Approved - 1-27-03
Date

MINUTES OF THE SENATE UTILITIES COMMITTEE.

The meeting was called to order by Chairperson Senator Stan Clark at 9:30 a.m. on January 22, 2003 in Room 231-N of the Capitol.

All members were present except:

Committee staff present: Raney Gilliland, Legislative Research
Bruce Kinzie, Revisor of Statutes
Ann McMorris, Secretary

Conferees appearing before the committee:
Kyle K. Wetzel, President & CEO, K. Wetzel & Co., Inc., Lawrence

Others attending: See attached list

Chair Clark noted a question at the Tuesday meeting was asked as to how well deregulation worked. He handed out a report on this subject entitled "Texas Public Utility Commission Grades Deregulation" which appeared in the January 21 Houston Chronicle. (Attachment 1)

Senator Clark introduced his pages, Drew, Brett and Joel Frasier from Sharon Springs.

Presentation on Renewables, Wind & Conservation
Kyle Wetzel, president and CEO, K. Wetzel & Company, Inc. of Lawrence, KS, addressed the following issues:

1. Overview of the Kansas Renewable Energy Working Group (KREWG)
2. Rural Economic Development from Renewable Energy
3. Status of Renewable Energy in Kansas - Progress & Challenges
4. Efforts of the Kansas Renewable Energy Working Group
5. Renewables Activities Nationally and Regionally
6. Possible Renewables and Conservation Policy Initiatives
7. Comments on the State Energy Resources Coordination Council

He encouraged the committee to consider a Renewable Portfolio Standard, to reconsider the net metering policies and to retain the property tax abatement for renewable energy equipment. (Attachment 2)

Pro and con discussion regarding the Flint Hills being considered as a site for a wind farm.

Chair Clark briefed the committee on presentations scheduled before the committee during the next two weeks.

The next meeting of the committee will be on January 27.

Adjournment.

Respectfully submitted,

Ann McMorris, Secretary

Attachments - 2

SENATE UTILITIES COMMITTEE GUEST LIST

DATE: **JANUARY ~~23~~ 22, 2003**

Name	Representing
Kyle Wetzel	K. Wetzel & Co., Inc.
Joe Dick	KCBPU
Vince Graham	KEPCo
STEVE KEARNEY	SWKIA
Dave Rickards	SWKIA
Cynthia Smith	GPE
Mark Schreiber	Westar Energy
J.C. Long	AQUILA, INC.
Leonore Rowe	LWVKansas.
Tom Day	KCC
Ron Gaches	GBBA
Jim Ludwig	WR
Dave Hoffman	KEC

Texas Public Utility Commission Grades Deregulation

Houston Chronicle

Jan. 21--Retail electricity customers in Texas have saved more than $1.5 billion since deregulation began in January of last year, according to a new report.

The report to the Texas Legislature by the state Public Utility Commission said the savings are based on a comparison with regulated rates that were in effect during 2001.

However, the PUC is recommending that the Legislature consider some changes to Texas' year-old deregulated system to prevent abuses.

State lawmakers need to "expand or clarify" the commission's authority, particularly relating to oversight of the electricity industry, the PUC said. Specifically, the agency wants the cap on administrative penalties it can use to be raised.

"The statute currently has a cap on administrative penalties of $5,000 per violation," PUC commissioners wrote in their report. "The Commission is concerned that this cap may not be enough of a deterrent to prevent the exercise of market power on manipulation of market rules that could potentially enrich a company by millions of dollars."

The Federal Energy Regulatory Commission, or FERC, recently identified a similar concern and requested an increase in its penalty cap to $25,000 per violation.

Consumer groups like the Texas Ratepayers Organization to Save Energy agree with increasing the cap but believe more could be done.

"This whole market is about profits, and it is about money," said the organization's executive director, Carol Biedrzycki. "Unless companies have cost associated with breaking a rule, they are going to break them."

In Texas, when consumers are shopping for electricity providers, they are vulnerable because there is little enforcement of the PUC's customer protection rules, she noted.

"The law makes it more difficult than it should for the PUC to penalize a company when it fails to meet standards," Biedrzycki said. "That needs to be changed. But they are not asking for the level of enforcement authority that I think they need to effectively do their job."

Senate Bill 7, passed by the Legislature in 1999, provided for the deregulation of the state's electricity industry. The model that was put in place is being closely followed throughout the country.

IBM Business Consulting Service's lead energy strategist, Michael Valocchi, labeled the Texas experience "pretty good" so far. Regarding deregulation, he said, "I would not say it is a resounding success. But it is not a dismal failure."

Included in criticisms about the new system is that only between 6 percent and 7 percent of the residential electric customers have switched providers.

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Attachment 1-1

"Switch rates are well into single digits, but you expect that when you look at the market design," Valocchi said. "The average consumer didn't have a lot of impetus to switch. When the price caps start to get lifted, in four or five years, you will see more switching."

