

**Wind Working Group
Salina, Kansas
June 18, 2008**

**Kansas Wind Working Group (WWG) Meeting Notes
June 18, 2008**

Opening remarks

Lt. Governor Mark Parkinson called the meeting to order, noting that Salina was an ideal location for the WWG to have their meeting because of the excellent potential as a central location for wind and manufacturing. He went on to highlight the continuing interest for community wind, net metering and other incentives. Lt. Governor Parkinson also noted the already growing industry presence in the state including mention of Enertech, Sunflower Wind, LLC and Wind Energy Services.

Update from Ray Hammarlund:

The American Wind Energy Association (AWEA) WindPower 2008 Conference was earlier this month in Houston. Everybody agreed that it was a good conference and that additional efforts can be made for next year including a possible partnership with interested parties to expand next year's booth. Governor Kathleen Sebelius made a big impression on conference attendees with her keynote address that highlighted the positive things we are doing in Kansas to expand the wind industry. Ray also mentioned that the booth was constantly busy with over 100 inquiries regarding wind development, manufacturing, land leasing, etc.

Update from Dan Nagengast:

Dan Nagengast reported on Community Wind Summits around the state, each being custom tailored to the local issues for the area. The biggest feedback was regarding leasing issues and the overwhelming interest coming to landowners. The next meeting will be held in Meade, Kansas.

Introduction of the Washburn Law student that will be assisting with research on community wind and net metering this summer explaining that interest continues to run high with schools and net metering would certainly help. Comment: One objection to net metering is that you are helping "one person with a hobby."

Other Legislation of interest is standardized leasing and making better information available for lease agreements and model siting standards for ease of use, as well as payment in lieu of taxes and negotiating with county commissioners regarding these payments.

Walton has a new turbine with Westar (KSU wind program); utilities provided wire conduit and labor help. There has been overwhelming interest with many communities asking questions about how to get one. Six more schools have inquired about the program with Kansas State (KSU) and Wind for Schools. For example, Hutchison is really

organized and has done their homework. Also, Jetmore has a community wind project being built along with Greensburg. Jetmore will be 260 kilowatts (kW).

New idea to be discussed is whether or not to incorporate 'wind' into next years 3I Tradeshow in March or April.

Mark Parkinson: Thank you Ray and Dan for the updates. Please mark you calendars for the next meeting scheduled to be on **September 23/24 at the Annual Renewable Energy Conference in Topeka.**

Announcement:

The Smoky Hills Wind Farm tour is available for WWG members only, as it is a construction site immediately following the meeting. Addition tours will be available after construction is complete for other interested parties.

Phase I has been operating since February 2007. Phase II will be complete in the October timeframe with all turbines installed by August.

Lieutenant Governor Parkinson explained the flight delay for the keynote speaker. Group will move forward with the discussion period of the meeting.

Discussion – Large Scale Wind Farms:

We know we will be at 1000 MW by the end of 2008. Westar is committed to 300 MW wind. KCPL is committed by 400 MW by 2012. We have a large number of developers in the state. We have a voluntary RPS. Expansion and installment of 650 MW in 2008 is a good sign, the message is getting out that we are serious in Kansas. Once we get past this first build out of large wind, how do we keep the momentum going?

Brad Beecher (Empire District Electric): I don't see us participating in another large wind farm for about a decade. We will have 250 MW name plate at the end of the year. There is 42,000 MW peak load in the Southwest Power Pool (SPP) now, without people to sell it to, we need to move outside, as we only need about 5,000 MW nameplate capacity in SPP to meet 10% of energy needs or 10,000 MW nameplate capacity in SPP to meet 20% of energy needs. We need a bigger balancing authority and more transmission, pumped hydro, compressed air and better forecasting to help balance wind.

By 2012, how will we be able to handle the wind variation in SPP? We have the most reliable grid system in the world. To date we have used existing thermal generation to balance wind. The minimum load in SPP is about 15,000 MW. It is important to put resources into the system that will help balance the wind variation. We need to think larger than the SPP and how we can export wind to other regions.

Nebraska has decided to join the SPP. All three of the Nebraska utilities want to integrate wind and bring cheap energy to the SPP. Kansas has competition in the SPP and Oklahoma, Texas, and Nebraska are the competition.

John Grimwade (KCPL): We agree with Brad about the economics of adding additional wind. KCPL is still looking at policy of adopting more wind before it is needed, which is an unnecessary cost to customers. There is a growing mentality for paying more overall to adopt a policy of environmentally friendly policy. But today a disparity exists.

