utilities for their fixed costs, including and especially distribution line construction and maintenance.

FERC standards for interconnection of small generation might be considered.

| Nancy Jackson | Executive Director, CEP | jackson@climateanden
www.climateandenergy.org

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 6

OAK GROVE
FABRICATION
15221 Schmedemann Rd.
Alta Vista, Kansas 66834
1-785-499-5311
dsam@tctelco.net

Representative Carl D. Holmes
Kansas House of Representatives 125 th District
Committee on Energy and Utilities Chair
Kansas 2009 Session Testimony on Net Metering for the State of Kansas January 29, 2009

My name is David L. Sampson. I am the Proprietor of Oak Grove Fabrication of Alta Vista, Kansas.
I am a designer and builder of solar water pumping systems for the ranching industry since 1996 and am now moving in the direction of grid inter-tie solar and wind installations. I am pro Net Metering.

I come before this committee to ask you to approve net metering on a one to one basis for both the "for profit" utility companies and the Rural Electric Cooperatives. This is in conjunction with distributed generation of electricity where the renewable power is produced nearby or on the building and the power is used in the building , thus offsetting utility power. Excess electricity flows into the utilty grid. The meter runs backwards and forwards as the sun and wind ebbs and flows.

The Net Metering billing is a mechanism whereby a customer is able to sell and buy at the same rates. I realize that the attitude is not to accept a 1:1 ratio but I think the power of the rural Kansan to invest it their own rural electric cooperative is not being taken advantage of by the REA boards. Individuals want to invest in clean power. Please make it happen.

Without the 1:1 ratio there is no economic incentive for customers to invest in renewable energy like solar panels and wind turbines. The reason it is so important that we invest in our own utility companies is the bridging effect they provide for the future development of Kansas power generation. Kansas has vast wind resources and excellent solar aspects for power.

In the September 2008 issue of Kansas Country Living, a monthly publication of the Kansas Electric Cooperatives, Stuart Lowry mentions in his commentary , that according to the North American Electric Reliability Corporation (NERC), which oversees the reliability of the bulk power grid covering the United States, "predicts that many parts of the country could fall below targeted capacity margins within two or three years, setting the stage for frequent brown outs and blackouts."

We need power development now. The solar panel manufacturing plants are in production, already supplying the national demand for clean, distributed power on homes, businesses and farms. The vast amount of Kansas farms and rangeland can supply a tremendous amount of peaking energy from solar panels that produce electricity at the same time the demand for power is greatest, in the summer cooling time of day. The REA's / utilities can accumulate the carbon credits.

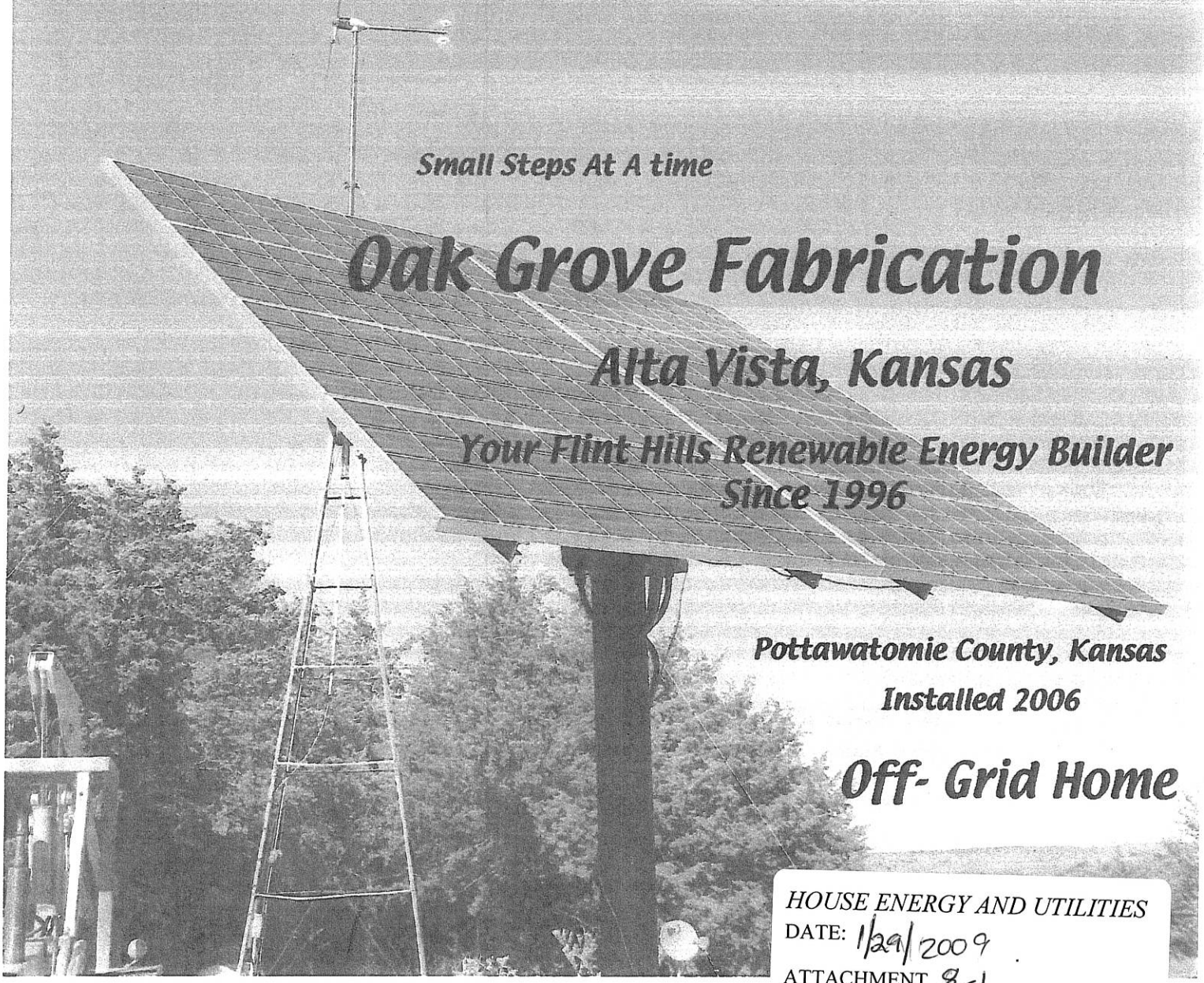
Please allow the rural electric customers and members to help, with their own money, to purchase the equipment necessary to bridge the gap in time and power necessary for the stabilization of our states power grid. It is a matter of national security, more so than the money. The damage to our infrastructure by low voltage brownouts will be astronomical. Solar electric panels have proven themselves in other states and countries that they can reinforce low line voltage areas with strong and steady voltage in the margins and wave form necessary to synchronize with the national grid and still provide safety to the linemen when the grid is taken down by winds and ice and squirrels.

With the ongoing collapse of the large banking industry and the devaluation of the dollar, it is entirely possible that the parts necessary for the fast construction of coal and nuclear power plants will Not be available quickly and easily. Our manufacturing base has been moved overseas to China who has now embarked on a national push for its own infrastructure. They do not view the United States as a reliable partner any longer and to delay delivery of parts and supplies, once made in this country, would be a way of economic warfare and a way to retaliate for the damage done to the world wide economy that can be blamed on Wall Street. Real or imagined the delays can certainly occur. Your three to five year lead time for going online may be overly optimistic. We need quickly deployable renewable energy equipment now.

Renewable energy, from farms and businesses is in the best interest of all Kansans. Net Metering on a 1:1 basis for pay back and allowing individuals and companies to develop their own green generators up to 99,000 watts will solve the brownout problems in the short term. Give us the incentive. We will step up and produce green power. Our new crop

1000 Watts of Wind
1000 Watts of Solar

Renewable Energy Today
For the Children of Tomorrow



Small Steps At A time

Oak Grove Fabrication

Alta Vista, Kansas

Your Flint Hills Renewable Energy Builder
Since 1996

Pottawatomie County, Kansas
Installed 2006

Off- Grid Home

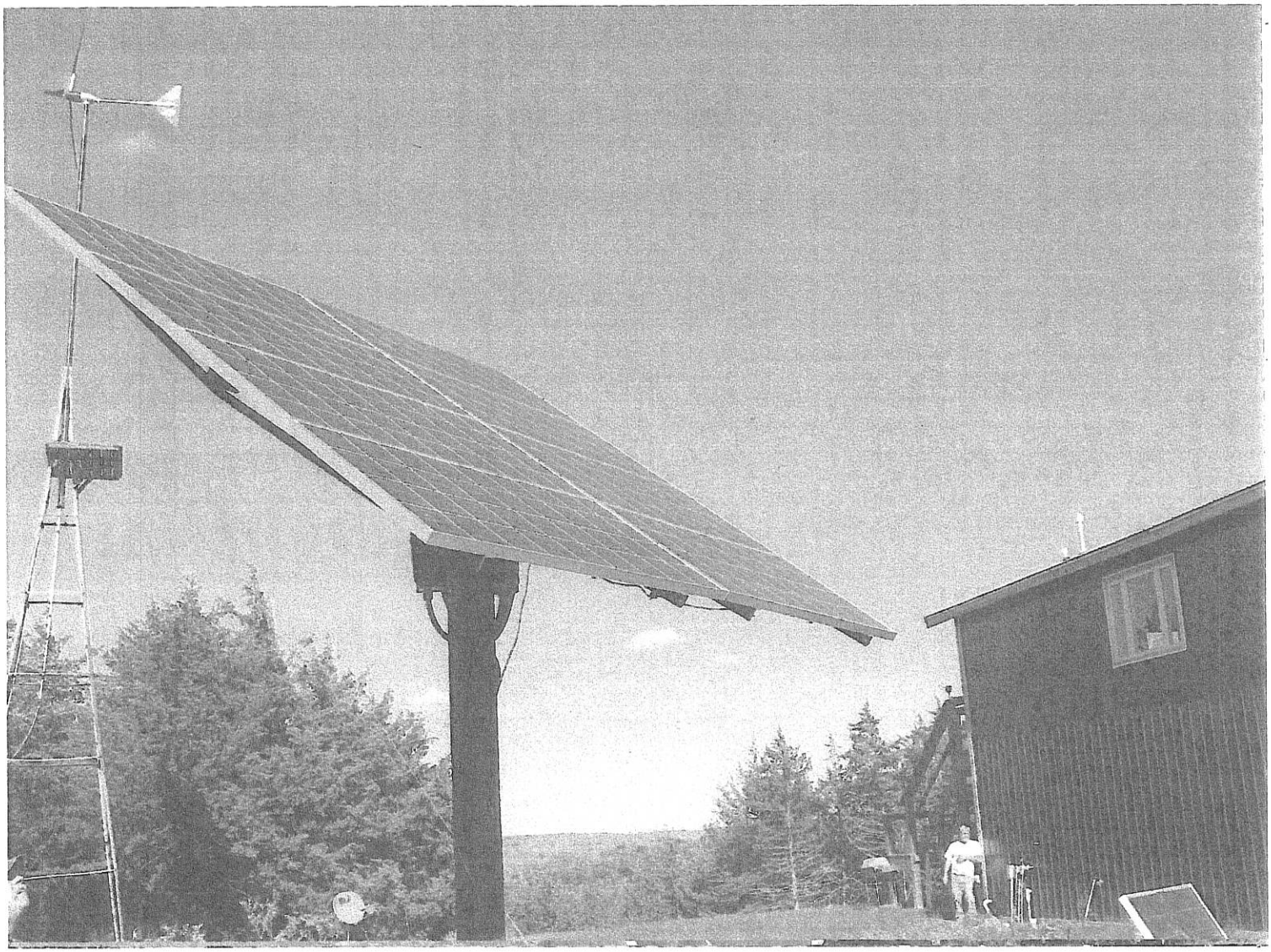
HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 8-1

Oak Grove Fabrication
Alta Vista Kansas

Designed, built and installed the 1040 watt, solar array, rack and power inverters in 2006

I also installed the 1000 watt wind turbine on the modified water pumper tower

This system is in Pottawatomie County, Kansas



The wind and the sun supply most of the power to this rural home. A propane generator is also used

There are eight, 12 volt sealed batteries to store electricity in and two, 3600 watt Power Inverters to make AC power.

The system is wired for 24 volts DC. The solar array in full sun will produce 28 amps of current. This will power the submersible pump 160 feet deep.

7875-499-5311 dsam@tctelco.net

Oak Grove Fabrication
Alta Vista, Kansas

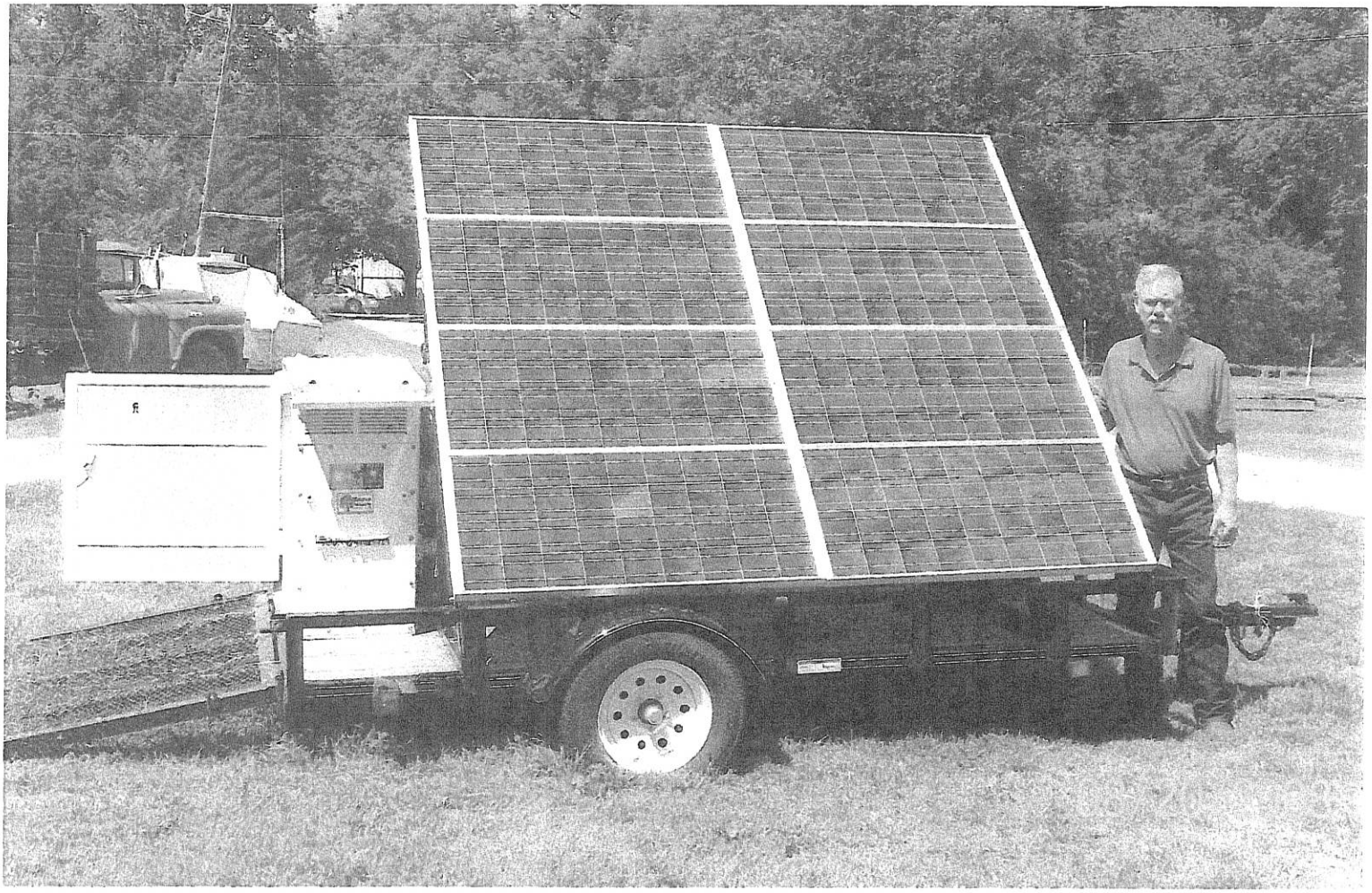
Designed and built this 640 watt, mobile power system. In June 2008

This system was commissioned after the ice storm of December 2007

Eight, 80 watt solar panels, wired for 24 volts provide 16 amps of charging current

A 3500 watt, pure sine wave power inverter is in the insulated cabinet on the left

The power inverter is capable of putting out 30 amps of current



The cabinet also holds a generator balancing transformer, charge controller, monitoring instruments and plugs for utility power or generator power

Eight, 12 volt, sealed batteries are housed in an insulated battery box under the solar panel array. The array will tilt on an axle

An 8 foot tall light bar holding two, 90 watt, compact fluorescent bulbs will tilt down into a travel box

This system was installed on a 5' x 10' utility trailer

The back of the cabinet holds the 30 amp service panel, 120 volt outlets, receptacles for the 30 amp output to the house or shop

785-499-5311

dsam@tctelco.net

8-3

The rear view of a 640 Watt mobile solar electric Array. The large box on the right holds the Outback FX3524 mobile power inverter with 175 amp battery circuil breaker, MX 60 charge control, Mate 2 monitor with Hub, 20 amp Solar Panel Array circuit breaker, MX60 breaker and AC bypass breaker. The insulated battery box is in the middle and holds 8, 12 volt sealed batteries wired for 24 volts 540 amp hours or 13kW watt hours

The box on the right holds the light bar in the travel position. When stood up in its vertical position the two, 90 watt compact fluorescent lamps illuminate the surrounding area. The light bar rotates 360 degrees for maximum lighting utilization.