The change in Texas' law essentially allows customers to choose their electric provider in much the same way they choose a long-distance company for telephone service.

Compared to residential service, a much higher percentage of businesses, particularly larger businesses that can realize higher savings, have switched electric service providers during the past year.

The Texas Association of Realtors last month joined with Texas Commercial Energy in a move to offer lower electricity rates for its members.

The trade group joined Texas Commercial Energy's Power In Numbers volume aggregated purchasing program.

Senate Bill 7 provided for groups like the 60,000-strong Texas Association of Realtors to be able to form a corporation to act as an agent in negotiating the purchase of electricity, according to Texas Commercial Energy.

"It also proves deregulation significantly benefits Texas businesses," said Scott Hart, president of Texas Commercial Energy. That company was formed in 2001 and then launched last year as a new retail electric provider.

Biedrzycki said she doesn't think deregulation is working so well.

"If you look at the complaints filed with the PUC, there has been no decline in the level of complaints that have been filed about billing problems," she said, adding that problems remain at the Electric Reliability Council of Texas, the corporation that administers the state's power grid.

ERCOT has existed since 1970, but its role was expanded in managing the state's power supply as a result of passage of Senate Bill 7.

PUC Chairman Rebecca Klein and other commissioners said in their report that the commission worked closely with the reliability council to resolve technical issues related to switching and billing customers.

"While work still remains to make the systems more robust and reliable, great progress has been made during 2002 to resolve those issues," they said in their report.

Valocchi, who works with utilities on strategy and financial and regulatory issues, said that while it may sound like he is giving Texas a bad grade, the state's system has performed about as expected.

The Texas model is still one of the most prominent being eyed by other states where deregulation remains an issue, he noted.

"What you need to realize, a lot of other jurisdictions are hoping Texas fails so they don't have to tackle deregulation," Valocchi said.

1-2

Comments before the Kansas Senate Utilities Committee on
Renewable Energy, Wind Energy, and Conservation by
Kyle K. Wetzel, Chairman, Kansas Renewable Energy Working Group
January 22, 2003

Mr. Chairman, Vice Chairman, Senators, I appreciate the opportunity to appear before the Senate Utilities Committee this morning and share with you information and thoughts on renewable energy and energy conservation in Kansas. I am Kyle Wetzel. I am President & CEO of K. Wetzel & Company, Inc., a Lawrence-based engineering consulting company which works in the wind energy and aviation industries. I am also Chairman of the Kansas Renewable Energy Working Group.

As an outline of my presentation, I plan to address the following issues:

- Overview of the Kansas Renewable Energy Working Group
- Rural Economic Development from Renewable Energy
- Status of Renewable Energy in Kansas – Progress & Challenges
- Efforts of the Kansas Renewable Energy Working Group
- Renewables Activities Nationally and Regionally
- Possible Renewables and Conservation Policy Initiatives
- Comments on the State Energy Resources Coordination Council

I general I want to preface my remarks by saying that I will primarily speak to the subjects of wind power and conservation. I in no way intend to slight renewables other than wind power. The reality is that wind power is the largest non-hydro renewable energy source nationally and the largest in Kansas, so it obviously garners the most attention. It is also the only renewable resource useful for generating large quantities of electricity, which is obviously the primary interest of this committee, as opposed to bio-based fuels for vehicles. However, I think it is important to note that Kansas has nearly unparalleled biomass energy resources as well, and it is important that these resources should be tapped and promoted. I would be glad to try to address any questions or comments members of the committee might have on biomass energy, but I will primarily confine my comments to wind energy.

Kansas Renewable Energy Working Group

I am appearing here this morning as Chairman of the Kansas Renewable Energy Working Group. I would first like to provide you a little background on the Working Group. If you would like additional information, it can be found on the organization's website at *www.krewg.org*.

The Working Group is a broad-based coalition of groups and individuals with an interest in promoting the increased development of renewable energy in Kansas and improvements in energy efficiency and conservation. We are a nonpolitical, nonpartisan organization. We do not lobby on behalf of any issues. In fact, the Group does not actually take "positions" on policies because of our very diverse membership.

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KREWG held its first meeting last June at the KCC here in Topeka. I have been overwhelmed by the response. We had over 85 people at our first meeting, and between that and three subsequent meetings, we have had nearly 150 people attend, representing over 100 different organizations. Attendees and members include three current legislators, including Sen. Clark, Rep. Carl Holmes from Liberal and Chairman of the House Utilities Committee, and Rep. Tom Sloan from Lawrence. A representative from Governor Sebelius' office attended our meeting two weeks ago here in Topeka. KCC Chairman John Wine has participated, as have representatives from Senator Pat Roberts' and Congressman Dennis Moore's offices. Numerous other state and federal agencies are represented, along with several counties, economic development agencies, our public utilities, municipal utilities, electric coops, environmental and agricultural groups, renewable energy developers and equipment manufacturers, consultants such as myself, as well as private individuals, farmers, landowners, etc.