Carl Huslig (ITC Great Plains): This is not a state issue or a regional issue. It is a national issue. We don't have enough consumption in SPP, how will we pay for it? It is not fair for SPP to pay for the build out of transmission; we need a national policy to say "we need wind".

We have to move wind.

What is going to happen is states with a mandatory RPS are going to get investment and we are going to hurt the wind industry, leaving Kansas capped at what we are now with 1000 MW.

Audience: What kind of incentives do the utilities have to keep turbines reliable and what is the expected life of the turbines?

Brad Beecher (Empire): We don't own wind farms, we have power purchase agreements (PPAs) and those incentives are in the contract.

Audience: What incentives do utilities have to maintain turbines?

They are the same as any other asset and we have a responsibility to balance need and costs to the customers.

Mark Parkinson: How do developers drive business? What are concerns?

Mark Lawlor (Horizon Wind): This is a national issue – still potential for 10-20% in the short term. KETA and other local transmission should continue efforts help move things forward but right now utilities are the key to the market.

Rob Freeman (Tradewind): Agree with all of the above. In Kansas, integration is a discussion around what is needed to perform 20% wind. What is manageable? Most states base numbers on retail sales. Kansas talks in terms of nameplate capacity, not retail sales. Not thinking of transmission, 3,000 – 4,000 MW is likely potential. If the market says 20% is saturation that will lead to export market for Kansas. Capacity factors are lower outside of the heart of the Midwest.

Reed Armstrong (Iberdrola): Potential to duck the issue by waiting for Feds to act. Texas chose to incent the wind energy and it has paid off handsomely. The \$6.3 billion transmission build out has lent itself a \$1 billion/year savings in energy costs (due to their use of natural gas). A cap and trade system would create even more savings through wind. Spain thinks they can go from 20% to 40% integration.

Carl Huslig (ITC Great Plains): Does SPP need to incent more to move wind?

Rob Freeman (Tradewind): There is a huge amount of activity in SPP with many of the developers betting on huge export market. The big question is to what extent are we facing reality of carbon legislation; this could be a game changer. Betting on zero-emissions is a good bet.

Ray Harold (Midwest Energy): The last 765kV line took 19 years to permit and build – without regulatory relief for transmission, we will hit the ceiling pretty quickly. The system is designed to serve native load.

Bob Johnson (Sunflower): We are at a stopping point right now. We need to wait and see what we can handle on the system.

Dan Nagengast (Kansas Rural Center): Cheap energy – are any developers thinking of other non-grid uses for energy?

Brad Beecher (Empire): We still have issues with other generation – need a reliable source for backup.

Mark Parkinson: Let's take a break so we can hear from Jim Turnure, Xcel Energy. We will continue the discussion after the presentation.

Presentation from Jim Turnure, Environmental Policy Manager for Xcel Energy

Xcel is an eight-state utility centered in Minnesota (MN). Jim explained that Xcel must go above 25% renewables per agreement with MN because this pulls up the rest of the state renewable portfolio standard (RPS). The goal of 30% by 2025 for Xcel must be at least 50% wind (43% of new renewable generation in MN from Xcel) with an extra 5% biomass. Nuclear and coal filings canceled because of a statute that was passed.

Interconnection studies for MN [National Renewable Energy Laboratory (NREL) has summarized these] indicate Xcel has luxury of reserve markets. They will need to build load if much more is added, but right now things are fine and cost numbers not dramatic. Xcel can also draw on MISO reserves. If all Midwest states have 25% standard, reserves will not be as available.

Jim went on to explain that the wind blows too much causing a surplus. Resulting options: 1) Reduce base load output; 2) Store wind (can't yet, working on it); 3) Develop intermittent load; 4) curtail wind (have to pay to not use clean energy); 5) Sell energy/export.

There is a similar load between western MN and western KS. MN sells excess to Chicago. There is a need for more transmission to the east to move energy.

Document – “Renewable Energy Strategy” document filed by Xcel – on the Xcel website.

Q & A for Jim Turnure:

Mark Schreiber (Westar): Can you talk more about developing intermittent loads?

Turnure: Connecting to Smart Grid. Deploy demand response to residential areas to let customers know when it is a high-wind situation. Question becomes will customers follow the intermittent resource.

John Grimwade (KCPL): Does it matter when the storage or backup is, or isn't a function of grid?

