June 7, 2004

Honorable Kathleen Sebelius
State Capitol, Room 212S
300 SW 10th
Topeka, Kansas 66612-1590

Dear Governor Sebelius:

I am pleased to deliver to you the Final Report of the Wind and Prairie Task Force, which was convened at your request.

The Wind and Prairie Task Force has successfully carried out the requests you presented to the state energy council and the detailed tasks outlined to them in the Task Force's charges. The Task Force compiled a set of recommendations that drew broad endorsement of the members and some contrasting options for your consideration.

The members of the Task Force worked diligently and professionally to carry out their duties. I want to especially commend co-chairs Jerry Karr and Jerry Lonergan for their inspired leadership in accomplishing something that many felt would not be possible.

The energy council is prepared to assist you in evaluating and implementing recommendations from this report. Many of the studies, presentations, and recommendations from the task force's meetings and final report will be of great value to the energy council as we respond to your challenge of full and aggressive development of Kansas' renewable energy resources, especially wind power.

Sincerely,

M. Lee Allison
Chair

June 6, 2004

Lee Allison,
Director and State Geologist
Kansas Geological Survey
1930 Constant Ave.
University of Kansas
Lawrence, Kansas 66047-3726

Dear Dr. Allison:

In our roles as Co-chairs, we are pleased to present to you the final report of the Wind and Prairie Task Force. At the request of Governor Kathleen Sebelius, you presented the task force with a challenging and interesting set of charges. We believe the members are honored to have participated and have welcomed this opportunity to serve the Governor.

Task force membership included proponents of preservation and development, superior technical expertise, and local community leadership. Our meetings were rich in debate and discussion and have provided each member with a broader understanding of issues, which we hope has resulted in a report that can be a valuable contribution to the Governor's efforts to strike a "balance between encouraging economic development of environmentally sensitive energy resources and the protection of the prairie."

Given the passions surrounding wind-energy development in the Flint Hills, fulfilling the charges has not been easy. Nonetheless task force members remained focused on their desire to effectively serve the Governor and make a positive contribution to the future of Kansas. Throughout sometimes intense debate and discussion, task force members, to a person, demonstrated professional courtesy and a willingness to consider varied views.

It has been our pleasure working with these Kansans who deserve all the credit for the quality of this final report. You and your staff have been exceptional under a very tight time frame, and we are grateful for the work of the Kansas Geological Survey and the resources of the University of Kansas.

Please share with the Governor our gratitude for involving us in this process.

Jerry Karr Jerry Lonergan
Co-Chairs Wind and Prairie Task Force

Wind and Prairie Task Force
Final Report

June 7, 2004

www.kansasenergy.org/sercc_wptf.htm

Kansas Geological Survey
Open-file Report 2004-29

Acknowledgments

The Wind and Prairie Task Force members wish to acknowledge the following for their participation and assistance:

Speakers and Presenters

Joyce Allegrucci, Chief of Staff to the Governor
Scott Allegrucci, Kansas Department of Commerce, Division of Travel and Tourism Development Division
Lee Allison, State Geologist and SERCC Chair, Kansas Geological Survey, University of Kansas
Jeremy Bartley, Data Access and Support Center, Kansas Geological Survey, University of Kansas
Lorn Clement, Associate Professor of Landscape Architecture, Kansas State University and Riley County Planning Board
Ed DeMeo, National Wind Coordinating Committee
Ted Eubanks, Fermata, Inc
Les Evans, Garrad Hassan, SERCC liaison to WPTF
Tom Hogan, Gray County Energy Center, FPL
Larry Holloway, Kansas Corporation Commission
Ward Jewell, Professor of Electrical Engineering, Wichita State University
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Ken Nelson, Data Access and Support Center, Kansas Geological Survey, University of Kansas
Richard Nelson, Engineering Extension, Kansas State University
Robert Robel, Professor Emeritus of Biology, Kansas State University
Spencer Tomb, Associate Professor of Biology, Kansas State University
David Yearout, Planning Consultant

Public Forums

City of Manhattan, Manhattan Fire Department; Monty Wedel, Chief James Woydziak
Butler County Community College—Larry Patton, Dean of Humanities/Fine Arts