What has been most fulfilling about the Working Group has been seeing the extent of interest in renewable energy in our state, in terms of both geographic distribution and distribution across industries. It often seems that the urban centers in Wichita and northeast Kansas no longer have as much in common with rural Kansas as they once did. Kansas City's economy is now less based on agribusiness – as it once was – than on telecommunications, energy, and engineering.

Renewable energy is an enterprise that can bring together our urban and rural interests. At our various Working Group meetings utility and coop representatives from Kansas City, Wichita, Topeka, and Hays have joined landowners from Greeley County to the Flint Hills, Legislators from Oakley, Liberal, Osborn, and Lawrence, county officials and economic development personnel from all parts of the state, and renewable energy developers from across our nation and even around the world. It is exciting to watch this convergence of urban and rural interests, of western Kansas and eastern Kansas.

Rural Economic Development

If there is one thought with which I would like to leave you today it is that renewable energy is about rural economic development. Renewable energy is about energy. Renewable energy is about trying to help the environment. What is unique about renewable energy, however, is that it is the only enterprise of which I am aware which finds a synergy between providing badly needed power, preventing environmental degradation, and promoting rural economic development. We can build coal- or gas-fired power plants to provide electricity; we can reduce emissions of air and water pollutants to save the environment; and we can spend money on development projects in rural areas. But only renewable energy can simultaneously address all three issues.

A 100 MW wind farm such as the one built by FPL Energy near Montezuma in Gray County represents a capital investment of roughly $100 million, of which approximately $70 million pays for hardware purchased from out-of-state manufacturers. Nevertheless, much of the construction of a wind farm is local. Approximately $10 million goes in to developing a project, that is, getting it planned, permitted, and financed. A good chunk of this is spent on local services, including the services of Kansas-based attorneys, surveyors, engineers, etc.

Approximately $20 million is spent constructing the project, and typically two-thirds of this money is spent locally or regionally on local labor, concrete, civil engineering, grading equipment, cranes, etc. Finally, once a project is installed, typical land lease payments to landowners will run approximately $400,000 per year, escalating to twice that per year over the twenty-year life of the project. In addition, a project would typically employ 8-12 full-time employees operating and maintaining such a wind farm, pumping an additional $400,000 to $600,000 per year into the local economy. Additional temporary manpower which moves in and out of project over the years for upgrades, routine maintenance, and the like, as well as replacement parts and hardware purchased locally, can be expected to pump an additional $150,000 per year in to the local economy. Finally, even in states like Kansas with a 100% property tax abatement for wind farms, developers like FPL Energy are making payments of approximately $300,000 annually in lieu of taxes to local communities and school districts.

Add this all up, and over the twenty-year life of a project, one can expect a 100 MW wind farm to pump something on the order of $35-$45 million into the local economy. That is a significant investment for any community in Kansas, leave alone smaller, rural communities.

This does not even count secondary benefits such as tourism. Officials in Dodge City are reporting that more travelers in their community are now asking about how to get to the wind farm than where Boot Hill is. I have friends in Wichita who tell me they have taken US 54 out of Wichita to go on vacation to Colorado as opposed to taking I-335 and I-70 simply so they can go by the Gray County Wind Farm.

People talk about value-added agricultural products. Renewable energy is just that. Typical land lease payments for a wind farm run anywhere from $40 to $100 per acre per year, simply for the right of a developer to come in and install turbines. Roughly 2% of the land is generally used by the turbines, access roads, and substations, meaning that 98% of the land remains available to the landowner to use as before for farming, ranching, or even to enroll in CRP. There is no expense to the landowner. The $40 to $100 per acre per year is net profit, on top of whatever else they make from their land. In some parts of western Kansas with land prices below $500 per acre, this means that over the course of a 20-year project, a wind farm developer might buy your land two, three, or even four times over, and you get to keep the land. I am fond of noting that I am not aware of anything else you can do with your land that will pay you this, at least not that is legal.

The same is true of other renewable energy opportunities, albeit not as extreme as for wind power. A concerted effort in this country to increase utilization of ethanol and biodiesel would result in a substantial increase in the price Kansas farmers could receive for the associated grain crops. Value Added benefit. It is somewhat ironic, but Kansas corn or soybeans are more valuable as a fuel for our cars and trucks than as either food or feed.

Renewable Energy in Kansas

Public Interest Research Group released a report last February which listed Kansas as first among the lower 48 states in terms of harnessable wind energy resource, fifth in terms of biomass energy potential, and first in overall renewable energy potential. Our state has long been characterized as being third in wind energy potential behind North Dakota and Texas, and in all honesty it is really quite impossible to definitively argue that one state or another is first in potential. Nevertheless, it is great psychological boost to those of us advocating for renewable energy in our state to have someone acknowledge the unsurpassed potential we have here.

Most of Kansas' wind energy development exists in two regions: the Flint Hills in eastern Kansas, and a large swathe of western Kansas stretching from the northwest corner of the state across to south central Kansas.