Mobile Power Supply for Home or Farm

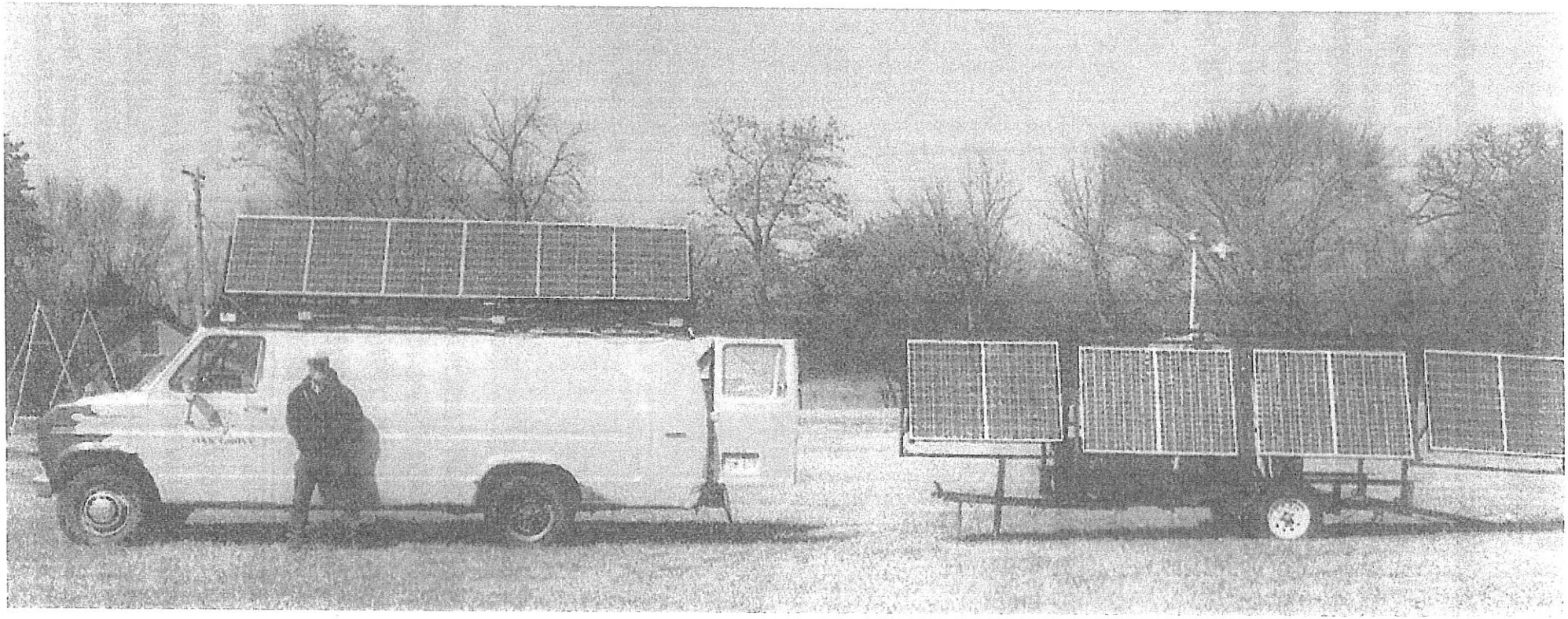
Batteries are charged by Solar, Generator and the Utility Grid. This unit functions as an unterruptable power supply for a home in Riley County, Kansas

Oak Grove Fabrication
Alta Vista, Kansas

Designed and built these systems in 2002 and 2003

The van is the company service vehicle. It has six, 80 watt solar panels that produce 480 watts of power

The trailer is a mobile power system with eight, 80 watt solar panels that produce 640 watts of power



The rack holding solar panels on the van, folds flat against the roof for travel

The left rack holding solar panels on the trailer, folds flat against the front of the trailer and the last pair folds inside the trailer for travel

Both van and trailer have four, six volt batteries for electicity storage and a 3600 watt power inverter

These systems will provide power in limited amounts for remote sites powering drills, grinders, saws, and light

S-8-5

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dsam@tctelco.net

Oak Grove Fabrication
Alta Vista, Kansas

Designed and built this mobile solar battery charger to run a water pump in 2003

This system is based on the winter water, solar and wind powered pumper still watering 120 head of first calf heifers at a ranch in Geary County. The solar battery system was installed in December of 2000. The wind turbine was added in January of 2001 to a modified windmill tower.

The 4' x 8' utility trailer holds the two, 80 watt solar panels,
Four, 6 volt batteries weighing a total of 450 pounds,
A brass submersible pump and 150 feet of cable

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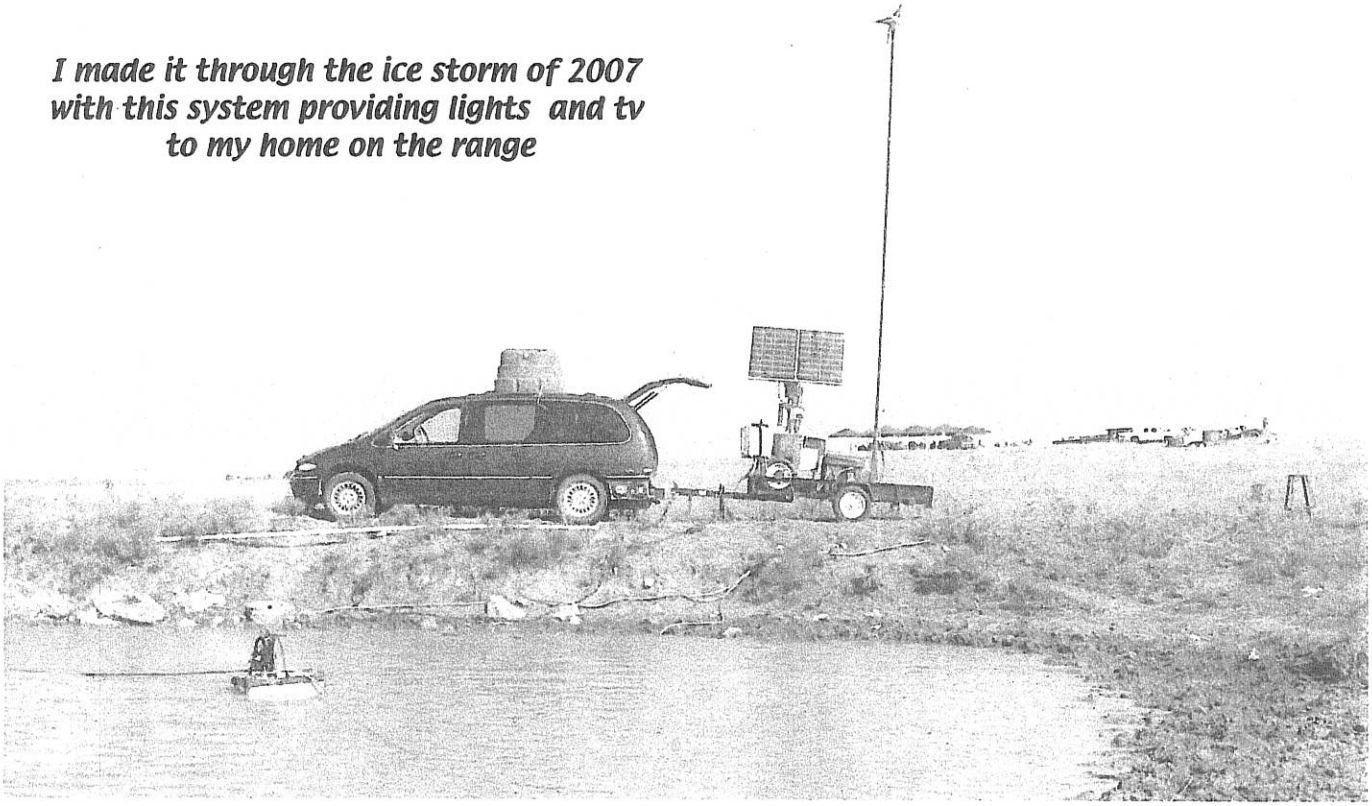
I made it through the ice storm of 2007 with this system providing lights and tv to my home on the range



There is also a charge/ load controller to regulate the battery charging, low voltage disconnect, circuit breaker function and digital meter read out, of battery voltage, power coming from the sun, and load useage.

The wind turbine puts out 400 watts in a 25 mph wind. It stands on a 20' removable mast and wires into its own regulator box that has circuit breakers, analog meter and lightning arrestor

In addition, the trailer has a fluorescent yard light mounted behind the solar panels, a 300 watt AC power inverter mounted in a cabinet, a tool box, pump storage box and disconnect switches for battery and solar array

For winter watering of livestock, the turbine is mounted on a wind mill tower

The photo shows the setup for the Geary County Range Tour in 2008
Water is being pumped 500 feet to the tents in the background

We Live In Changing Times. We Must Adapt

Renewable Energy From Wind & Sun

Mobile Solar Power Has Many Possibilities

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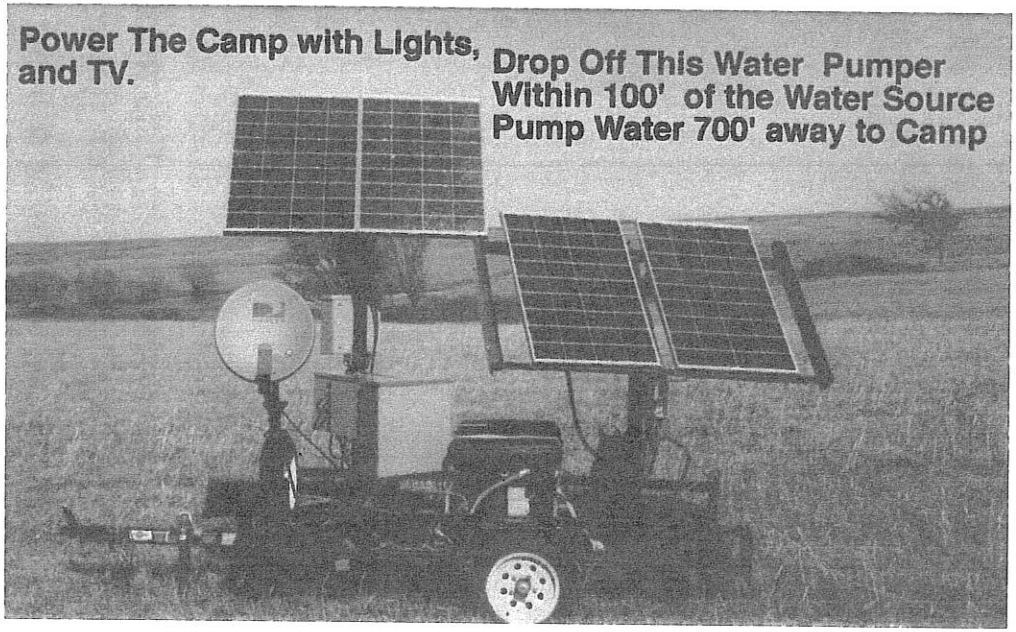
1-785-499-5311
dsam@tctelco.net



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We have over 20 separate renewable energy systems In The Flint Hills

Mobile Solar Our Specality

Livestock Watering Systems

Off Grid Cabins and Homes

Wind and Solar Combinations For Year Round Water

Instant Back up Power For the Elderly Still on the Farm Prevent Falls in the Dark

Uninterruptable Power Supply for critical loads
Decrease Generator Run Time. Use Batteries
Conserve Expensive Fuel for Large Loads
Pump Water With Direct Solar Power. No Batteries
Pump Water From Ponds, Increase Water Quality

