

**Ron Rebenitsch - Basin Electric Power Cooperative
Interim North Dakota Energy Development & Transmission Committee
November 24, 2009**

Good afternoon, my name is Ron Rebenitsch, I am the Manager of Alternative Technologies for Basin Electric Power Cooperative. I am not here today to present a position or preference on if or how wind rights should be allocated, but highlight some issues that need to be considered as this issue is discussed.

When considering the allocation of wind rights, it is important to recognize that the land on which a turbine is located does not produce the wind, so any effort to establish a legal wind right to the surface estate needs to be considered thoroughly by all stakeholders. Our wind project payments to landowners for wind leases are intended primarily for use of the surface estate, not for the wind itself.

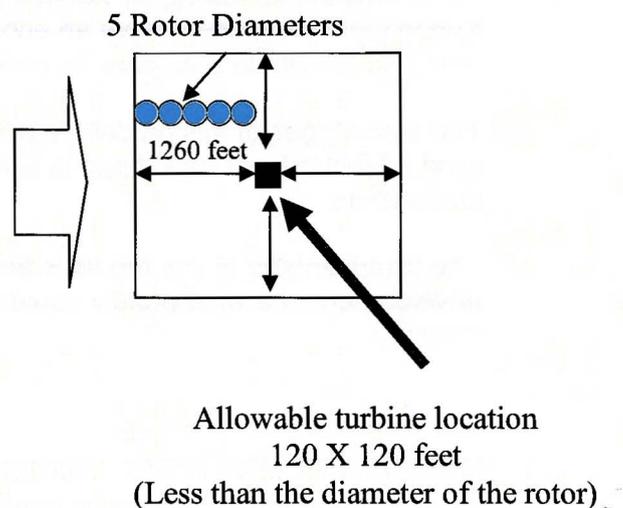
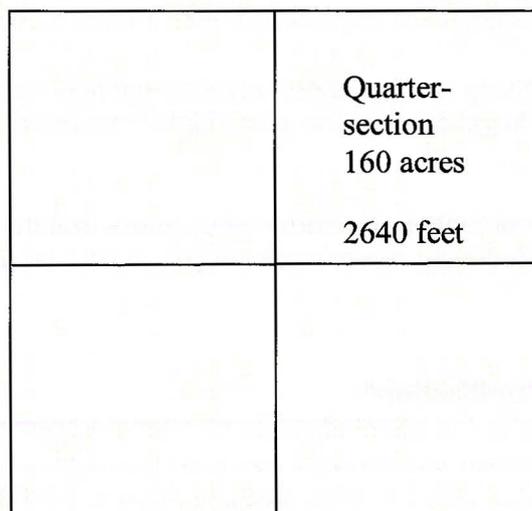
As you all know the main issue regarding wind rights arises from the fact that the large wind turbines produce a downwind effect (wake) on the airflow as it passes the turbine blades. Both energy loss and turbulence diminish rapidly with distance, but as a general rule of thumb, wind developers typically try to space wind turbines apart by a distance of at least threeto twenty times the diameter of the turbine rotor, depending on the wind regime and topography.in the direction of the predominant winds.

In some areas, five rotor diameter spacing has been proposed as a required setback distance from property lines. Such a setback requirement makes it very difficult to develop wind projects in areas that do not involve large landowners and contiguous holdings. This constraint is almost particularly troublesome in many areas of the country where prospective wind sites are "broken up" among many landowners..

The illustration below shows the constraints related to a setback of five rotor-diameters.

Figure 1: 5 Rotor-diameter Setback Requirements

1 Section = 640 acres



Simple math shows that such a setback limits the location of a turbine to the center of a quarter-section. As can be seen from Figure 1, the only allowable space on a quarter-section of land would be a small square with dimensions 120 feet by 120 feet. It is also very likely that such a small location could be a poor wind site or unbuildable. It is critical to locate turbines in the best possible location to optimize their production, so wind developers need as much flexibility as possible to properly site turbines. Such a setback requirement could prevent smaller landowners from erecting even a single turbine on their property.

The issue of equity in wind allocation is complicated by the importance of wind turbine placement. The adjacent property may or may not have a viable turbine location within the zone of influence from the initial turbine. For instance, the adjacent property may contain a valley, a wetland or an even higher hill. The valley or wetland would preclude a viable turbine, while a higher hill may be an even better location.

