

Wind Energy Development

GOAL: To increase opportunities to generate wind-based electricity through both Community Wind projects owned by Kansas investors and an additional large-scale wind farm.

A. Topic/Issue Description

Kansas has very substantial wind energy resources and, by the end of 2006, will have nearly 400 MW of utility scale wind capacity in place.

Community Wind has garnered considerable interest, particularly among those promoting rural economic development.

Additional investment in wind capacity in Kansas has been constrained, in large part, by low fossil fuel prices for conventional generation.

Currently, there are a variety of federal and state incentives available for wind development (see list of existing policies below). None specifically target Community Wind.

Even with these subsidies, additional wind generation in Kansas is likely to cost ratepayers more than conventional generation. However, inasmuch as wind-based generation offsets conventional generation, wind-powered generation reduces power plant emissions and therefore could reduce the possible damages and costs resulting from those emissions. The possible reduction in external, pollution-related costs attributable to wind-based generation may tip the economic analysis in favor of wind. Very simply, when all generation costs are taken into consideration, including external costs that are difficult to measure and quantify, wind may be economic.¹

Legislation broadening the KCC's authority to explicitly make some consideration of all generation costs, including those which may not be "known and measurable," may expand the opportunity for wind projects of any size – and the resultant purchase power agreements – to be economic and, thus, possibly receive KCC approval.

B. Existing Policies/Programs

1. The Federal Production Tax Credit (PTC) has been the most significant factor in U.S. wind energy development since its adoption in the Energy Policy Act

¹ Based on preliminary data from the Kansas Corporation Commission staff cost-benefit analysis made available to the KEC staff for assistance in developing this section.

of 1992. Originally set at a value of \$0.15/kWh, it automatically adjusts for inflation and now amounts to \$0.19/kWh. Typically extended for short intervals, it is currently set to expire at the end of 2007. Use of the tax credit requires significant eligible tax liability, making wind attractive to (and to some extent restricted to) large corporate developers.

2. Accelerated Cost Recovery, or depreciation, is available for most wind farm costs for federal tax purposes.
3. Kansas Property Tax Exemption is available for “all property actually and regularly used predominantly to produce and generate electricity utilizing renewable energy resources or technologies.”
4. Kansas Sales Tax Exemption [K.S.A. 79-3606(cc)] provides sales tax exemptions on certain sales of tangible personal property or services. An exemption certificate must be acquired from the state.
5. Kansas Job Creation Tax Credit [K.S.A. 79-32,160a] provides an income tax credits under specific circumstances for projects that create at least five new jobs.
6. The Energy Policy Act (EPACT) of 2005 directs the federal government to increase its renewable energy use, to the extent economically feasible and technically practicable, to not less than 3% in FY07-09, 5% in FY10-12, 7.5% in FY13 and each fiscal year thereafter. Note: This will quickly make federal agencies large purchasers of renewable energy. Much of the demand will likely be met through Green Tags and Renewable Energy Certificates.

C. Policy/Program Proposal

1. **Enact legislation that would grant the Kansas Corporation Commission the authority to consider possible external costs and benefits, in addition to the known and measurable costs, when evaluating wind-based purchase power agreements submitted by jurisdictional utilities for approval. This legislation would enable the KCC to approve, subject to certain limitations, up to a total of 200 MW worth of new contracted wind capacity, with up to half of the allowed total dedicated to contracts with Community Wind developers. This legislation applies only if the federal Production Tax Credit (PTC) is in place.**

a. Description

This legislation would allow the KCC to consider the possible avoided pollution costs attributable to wind-based purchase power agreements

(PPAs). It is recognized that, absent this consideration, wind-based PPAs may not be cost effective relative to conventional sources of generation. That is, by using the known and measurable costs of conventional generation as a benchmark for evaluating wind contracts/projects, many wind projects are unlikely to be cost competitive. This legislation would simply allow the KCC to apply a different cost benchmark, one that captures possible external cost savings. The KCC could apply other conditions to assure that all wind contracts approved are consistent with the public interest. For instance, the KCC could require all wind contracts submitted for approval be the result of an open, competitive bidding/RFP process employed by the purchasing utility.