785-499-5311 **Call Now !**

L-8

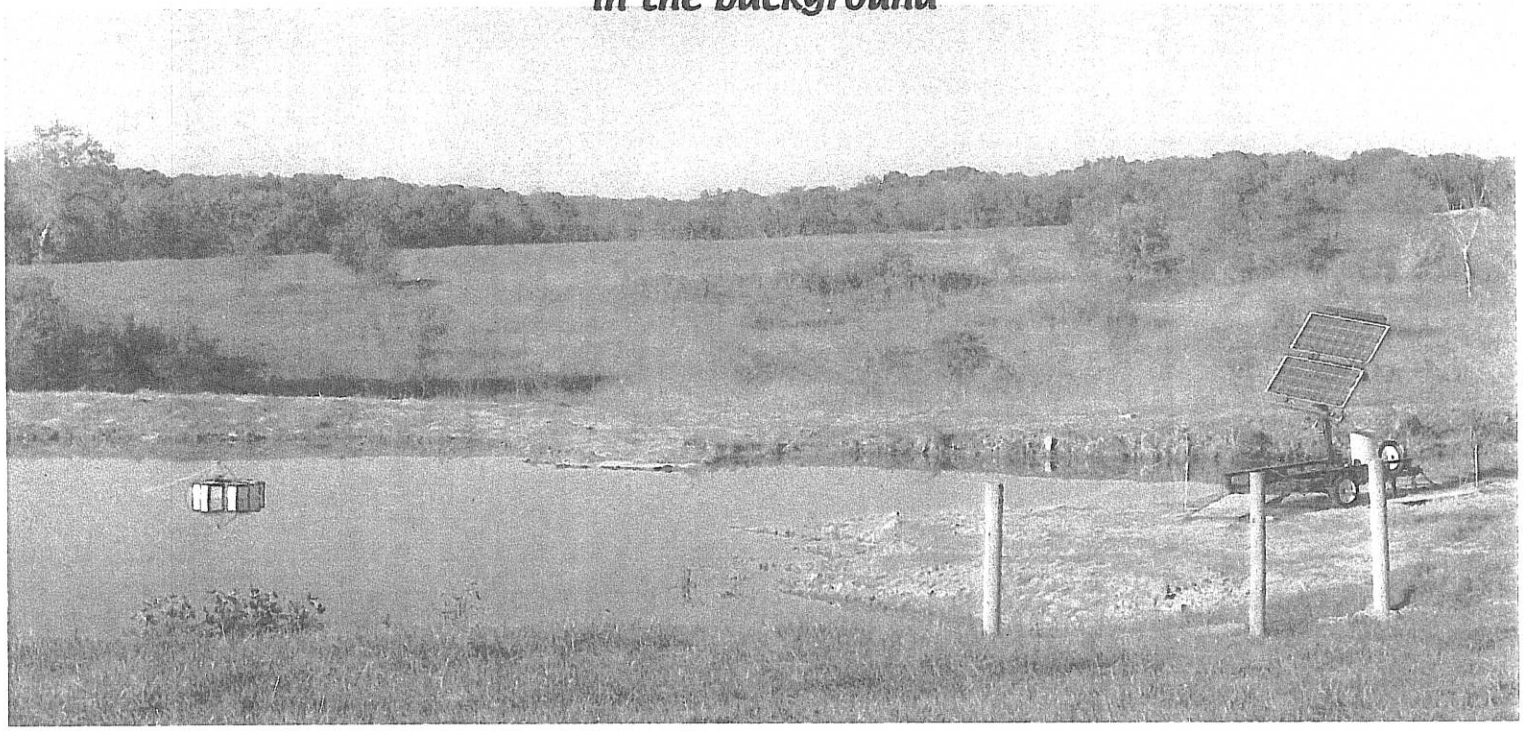
Oak Grove Fabrication
Alta Vista, Kansas

Designed and built this solar direct water pumping system and pump barge For a ranch in Jefferson County, Kansas in August of 2008

The 246 watt solar array rides on a sun tracker and the pump and 100 feet of pump cable ride in the trailer. The pump barge has a pully operated boom that lifts the pump out of the water so it will not drag in the mud

Water flows from the pond through a common garden hose to the trailer mounted pressure tank and pressure switch then to a hydrant.

It is the beginning of a 1500 foot pipeline that runs to the far end of the 70 acre pasture. A 1700 gallon water tank is at the top of the rise in the background



The pipeline has 12 hydrants along its length. This allows an intensive grazing system to have water. A hot wire forms a quick fence in the 70 acre pasture

The pump is producing 4 gallons a minute during the summertime. During the winter it is pulled and is stored in the barn

The hydrants have a float valve attached to regulate water to the tank

As the pressure builds in the pipeline, the pressure switch will open the points and shut off power to the pump

When the livestock drink down the water in the tank and the valve opens, the pressure in the pipeline drops, the switch points close and the power flows from the solar panels to the pump

This system will water 50 head of livestock during the summer

785-499-5311

dsam@tctelco.net

4-8

C. . Grove Fabrication Alta Vista, Kansas 785-499-5311 dsam@tctelco.net

Solar Panels Home Power Systems

System 7

3500, Residential Grid Tie System. NO BATTERIES Using 20 ea, 175 watt Sharp solar panels.
GT 3.3 Xantrex Power Inverter

$ 29,700.00 List Price **Oak Grove Fabrication Price: $ 24,290.00**

Tilt up, Ground Mount Racks require a mount to elevate the solar panels out of the way of the lawn mower throwing rocks and growing vegetation that would obscure the panels. This form of racking has the solar panels mounted on aluminum rails that have to be secured to a strong base and have a place where the supporting tilt up legs attach.

Several options are available. Concrete piers formed by using the Sonotube type of cardboard cylinders can be used. Ten piers would be required. Five in the front and five in the rear. Two racks holding 10 panels per rack would be attached to the piers.

Push For Net Metering This Session January 2009

Tilt up Ground Racks

Holds all solar panels in two racks, side by side, each rack holding 10 solar panels horizontally.
All solar panel mounting bolts are security heads. The solar array will measure27' x 10'-4" . It will be anged to 20 degrees
This bid includes all module mounting rails, Adjustable tilt legs, grounding clips, ground wire, rod, combiner box, disconnect switch, conduit and wire for a 50 foot run to the inverter. Mounting pad or piers are Not in Bid

$3,165.55

Top of Pipe Mounting Rack

Requires a hole 24 inches in diameter and 5 feet deep. A 16 foot long pipe, 6 inches in diameter is set vertically in the hole. Cement is placed in the hole. This makes a secure mount that allows use of the space under the solar array for parking vehicles or gardening. The solar array will measure 10'-8 x 10'-4" . Three will be required. A backhoe or tractor and digger will be required to excavate the hole. This bid includes all grounding clips, ground wire, ground rod, mounting bolts, combiner box, disconnect switch and conduit and wire for a 50 foot run to the inverter. Excavation and digging is Not figured into this bid. Three racks will be needed. Two, holding seven solar panels and one holding six.

$ 1,990.00 x 3 = $ 5970.00

Roof Mounting Rack

This system will mount on the roof of the residence. The solar panels will mount on a set of rails. 3" tall mounting legs will be lag bolted to the rafters. Flashing will be installed over the mounting legs to seal the roof where it has been penetrated. The solar panel mounting rails will be bolted to the mounting legs. The solar panels will be attached to the rails one at a time and wired accordingly.
The array can be configured in two rows of solar panels side by side for 27' x 10'-4"

This bid includes all grounding clips, ground wire,ground rod, mounting bolts, combiner box, disconnect switch and conduit and wire for a 50 foot run to the inverter.

$ 1,947.32

Comparison:	**Tilt Up Rack**	**Top of Pipe Rack**	**Roof Mount Rack**
3500 watt Solar Array	**$24,290.00**	**$24,290.00**	**$24,290.00**
Racks	**3,165.55**	**5,970.00**	**1,947.32**
Cost	**$27,455.55**	**$30,260.00**	**$26,237.32**
30% Tax Credit	**- $8,236.66**	**$ 9,078.00**	**$ 7871.19**
Sub Total	**$19,218.89**	**$ 21,182.00**	**$18,366.13**
Sales tax on Cost @ 7.3%	**$1,402.97**	**$2208.98**	**$1,340.72**

Installation @ $60.00/ hour
Permits,Grid hook up, Equipment, Cement All Extra
30% Tax Credit applies to the above items also.

Oak Grove Fabrication Alta Vista, Kansas 785-499-5311 dsam@tctelco.net

Wind Turbine and Solar Panels Home Power Systems

System 4

This is a grid inter-tie system that allows power to be fed back into the utility grid when the batteries are full and the loads are off in the house. This system will qualify for a $1000.00 tax credit for 2009.

1000 watt, Bergey XL.1, 24 Volt DC, Battery Charging Wind Turbine System

This system comes with the 60 foot, tilt up tower, raising winch and cables, tower wiring kit, 220 feet of conduit and wiring for the run from the turbine to the battery bank, six ground rods, 220 feet of #6 bare copper wire for the ground system, Dump load for turbine control when batteries are full, DC Source Center and Power Center for monitoring of the system

$ 6355.50

System 5

1000 Watt Solar using 10ea. Sharp 130 Watt Solar Electric Panels. 60 volts DC, Battery Charging

This system comes with a top of pipe rack that holds 10 solar panels , 16' pipe, Designed for lawn or yard , mounting bolts and nuts, ground rod, combiner box, pull-out fuse disconnect box, ground wire, lightning arrestor, solar panel innerconnect wiring, 50 feet of conduit and wire for the run from the solar panels to the solar charge controller on the wind turbine Power Center *Grid-tied Solar Electric Systems now qualify for a 30% tax credit with no cap for the year 2009.*

$ 9583.69

The Combined Charging Power of This System is 2300 Watts

System C

1260 Amp Hour Battery Bank, 30.24 kWH, 12 ea. L-16, Deep Cycle, Lead Acid, Fork Lift Type, 6 Volt. Mfg. Trojan
This battery bank comes with all battery innerconnect cables, 10' of 2" flexible aluminum conduit with a male end and a 90 degree elbow for connecting to the inverter. A separate battery room or compartment, separate from the electronic components, should be constructed. It should be insulated and vented to prevent explosive hydrogen gas buildup. The L-16 battery is the standard of the renewable industry for capacity of charge and longevity and economy. They have a life expectancy of five to eight years with proper charging and discharging. . It will require periodic filling of the batteries and cleaning of the terminals. Watering systems are available. This system will allow the home to have several days of stand alone capacity depending on the loads put upon the battery bank. Use judgment during the cloudy days and do not plug in hair dryers or toasters. They draw extreme amounts of current and will take away from the necessities of lighting.

$ 4677.11

Pricing: November 20, 2008 Subject to change without notice

System D

4000 Watt, 24 Volt DC Input, 120 / 240 Volts AC Output, GRID INTERTIE with SELL BACK feature. XW Inverter Hybrid Power Inverter with Battery Charging capability. Automatic transfer switch cuts to battery power when the grid goes off. Operates as a stand alone power source until utility electricity is restored. True Sine Wave electricity wave form. Operates computers, communication equipment, music and motors. Powers heavy duty saws, drills and grinders. Accepts utility power, and generator power. Mfg. Xantrex Solar panels and Wind turbine charges the battery bank. Power Inverter pulls 24 volts DC from the battery bank and converts it into high quality 120 volt AC power for common household uses. Extra electricity that is not used on site is sent back into the grid and sold at wholesale prices. It is better to use all the electricity generated with your solar arrray and wind turbine on site and offset the retail price of the bought electricity. Kansas does not have net metering that will allow the meter to run backwards or give a premium price for green generated electricity. That is in the future.

The advantage you will have with this system is the security of having a constant source of electricity generated by the sun and wind. Providing your family with a secure supply of this necessary prime moving force we call electricity. During these uncertain times with weather extremes destroying and damaging our utility infrastructure at key nodes and distribution lines, you can take time to plan and prepare rather than have to react. This system will provide that intangible asset of peace of mind and thus pay for itself in the first major ice storm that paralyzes the heartland like the winter of 2007. Installation of renewable energy equipment is also a hedge against inflations rising electricity rates and its a way to put stock market money into real assets.

$ 5875.00

	Combined Systems 4 & 5 & C & D	**$ 26,491.30**
Miami County, Kansas	**Sales Tax @ 7.8 %**	**$ 2066.32**
	Total Renewable Energy Equipment	**$ 28,557.62**

Oak Grove Fabrication Alta Vista, Kansas 785-499-5311 dsam@tctelco.net

Wind Turbine and Solar Panels Home Power Systems

System 4: Bergey, Wind Turbine 1000 Watts w/ 60' Tilt-up Tower, wiring, grounding etc.	**$ 6355.50**
System 5: Sharp, 1300 Watt Solar Array with Top of Pipe Rack Holding 10 panels.	**9583.69**
System C: Trojan, 1260 Amp Hour Battery Bank. 12 ea. L-16 Lead Acid Batteries w/ cables	**4677.11**
System D: Xantrex, XW 4000 Watt Grid-Tie/ Stand alone, Inverter/ Battery Charger	**5875.00**
Total	**26,491.30**

Tax Credits Applied to Wind and Solar Power Systems by the United States Congress October 3, 2008

Wind Power Systems get 1.00 per watt with a 4000.00 cap. Homes & Business

Solar Power Systems get a 30% tax credit on materials and installation. No Cap

	Wind		Solar	
System 4 Wind 1000 Watts	6355.50		0000.00	
System 5 Solar 1300 Watts	0000.00		9583.69	
System C 1/2 Battery Bank	2338.55		2338.55	
System D 1/2 XW Inverter	2937.50		2937.50	
Installation Oak Grove Fab.	1440.00		2150.00	
Trenching estimated	100.00		500.00	
Drilling estimated	250.00		000.00	
Backhoe estimated	000.00		600.00	
Licensed Electrician estimated	750.00		750.00	
Wind Equipment Shipping estimated	450.00		000.00	Estimated
Solar Equipment Shipping estimated	000.00		650.00	Total System
1/2 Inverter Equipment Shipping est.	125.00		125.00	Cost
1/2 Battery Shipping estimated	25.00		25.00	Before Tax
Cement estimated	00.00		100.00	Deduction
Miscellaneous	25.00		25.00	
Mileage 175 miles @ 1.25/mile	109.37		109.37	
TOTALS	14,905.92	+	19,894.11=	$ 34, 800.03

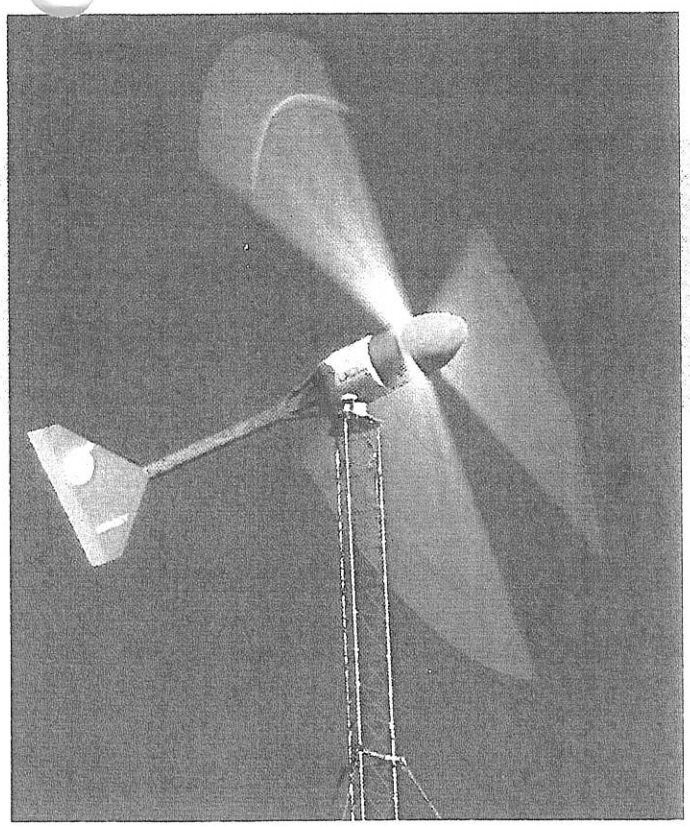
Tax Deductions: Wind @ 1.00/ Watt	-1000.00	
Wind System after Deduction	13,905.92	
Tax Deduction: Solar @ 30%		- 5968.23
Solar System after Deduction		13,925.88

Adjusted Totals

Wind System	13,905.92
Solar System	+13,925.88
Sub Total	27,831.80
Sales Tax	+ 2066.32
Grand Total	**29,898.12** estimated

ESTIMATED Cost for a Wind and Solar, 2300 Watt System, Installed at Paola, Kansas Pricing 11/17/08

8-11



Bergey Turbines are
Tornado-Tuff
Designed, Built, and Proven
in America's Tornado Alley

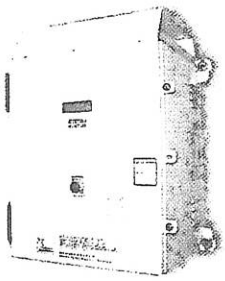
Exclusive 5 YEAR Warranty

BWC EXCEL
10kW Class
Wind Turbine

- 5-Year Warranty
- America's Best Selling Residential System
- Certified by California Energy Commission
- Simple Design - 3 Moving Parts
- Patented PowerFlex® Rotor System
- AutoFurl® Automatic Storm Protection
- Direct-Drive PM Alternator
- No Scheduled Maintenance Required
- Heavy-Duty Construction
- Designed for 30+ Years
- Polyurethane Aircraft-Quality Paint
- Proven, Over 50 Million Operational Hours

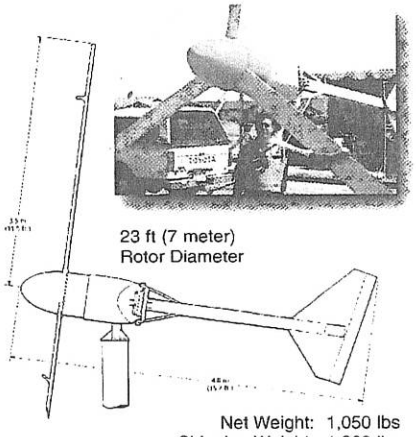
The Bergey BWC Excel is a rugged and reliable small wind turbine that has been proven in hundreds of installations around the world. It comes from the world's leading manufacturer of small wind turbines and is backed by the longest warranty in the industry. Whether you want to reduce the electric bills at your home or power a critical load far from the power grid, the BWC Excel will deliver years of "worry-free" power.