We are eighth nationally in terms of wind power development, one of eight states with more than 100 MW of wind power installed. Nearly all of our development is in the 112-MW Gray County Wind Farm, with a small contribution from the two 750-kW turbines at St. Mary's.

We will hopefully hear an announcement from Sunflower Electric during the next few weeks about their plans to purchase approximately 30 MW of wind power, but negotiations relating to that purchase are still ongoing.

There is enormous excitement in Kansas right now about the level of wind energy speculation. I communicate regularly with representatives from various developers, and I receive frequent calls from landowners negotiating with developers. Based upon these communications, I am presently tracking something on the order of 2,500 MW of wind power "planning" in Kansas. This includes the Clipper Windpower project in Kiowa County which has been in the works for over two years and the well known and publicly disclosed projects by Zilkha, Elk River, and Kansas Windpower which have requested conditional use permits in Butler County. It also includes several projects which are in some stage of planning in Wabaunsee, Geary, and Riley Counties in the northern Flint Hills, as well as a number of prospective projects in Ford, Hamilton, Wichita, Greeley, and other counties in western Kansas, as well as a number of more nebulous ventures all over the state.

As much as I would love to see all of these projects materialize, I am careful when communicating to the public about wind power to stress that most of this speculation will not result in construction for three key reasons:

1) Kansas will not need more than approximately 150 MW of new electric generating capacity each year during the coming years. That number refers to a long-term average new demand for electricity per year;
2) Wind power cannot effectively serve as base capacity to fulfill 100% of the need for new generating capacity; and
3) The ability to export significant quantities of wind power from our state is limited by transmission constraints.

In other words, we do not need and cannot use 2,500 MW of wind power here in Kansas in the near future, and we presently have no way of sending it all to some place else. Therefore, this limitation on local demand translates into a limitation on the desire for our utilities and coops to sign power purchase agreements.

Six months ago I was estimating that we might see as much as 200-300 MW of wind power development in Kansas during the 2002-2003 cycle. I based this in part on an expectation at that time that at least one of the proposed projects in Butler County would have received approval by Fall. Given that we have made it to January here with only the purported "Sunflower" project being close to having a power purchase agreement, I would now be surprised if we saw more than 150 MW this year if even that, and that number assumes that at least one of the Butler County projects gets approval and can get Westar or KCP&L to sign a power purchase agreement in time to plant turbines before December 31, when the federal Producer Tax Credit is presently slated to expire.

All of this serves as a nice segue into the issue of challenges facing renewable energy and specifically wind power in our state.

Transmission Constraints in Kansas

The most serious challenge facing development of wind power is transmission constraint. Last fall, in anticipation of a Federal Energy Regulatory Commission Conference on Transmission Issues, I prepared a brief outline of Kansas transmission constraints as they relate to wind power for one of your colleagues in the House who attended the conference. If you take a map of Kansas wind energy resource and you overlay on it the 230 kV and 345 kV transmission lines in Kansas, the challenge of transmitting Kansas wind power out of southwest Kansas immediately becomes obvious. The 345 kV lines run north, south, east, and soon west from the power plant at Holcomb – south to Amarillo, west to Spearville, north to Nebraska, and eventually west to Lamar, Colorado. The problem is that there is not much load in Nebraska to absorb western Kansas wind power. The line from Holcomb to Lamar must go through an AC-DC-AC link which is presently planned to have a capacity limit of approximately 200 MW. GE already plans to build a 160 MW wind farm at Lamar. And the line to Amarillo is going to be very popular with wind farms in the panhandles of Oklahoma and Texas.

As for the line going eastward, the problem is that the termination of the 345 kV line at Spearville is connected back to Great Bend, Hutchinson, and Salina only through a 230 kV line. Moreover, for all practical purposes Wichita is electrically disconnected from western Kansas.

My calculations show that, making reasonable assumptions about other demands already placed on the existing lines, no more than approximately 400 MW of wind power can be exported from western Kansas, including the 100 MW already installed at Montezuma. This number is probably optimistic. This assumes limited development of wind power in the panhandles of Oklahoma and Texas. If several hundred megawatts of wind turbines are installed there, the ability to get wind power out of southwest Kansas could be minimal.

Easily during the next decade we could install 1,000 MW of wind power in southwest Kansas if we could get the power out. Furthermore, Amarillo does not have need for 1,000 MW of wind power, so the excess must be transmitted back east.

My very strong recommendation is that the existing 115/138 kV line running from Dodge City to Barber and Harper Counties and back to Wichita should be upgraded to 345 kV or preferably 500 kV. This would allow for an additional 1,250 MW of wind power to be exported from southwest Kansas.

More importantly than just the benefits to wind, however, such a line would end the electrical isolation of western Kansas from eastern Kansas. If you take that same map of transmission lines I mentioned above and look only at the 345 kV lines, nothing connects eastern and western Kansas. This creates problems in general for moving power in and out of western Kansas, which affects all generation, including the planned 600 MW coal-fired facility at Holcomb.