Turnure: Really shouldn't matter much conceptually. We're seeing more of the grid and, at the same time, it makes easier to turn up and down and avoid outages and access reserves appropriately.

Audience: How soon will storage be available and inexpensive enough to implement?

Turnure: We don't have a good grip on it at this point. Most utilities lost R&D capability during deregulation in the 1980's. Feds could probably work harder on this.

Carl Huslig (ITC Great Plains): Can you explain some of the MN regulations?

Turnure: Net meeting is required for generators up to 40 kilowatt. Statute says Xcel has to make good faith efforts. We're trying to put out RFP's for community-based bids. Pricing is still being worked out. There are a lot of CBED projects.

Les Evans (KEPCo): How do you ultimately get transmission paid for by the customers using the power? (If the transmission system is not built for moving power of the system to remote load generators)

Turnure: Not as simple as cutting a deal with ultimate buyer of power – users are spread out. There are numerous requests for interconnection, up to 2,000 MW, for unknown projects to have analysis done by FERC. The delay is out to 2014 conceivably. No answer to how to get transmission paid equitably. Not all of MN information is fully transferable to KS because you need economic and engineering perspectives.

Scott White (JW Prairie Windpower): Is there carve out for Community Wind? Have CBED projects been built?

Turnure – No carve out. CBED under construction now – started quickly after May '07 legislation.

Len Kriesky (Black & Veatch): Is wind part of your generation rating?

Turnure: Yes, it gets complicated. There was a rate rider to help cover cost. Rider is invaluable to avoid lag issues.

John Grimwade (KCPL): It will never be any cheaper or more reliable than now.

Dan Nagengast (Kansas Rural Center): My thought is that we can look into hydrogen, fertilizer, transportation, and things that can be stored. Is there another way besides the grid to take the energy?

Afternoon Discussion of Economic Development led by Lt. Governor Parkinson

What should Kansas be doing that it is not doing to attract manufacturers to the state?
What do the manufacturers need?

Kansas does not have a renewable portfolio standard (RPS), and compared to the other states the megawatt map looked bad until recently.

Mark Schreiber (Westar): What is the skill level that manufacturers need?

Mark Parkinson: They are fairly labor intensive and the jobs are not highly technical. The question becomes is it worth incentivizing when we are going to be asked by incumbent industries (like aviation and others) that would result in higher paying jobs.

My hope would be that the location and the transportation would get industries here without a lot of cash. We come close to recruiting this type of manufacturing on a few occasions.

Audience: Do the local Economic Development offices have the training to do this?

Mark Parkinson: Commerce would help

Kimberly Winn (League of KS Municipalities): Cities and Counties aren't getting the word. They aren't thinking of this as economic development.

Dan Nagengast (Kansas Rural Center): Let's look at success stories.

wKREDA tries to provide training but it's more networking than technical.

Sharla Krenzle (Wichita County Eco Devo.): We don't have a lot of communication about this issue.

Audience/Scott Brantley – What kind of incentives are available because we have not found any? We are looking at about 20 employees by the end of the year in Rush County.

Mark Parkinson: There are no unique incentives for wind in Kansas. However, Department of Commerce can explain the incentives that are available. Corey Mohn will assist.

Sharla Krenzel (Wichita County Eco Devo.): Something else. The state had the large site development education. **Commerce person** – probably Barb Hake did this.

Afternoon Discussion Continued - Community Wind

The Governor and I have spent the last 18 months on large wind development. However, we constantly get inquiries on community wind. We have a study on the Kansas Energy Council (KEC) website that compares incentives for Minnesota and Iowa, namely for net metering.

What does the group think about why we don't have community wind and are the costs worth taking?

Dan Nagengast (Kansas Rural Center): I am under the impression that the average person on the street supports it but I realize that is not representative. In the context of a more dispersed energy source - it can't happen in Kansas without the ability to sell back (give away now).

John Grimwade (KCPL): We have helped support some legislative in Missouri that did not pass. We are indifferent as long as the public policy defines what the commitment would be. Full retail does not compensate for ancillary services and transmission assets. Currently, it is still not settled with KCPL. It is a subsidy as long as we do it. If we pay full retail we will not recover fixed costs like other customers. We can use the cost but not with a full retail rate.