Excel–S: Grid-Intertie Applications (10kW)
Excel–R: Battery Charging Applications (7.5kW)
Excel–PD: Pumping Applications (10kW)



Excel–S GridTek 10
Power Processor
(AC output)

Excel–R OptiCharge
Voltage Regulator
(DC output)



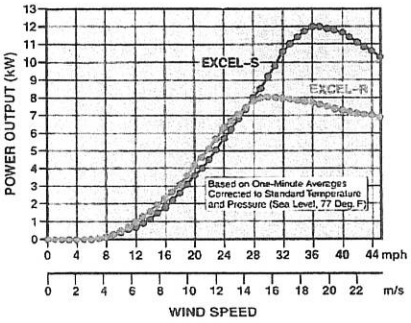
Net Weight: 1,050 lbs
Shipping Weight: 1,200 lbs

THE ONLY MOVING PARTS ARE THE PARTS YOU SEE MOVING

PERFORMANCE

Start-up Wind Speed...7.5 mph
Cut-In Wind Speed...8 mph
Rated Wind Speed...31 mph
Rated Rotor Speed...310 RPM
Furling Wind Speed...36 mph
Max. Design Wind Speed...125 mph
(with Extra-Stiff Blades...150 mph)

POINT, CLICK, LEARN,
ANALYZE & BUY WISELY:
WWW.BERGEY.COM



Predicted Monthly Energy Production

Wind Speeds Taken at Top of Tower

Average Wind Speed	8 mph	9 mph	10 mph	11 mph	12 mph	13 mph	14 mph
Excel–S (AC kWh)	240	370	520	700	900	1,130	1,370
Excel–R (DC kWh)	340	500	680	880	1,090	1,320	1,550

Wind Speeds Taken at 10 meters (per standard wind resource maps)

Average Wind Speed		8 mph	9 mph	10 mph	11 mph	12 mph	13 mph	14 mph
60 ft. Tower	Excel–S	330	480	670	870	1,110	1,350	1,610
	Excel–R	440	620	830	1,050	1,280	1,510	1,740
80 ft. Tower	Excel–S	430	620	840	1,100	1,370	1,670	1,960
	Excel–R	560	780	1,030	1,290	1,550	1,820	2,060
100 ft. Tower	Excel–S	490	700	950	1,220	1,510	1,820	2,130
	Excel–R	630	870	1,140	1,410	1,680	1,950	2,200
120 ft. Tower	Excel–S	550	780	1,050	1,340	1,650	1,970	2,280
	Excel–R	700	960	1,240	1,530	1,800	2,070	2,320

Assumptions: Inland Site, Rayliegh Distribution, Shear Exponent = 0.18, Altitude = 1,000 ft.
Note: Battery charge regulation (batteries full) will reduce actual Excel–R performance.
Your Performance May Vary.

BERGEY WINDPOWER

SIMPLICITY • RELIABILITY • PERFORMANCE

Available From:

OAK GROVE
FABRICATION
15221 Schmedemann Rd.
Alta Vista, Kansas 66834
1-785-499-5311
dsam@tctelco.net

812

Utility Bill Reduction **Value Package**

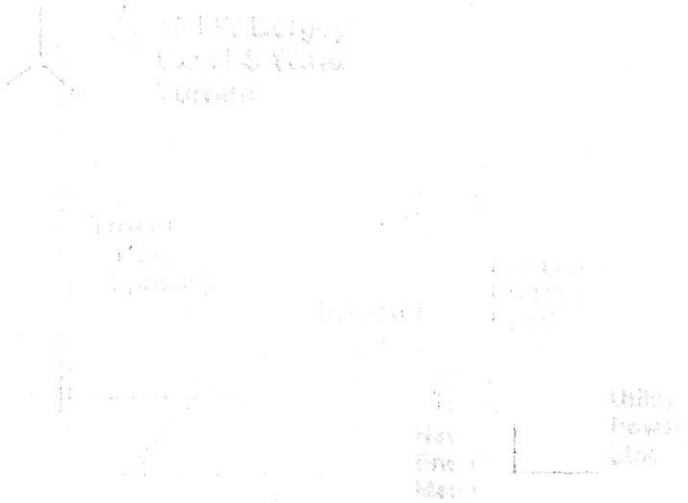
10 kW GridTek Package

Performance: 600 - 2,000 Kilowatt-hours (kWh's) per month (depending on wind resource)

Recommended for:

- Homes or businesses that use at least 1,000 kWh's per month
- Property sizes of 1 acre or more
- Wind Class 2 or higher

Note: This system does not provide back-up power during utility power outages. It automatically shuts off to protect the safety of utility repair crews.



We recommend this package for most homeowners and small businesses. The 10 kW Excel-S wind turbine with the GridTek power processor costs less than a BWC HomeSure system and provides the most favorable economics. Excess energy is sold to the utility company or "stored" by utilities offering net metering.

The GridTek Power Processor converts the wind power to utility power at 240 VAC (or 230 VAC, 50 Hz). Its output connects directly to your circuit breaker panel. The Guyed-Lattice tower is the least cost tower type and a 100 ft. tower is tall enough for most locations. Shorter towers reduce performance and increase the payback time.

In addition to the equipment costs given below, a complete installation will typically include the following costs: shipping, sales tax, permit costs, foundation and anchoring, wire run, turbine and tower erection, electrical hook-up, and inspection fees. Your dealer or Bergey WindPower can assist you in budgeting these additional costs. For budgeting purposes, these costs typically range from $6,000 (customer installed, no sales tax, etc) to $15,000 (Certified Dealer, expensive permits, sales tax, etc).

10 kW BWC Excel-S, with GridTek 10	**$29,500**
100 ft. Guyed-Lattice Tower Kit (XLG30)	**$9,850**
Tower Wiring Kit (XTWK30)	**$1,245**
Total Cost:	**$40,595**

Options:

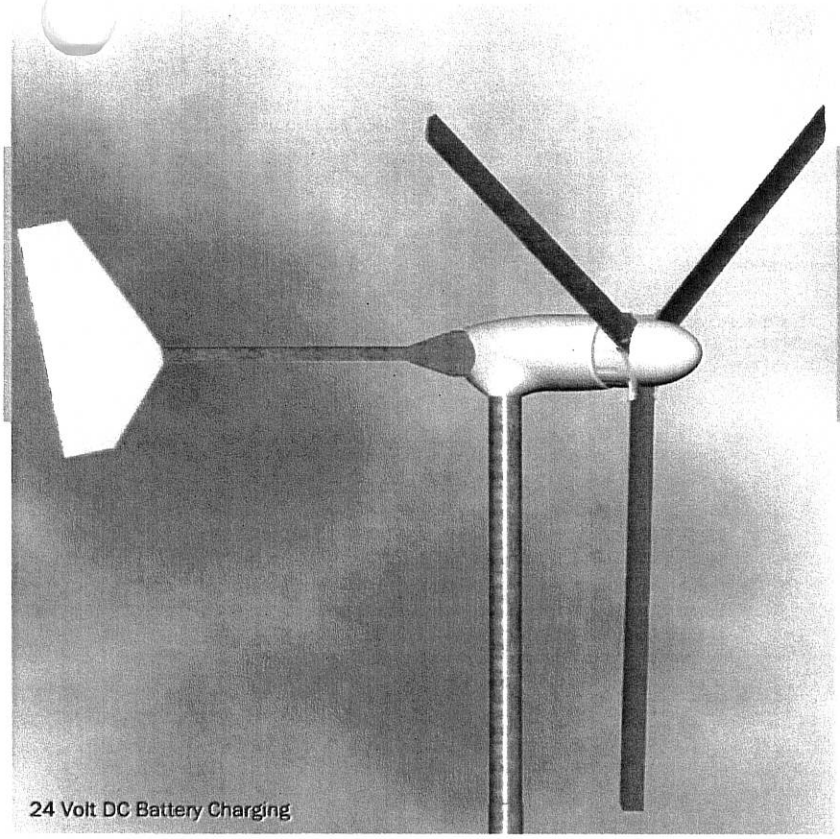
Special Paint: $690
Tower Corrosion Pkg: $215
50 Hz: No Charge
Other Towers

BERGEY DIRECT **This package may be purchased factory-direct**

Component Information: Excel-S | GridTek 10 (PDF) | Tower | Tower Wiring

Go To: Purchasing Options | Certified Dealers | Resellers | Bergey Direct

8-13



Exclusive 5 Year Warranty

Bergey Turbines are Tornado-Tuff
Designed, Built, and Proven in America's Tornado Alley

BERGEY DIRECT
www.bergey.com

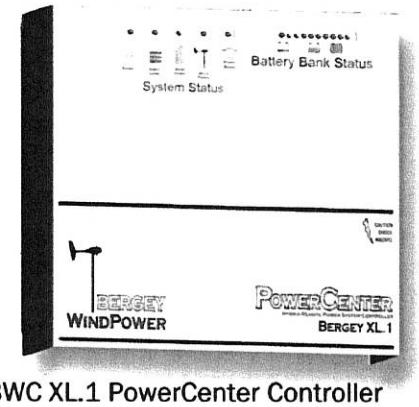
BWC XL.1

1 kW Class Wind Turbine

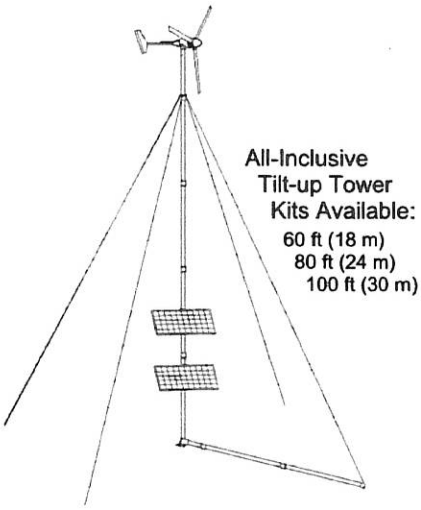
- 5 - Year Warranty
- Maintenance Free Design
- Nearly Silent Operation
- Excellent Low Wind Performance
- AutoFurl Automatic Storm Protection
- State-of-the-Art Airfoil
- Direct-Drive Neodymium PM Alternator
- PowerCenter Multi-Function Controller
- Battery-Friendly Voltage Regulation
- Complete Tubular Tilt-up Towers Available
- Complete "Plug and Play" Systems Available

The Bergey XL.1 is the most technically advanced small wind turbine ever. It comes from the world's leading manufacturer of small wind turbines and is backed by a full 5-year warranty. The XL.1 wind turbine is designed for high reliability, low maintenance, and automatic operation in adverse weather conditions. And the XL.1's "all-in-one" PowerCenter provides complete hybrid system integration, including an optional on-board sine wave inverter. Owner installations are a snap with Tilt-up Tower options from 60 - 100 ft.

Easy to install, extremely reliable, and a solid value, the Bergey XL.1 is the clear choice for your home energy system.

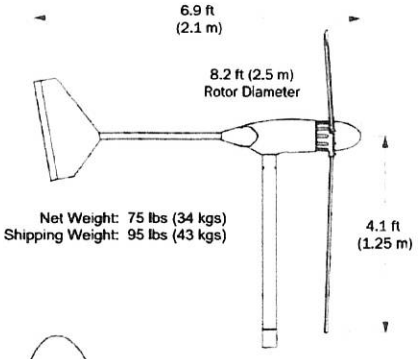


BWC XL.1 PowerCenter Controller



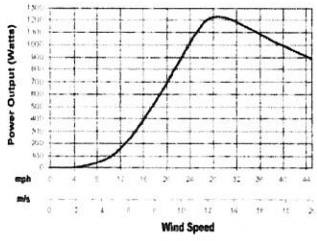
All-Inclusive Tilt-up Tower Kits Available:
60 ft (18 m)
80 ft (24 m)
100 ft (30 m)

The Only Moving Parts Are The Parts You See Moving



Performance

Start-up Wind Speed ... 6.7 mph (3 m/s)
Cut-In Wind Speed ... 5.6 mph (2.5 m/s)
Rated Power ... 1,000 Watts
Rated Wind Speed ... 27 mph (12 m/s)
Rated Rotor Speed ... 490 RPM
Furling Wind Speed ... 30 mph (13 m/s)
Max. Design Wind Speed ... 120 mph (54 m/s)



Predicted Energy Production

Wind Speeds Taken at Top of Tower

Annual Average Wind Speed (m/s)		3.5	4	4.5	5	5.5	6	6.5
Annual Average Wind Speed (mph)		7.8	8.9	10.1	11.2	12.3	13.4	14.5
Production in kWh (24 VDC)	Daily	1.9	2.8	3.9	5.1	6.4	7.7	8.9
	Monthly	55	85	115	155	195	235	270
	Annually	680	1,010	1,410	1,850	2,320	2,790	3,260

Wind Speeds Taken at 10 meters (per standard wind resource maps)

US-DOE Wind Power Class		1	2	3	4	5	6	7
Annual Average Wind Speed (mph)		~ 8.9	~ 10.7	~ 12.1	~ 13.0	~ 13.9	~ 15.0	~ 16.8
Annual Average Wind Speed (m/s)		~ 4.0	~ 4.8	~ 5.4	~ 5.8	~ 6.2	~ 6.7	~ 8.4
Production in kWh (24 VDC)	30 ft (9m) Tower Daily	2.6	4.3	5.8	6.8	7.8	9.1	12.7
	30 ft (9m) Tower Monthly	80	130	175	205	240	275	385
	64 ft (20m) Tower Daily	4.1	6.4	8.2	9.3	10.4	11.7	14.7
	64 ft (20m) Tower Monthly	125	195	250	285	320	355	445
	104 ft (32m) Tower Daily	5.2	7.8	9.7	10.9	12.0	13.1	15.4
	104 ft (32m) Tower Monthly	160	235	295	330	365	400	465

Assumptions: Inland site, Rayliegh Wind Distrubution, Shear Exponent = 0.20, Altitude = 1000ft (300m)
Note: Battery charge regulation (batteries full) and wire run losses will reduce actual XL.1 performance
Your Performance May Vary.