I do not want to underestimate the cost of such an upgrade. A conservative number is probably $225 million for the 345 kV line and $275 million for the 500 kV line.

I do not believe that there are transmission constraints in eastern Kansas (i.e., the Flint Hills) which would present a near-term obstacle to development of wind power. The southern end of the Flint Hills is crossed by four 345 kV lines connecting it to Wichita, Topeka, and Kansas City, while the northern end is crossed by two more 345 kV lines.

Intermittency and Voltage Regulation

A similar problem with wind power resulting from the relative electrical isolation of western Kansas stems from the intermittency of wind power combined with the relatively high penetration level seen locally in southwest Kansas. FPL's 112 MW Gray County Wind Farm represents approximately 20% penetration if we look at southwestern Kansas capacity only. This is very high for wind power and results solely because of the region's electrical isolation. This means southwest Kansas is becoming a test bed for high penetration by wind power, something we might see nationally during the coming decades. Aquila is reporting interesting problems resulting from this situation. The old boiler-driven generator at Dodge City cannot ramp up and down fast enough to regulate the power fluctuations coming from the wind farm. This is in contrast to experience in other areas of the nation where new gas turbine generators are available for backup of wind at much lower penetration levels. Voltage regulation problems are also occurring when the Dodge generator is taken off line for maintenance, at which point the wind farm has approximately 30% or higher penetration regionally.

My recommendation on this front is that wind farm developers should be required to provide for VAR compensation when installing facilities in electrically isolated regions such as southwestern Kansas to ensure that the facilities will not cause voltage regulation problems. Who has the authority to do this – FERC, SPP/MISO, the utility, KCC, the Legislature – is not entirely clear to me.

I also think the wind industry should strongly be encouraged to examine hybrid wind/gas facilities in order to firm up wind in electrically isolated areas. Such hybrid systems avoid the intermittency and backup issues, help justify the cost of bulk power transmission upgrades, and offer viable replacements for old base power facilities. Can the state devise ways to encourage this?

Flint Hills Issues

The other challenge to development of wind power in Kansas relates to the specifics of developing wind power in the Flint Hills. As I am sure all of you are well aware by now, some groups representing environmental concerns – mostly notably the Nature Conservancy and Audubon of Kansas – as well as representatives of the Kansas Scenic Byways Program and individual citizens and landowners in the Flint Hills are opposing development of wind farms there. Opposition from the Nature Conservancy stems primarily from concerns about impact wind turbines might have on the native tall grass habitat and its species, while opposition from many of the other groups seems to relate primarily to concerns regarding visual impact. Quite simply, some people do not want to see wind turbines in the Flint Hills.

Zilkha is a Houston-based developer of wind farms. They presented Butler County with an application for a conditional use permit last Spring for what would likely be a roughly 100-120 MW wind farm straddling Highway 54 just east of Rosalia on the Butler-Greenwood County line. This essentially sits along the top of a ridge down the center of the Flint Hills, approximately 7 miles east of the Highway 177 scenic byway and 12 miles south of Cassoday.

At the first hearing before the Butler County Planning Commission in June it became clear that (1) these wind farms were very much unlike anything the Commission had reviewed in the past, and (2) they were not universally admired. Zilkha was asked to revise their application to address a number of issues the Commission felt needed clarification, and the planning staff was charged with rapidly educating itself about wind power. I'm pleased that as part of their education that have involved themselves with our Working Group.

The August Planning Commission hearing on Zilkha's application was extremely heated, running from 7 P.M. until past midnight, with speakers both for and against the project. Again, much of the discussion centered on opponents' deeply held regard for the biological and historical significance of the Flint Hills. Supporters such as myself noted in contrast the unique combination of wind energy, transmission access, and proximity to load centers such as Wichita and Kansas City which exist in the Flint Hills.

The Planning Commission voted 5-4 to recommend that the conditional use permit be approved by the County Commission. However, at the October 1 County Commission meeting, the Commissioners voted to send the application back to the Planning Commission because of technical concerns about the application. Before the Planning Commission could hold another hearing on it, however, Zilkha withdrew their application. It is not clear at this time whether Zilkha plans to resubmit the application this Spring, submit an application for a permit for

another Butler County project, or move on to projects elsewhere and possibly not at all in Kansas.

In the meantime, two other developers – Elk River, a coalition of companies from Virginia and California, and Kansas Windpower of Lenexa -- have submitted applications for two more similarly sized projects in Butler County. Both projects have been recommended for approval by the Planning Commission, and both applications will be reviewed by the County Commission on January 28.

It is important to note that what is occurring in Butler County is not just about Butler County. Kansas finds itself a hotbed of wind energy speculation, and developers from literally around the world are watching what has been going on in El Dorado the last eight months to decide if Kansas is a good place to develop wind power. Further delays and continuing efforts to bounce applications between commissions will not create a good impression of doing business in our state.