Les Evans (KEPCo) – From a cooperative viewpoint, the extent the generation is not matched up in real time, I have to have backup capacity. Who is going to pay for the capacity to back up the intermittent resource? That capacity has to be there and someone has to pay for it. What we are really talking about is who pays the subsidy? If we do it with net metering the customers who do not net meter will wind up paying for the costs avoided by the customer that does net meter. If the subsidy is collected through a tax then the subsidy cost is spread across all customers? The avoided energy costs are \$0.02 to \$0.03 / kWh range with 1/2 to 2/3 of retail electric costs being fixed rather than variable.

Mark Schreiber (Westar): Current is 150% of avoided costs. We will do what the KCC and the legislature tells us.

Ruth Douglas Miller (KSU): Forty-two states have it (net metering).

Les Evans (KEPCo): If the system is sized appropriately, the customer will typically get full retail rate. I would tell you that most other states have limited net metering. You may already be better off than most states (with the current parallel generation statutes).

Bob Johnson (Sunflower): We try to encourage the folks who have some sort of wind generation. We tell them we don't have a limit.

Rep. Josh Swaty: Isn't it in our Parallel Generation Act that you don't have the roll back provision on the meter?

Les Evans (KEPCo): That's right, but for every kWh that is generated by the customer that matches the real time demand for the electricity then the meter is not spinning and the customer is getting the benefit of the full retail rate for the kWh generated.

Rep. Josh Swaty – Rolls the meter backwards? (On the fixed costs aspects.)

John Grimwade (KCPL): I think this can be worked out. We work with a lot of customers. We develop a specific tariff for specific customers and we can do the same thing in this case. It is not an insurmountable rate without some sort of subsidy. You need transformers, poles, etc.

Scott White (JW Prairie Windpower): The penetration of net metering in most states is pretty small. I don't know what the base load is.

Mark Schreiber (Westar): It's reflected on your bill.

Nancy Jackson (Land Institute): Three part question, (1) Is there not a substantial difference between net metering and parallel generation, is there is a substantial risk for utilities? (2) Is there a worry about a disproportional subsidy? (3) Can we come up a flat fee for line maintenance?

John Grimwade (KCPL): That can be addressed in a policy. Just because there is not much (net metering) now, it may be in the future. If we get into solar that is cost effective.

Mark Parkinson: It would be beneficial to the Governor and legislature if the utilities would send their thoughts/suggestions for net metering to my office (via Jennifer). The risk is out there right now that the legislature will adopt net metering that will not be well thought out. If we had a template on what you can live with, we might be able to make this work.

Les Evans (KEPCo): You keep using the term of community wind, not the individual retail customer. They want to take full advantage of the wind resource. That is completely different than someone putting up a 2 megawatt (MW) wind turbine. That is a big difference. If you over generate by a good sized margin, you roll the meter backwards. You are getting 150% of the avoided cost. Net metering is only appropriate for small generators sized appropriately for the load they are off setting.

Audience (Scott Brantley, West Wind Energy): I don't think net metering will be a big issue in the future. If they are sized right, they will pay for themselves.

Mark Parkinson: Is that a refurbished unit or a new unit?

Audience (Scott Brantley, West Wind Energy): Refurbished. It may pay in 5 to 10 years. If you consider financing, it may be 12. New turbines will pay for themselves in fewer than 20 years. Schools would benefit from net metering.

Dan Nagengast (Kansas Rural Center): Tom Wind says, "School and business net metering for up to 1 MW." The avoided cost needs to be higher.

Mark Parkinson: Discussion - Where are we going in the Future?

We are still waiting to hear from Wind Powering America (WPA) on the funding for next year. However, this is not an expensive project. The fact that we have a WWG is further evidence we are serious in Kansas about wind which is extremely important. If a Cap and Trade system passes in 2009, and you combine it with all the things happening in the wind industry, we will be exporting wind to those markets that don't have a wind resource. If Federal policies – Cap & Trade and the Production Tax Credit (PTC) don't happen, then we will reevaluate. My suggestion is to convene at the Renewable Energy Conference and talk about the future.

Stephanie Cole (Sierra Club): Will we still be organizing a wind conference?

Mark Parkinson: This year, due to time constraints, we decided to tack the wind conference onto the renewable energy conference. In the future, the wind conference may be in the spring so as not to conflict with the renewable energy conference.

John Grimwade (KCPL): Dialog was helpful.

Mark Parkinson: That is why if we don't continue as a funded entity, we should still get together on a regular basis.

Jim Ploger (Energy Programs Division, KCC): It is probably safe to assume we will get funding for one more year.

Mark Parkinson: If there are no other comments or questions then thank you all for attending and we'll look forward to September.

Adjournment