WPTF Meeting Facilities

Kansas Technology Enterprise Corporation
Kansas Department of Social and Rehabilitation Services and the SRS Learning Center
Kansas Corporation Commission—Jim Ploger, Energy Office
Lunches provided by Kansas Inc. and Kansas Geological Survey (SERCC)

Staff Support

Kansas Geological Survey at the University of Kansas—Marla Adkins-Heljeson, Jeremy Bartely (DASC), Rex Buchanan, Debbie Douglas, Melany Miller, WPTF Secretary, Ken Nelson (DASC), and Jennifer Sims
State Energy Resource Coordination Council—Chief of Staff Liz Brosius; SERCC liaison to WPTF Les Evans, Garrad Hassan.
Kansas Inc.—Debby Fitzhugh, Ann Marshall, and Sean Tomb

Table of Contents

Executive Summary

Proposals to construct commercial wind-energy projects in the Flint Hills of Kansas have generated debate over preservation of the remaining untilled Tallgrass Prairie and the development of the state's wind-energy resources.

Kansas is among the top three states for potential wind-generated electricity. In contrast to traditional power sources (coal, gas, nuclear), wind is a free and environmentally clean energy input. Development of the state's wind-energy potential plays a role in improving the state's energy balance, promotes future energy security and independence, and could enhance economic development in rural parts of Kansas. With all its advantages, however, wind energy will most likely provide a small percentage of the state's electricity.

More than 96% of the original Tallgrass Prairie in North America has been lost and nearly two-thirds of the remaining 4% lies within the Flint Hills of Kansas. The Tallgrass Prairie is recognized as one of the rarest and most endangered ecosystems in the world. With its landscape expanses of Tallgrass Prairie, the Flint Hills is an ecological resource of national and international importance. The region is home to a growing tourism industry and holds promise for additional rural economic development through expansion of agriculture- and nature-based tourism.

Charges to the Wind and Prairie Task Force from the State Energy Resources Coordination Council (SERCC)

1. Identify and analyze relationships between areas of Tallgrass Prairie most appropriate for preservation and areas most appropriate or desired for wind development.
2. Recommend guidelines, principles, and best practices to be utilized at the local level to help site wind-energy projects.
3. Recommend voluntary guidelines or model agreements for land leases for wind-energy development.
4. Recommend voluntary local siting guidelines for wind-energy development.
5. Develop tools that can be used in the decision-making process to site wind-energy projects.
6. Identify policies or authorizations needed by local government to address multi-county or regional issues.
7. View efforts for land trusts and other mechanisms to preserve the prairie.
8. Consider that wind energy in the Flint Hills cannot be viewed in isolation: anything the Task Force recommends may have application and be of value to other areas of the state.

Parts of the Flint Hills have high potential for wind energy. This potential, coupled with the presence of electric transmission lines crossing the Flint Hills and proximity to the state's two largest population centers, makes the region attractive to the wind industry for the siting of wind turbines to generate electricity.

Proposals for wind-energy development in the Flint Hills have generated debate throughout the region, as communities and citizens weigh the accompanying environmental, economic, cultural, and aesthetic issues. The scale of development is a further concern, given that the projects proposed in the Flint Hills region involve 30 to 100 towers, each of which would be roughly 350 to 400 feet in height from ground to blade tip.

Against this backdrop, the Wind and Prairie Task Force (WPTF) was established. On December 2, 2003, Governor Kathleen Sebelius directed the State Energy Resources Coordination Council (SERCC) to appoint a special task force "to thoroughly examine and consider all of the key issues involved and recommend fundamental guidelines, principles, and best practices that can be utilized by local governments, landowners, project developers, and other interested stakeholders to site future wind energy projects in this environmentally sensitive region of the state." The Governor further noted that WPTF's "primary goal should be to develop recommendations that will help decision-makers find an appropriate balance that promotes our state's wind-energy potential and preserves those natural ecosystems and places of scenic beauty, like the Flint Hills and the Tallgrass Prairie, that cannot be easily replaced."