Efforts of the Kansas Renewable Energy Working Group

I want to highlight two activities which KREWG has conducted during the past few months. The first is drafting Siting Guidelines for Wind Farms in Kansas. We formed an Environmental & Siting Committee last summer which is co-chaired by Brian Obermeyer of the Nature Conservancy and Brad Loveless of Westar. The committee includes participants from all sides of the Flint Hills controversy, including conservationists and developers. Starting with siting guidelines for wind farms developed by the National Wind Coordinating Council, our Committee has crafted very useful guidelines for siting wind farms in Kansas, paying particular attention to the specific needs of the Flint Hills, including habitat impact and visual impact. The committee presented a draft of that document at our meeting two weeks ago here in Topeka, and they are finalizing the document to present it to the KREWG Executive Committee.

Several counties – including Butler and Wabaunsee – have already indicated that they intend to utilize this document as a guide for their review of conditional use permits for wind farms. Butler is already using a draft of the document in its current review of the Elk River and Kansas Windpower applications.

All of us involved with KREWG are quite pleased that the group has already been able to serve a useful purpose during our first year in existence.

The other issue we have tried to tackle isthe very tricky issue of transmission needs. We have formed a Transmission Committee with representatives from all of the major transmission owners in Kansas, including Westar, KCP&L, Aquila, and Sunflower, as well as other interested parties. Our committee has been in close communication with personnel at Midwest Independent System Operator (MISO) in order to influence their ongoing transmission expansion planning.

MISO is studying the transmission expansion needs to accommodate 56,000 MW of new electric generating capacity in their territory. This is capacity that is actually in some phase of planning

or discussion. An organization called Wind on the Wires and the American Wind Energy Association (AWEA) have proposed to MISO that they also consider the transmission needs of 10,000 MW of Windpower, and they provided them a study suggesting where we can expect that the capacity will be installed in the near future. The Working Group was successful in securing letters of support for this study from KCC Chairman John Wine, Congressman Dennis Moore, and Rep. Carl Holmes. MISO has agreed to conduct the wind power study.

Our committee was concerned, however, that the Wind on the Wires proposal short-changed Kansas' long-term wind power potential, thereby reducing the expected need for new transmission. We were able to make our concerns known directly to MISO in order to adjust the quantities of wind power they considered for Kansas in their current planning. We are hoping to see the results of this study soon, and we are hoping that their conclusions will echo our feelings about where new power lines are required.

The committee also prepared comments for FERC in response to their proposal for Standard Market Design. Our comments reflect concerns the committee has that the SMD proposal in no way addresses the unique transmission issues facing wind power located in remote rural areas. In fact, we are concerned that SMD could refocus most of the transmission expansion in the U.S. around the major load centers (that is, the cities), making the problem of transmission shortage in rural areas even worse. Our comments were submitted in November and are being reviewed along with the hundreds of other comments received by FERC from others.

Status of Renewables Nationally and Regionally

Nationally, 2002 was a very poor year for wind power development in the U.S. The federal Producer Tax Credit (PTC) expired on December 31, 2001, and was not renewed until late Spring, by which time the domestic industry had shut down manufacturing. Following renewal of the PTC, many expected the industry to quickly rebound, but instead, barely 100 MW of wind was installed, almost all of it in Oregon and Washington, with a small amount of repowering of old wind farms in California. No significant installation of wind power occurred in the Midwest.

The PTC is again scheduled to expire on December 31 of this year. The Energy Bill debated during the last Congress included a 5-year extension of the PTC, but that bill died in conference committee in October. If the PTC is not renewed very soon, then most developers will operate on the assumption that it will expire December 31, and I expect that there will be a big rush to install projects at the end of this year. That would include any projects in Kansas with a use permit and a power purchase agreement. I think we can expect the PTC to be renewed, but if its expiration in 1999 and 2001 are any indicators, I would not be surprised if it were not renewed until well into 2004, months after it expires.

Regionally, major projects are planned in Texas, New Mexico, Colorado, Iowa, Minnesota, and the Dakotas totaling 1,100 MW. Time permitting, I think these are all projects we could see completed in 2003. They are not speculation.

Some of these projects are driven by state policy. Texas, Iowa, and Minnesota have established Renewable Portfolio Standards or similar mandates for renewable energy usage. The New Mexico Public Utilities Commission just announced that they were instituting a rather aggressive RPS for that state. Iowa's governor just announced plans to push for an expansion of that state's renewables mandate, while South Dakota's governor called for that state to adopt one. Colorado's and Oklahoma's legislatures will both be debating RPS policies this year.

Possible Policies for Kansas

All of this brings me to policy considerations for Kansas. Before touching on issues of renewables policies, however, I would like to talk about possible policies to encourage energy efficiency and conservation.

Demand Side Management

It is important when considering efficiency and conservation to distinguish between the two, because people often confuse the two in important ways. Efficiency refers to reducing the energy consumption of equipment required to perform a given function, such as lighting efficiency, motor efficiency, vehicle fuel economy. Conservation refers to reducing overall energy consumption through whatever means, whether by reducing usage of energy-consuming appliances or by using more efficient appliances.