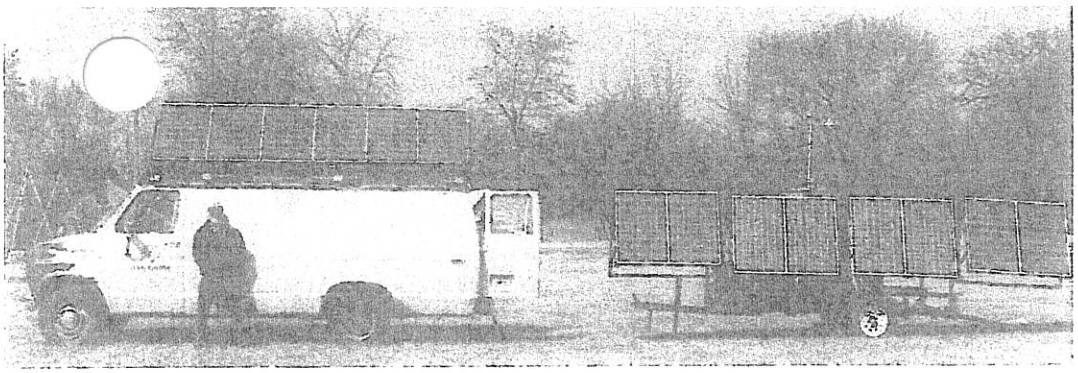
BERGEY WINDPOWER

SIMPLICITY • RELIABILITY • PERFORMANCE

2200 Industrial Blvd.
Norman, OK 73069
T: 405-364-4212
F: 405-364-2078
sales@bergey.com
www.bergey.com

Dealer:
[illegible]
1-785-499-5911

8-14



OAK GROVE
FABRICATION
15221 Schmedemann Rd.
Alta Vista, Kansas 66834
1-785-499-5311
dsam@tctelco.net

Oak Grove Fabrication of Alta Vista, Kansas is in the southeast part of Geary County. We have been providing solar electric water pumping systems to the ranching community in the Flint Hills since 1996.

In the 12 years we have been designing and installing solar electric products we have also been involved with wind turbines for water pumping and battery back up power supplies. The combination of wind power and sun power provides year round reliability for charging of batteries for water developments. This in turn has lead to the construction of mobile systems for water pumps and remote power sources for camps and natural disaster relief. Our experience, with over twenty systems installed, has brought us to the current interest in grid intertie solar electric panels and wind turbine for homes and commercial buildings.

Kansas currently has a form of net metering whereby any excess electricity developed from the solar panels or wind turbine, and not used on site, will be sent back into the utility grid and a payment of approximately five cents per kilowatt will be paid to the customer. Power agreements with the local electric cooperatives and the "for profit" electric providers are in place.

Kansas does not have Net Metering where your meter will run backwards. In the event Kansas does get Net Metering the rural electric cooperatives are generally exempt from the provisions of the laws. Only the "for profit" power companies will participate in Net Metering. Therefore Kansas, with its twenty eight REA's that supply the great swaths of farm and range land across the state, will not participate in any Net Metering agreements. This means that members of the coops, while still able to hook up solar panels and wind turbines, will not get the larger feed in paybacks or backwards spinning meters seen on TV and in the news media from states like California and Colorado where Net Metering is taking hold.

Members of the REA's can still see a return on their investment for their excess electricricity generated from their alternative energy equipment by purchasing a system that will fit their check book and have the electricity produced on site, used on site. No one will get rich by selling electricity back to the power company. Not even the Net Metering States. The cost saving will come from off setting the escalating cost of the purchased electricity by substituting solar power and wind power.

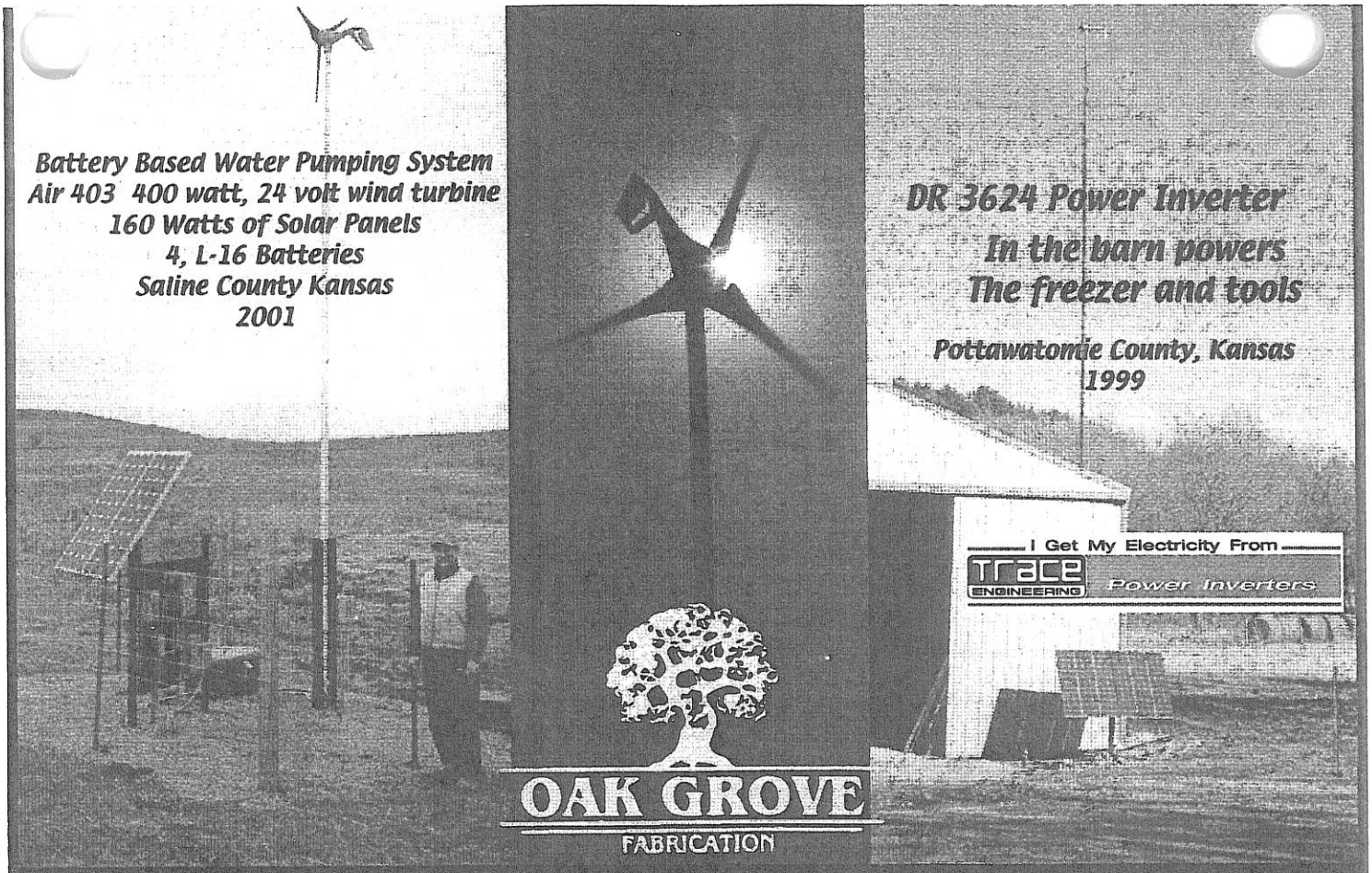
As the cost of everything goes up due to the devaluation of the dollar, we will see increasing costs for our home power. Now is the time to invest in a grid tie solar electric system that will be paid for in 2008 dollars and provide power for years to come as a hedge against inflation. Inflation eats your savings.

Renewable energy supplies increase the value of your home and will be a legacy for the next generation of kids as we try and wean ourselves from the carbon based fuels that we have come to rely upon so heavily but are causing us problems in foreign policy and local, regional and world wide pollution.

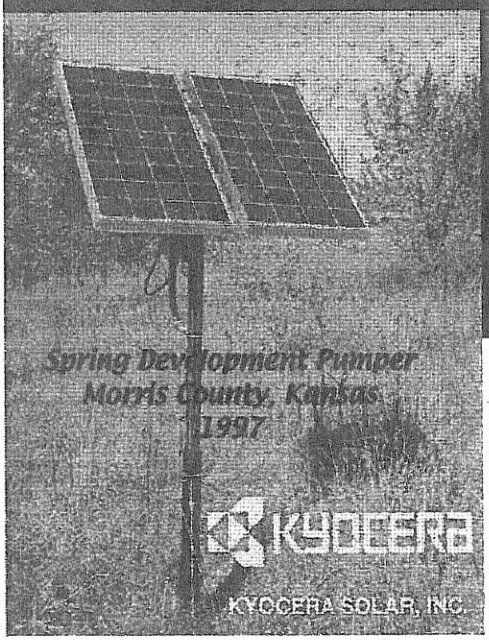
Kansas has no tax credits or rebates for alternative energy systems. There is a federal tax credit that will run out at the end of 2008. Now is the time to invest before the expiration of the 30% business credit and $2000.00 dollar residential credit. The future is uncertain that it will be renewed by congress.

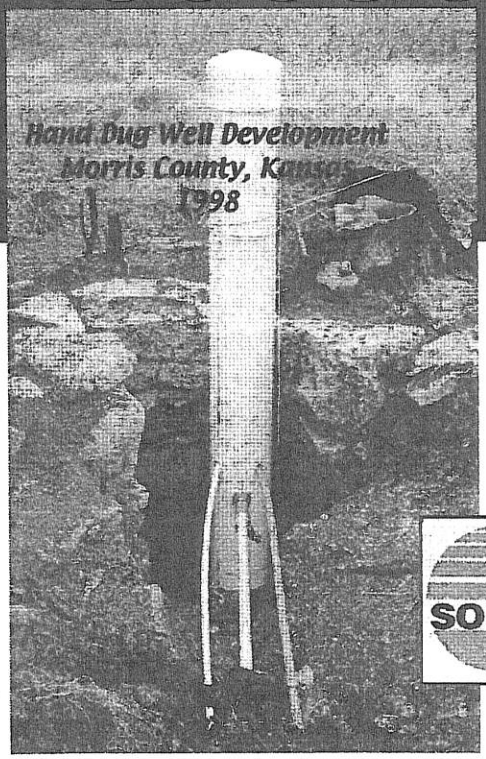
The future of renewable energy is here. It's used in many applications we see daily. It is within our grasp to take advantage of its benefits. Its has problems to be sure, but to wring our hands and whine is not a solution. Kansas has a history of leadership in progressive issues. This is a leadership conference on energy and now action must be taken by the participants attending these two days. We must be bold and step up to the plate and invest in our childrens future by purchasing solar and wind equipment and take the benefits that renewable energy can provide us. The sun and the wind are here. We must harness them to our tasks for our own good. We are leaders. We must commit and providence will follow.

8-15



Solar Water Pumping Products





WATER
USE IT WISELY

SOLARJACK™
SOLAR PUMPING PRODUCTS

8 16

Westar Energy

MARK A. SCHREIBER
Director, Government Affairs

Testimony of Mark Schreiber
Director Government Affairs, Westar Energy
Before the House Energy and Utilities Committee
On HB 2043
January 29, 2009

Good morning Chairman Holmes and members of the committee. Thank you for the opportunity to provide testimony in support of HB 2043.

This bill requires all retail electric suppliers to make net metering available to their customers in the state. It limits the total capacity to 100 kw and aggregate capacity to 5% of our single hour peak load. The bill applies solely to wind generation.

Westar Energy supports this bill because it does allow for net metering, which we believe promotes the development of small renewables. The conditions set forth in New Section 2(c)(2) and (5) are especially appropriate for this type of legislation. We would only suggest one small change to clarify peak load. We believe the word "retail" should be placed before "peak load" wherever it appears in the bill. This ensures it represents the load from our retail customers and not those of possibly another utility, who might also allow net metering.

Thank you again for the opportunity to testify. I will stand for questions at the appropriate time.

818 South Kansas Avenue / P.O. Box 889 / Topeka, Kan
Telephone: (785) 575-8369 / Fax: (785) 575-8119 / Mobile: (
mark.schreiber@WestarEnergy.com

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 9

Westar Energy®

MARK A. SCHREIBER
Director, Government Affairs

Testimony of Mark Schreiber
Director Government Affairs, Westar Energy
Before the House Energy and Utilities Committee
On HB 2051
January 29, 2009

Good morning Chairman Holmes and members of the committee. Thank you for the opportunity to provide testimony in support of HB 2051.

This bill requires all retail electric suppliers to make net metering available to their customers in the state. It limits the total capacity to 100 kw and aggregate capacity to 5% of our single hour peak load. The bill applies solely to solar thermal or photovoltaic (PV) generation.

Westar Energy supports this bill because it does allow for net metering, which we believe promotes the development of small renewables. The conditions set forth in New Section 2(c)(2) and (5) are especially appropriate for this type of legislation. We would only suggest one small change to clarify peak load. We believe the word "retail" should be placed before "peak load" wherever it appears in the bill. This ensures it represents the load from our retail customers and not those of possibly another utility, who might also allow net metering.

Thank you again for the opportunity to testify. I will stand for questions at the appropriate time.

818 South Kansas Avenue / P.O. Box 889 / Topeka, Kan
Telephone: (785) 575-8369 / Fax: (785) 575-8119 / Mobile: (
mark.schreiber@WestarEnergy.com

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 10

Testimony of Scott Jones
Before the House Energy and Utilities Committee
In Support of House Bill 2043
January 29, 2009

Kansas City Power & Light supports renewable energy and believes House Bill 2043 is a reasonable way to help customers install wind generation. Last year KCP&L supported House Bill 2682, which is the foundation for this bill. We also proposed amendments last year to SB 327 that allowed all renewable generation to be eligible for net metering, not just wind.

Over the last several years KCP&L has observed an increased level of both residential and commercial interest in renewable energy systems as a way to reduce utility bills and support a sustainable environment. KCP&L customers that utilize our parallel generation tariff for wind generation include a church, school and several homeowners. We feel this net metering bill will facilitate customer desires to install wind generation.

One change we suggest is allowing net metering for all renewable generation.

Thank you for the opportunity to voice our support.

Scott Jones – KCP&L
Manager, Kansas Government Affairs
816-556-2458; scott.jones@kcpl.com

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 11

Testimony of Scott Jones
Before the House Energy and Utilities Committee
In Support of House Bill 2051
January 29, 2009

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Over the last several years KCP&L has observed an increased level of both residential and commercial interest in renewable energy systems as a way to reduce utility bills and support a sustainable environment. KCP&L customers that utilize our parallel generation tariff for solar generation include a school and several homeowners. We feel this net metering bill will facilitate customer desires to install solar generation.

One change we suggest is allowing net metering for all renewable generation.

Thank you for the opportunity to voice our support.

Scott Jones – KCP&L
Manager, Kansas Government Affairs
816-556-2458; scott.jones@kcpl.com

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 12

KANSAS ASSOCIATION OF SCHOOL BOARDS

1420 SW Arrowhead Road • Topeka, Kansas 66604-4024
785-273-3600

Testimony before the
House Utilities and Energy Committee
on
HB 2043 and HB 2051
by

Tom Krebs, Governmental Relations Specialist
Kansas Association of School Boards
January 29, 2009

Mr. Chair, Members of the Committee:

Thank you for the opportunity to testify as a proponent for **HB 2043** and **HB 2051**.

School districts have come to realize savings in operational costs have the potential of being used to enhance other parts of the budget. These two bills will help encourage districts to investigate, and possibly invest in, means of generating electricity and using the avoided utility costs to meet other district needs.