The charges before WPTF were substantial given the dynamics of introducing a new type of development in the Flint Hills. From January to May 2004, WPTF came together for eight 6-hour meetings, created three committees that met separately to address specific charges, and held two public forums in Manhattan and El Dorado. In addition, numerous informal meetings and discussions were held among members. The 2 co-chairs, 16 members, and 8 technical advisors volunteered their time and covered their own expenses to participate.

As the report deadline approached, the majority of members realized it was unlikely a final set of comprehensive recommendations would come from WPTF. While agreement was reached on several recommendations, there remained strong opinions regarding a number of issues (e.g., a moratorium on wind-energy development in the Flint Hills). Rather than push through a single "watered down" set of recommendations, WPTF opted for highlighting areas of agreement and detailing two sets of options with different approaches.

The options are presented in a way that enables the Governor to select among the separate components within each option and craft a plan that best suits her dual goals of prairie preservation and wind-energy development.

WPTF Recommendations

Ten broad recommendations were adopted by WPTF that reflect areas in which the task force reached general agreement. Three of these, however, involved significantly different implementation strategies in Options A and B. These three recommendations are listed separately below, in order to highlight the different implementation strategies adopted in Options A and B.

- **Recommendation 1: Preserve ecologically significant native grasslands in the Flint Hills and the rest of the state.**

  Option A: No wind-energy development in area defined by The Nature Conservancy (TNC) intact prairie map, with 7-mile buffer zone (see Appendix 8). Implemented by regional or state authority.

  Option B: Identify ecologically significant areas of native grassland and develop classification system that prioritizes these into (1) no wind or other development permitted, (2) restricted development, and (3) development with few restrictions. Serves as a guide to landowners, developers, and county authorities.

- **Recommendation 2: Develop an improved set of maps identifying areas in Kansas that should be protected.**

  Option A: Modify TNC map to better differentiate land boundaries and to include 7-mile buffer around (1) areas with largely intact natural vegetation and (2) fragmented areas with a concentration of natural community remnants.

  Option B: Building on recent mapping efforts, State should develop map of remaining untilled native grasslands to determine areas requiring protective measures and those appropriate for development. Some funding will be needed to complete mapping by beginning of 2005 legislative session.

- **Recommendation 3: Revisit the permanent property tax exemption for wind-energy development.**

  Option A: Repeal permanent property tax exemption afforded wind-energy development.

  Option B: Conduct study to determine best way to modify tax structure for wind energy to allow for partial exemption, regulations of payments in lieu of taxes, or other appropriate measures.

The remaining WPTF recommendations are listed below.

- **Recommendation 4: Direct the Kansas Department of Commerce's Division of Travel and Tourism Development to develop a plan to promote and sustain both new and existing nature-, agriculture-, eco-, and culture-based tourism business in the Flint Hills region to build on the recent tourism study provided to the state by Fermata, Inc.[1]**

- **Recommendation 5: The Travel and Tourism Development Division should seek funding for comprehensive implementation of the plan created for tourism in the Flint Hills.**

- **Recommendation 6: Identify sources of funding for conservation easements to encourage landowners to preserve ecologically significant native grasslands.**

- **Recommendation 7: Landowners and developers should use the lease guidelines developed by WPTF (see Appendix 6) for creating and negotiating wind-energy leases.**

- **Recommendation 8: Landowners, wind developers, and county authorities should use siting guidelines developed by WPTF (see Appendix 5) and the Kansas Renewable Energy Working Group.[2]**

- **Recommendation 9: Request that the State Energy Resources Coordination Council's Transmission Task Force identify options for expanding transmission capacity in western Kansas to facilitate the Governor's goal of full and aggressive development of the state's wind-energy resources.**

[1] Fermata, Inc., 2004, Assessment of the Economic and Tourism Impacts of Siting Wind Energy Developments in Kansas Natural Areas (http://www.fermatainc.com/kansas/index.html), prepared for the Kansas Department of Commerce, Division of Travel and Tourism Development by Ted L. Eubanks, Fermata, Inc.

[2] Siting Guidelines for Wind Projects in Kansas (http://www.kansasenergy.org/sercc_wptf_resources.htm).