The reason the distinction is important is because repeated studies of energy efficiency improvements have shown that they do not always result in reductions in energy consumption. Vice President Dick Cheney quoted such findings two years ago in addressing the Bush Administration's Energy Plan, and he was castigated by energy efficiency advocates. I must agree with the Vice President on this point.

Consider the use of high-efficiency air conditioners. Congress has continually upped the minimum efficiency standards for air conditioners during the past twenty years, and yet studies repeatedly show that Americans are consuming more electricity for air conditioning today than ever before. Why? Because people simply use air conditioning more. The economic theory behind this explains that people and businesses have budgets for various expenses, including utilities. Give someone a more efficient appliance, and they will use it more, because it will not cost them any more to do so. People do not think about efficiency. They think about cost.

This is not universally true. Increase the fuel economy of people's cars and they won't necessarily drive more if they don't have somewhere to go. But the important point is that if we want to reduce overall consumption of energy, you must affect its cost.

This is not to say that energy efficiency mandates are not wise. There is no point in simply wasting energy. However, unless people pay a steep price for overconsuming electricity, they will not conserve.

FERC, in its standard market design proposal, includes a small paragraph encouraging states to adopt aggressive demand-side management practices, such as escalating rate structures or time-of-day pricing. After its energy crisis two years ago, California adopted an escalating rate structure where the top rate for residential customers is now 26 cents per kilowatt hour if you consume more than 1,200 kWh per month. That will cause most people to think about how they consume electricity. Maybe the air does not need to be set on 72. Maybe 78 or 80 will do in the heat of summer, particularly when we are not even home most of the time. Maybe we should be careful about whether the lights or television stay on when we aren't in the room. These are the little things which consume vast amounts of electricity and which study after study show most Americans do not think about. Energy efficient ACs will not save electricity if they are set at 68 degrees.

I would strongly encourage you to consider demand-side management policies for Kansas. I appreciate the fact that many Americans believe that there is a constitutional right to cheap energy, but the issues here are much larger than that. Whether it is natural gas or oil, we will continue to import an increasing share of our energy resources in the future, and something must be done to slow the growth in consumption. We can talk about hundreds of megawatts of windpower, but reducing Kansas' consumption of electricity by only 1% through conservation would save more power than is produced by the Gray County Wind Farm. And if people do not want to suffer the higher cost associated with overconsuming, they can learn to conserve.

Transmission Expansion

You have already taken action in the Legislature in past years to assist the expansion of transmission capacity by easy siting requirements and the like. Such actions are important. I would throw out for consideration a policy which probably cannot fly far presently given the ongoing budgetary limitations, but long-term it would be interesting to examine the possibility for issuing industrial revenue bonds to help finance the cost of transmission expansion, specifically the construction of the 500 kV line from Dodge City to Wichita which I mentioned earlier. Financing transmission is presently considered a high-risk venture by the power industry because of the uncertainty of recouping the investment. State assistance could help alleviate some of the perceived risk.

Renewable Portfolio Standard

Two policies which are equally controversial but which I would nonetheless like to encourage you to consider are a Renewable Portfolio Standard for Kansas and net metering. I have been told by many people that it is simply impossible to get either policy passed by the Legislature. But I cannot give up my opportunity here to speak on behalf of both.

With regard to a Renewable Portfolio Standard, I appreciate the overriding objection, which is generally that an RPS is a mandate and that mandates distort market forces. This is basically true. The reason why I believe it does not matter and the reason why I believe you should be willing to give serious consideration to an RPS is because we do not purchase electricity in a free

market. In our state you either purchase electricity from what are essentially unregulated monopolies in the form of a municipal utility or an electric coop, or you purchase your electricity from a regulated utility. In any case, I am not sure what market forces have to do with any of these transactions. If the State believes it is appropriate to have the KCC regulate utilities to protect the interests of consumers, then why is it not equally justifiable for the State to also require that those same utilities employ renewable resources to generate a certain percentage of their electricity. As long as that electricity can be purchased at prices which do not result in an increase in overall electricity rates, the public good is served by reducing consumption of depletable resources and the production of air pollutants.

Polls show overwhelming public support throughout the nation for aggressive policies to encourage adoption of renewable energy. Locally Westar often points out that they were unable to successfully market the green power from their two wind turbine at St. Mary's. Unfortunately, they were asking customers to pay a 50% premium for that power. In contrast, Aquila simply integrated the power from the Gray County Wind Farm into their overall mix and sold the power to customers at base rates. A well developed wind farm will generate electricity at rates competitive with any other new source of electricity. Asking customers to pay a premium for green power which does not pollute our environment is nonsensical.