The two bills detail the guidelines a district and its supplier would need to follow to allow for electrical generation that could be used both on the district's side of the meter and on the supplier's side. A positive benefit of the guidelines is districts will have a more consistent relationship with its electrical supplier, whether it is an investor-owned utility, a local cooperative or a municipal-owned utility.

Not only will districts that ultimately invest in their own electrical generation save money on their utility bills, they will have a potential long-term impact on the base-load demand, that when continually escalates, speeds up the need for more, expensive large-scale plants.

KASB appreciates the permissive nature of the bill. Only districts that have the desire, capacity and need to invest in their own electrical generation will tap into this bill. It does not put a mandate on districts that choose not to go down that path.

School districts are ideal candidates to move our state into a greener, more sustainable energy future, and these two bills will help them achieve that goal.

Thank you for your consideration.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 13

Schools for Quality Education

007 Bluemont Hall, 1100 Mid-Campus Drive, Manhattan, KS 66506 • (785) 532-5886 • www.coe.ksu.edu/sqe

House Energy & Utilities Committee
HB 4023 & HB 2051
Wind Energy and Rural Kansas Schools
January 29, 2009
Val Defever

Chairman Holmes and committee members thank you for allowing me to share some comments with you today. Schools for Quality Education is a group of 126 small rural schools. SQE supports and encourages legislation that expands all alternatives sources of energy by a school district that receive net metering from the utility company for any excess energy. Although we fully recognize our budget shortfalls in future years we would further encourage the legislature to consider incentive programs to enable school districts and other entities in purchasing and installing alternative energy sources such as wind, solar and geothermal.

As I became aware of HB4023 and HB2051, I have talked with two SQE school districts who have already installed wind units: USD 209, Supt. Larry Philippi from Moscow and USD 293 Quinter, Supt. Allaire Homburg. They have been successful in installing and operating generating energy for their schools. They have also been successful in selling their excess energy. Their towers were purchased from a company in Ellsworth, Kansas while their turbines came from Canada. It will take them 8 to 10 years to recover their $165,000 investment. We appreciate that HB4023 and HB4051 clarify many aspects for those considering such installations in the future. Schools for Quality Education appreciate your committee's efforts in this area.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 14

KEC
KANSAS ELECTRIC COOPERATIVES, INC.

A Touchstone Energy® Cooperative

P.O. Box 4267, Topeka, Kansas 66604-0267
7332 SW 21st Street, Topeka, Kansas 66615

785-478-4554 • (Fax) 785-478-4852
www.kec.org

Testimony of Kansas Electric Cooperatives, Inc.
House Bill 2043
January 29, 2009

Kansas Electric Cooperatives, Inc. opposes HB 2043 as written. We support the referral of the bill to subcommittee and will assist with efforts to support customer-owned wind generation.

Net metering allows a customer to offset their metered electric usage with their own generation. The meter spins backward when customer generates and forward when customer consumes. Since the utility is required to make service available 24/7/365 the customer is using the electrical grid as a bank or battery, making deposits when they can and withdrawals when they want.

Net metering forces electric utilities to pay retail prices for a wholesale product.

- Electric service can be segmented into functions—generation, transmission, and distribution.
  - All functions have costs and all are required to provide customer with reliable service.
  - The generation must be matched to the customer's load in real time.
  - The generation function can be further segmented into energy and capacity.
- Customer owned generation provides energy—one segment of the generation function. Since the generation is intermittent, it cannot be counted as capacity.
- Net metering rewards the customer-generator by crediting the customer's generation against his or her bill at retail price (the combined cost of generation, transmission, and distribution) in exchange for the customer providing the utility an energy only wholesale product. The utility still incurs the expenses of maintaining the integrated generation, transmission and distribution system needed to provide reliable service to the customer.

The difference between the credit given to the customer generator (the rate for bundled retail service) and the value of the service provided (the wholesale energy segment) represents a subsidy meant to encourage the installation of renewable generation. Since the credit diminishes utility revenue, the cost of the subsidy is borne by the remaining utility ratepayers.

The subsidy created by net metering disproportionately burdens rural electric cooperative members due to service areas. Subsidies to achieve a state goal (renewable energy) should be either be borne statewide (such as through a tax credit, direct payment, or universal fund) or the utility should be made whole for costs incurred to serve the customer (by the customer or the state.)

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 15

Testimony before the House Energy and Utilities Committee
January 28, 2009
Opposing H.B. 2043

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 opposition to H.B. 2043.

The Sierra Club supports the concept of net metering for both wind and solar energy but believes this bill is more about a dual billing system. It would prefer a one meter system where the meter goes backwards and forwards. It also supports the customer and the utility receiving retail rates for their energy. If the home producer generates more than the utility, the home producer receives payment from the utility. If the utility company provides more, it gets paid by the home-owner. This could apply to businesses or other entities that would want to benefit from net metering.

The Sierra Club encourages the committee to oppose HB 2043 and to develop a bill closer to these concepts.

Sincerely

Tom Thompson
Sierra Club

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 16

Testimony before the House Energy and Utilities Committee
January 28, 2009
Opposing H.B. 2051

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 opposition to H.B. 2051.

The Sierra Club supports the concept of net metering for both wind and solar energy but believes this bill is more about a dual billing system. It would prefer a one meter system where the meter goes backwards and forwards. It also supports the customer and the utility receiving retail rates for their energy. If the home producer generates more than the utility, the home producer receives payment from the utility. If the utility company provides more, the homeowner pays. This could apply to businesses or other entities that would want to benefit from net metering.

The Sierra Club encourages the committee to oppose HB 2051 and to develop a bill closer to these concepts.

Sincerely

Tom Thompson
Sierra Club

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 17

kansasmunicipalutilities

Submitted testimony provided to the
House Energy and Utilities Committee
January 29, 2009

Brad Mears, Director of Operations
Kansas Municipal Utilities

House Bill 2043
House Bill 2051

On behalf of Kansas Municipal Utilities (KMU), we would like to thank the House Energy and Utilities Committee for the opportunity to submit testimony on House Bill 2043, net metering and easy connection act for wind generation, and House Bill 2051, net metering and easy connection act for solar generation.

Formed in 1928, Kansas Municipal Utilities (KMU) is the statewide association that represents the interests of 176 municipal electric, natural gas, water and wastewater utilities. KMU member electric utilities are supportive of renewable energy projects and are actively seeking ways in which they can support net metering. However, our members cannot support net metering at the expense of local control.

Net metering has the potential of encouraging additional renewable energy from small wind as envisioned by both bills. As we understand the proposed legislation, it provides for the net metering of customer-generating units with a capacity of not more than 100 kilowatts. The bill includes a number of safety provisions that a municipal utility system would encourage to be in place as well. But, HB 2043 goes on to declare local regulations regarding <u>any</u> wind turbine or other equipment for wind power as void and unenforceable while HB 2051 does the same for solar energy devices or equipment (New Sec. 18 and 19 in both bills).

We would suggest that the growth of wind, solar, and other renewable energy should not come at the expense of local control. As a municipal utility, owned and operated by local government by and for its citizens, we cannot relinquish our responsibility to provide reasonable protections for the health, safety, and welfare of our communities by allowing our ordinances, resolutions, and regulations on structures being constructed in our jurisdictions to be declared void and unenforceable. These regulations have been put in place to provide reasonable protections to the public (i.e., setbacks and clearances from other structures, height limitations, etc.). Regulations of this type are not put in place arbitrarily, but implemented in response to local concerns and interests to protect the public.

The primary concern with both HB 2043 and HB2051 is the preservation of local control. Again, municipal utilities want to be supportive of net metering, but cannot support provisions that would diminish local governments' ability to regulate structures within their jurisdictions.

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HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 18

LKM
League of Kansas Municipalities

300 SW 8th , ue
Topeka, Kansas 66603-3912
Phone: (785) 354-9565
Fax: (785) 354-4186

To: House Energy and Utilities

From: Nathan Eberline – League of Kansas Municipalities

Date: January 29, 2009

Re: House Bills 2043 & 2051 – Net Metering in Kansas

Thank you for the opportunity to offer comments regarding House Bills 2043 and 2051. The League is concerned about this legislation because it is in conflict with a city's capacity for planning and zoning, which is central to local control. HB 2043 and 2051 currently contain language that usurps zoning power from local government without regard to the potential harm of the policy effects. Consequently, the League of Kansas Municipalities opposes the clauses that preempt local government power to plan and zone.

We oppose the sweeping changes to zoning policy found in Section 19 of HB 2043 and 2051: "[A]ny provision of a city or county ordinance, resolution or regulation restricting or prohibiting the use of any wind turbine or any other equipment used for wind power installed on or adjacent to buildings is hereby declared to be against public policy and such provision shall be void and unenforceable."

An analysis of any ordinance book or housing covenant reveals a general theme that an individual cannot build without considering the community that surrounds his or her property. This policy exists to ensure neighborly behavior on an individual level and orderliness on a community level. Currently, communities often impose building restrictions or requirements on a homeowner out of consideration for the neighborhood. But if HB 2043 and 2051 pass as currently written, then that same homeowner could construct a sizeable wind-turbine directly in front of his neighbor's bedroom window without approval from the neighbor or community.

The League respectfully requests that the Energy & Utility Committee remove the preemptive portions of the bills. We look forward to working with the committee on this important issue. I am prepared to answer questions at the appropriate time.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 19

Citizens' Utility Ratepayer Board

State of Kansas
Kathleen Sebelius, Governor

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. 2043

Testimony on Behalf of the Citizens' Utility Ratepayer Board
By David Springe, Consumer Counsel
January 29, 2009

Chairman Holmes and members of the committee:

Thank you for this opportunity to offer testimony on H.B. 2043. The Citizens' Utility Ratepayer Board is opposed to this bill for the following reasons:

Current law, at K.S.A 66-1,184, regarding parallel generation services, represents the existing Kansas policy on payments to small scale generators for electricity placed on a utility grid. CURB supports the current law and the current economic framework for payments to small generators.

Under the current law, a utility customer that also operates a small scale generator does not avoid paying the fixed costs necessary for the utility to remain ready, willing and able to supply power to the customer whenever the customer needs the utility's services. The customer pays normal retail rates for any energy used, and is paid the equivalent of 150% of the utility's fuel cost, for any energy placed on the grid. This 50% fuel subsidy is a cost to the utility that ultimately must be paid by the utility's other customers. However, after numerous debates the legislature has determined that a mechanism that compensates a small scale generator based on the utility's fixed costs, costs that are not being avoided, is the wrong economic policy.

Net metering, as opposed to parallel generation, involves netting the energy delivered by the utility and used by the customer against the energy generated by the customer and delivered to the utility. In simple instances, the customer meter spins forward when the customer is using energy and spins backwards when energy is being delivered from the small scale generator to the utility grid. Consider an example where a customer works all day, but has a wind turbine or solar panel that generates 20 kilowatt hours of energy and places that energy on the grid, i.e., the meter spins backwards all day. Then the customer comes home for the evening, starts dinner, turns on the lights, turns on the television and uses 20 kilowatt hours of energy over the course of the night, i.e., the meter spins forward. At the end of the day, even though the customer relied on the utility for 20 kilowatt hours of service, the customers meter shows zero usage. If the customer does this every day for a month, the customer's monthly utility bill will show zero usage, and the customer will not pay for any service, other than a small customer charge, even though the customer used the utility service each and every day of the month.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 20-1

To the extent that a proposed "net metering" law allows a person that has the financial means to afford a small wind turbine or photo-voltaic system to use the utility system but avoid paying the fixed costs of that utility system, then CURB does not believe this is fair or equitable to those that do not have the means to afford this same technology.

H.B. 2043 at New Section 3 (a) [page 2, line 12], makes this new net metering law available on a first come first serve basis, subject to some overall limits on total availability. New Section 3 (b), [page 2, line 26], requires the utility offer a tariff or contract "*identical in electric energy rates, rate structure and monthly charges*" as a normal customer and specifically precludes charging an additional "*standby, capacity, interconnection or other fee or charge that would not otherwise be charged if the customer was not an eligible customer-generator*". Finally, New Section 6 (b) [page 3, line 25] requires, in the situation where the electricity supplied by the utility is in excess of the electricity supplied by the customer-generator the utility must bill the customer for the "*net electricity supplied*". New Section 6 (c) [page 3, line 30] goes further to require that, where the customer-generator places more energy on the utility system than the customer uses, not only will the customer get a bill for only the small customer charge, but a credit to the customer's bill will be created "*in an amount at least equal to150% of the avoided fuel cost of the excess kilowatt-hours generated*", with this credit to be applied the following billing periods up to 12 months. Functionally, this means the utility now owes the customer.

When these sections are combined, a framework is created that allows a small customer-generator to avoid paying the fixed cost of utility service, other than a small monthly customer charge. These sections combined, if enacted, will clearly make small photovoltaic systems more economically attractive to those customers that can afford to purchase a system. These same sections also insure that some amount of the utility's fixed costs will be shifted to those customers that cannot afford this type of generation system.

The economic reality is that a person that uses the utility system creates the need for generation to be available, transmission to be available, distribution, transformers, meters and service personnel all to be available. Further, as long as the customer remains connected to the grid, the utility still has to plan for and incur costs in a manner to be able to serve that customer in the event the wind or photovoltaic generator ceases working at any time. A customer should not be able to avoid these fixed costs simply because the customer has the means to afford a small generation system.

For these reasons, CURB does not support HB 2043

However, CURB does acknowledge that, while the economic principles outlined above are true, the level of allowed net metering in HB 2043 is capped. By definition there will be cost shifting and explicit subsidies created by this legislation. The legislature can decide that these subsidies serve a valid purpose. If the Committee does make the policy decision to create this type of subsidy for those that can afford photo-voltaic generation systems, CURB again asks that the Committee consider creating a customer funded third party non-utility entity that can focus on providing low income utility assistance and weatherization, energy conservation and energy efficiency measures to all Kansas customers.

Citizens' Utility Ratepayer Board

State of Kansas
Kathleen Sebelius, Governor

David Springe, Consumer Counsel
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HOUSE UTILITIES COMMITTEE
H.B. 2051

Testimony on Behalf of the Citizens' Utility Ratepayer Board
By David Springe, Consumer Counsel
January 29, 2009

Chairman Holmes and members of the committee:

Thank you for this opportunity to offer testimony on H.B. 2051. The Citizens' Utility Ratepayer Board is opposed to this bill for the following reasons:

Current law, at K.S.A 66-1,184, regarding parallel generation services, represents the existing Kansas policy on payments to small scale generators for electricity placed on a utility grid. CURB supports the current law and the current economic framework for payments to small generators.

Under the current law, a utility customer that also operates a small scale generator does not avoid paying the fixed costs necessary for the utility to remain ready, willing and able to supply power to the customer whenever the customer needs the utility's services. The customer pays normal retail rates for any energy used, and is paid the equivalent of 150% of the utility's fuel cost, for any energy placed on the grid. This 50% fuel subsidy is a cost to the utility that ultimately must be paid by the utility's other customers. However, after numerous debates the legislature has determined that a mechanism that compensates a small scale generator based on the utility's fixed costs, costs that are not being avoided, is the wrong economic policy.