- **Recommendation 10: Until such time as the specific proposals in this report are implemented, in whole or in part, we urge landowners, wind developers, power purchasers, and appropriate county authorities to use the recommendations, guidelines, and tools specified herein when considering proposals for wind-energy development.**

Comparison of Options A and B

The WPTF members were unable to reach consensus on a single, comprehensive plan to promote wind-energy development and preserve the remaining untilled Tallgrass Prairie. They agreed to submit two separate options, arbitrarily labeled Options A and B. Some members strongly endorsed one of the two options; others supported some parts of both.

The following comparison highlights the recommendations and strategies set forth in Options A and B and organizes them by topics for purposes of comparison. Options A and B are presented in their entirety in Appendixes 8 and 9.

Goals and Recommendations for Comparison	Option A: Management of Wind Development to Conserve Grasslands of Statewide Importance	Option B: Finding Common Ground in the Flint Hills
Option goals	Encourage commercial wind-energy development in the state, but prohibit wind-energy development in the Flint Hills and other grasslands of statewide importance.	Identify and maintain an appropriate balance between conservation and utilization of Kansas' natural resources and promote positive economic development while respecting the state's scenic and cultural heritage. Specific goals are to: (1) preserve ecologically significant and/or sensitive areas of Tallgrass Prairie; (2) promote economic development in Kansas, particularly in rural areas; (3) meet Kansas' growing energy needs in an environmentally responsible manner; and (4) maintain local control of land-use decisions.

Control of siting, regulation of commercial wind-energy development in Kansas	Empower state or regional authority to provide comprehensive and uniform standards and regulations. All projects are subject to review by relevant state agencies (natural resources, environmental quality, wildlife conservation, historical preservation, tourism).	Maintain local control of land-use decisions. Encourage use of siting guidelines and mapping efforts to aid in siting evaluation.
Moratorium on wind-energy development in the Flint Hills	Enact, at a minimum, a one-year moratorium for commercial wind-energy development in the Flint Hills to allow the Kansas Legislature and the Governor's office time to study the following recommendations and develop appropriate courses of action. To be enacted by the 2005 Legislature. In the interim, Governor could call on all parties to delay development decisions until Legislature convenes.	Avoid a moratorium. In the event that mapping is undertaken, encourage developers to perform site assessments to determine visual and biological impact of development on an individual project basis.
Commercial wind-energy development in the Flint Hills	No development in area defined by The Nature Conservancy's intact prairie map with 7-mile buffer (see Appendix 8).	Develop classification system to prioritize remaining native grasslands and assign to 3 classes (no development, restricted development, and development with few restrictions) as guide to landowners, developers, and appropriate county governments in making decisions about future development.

Develop map of untilled native grasslands	Refine existing intact prairie map produced by The Nature Conservancy (see Figure 2).	Direct team of state universities and agencies to build upon recent work to map remaining untilled native grasslands in order to determine those areas requiring protective measures. Mapping should take into account (1) extent of unobstructed viewshed area, (2) richness and diversity of plant and animal species, (3) prevalence of rare and endangered plants and animal species and species of conservation concern, and (4) degree of habitat fragmentation. Allocate State funds as needed to complete this task by the start of the 2005 legislative session.
Permanent property tax exemption for wind-energy development	Repeal exemption.	Restructure exemption.
Flint Hills tourism	See Recommendations 3 and 4.	
Conservation easements	See Recommendation 5.	
System Benefit Charge (SBC)[3] *Estimates suggest a $0.25 charge on monthly electrical bills could raise up to $12 million dollars.*	Establish a System Benefit Charge to be applied to electric rates, a portion of which would fund implementation strategies for transmission. These funds should also be considered for funding staff and budget for wind-energy regulation.	Establish a System Benefit Charge to be applied to electric rates, a portion of which would fund implementation strategies for transmission. These funds should also be considered for funding a staff and budget for the SERCC.

[3] A Public Benefit Charge, and the sizeable sums it would generate, could also help as a funding source for supporting the WPTF recommendation to expand the conservation easement program, assist with supporting the work and staffing of SERCC, and support education and programs to fund energy-efficiency efforts that have the potential to substantially reduce energy use.