For regulatory allocation of natural resources, two possible models are common. Each has been successfully used in similar natural resource contexts. The first model, which might best be termed "First in Time; First in Right" allocates the resource based on the order in which users demonstrate beneficial use of the resource. The second model "Unitization" has been used in the oil industry. In this model, an area of influence caused by development is determined and that area is unitized and the benefits are spread in some equitable fashion among the stakeholders within the unitized area.

Either model could be considered for wind development, but **it needs to be emphasized that at this time, neither Basin Electric, nor I, have a position on if or how wind rights should be allocated.**

"First in Time; First in Right"

The First in Time; First in Right model, is almost by default, current practice in most areas, including North Dakota. When a wind turbine is built, it would have first rights to the energy in the flowing air within a reasonable distance around the turbine. Subsequent developers have an economic incentive to maintain an adequate distance from first developer's turbines to avoid significant impacts to either turbine's production

The advantages of this model are simplicity and increased investor confidence that a wind project will not be subject to later litigation over the wind rights from nearby landowners.

The disadvantage of this model is the perception of nearby landowners that the development of a wind project could affect their ability to develop a project on their own property.

"Unitization"

Using the Unitization model, conceptually, the affected areas of a wind resource could be allocated either on the basis of a defined wind project boundary containing multiple turbines, or on an individual turbine basis, with the wind resource around each turbine allocated on a proportional basis.

However, it is important to note that applying the Unitization model to wind means would require a complex allocation of benefits such as wind lease payments since multiple components are involved. Keep in mind that the property on which turbines are placed will experience more impact than nearby landowners. A potential allocation of payments among landowners may need to include:

- Payments for the general wind resource, allocated on a proportional share of the landowners within the affected area (either within the project boundary, or within, a defined number of rotor diameters of each individual wind turbine).
- Payments for direct surface impacts to landowners receiving turbines.
- Payments to landowners with direct surface impacts such as roads and cable easements.
- Payments for other real or perceived impacts.

The advantages of this approach would be the distribution of benefits among a broader base of landowners, reducing potential inequities among those stakeholders. A broader distribution of benefits among the local stakeholders will also enhance community support and minimize potential opposition to a wind project.

The disadvantages of the unitization model are its complexity and the potential for unwilling landowners to be drawn into a project in which they do not wish to participate. However, this could be the case, whether or not an unwilling landowner would have a turbine placed on or near their land.

Another challenge would be determining the appropriate allocation of payments to the various stakeholders. Obviously, a landowner with a turbine would be affected much more than a nearby landowner, who would experience no physical impacts whatsoever. Another complication might be the case where a landowner wants to place turbines on personal land holdings without reimbursing neighboring landowners.. Defining an adequate payment would be difficult as each party would have opposing incentives for determining payments.

Absent a regulatory formula defining payments, project developers would be challenged on many fronts to achieve a satisfactory balance among the various stakeholders.

Conclusions:

Any discussion of wind rights must recognize the fundamental reality that wind is not "owned" by anyone; nor is it "produced" on any one property. It is a free-flowing natural resource generated elsewhere. It crosses property boundaries at will, so any allocation of this natural resource under state or federal authority must be considered very carefully. If improperly addressed, the industry faces the risk of being inhibited by litigation, uncertainty and increased costs – all of which will divert productive investment from an industry that has great potential to enhance national energy security and stimulate local economic development. To allow wind energy to develop to its fullest potential, legal certainty will be required for investors to continue to commit the enormous funds involved in development of a wind project.

In considering the allocation of wind rights, it may help to consider how modern technologies already affect the airspace above landowners' surface rights. For instance,

aviation already uses the airspace above property surfaces, and a landowner (or a wind developer) cannot erect a structure above certain heights near an airport. Also, microwave and radio towers use the airspace above private property for radio signals without consent of the landowners. Wind developers already must avoid placing turbines within existing microwave paths or where those turbines might affect other technologies, such as military radar, television or radio.

Either of the above models, as well as other models or combinations thereof, would suffice to address the allocation of the wind resource. **It is important to not infringe on landowners' property rights within the boundaries of a landowner's property. It is equally important that a landowner not be able to infringe on the rights of his/her neighbors to develop wind resources. As such, it is critical to preclude the ability of any landowner to veto development of a wind turbine or facility when that turbine or facility is not located on his/her property.**