Net metering, as opposed to parallel generation, involves netting the energy delivered by the utility and used by the customer against the energy generated by the customer and delivered to the utility. In simple instances, the customer meter spins forward when the customer is using energy and spins backwards when energy is being delivered from the small scale generator to the utility grid. Consider an example where a customer works all day, but has a wind turbine or solar panel that generates 20 kilowatt hours of energy and places that energy on the grid, i.e., the meter spins backwards all day. Then the customer comes home for the evening, starts dinner, turns on the lights, turns on the television and uses 20 kilowatt hours of energy over the course of the night, i.e., the meter spins forward. At the end of the day, even though the customer relied on the utility for 20 kilowatt hours of service, the customers meter shows zero usage. If the customer does this every day for a month, the customer's monthly utility bill will show zero usage, and the customer will not pay for any service, other than a small customer charge, even though the customer used the utility service each and every day of the month.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 21-1

To the extent that a proposed "net metering" law allows a person that has the financial means to afford a small wind turbine or photo-voltaic system to use the utility system but avoid paying the fixed costs of that utility system, then CURB does not believe this is fair or equitable to those that do not have the means to afford this same technology.

H.B. 2051 at New Section 3 (a) [page 2, line 13], makes this new net metering law available on a first come first serve basis, subject to some overall limits on total availability. New Section 3 (b), [page 2, line 27], requires the utility offer a tariff or contract "*identical in electric energy rates, rate structure and monthly charges*" as a normal customer and specifically precludes charging an additional "*standby, capacity, interconnection or other fee or charge that would not otherwise be charged if the customer was not an eligible customer-generator*". Finally, New Section 6 (b) [page 3, line 26] requires, in the situation where the electricity supplied by the utility is in excess of the electricity supplied by the customer-generator the utility must bill the customer for the "*net electricity supplied*". New Section 6 (c) [page 3, line 31] goes further to require that, where the customer-generator places more energy on the utility system than the customer uses, not only will the customer get a bill for only the small customer charge, but a credit to the customer's bill will be created "*in an amount at least equal to150% of the avoided fuel cost of the excess kilowatt-hours generated*", with this credit to be applied the following billing periods up to 12 months. Functionally, this means the utility now owes the customer.

When these sections are combined, a framework is created that allows a small customer-generator to avoid paying the fixed cost of utility service, other than a small monthly customer charge. These sections combined, if enacted, will clearly make small photovoltaic systems more economically attractive to those customers that can afford to purchase a system. These same sections also insure that some amount of the utility's fixed costs will be shifted to those customers that cannot afford this type of generation system.

The economic reality is that a person that uses the utility system creates the need for generation to be available, transmission to be available, distribution, transformers, meters and service personnel all to be available. Further, as long as the customer remains connected to the grid, the utility still has to plan for and incur costs in a manner to be able to serve that customer in the event the wind or photovoltaic generator ceases working at any time. A customer should not be able to avoid these fixed costs simply because the customer has the means to afford a small generation system.

For these reasons, CURB does not support HB 2051

However, CURB does acknowledge that, while the economic principles outlined above are true, the level of allowed net metering in HB 2051 is capped. By definition there will be cost shifting and explicit subsidies created by this legislation. The legislature can decide that these subsidies serve a valid purpose. If the Committee does make the policy decision to create this type of subsidy for those that can afford photo-voltaic generation systems, CURB again asks that the Committee consider creating a customer funded third party non-utility entity that can focus on providing low income utility assistance and weatherization, energy conservation and energy efficiency measures to all Kansas customers.

KANSAS
ASSOCIATION OF
COUNTIES

TESTIMONY
concerning House Bill No. 2043
re. Pre-emption of Local Land Use Regulatory Authority
House Energy and Utilities Committee
Presented by Randall Allen, Executive Director
Kansas Association of Counties
January 29, 2009

Chairman Holmes and members of the committee, my name is Randall Allen, Executive Director of the Kansas Association of Counties. I am here today to express our strong opposition to New Section 19 in HB 2043. We have no comments on net metering, but we strenuously object to the following language, beginning on page 6, line 29:

"New Section 19. (a) On or after the effective date of this act, any provision of a city or county ordinance, resolution or regulation restricting or prohibiting the use of any wind turbine or any other equipment used for wind power installed on or adjacent to buildings is hereby declared to be against public policy and such provision shall be void and unenforceable.

(b) The provisions of this section shall apply to any ordinance, resolution or regulation in existence on the effective date of this act."

The language in New Section 19 fundamentally strips counties (and cities) of the most basic right to regulate land use within their jurisdictions. The proposed language would replace the exercise of local control with a one-size-fits-all solution from state government and is an affront to local self-determination. The preemption of local authority is abhorrent to counties and county commissioners, who as elected officials have a strong reading of the local pulse on various issues and concerns.

Regardless of what action the committee takes with regard to net metering, we strongly urge the committee to remove New Section 19 from HB 2043. Thank you for the opportunity to present our position to the committee.

The Kansas Association of Counties, an instrumentality of member counties under K.S.A. 19-2690, provides legislative representation, educational and technical services and a wide range of informational services to its member counties. Inquiries concerning this testimony should be directed to Randall Allen or Melissa Wangemann by calling (785) 272-2585.

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HOUSE ENERGY AND UTILITIES
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ATTACHMENT 22

KANSAS
ASSOCIATION OF
COUNTIES

TESTIMONY
concerning House Bill No. 2051
re. Pre-emption of Local Land Use Regulatory Authority
House Energy and Utilities Committee
Presented by Randall Allen, Executive Director
Kansas Association of Counties
January 29, 2009

Chairman Holmes and members of the committee, my name is Randall Allen, Executive Director of the Kansas Association of Counties. I am here today to express our strong opposition to New Section 19 in HB 2051. We have no comments on net metering, but we strenuously object to the following language, beginning on page 6, line 30:

"New Section 19. (a) On or after the effective date of this act, any provision of a city or county ordinance, resolution or regulation restricting or prohibiting the use of any solar panel, solar energy device or any other equipment used for solar power installed on or adjacent to buildings is hereby declared to be against public policy and such provision shall be void and unenforceable.

(c) The provisions of this section shall apply to any ordinance, resolution or regulation in existence on the effective date of this act."

Like similar language in HB 2043, the language in New Section 19 of HB 2051 (above) fundamentally strips counties (and cities) of the most basic right to regulate land use within their jurisdictions. The proposed language would replace the exercise of local control with a one-size-fits-all solution from state government and is an affront to local self-determination. The preemption of local authority is abhorrent to counties and county commissioners, who as elected officials have a strong reading of the local pulse on various issues and concerns.

Regardless of what action the committee takes with regard to net metering, we strongly urge the committee to remove New Section 19 from HB 2051. Thank you for the opportunity to present our position to the committee.

The Kansas Association of Counties, an instrumentality of member counties under K.S.A. 19-2690, provides legislative representation, educational and technical services and a wide range of informational services to its member counties. Inquiries concerning this testimony should be directed to Randall Allen or Melissa Wangemann by calling (785) 272-2585.

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HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 23

MEMORANDUM

To: Representative Holmes, Chair, and Members of the House Energy and Utilities Committee

Fm: Kansas Association of County Planning and Zoning Officials

Re: HB 2043 and HB 2051

Date: January 29, 2009

Chairman Holmes and members of the committee, my name is Eloise Tichenor and I represent the Kansas Association of County Planning and Zoning Officials. I am here to express our opposition to New Section 19 parts (a) and (b) in both HB 2043 and HB 2051. Our organization represents local officials from over half the counties in Kansas covering more than 80% of the state population. Daily, our members are on the frontlines administering locally adopted Zoning Regulations; most often in the unincorporated areas of their counties, but in some cases, smaller cities within those counties. We hear every day from our citizens when they believe their property rights have been infringed upon and when they believe their neighbor is doing something harmful to the value, enjoyment or safety of their property and families.

We currently work with local elected officials to draft regulations protecting the interests of all landowners. The ability to draft these regulations was wisely placed in the hands of local officials by the State years ago. The premise being that there is no single rule, regulation or law addressing land use activities that can reasonably be governed by a "one-size-fits-all" approach. Land use activity affects the land and surrounding property owners and will always be a matter of local interest. Therefore, decisions of what to do in response to that interest, if anything, belongs with the local officials who know best their respective communities.

HB 2043 and HB 2051 both carry provisions that would permanently bar local officials, both city and county, from enacting any rule, regulation, resolution or ordinance that restricts or prohibits the use of any wind turbine or solar panel within their respective jurisdictions. If signed into law, not only will the local officials be barred from having any jurisdiction on these issues, but any ordinance, resolution or regulation deemed to restrict or prohibit the use of the aforementioned items will be declared to be against public policy.

The Association has no comments regarding the Bill's net metering requirements; it is the matter of prohibiting a local government's authority to manage these activities that is the issue at hand. Local land use decisions, regardless of their nature, belong with the local elected officials.

For eight years, I have served as the Jefferson County Zoning Administrator. Recently, Jefferson County has been drafting new language for our Zoning Regulations that will allow wind energy conversion systems as accessory uses by right, provided they meet reasonable performance standards. The performance standards deal primarily with setbacks from other properties to address safety issues. In effect, the County has taken a very strong position to allow the use of this technology; however, consideration needs to given to the rights and protection of surrounding landowners. If a landowner does not have enough land area for a structure by right; a hearing process with full notice to surrounding landowners provides a means to gain authorization for the structure if other impacts can be mitigated.

Local elected officials work closely with local people to provide the best environment in which to make local investments. This provision would eliminate that opportunity. As such, we ask that you strike the provisions in New Section 19(a) and (b) from both Bills.

Thank you for your time and consideration.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 24

Testimony In Opposition to Section 18 of HB 2043
Establishing Net Metering and Easy Connection Act for Wind Generation

Before the House Energy and Utilities Committee, January 29, 2009
By Jason Fizell, Executive Director, Kansas Land Trust (KLT)

- We feel the provisions contained in Section 18 of HB 2043 are incidental and immaterial to the overall purpose and goals of the bill. We suggest either striking Section 18 from the bill entirely or including a statement that conservation easements are not affected by this provision.

- The Kansas Land Trust (KLT) works with *willing, private landowners* who donate or sell a Conservation Easement (CE) on their land, preventing intensification of land use on property having important ecological, agricultural, scenic, or historic value. The *landowner retains legal title and certain reserved rights to the property,* but agrees to restrict other future uses, such as residential or commercial development –the same legal "bundle of sticks" concept that applies to other separable property rights such as water, minerals, oil and gas.

- In Kansas, Conservation Easements are governed by K.S.A. 58-3810, the Kansas Uniform Conservation Easement Act.

- KLT does not take a position on net metering or wind power development.

- KLT has worked with landowners wishing to *reserve the right to develop or maintain* non-commercial, residential or on-farm wind turbines within their protected property. However, other landowners, particularly on properties with certain site and conservation considerations, may choose to *give up their right* to future wind turbine development.

- Our concern is centered on the potential for an overly broad application of Section 18 of the Bill, which states in part: *"...any provision of a restrictive covenant which restricts or prohibits the use of any wind...adjacent to any residential dwelling is hereby declared to be against public policy and such provision shall be void and unenforceable."*

- For example, Section 170(h) of the IRS Code defines a "perpetual conservation restriction" as "a restriction granted in perpetuity on the use which may be made of real property—including, an easement or other interest in real property that under state law has attributes similar to an easement (e.g. a restrictive covenant or equitable servitude)."

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 25

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

Kansas Chapter
700 SW Jackson Street, Suite 804
Topeka, KS 66603

tel [785] 233.4400
fax [785] 233.2022
nature.org/kansas

January 29, 2009

Testimony in Opposition to HB 2043
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 2043**.

The Nature Conservancy is the nation's largest nonprofit conservation organization, operating in all 50 states and 33 nations. In Kansas the Conservancy has been responsible for the conservation of over 79,000 acres of important wildlife habitat on behalf of the current and future residents of our fair state, whose founding we celebrate today.

One of the key tools we have to preserve outstanding examples of our native landscapes is the conservation easement. Over the past few years, the Conservancy has secured conservation easements, in cooperation with private landowners, on over 22,000 acres, primarily in the Flint Hills. Our conservation easement programs continue to have strong demand and have provided millions of dollars of direct payments and tax relief for Kansas landowners. As written, HB 2043 contains very troubling language that has the potential to undermine the continuing use and effectiveness of conservation easements for both conservation outcomes and the financial benefits to landowners.

In particular, I would call your attention to New Sec. 18 and 19. The radical language in these sections has the potential to undermine not only the effectiveness of future conservation easements but would introduce chaos and uncertainty into existing easement contracts.

Although, The Nature Conservancy does not have a policy on net metering, given the far reaching negative implications of language contained in this bill, we are compelled to express our strong opposition to passage of HB 2043.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 26

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

Kansas Chapter
700 SW Jackson Street, Suite 804
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January 29, 2009

Testimony in Opposition to HB 2051
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 2051**.

The Nature Conservancy is the nation's largest nonprofit conservation organization, operating in all 50 states and 33 nations. In Kansas the Conservancy has been responsible for the conservation of over 79,000 acres of important wildlife habitat on behalf of the current and future residents of our fair state, whose founding we celebrate today.

One of the key tools we have to preserve outstanding examples of our native landscapes is the conservation easement. Over the past few years, the Conservancy has secured conservation easements, in cooperation with private landowners, on over 22,000 acres, primarily in the Flint Hills. Our conservation easement programs continue to have strong demand and have provided millions of dollars of direct payments and tax relief for Kansas landowners. As written, HB 2051 contains very troubling language that has the potential to undermine the continuing use and effectiveness of conservation easements for both conservation outcomes and the financial benefits to landowners.

In particular, I would call your attention to New Sec. 18 and 19. The radical language in these sections has the potential to undermine not only the effectiveness of future conservation easements but would introduce chaos and uncertainty into existing easement contracts.

Although, The Nature Conservancy does not have a policy on net metering, given the far reaching negative implications of language contained in this bill, we are compelled to express our strong opposition to passage of HB 2051.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 27

Lenexa
KANSAS

TESTIMONY IN OPPOSITION TO HB 2043
Written Only

To: Honorable Carl D. Holmes, Chair
Members of House Energy and Utilities

From: Roger Kroh, Director of Community Development

Date: January 27, 2009

Thank you for the opportunity to present testimony regarding **HB 2043.** The City understands and appreciates that this bill was introduced in an effort to encourage the use of wind generation as an alternative energy source. The City of Lenexa certainly supports all efforts that will make our environment cleaner and Country more sustainable in terms of energy. We are also supportive of wind turbines, which are the subject of this bill. In fact, our Planning Commission and City Council has approved wind turbines that serve an office building in our City that is the first LEED certified speculative office building in the United States.

We are, however, opposed to HB 2043 with Sections 18 and 19 in it as these sections would take away the ability of cities, counties and even homes association to establish rules and regulations as to where wind turbines can be located. If these two sections become law, anyone will be able to place wind turbines anywhere they wish. I don't think anyone would like to look into their front or back yards and see a large wind turbine placed just across the property line. But, there are appropriate places for wind turbines and cities and counties should be allowed to exercise their home rule right and years of planning and zoning experience to establish the parameters that prevent wind turbines being placed in very inappropriate locations. Cities and counties, as well as homes associations, have successfully handled these types of development issues for years, whether it's wind turbines or solar panels, and are best equipped to do so in the future.

Let me close by repeating that our city council is very supportive of initiatives to reduce our reliance on fossil fuels with alternative energy sources. In fact, our community just completed a communitywide visioning process looking out to the year 2030. A high priority was placed on taking a leadership role in sustainability and a clean environment. However, for the aforementioned reasons, the City of Lenexa is opposed to HB 2043 and any other statewide legislation that would not allow cities and counties to exercise their home rule powers and the public process to establish basic rules regarding wind turbines.