Community Wind is defined herein as locally owned, commercial wind projects smaller than or equal to 20 MW. Local ownership, in this program, is defined as a majority (51%) of the owner/investors residents of Kansas. Any Community Wind project undertaken as part of this program would be required to have full (100%) local ownership at the end of 10 years.

In addition to the potential need for new legislation, there are other elements of this program, basically safeguard elements, that need full development by KCC. These include:

i. **Geographic Dispersion of Wind Capacity**

In order to assure a reasonable geographic dispersion of both the costs and benefits of this legislation, the KCC will develop and present a proposed allocation of wind-contract approval amounts among its jurisdictional utilities. This will allow geographic diversity among community wind projects that are approved, also serving to mitigate potential transmission capacity issues. For example, it may be reasonable to limit community wind development in Midwest Energy's service territory to no more than 40 MW. Similar bounds can be established for each of the jurisdictional utilities.

ii. **Coordinating Developers and Investors**

In the first stage of development, potential investors and interested developers must get together to exchange information, share expectations, identify all relevant risks (to both sides) and discuss core financial requirements (such as the developer's expected capital structure). There would also be a need to bring in information regarding experiences related to existing wind projects in both Kansas and elsewhere. There may be a need for the Department of Commerce to establish a clearinghouse on

issues and play a market making role by fostering interaction between potential developers and investors. One element of basic information that will need to be provided is the Community Wind Toolkit, currently under development by the Department of Commerce. To streamline this process, and to streamline the KCC's contract review process, it may be necessary to provide standardized wind contracts.

- iii. **Site Requirements/Permits and Getting Community Input**
There may be a need for a siting process. If so, then it may be reasonable to establish a standardized process for the purpose of gaining site approval. The Kansas Energy Council's *Wind Energy Siting Handbook* (April 2005) may provide useful guidelines.
- iv. **Decommissioning**
Wind projects will not last indefinitely. Decommissioning requirements, perhaps tied to the siting process or as a standalone requirement, need to be established and enforced.
- v. **KCC Wind Contract Approval Standards**
If and when developers and investors can establish a business plan that results in purchase power contracts being offered to jurisdictional utilities as potential buyers, the KCC will need to apply a reasonable review process that may include, in addition to consideration of external cost savings, requiring the utilities to use competitive bidding to select among the potential wind projects. A process may be required in order to solicit competition among the largest possible number of wind projects.
- vi. **Other Important Cost Considerations**
A process may be developed for dealing with integration costs and the potential need for transmission upgrades to accommodate wind development. Arguably, the utility's consideration of these two factors could assist its choice of wind PPAs selected for KCC approval.
- vii. **Monitoring Projects Over Time**
Finally, because wind projects are expected to be long-lived, there needs to be a framework that supports their long-term economic viability. In part, this will require a clear specification of responsibilities for operations and maintenance, including equipment failure contingencies and acquiring warranties. There are also concerns of the long-term financial viability of wind

developer LLCs. What recourse exists when bankruptcy occurs? These and other related questions will need to be examined.

With this program, the State recognizes the potential benefit to Kansans of reduced pollutants and greenhouse gas emissions attributable to wind development and declares that it is appropriate for the Kansas Corporation Commission to approve rates for electricity generated by clean and renewable sources, even if those rates are higher than what they would have been with full reliance on conventional generation technologies.

b. Implications of the proposal

Pros

- i. Possibly provide a wider wholesale electricity market that may accommodate Community Wind.
- ii. Create new business (economic development) opportunities in rural areas of the state.
- iii. Recognize that typical costs comparisons between conventional generation and wind contribute to added health costs and environmental degradation. Cost comparisons that include consideration of possible external generation costs will do the opposite.

Cons

- i. Probability of increased cost of electricity to ratepayers.
- ii. Uncertainty due to uncontrollable variables such as continuation of the federal production tax credit.

c. Recommended Actions

i. Responsible parties

Utilities, KCC, wind-project developers

ii. Legislative action

Enabling legislation is necessary.

iii. Budget Requirements

No state funds required.

iv. Implementation Timeline

The window of opportunity to develop wind projects under this program would open on the effective date of enabling legislation and run for three calendar years.

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