But the more important reason for Kansas to consider an RPS now is to avoid being left behind by all our surrounding states. As I stated above, nearly every state in our region either already has aggressive RPS policies or is considering them. These policies will create greater demand for renewables there, siphoning off much of our potential renewable energy development. The wind energy speculation currently exciting Kansans could largely remain just that – speculation – without progressive state policies here. There is some notion that utilities in surrounding states could satisfy their RPS requirements with wind power purchased from Kansas, but I think this is idle speculation. Those RPS policies have been specifically crafted to encourage development in their states, and if policies are passed in our immediate neighbors of Oklahoma and Colorado, I think it would cause any developer to question why they would build a new project on our side of the state lines.

Net Metering

Finally, I would like to encourage you to reconsider the net metering policies which have previously been introduced in the Legislature. Thirty-eight other states have passed net metering. Again, I know the standard response from utilities is that net metering is an unfair subsidy to the extent that the utility is forced to pay higher prices for electricity than they normally would pay. Someone – namely other rate payers – pick up the difference.

However, consider that even though the total amount that is being paid for electricity in the local service area is higher, the total amount of money that is being paid by the utility to outside suppliers of fuel or electricity is actually less. In other words, the utility is offsetting some of the electricity it would normally buy from outside with electricity generated by its own customers. This is of net benefit to the local service area. More money stays with the people.

Furthermore, studies have shown that for relatively small systems, the cost to the utility of maintaining and accounting for records from two meters – the present practice – can often cost as much or more than simply net metering the electricity, which requires only one meter and conventional record keeping.

Furthermore, the number of customers likely to avail themselves of net metering is relatively small, meaning that the impact on other ratepayers is almost negligible. The issue is simply fairness. A homeowner goes to the trouble of investing in a $12,000 or $15,000 wind turbine out of an interest in maintaining energy independence and helping the environment, only to be told that if the power company wants their power, they'll get 1.5 cents per kilowatt hour for it. It is somewhat disappointing to many of us that the utilities have so little regard for their customers that they fight this issue so hard.

Please consider it.

Property Tax Abatement

One last policy I would like to address is that of the property tax abatement for renewable energy equipment. Some are objecting to the abatement for traditional reasons people oppose abatements, while others see repeal of the abatement as a means of stopping development of wind farms in the Flint Hills. I would strongly caution against repealing this abatement. Given that we have no other policies to encourage renewable energy in Kansas, the property tax abatement serves as our primary renewables promotion policy. Without the abatement or an RPS, the economics of a Kansas wind farm project would be marginal. A $100 million wind farm such as the Gray County project, put on the tax rolls as commercial or industrial and assessed at 25% would be subject to in excess of $3 million annually in property taxes. On a project that could be expected to generate $10-$12 million annually in revenue, it is not difficult to see that a $3 million hit would destroy the economics of the project.

Kansas State Energy Resources Coordination Council

Finally, I would like to offer a few comments on the Kansas Energy Plan 2003 presented last week by Stage Geologist Dr. Lee Allison, who serves as Chairman of the State Energy Resources Coordination Council appointed last Fall by former Governor Bill Graves.

I know I speak for many in the renewable energy and energy efficiency communities in stating that this document is a great disappointment. While states around us reshape their energy futures with bold new policies to encourage renewable energy and energy efficiency, the Kansas Council's report instead primarily suggests more studies.

Defenders of the Council argue that the group had less than three months to assemble its findings, but bold renewable energy and efficiency policies were omitted not because they were not discussed or understood by the Council members. They were opposed by a Council which former Governor Graves stacked almost entirely with representatives of the state's oil, gas, and

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utilities industries. This composition may reflect the past and present of our state's energy situation, but not its future.

I want to say that the renewable energy community in general and I personally are thankful to Dr. Allison for inviting several of us to serve in nonvoting, advisory capacities on an Emerging Energy Technology Subcommittee. But his action reflects the fact that only one of thirteen voting members of the Council represents renewable energy interests, and the Council includes no members representing energy efficiency, environmental, or agricultural interests.

The Report laments that after decades of standing as a net energy exporter, Kansas has now become a net importer of energy. Kansas will regain its status as an energy exporter only by developing its relatively untapped renewable energy resources, and that will be guaranteed only with aggressive policies. But the only recommendations for immediate action by the 2003 Legislature appearing in the SERCC Report are improving energy efficiency of State buildings and updating the energy efficiency standards in Kansas' building codes. Among recommendations for immediate action by the Council itself are formation of a task force to study the state's transmission needs for wind energy and determining ways of encouraging wind turbine manufacturing in the state.

These are welcome, but small gestures in comparison to the bold policies the Council chose not to recommend for immediate action, including an RPS, net metering, and aggressive demand-side management. These were listed merely as "Study Items." Such policies have been studied – and implemented – in other states and other nations for twenty years. It goes without saying that they would be studied further before being implemented into Kansas law. But by hiding behind the need for such studies, however, the SERCC has lost the opportunity to make a strong first statement about what our state's energy future will be.

Again, I would like to thank you for this opportunity to share my thoughts, and I would welcome any questions or comments you might have.