Electrical transmission enhancements	Improve transmission capabilities in areas where commercial wind-energy development will not compromise important cultural, historical, and ecological resources. Reintroduce HB 2525 and HB 2523 to authorize enhanced rate of return on investment for utilities upgrading transmission for renewable resources or buying energy from renewable resources, but only if those sources are generated outside the Flint Hills and other ecologically sensitive areas and important grasslands. Develop a specific list of transmission grid problems to present to the Kansas legislature and Congressional delegation for legislative redress. Promote electrical transmission research and experiments.	Use work of SERCC Transmission Task Force to develop state plan for improving electrical transmission capacity. Reintroduce HB 2525 and HB 2523 to authorize enhanced rate of return on investment for utilities upgrading transmission for renewable resources or buying energy from renewable resources, but only if those renewable power generation resources are sited outside ecologically significant areas. Direct the KCC to continue and increase active participation in the Southwest Power Pool regional transmission planning process and Regional State Committee activities designed to address multi-state transmission design and cost-allocation issues with the goal of facilitating transmission system enhancements in western Kansas.
Wind energy in western Kansas	Develop incentives to encourage wind-energy development in western Kansas and discourage it in ecologically sensitive regions	Provide reasonable and cost-effective upgrades to regional transmission network in western Kansas to facilitate renewable energy development in less ecologically sensitive areas.

Introduction

The Wind and Prairie Task Force (WPTF) was established in December 2003 by the State Energy Resources Coordination Council (SERCC), at the request of Governor Kathleen Sebelius to find ways to help preserve the Tallgrass Prairie and simultaneously encourage wind-energy development under appropriate conditions in Kansas (see Appendix 1). The Governor also noted the Flint Hills "is a true treasure of national and international proportion, and as Kansans we fully understand we are the stewards of this treasure."

In consultation with the Governor's office, SERCC Chair Lee Allison and WPTF Co-chairs Jerry Karr and Jerry Lonergan appointed 16 members and 8 technical advisors to serve on the task force (see Appendix 2). In January 2004, Allison provided WPTF with a set of detailed charges designed to "carry out the Governor's goal of assisting local communities in their decision-making processes relating to siting of wind-energy projects in the Flint Hills region and helping resolve potential conflicts between economic development and preservation of the Tallgrass Prairie" (see Appendix 3).

The task force is a temporary part of the larger, statewide energy planning and policy effort undertaken by SERCC, which was established by Executive Order in 2002. The WPTF membership was deliberately chosen to be representative of different backgrounds, viewpoints, and geography (especially within the Flint Hills region). The technical advisory members were selected principally to bring specific areas of expertise to the table. With the release of this report, WPTF's mission is completed and the task force is disbanded.

SERCC's *Kansas Energy Plan 2003* identified wind power as having the potential to be a significant energy source in Kansas. Developing wind and other new sources of energy is one of the strategies SERCC recommended for moving Kansas towards energy self-sufficiency and reversing its dependence on energy imports (SERCC, 2003).

Kansas is home to the Tallgrass Prairie, another important natural resource. Nearly two-thirds of the remaining 4% of Tallgrass Prairie resides within the Flint Hills, a multi-county region in the east-central part of the state (Figure 1). Because the Tallgrass Prairie is recognized as an ecological resource of national and international importance, the region also holds promise for development of nature-based tourism (Fermata, 2004).

Kansas, North Dakota, and Texas are ranked as the top three states for wind potential (Figure 2). Kansas is currently 12th in the nation in wind-energy development, with one commercial-scale project, the Gray County Wind Farm, built in 2001 about 20 miles southwest of Dodge City. Negotiations are underway for construction of a second project near Dodge City.

A number of wind-energy projects have been proposed in the Flint Hills, parts of which have high potential for wind energy (see sidebar, p. 12). The presence of electric transmission lines crossing the Flint Hills between the state's two largest population centers also makes the region attractive to wind developers for the siting of wind-energy developments.

Concerns have been raised that wind-energy development may further fragment the remaining untilled Tallgrass Prairie. Other concerns associated with additional development in the Flint Hills include potential wildlife impacts, visual nuisances to neighbors (Figure 3), and potential limitations on tourism development.