Please do not hesitate to contact me should you have any further questions or if the City of Lenexa can provide you with additional information. Thank you for your consideration.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 28

Lenexa
KANSAS

TESTIMONY IN OPPOSITION TO HB 2051
Written Only

To: Honorable Carl D. Holmes, Chair
Members of House Energy and Utilities

From: Roger Kroh, Director of Community Development

Date: January 27, 2009

Thank you for the opportunity to present testimony regarding **HB 2051.** The City understands and appreciates that this bill was introduced in an effort to encourage the use of solar panels and solar energy devices as alternative energy source. The City of Lenexa certainly supports all efforts that will make our Country more sustainable in terms of energy. We are also very supportive the use of solar panels and successfully accommodate them in our zoning regulations. We have a number of homes with solar panels in our community and those wishing to install solar panels have found them to be fair and workable.

We are, however, opposed to HB 2051 with Sections 18 and 19 in it as these sections would take away the ability of cities, counties and even homes association to establish rules and regulations as to where solar panels can be located. If these two sections become law, anyone will be able to place solar panels and solar devices anywhere they wish. I don't think anyone would like to look into their front yard and see a large solar panel just across the property line. But, there are appropriate places for solar panels and cities and counties should be allowed to exercise their home rule right and years of planning and zoning experience to establish the parameters that prevent solar panels from being placed in inappropriate locations. Cities and counties, as well as homes associations, have successfully handled these types of development issues for years and are best equipped to do so in the future.

Let me close by repeating that our city council is very supportive of initiatives to reduce our reliance on fossil fuels with alternative energy sources. In fact, our community just completed a communitywide visioning process looking out to the year 2030. A high priority was placed on taking a leadership role in sustainability and a clean environment. However, for the aforementioned reasons, the City of Lenexa is opposed to HB 2051 and any other statewide legislation that would not allow cities and counties to exercise their home rule powers and the public process to establish basic rules regarding solar panels and solar energy devices.

Please do not hesitate to contact me should you have any further questions or if the City of Lenexa can provide you with additional information. Thank you for your consideration.

HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 29

House Bill No. 2043, Net Metering and Easy Connection Act for Wind Generation

Mr. Chairman, members of the Committee, thank you for the opportunity to provide testimony.

Net metering is typically understood as an opportunity for customers to generate electricity, meter it bi-directionally, and receive credit for their contributions, paying only for the "net" electricity provided them by their utility. It is an incentive for distributed renewable generation.

Most states provide 1:1 credit for customers' contributions, but very few require utilities to actually pay customers for contributions in excess of their use.

According to the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), net metering programs "serve as an important incentive for consumer investment in renewable energy generation," and represent a "low-cost, easily administered method" that benefits not only consumers but utilities, because consumer systems often offer support during times of peak load. Net metering is already offered in more than 35 states, including our neighbors, Oklahoma, Missouri, Arkansas, Texas, Colorado and Iowa. http://www.eere.energy.gov/greenpower/markets/netmetering.shtml

The Electric Policy Research Institute projects that distributed generation will meet 5% of demand by 2030.

Considerations for the Committee:

- If HB 2043 is intended as an incentive, new section 18, which overrides local zoning, may prove counterproductive.
- FERC interconnection standards for small generators may ease connection of nationally standardized systems such as a solar panel or Skystream turbine. http://www.ferc.gov/industries/electric/indus-act/gi/small-gen.asp
- Renewable Energy Credits will accrue to customer-generator or purchasing utility; the Committee may wish to specify.

Sources on net metering:

http://www.dsireusa.org/documents/PolicyPublications/IREC%20Updates%20&%20Trends%2020071.pdf
http://www.irecusa.org/fileadmin/user_upload/ConnectDocs/December_2007_NM_table.doc
http://www.nrel.gov/visitors_center/pdfs/netmetering101.pdf
http://apps1.eere.energy.gov/states/alternatives/net_metering.cfm

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HOUSE ENERGY AND UTILITIES
DATE: 1/29/2009
ATTACHMENT 30-1

House Bill No. 2051, Net Metering and Easy Connection Act for Solar Generation

Mr. Chairman, members of the Committee, thank you for the opportunity to provide testimony.

Net metering is typically understood as an opportunity for customers to generate electricity, meter it bi-directionally, and receive credit for their contributions, paying only for the "net" electricity provided them by their utility. It is an incentive for distributed renewable generation, which the Electric Policy Research Institute projects will provide 5% of U.S. electric demand by 2030.

Solar generation is typically prized by utilities as an opportunity to shave peak load. With generous tax credits in place for eight years for solar generation, net metering of this resource would provide a powerful attractor for the solar industry. According to the American Solar Energy Society, the renewable energy and energy efficiency industries "already generate 8.5 million jobs in the U.S., and with appropriate public policy, could grow to as many as 40 million jobs by 2030."

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Sources on net metering:

http://www.dsireusa.org/documents/PolicyPublications/IREC%20Updates%20&%20Trends%2020071.pdf
http://www.irecusa.org/fileadmin/user_upload/ConnectDocs/December_2007_NM_table.doc
http://www.nrel.gov/visitors_center/pdfs/netmetering101.pdf
http://apps1.eere.energy.gov/states/alternatives/net_metering.cfm

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Federal Electricity Subsidies

Briefing to the Senate Committee on Environment and Public Works
September 6, 2007

Note: Slides updated to reflect technical comments received by DOE, USDA and NRC in October 2007.

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Research and Development

DOE Electricity-Related R&D Funding Totals $11.5 Billion (2007 dollars) from FY2002 to FY2007 and Increased by About 35% over this Period

We estimate that DOE electricity-related R&D funding totaled $11.5 billion from FY2002 to FY2007.

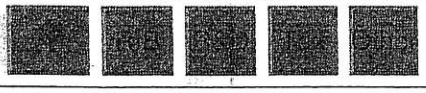
- Nuclear: $6.2 billion
- Fossil Fuels: $3.1 billion
- Renewables: $1.4 billion
- Transmission: $0.7 billion

(Amounts for nuclear, fossil fuels, renewables and transmission do not add up to $11.5 billion due to rounding.)

R&D funding across all fuel types increased by 35% from FY2002 through FY2007, from $1.6 billion to $2.2 billion, respectively.

- Nuclear: $775 million to $1,235 million (59% increase)
- Fossil Fuel: $531 million in 2002 and 2007 (0% increase)
- Renewable: $248 million to $305 million (23% increase)[2]
  - Solar: increased from $126 million to $203 million (60% increase)
  - Geothermal: decreased from $36 million to $6 million (84% decrease)

[2]Funding for hydrogen increased 154%; however, this fuel type was not allocated to electricity since it is used primarily as an alternative fuel for transportation.



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Research and Development

DOE Electricity-Related Funding Varied Widely across Fuels in FY2007

Fuel Sources and Transmission	Types of Fuels	Total Energy Subsidies ($ Millions)[a]	Percent Used for Electricity	Net Electricity Subsidies ($ Millions)	Electricity Generation - Megawatt-Hours
Fossil	Coal	$572.8	91.9%	$526.5	1,955.7
	Oil	3.6	2.3%	0.1	98.7
	Natural Gas	16.1	25.4%	4.1	643.6
Nuclear	Nuclear	1,235.3	100.0%	1,235.3	780.3
Renewable	Hydrogen	246.1	0.0%	0.0	0.0
	Biomass	253.9	13.3%	33.9	23.3
	Solar	202.6	100.0%	202.6	0.6
	Wind	62.7	100.0%	62.7	15.9
	Geothermal	6.4	91.0%	5.8	14.6
	Hydropower	0.0	98.7%	0.0	269.9
Transmission	All Above	137.0	100.0%	137.0	--
Total		**$2,736.6**		**$2,208.0**	

Sources: DOE Fiscal Year 2007 Operating Plan and EIA Annual Energy Review 2006.
[a]Program management allocated on a pro rata basis to individual fuel types.

Research and Development

DOE Funding for Electricity-Related Fossil Fuels R&D Programs in FY2007

Fuel Type	Program	Description	FY2007 ($ Millions)
Coal	Fuels and Power Systems	Provides research to reduce coal power plant emissions and improve efficiency to reduce carbon emissions.	$385.0
	Clean Coal Power Initiative	Enables and accelerates deployment of advanced technologies to ensure that the United States has clean, reliable, and affordable electricity.	74.7
	FutureGen	Focuses on the technical capability of coproducing electricity and hydrogen with near-zero atmospheric emissions.	66.8
Natural Gas	Natural Gas Technologies	Develop technologies to locate and produce gas from nonconventional reservoirs	4.1
Oil	Oil Technologies	Develop technologies to resolve the environmental, supply, and reliability constraints of producing oil resources.	0.1
Total Fossil Fuel			**$530.7**

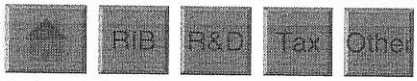
Source: GAO analysis of data provided by DOE.

Research and Development

DOE Funding for Electricity-Related Nuclear R&D Programs in FY2007

Fuel Type	Program	Description	FY2007 ($ Millions)
Nuclear Energy	Environmental Cleanup	Complete the safe clean up of the environmental legacy of five decades of nuclear energy research.	$349.7
	Fusion Energy Research	National research effort to advance the knowledge base needed for an economic and environmentally attractive fusion energy source.	319.0
	Advanced Fuel Cycle Initiative	Focuses on the reduction of nuclear fuel waste needing geologic disposal and the recovery of spent nuclear fuel energy.	313.6
	Nuclear Power 2010	Joint government/industry effort to identify sites for new nuclear power plants, develop advanced standardized nuclear plant designs, and evaluate the business case for building new nuclear power plants.	150.4
	Other Nuclear Programs	Includes Generation IV Nuclear Energy Systems Initiative and the Nuclear Hydrogen Initiative.	102.7
Total Nuclear			**$1,235.3**

Source: GAO analysis of data provided by DOE.



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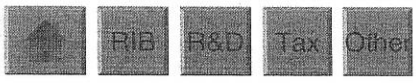
Research and Development

DOE Funding for Electricity-Related Renewable R&D Programs in FY2007

Fuel Type	Program	Description	FY2007 ($ Millions)
Renewable	Solar	Develop and accelerate the widespread commercialization of clean solar energy technologies.	$202.6
	Wind	Improve wind energy technology and address barriers to the use of wind energy.	62.7
	Biomass	Develop technologies for the successful deployment of refineries utilizing biomass resources (plant-derived material).	33.9
	Geothermal	Develop the economic production of geothermal systems and conduct field verification tests of new technology.	5.8
	Hydropower	Develop advanced technology to enhance environmental performance and operational efficiency.	0.0
Total Renewable			**$305.0**

Source: GAO analysis of data provided by DOE.



31-6

Tax Expenditures

Tax Expenditures are Large and Growing Support Provided to Electricity Production

We estimate electricity-related tax expenditures totaled $18.2 billion from FY2002 to FY2007 (2007 dollars).[3]

- $13.7 billion for fossil fuels
- $2.8 billion for renewables
- $1.7 billion for transmission
- None assigned to nuclear

Electricity-related tax expenditures increased from $2.2 billion to $4.1 billion (2007 dollars) from FY2002 to FY2007.

- Fossil fuels: $1.9 billion to $2.7 billion (43% increase)
- Renewables: $238 million to $790 million (232% increase)

Many tax expenditures applied to multiple fuels.

- We made assignments to fuels based, in part, on EIA data.

Many electricity-related tax expenditures created since 2005, others extended or expanded.

[3]Summing tax expenditures does not take into account interactions between individual provisions.

RIB R&D Tax Other

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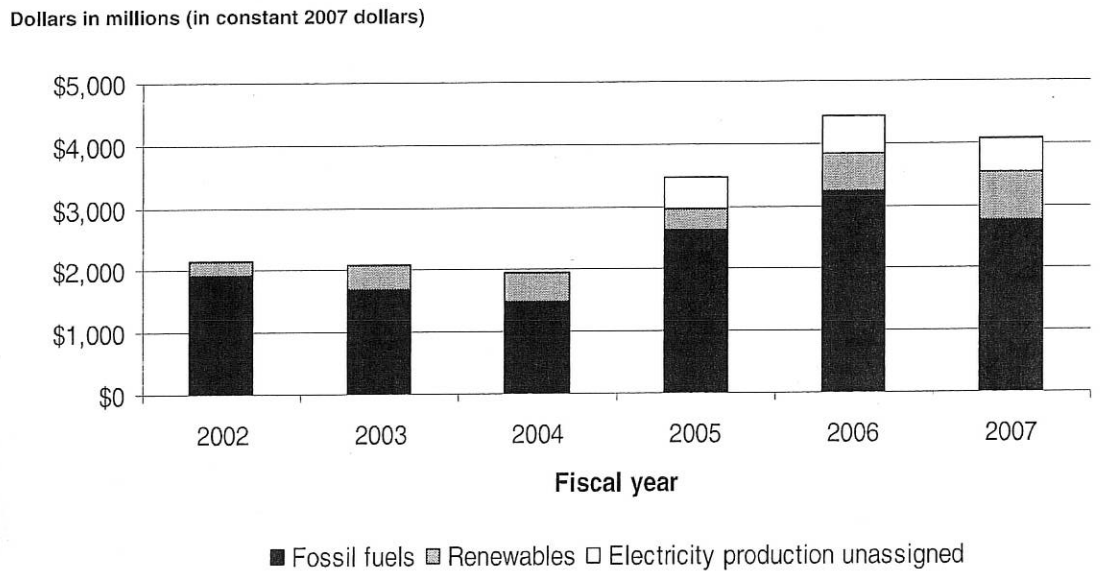
Tax Expenditures

Electricity-Related Tax Expenditures Increased from $2.2 billion to $4.1 Billion from FY2002 to FY2007 (2007 dollars)



Source: GAO analysis of tax expenditure data in OMB budget reports for fiscal years 2004-2008.
Note: Summing tax expenditure estimates does not take into account interactions between individual provisions.

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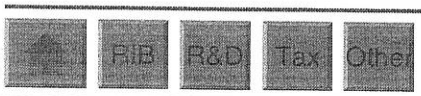
Tax Expenditures

FY2007 Electricity-Related Tax Expenditure Estimates by Fuel Source

Tax expenditure related to electricity production in fiscal year 2007	Assigned to electricity			
	Fossil fuel	Renewables	Not assigned	Estimate sum
Credit for holding clean renewable energy bonds (CREBs)	$0	$60	$0	$60
Credit for investment in clean coal (power generation) facilities	27	0	0	27
Credit for alternative fuel production	2,095	0	0	2,095
Exclusion of interest on energy facility bonds	0	40	0	40
New technology credit	0	690	0	690
Amortize all geological and geophysical expenditures over 2 years	16	0	0	16
Exception from passive loss limitation for working interests in oil and gas properties	6	0	0	6
Excess of percentage over cost depletion, fuels	160	0	0	160
Expensing of exploration and development costs, fuels	224	0	0	224
Natural gas distribution pipelines treated as 15-year property	15	0	0	15
Partial expensing for advanced mine safety equipment	9	0	0	9
Exclusion of special benefits for disabled coal miners	44	0	0	44
Capital gains treatment of royalties on coal	150	0	0	150
Temporary 50% expensing for equipment used in the refining of liquid fuels	1	0	0	1
Deferral of gain from dispositions of transmission property to implement FERC restructuring policy	0	0	530	530
Sum of tax expenditure revenue loss estimates	**$2,747**	**$790**	**$530**	**$4,067**

Source: GAO analysis of tax expenditure data in OMB budget report for fiscal year 2008.
Note: Summing tax expenditure estimates does not take into account interactions between individual provisions.



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