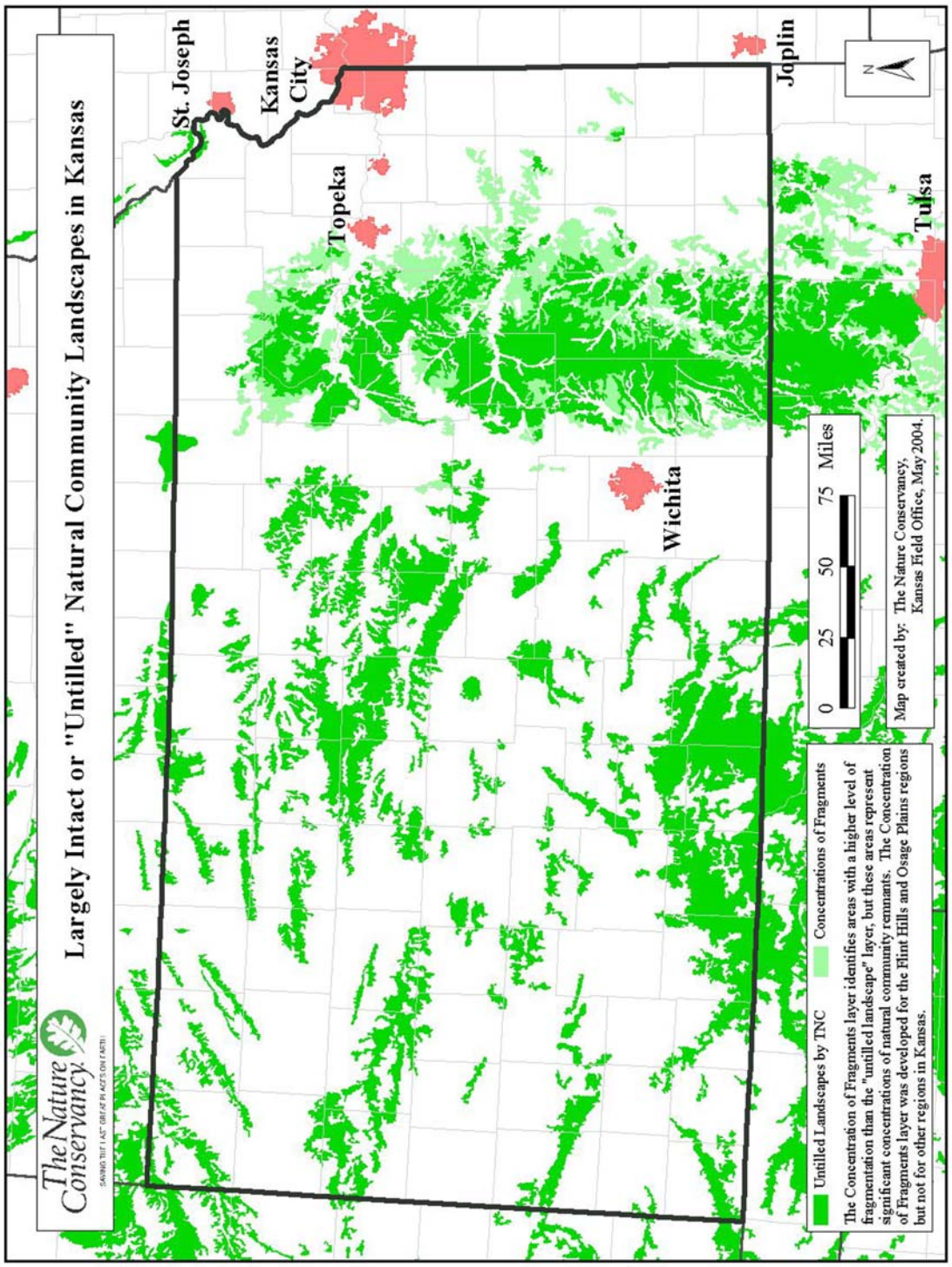

Figure 1—Map of largely intact or "untilled" areas in Kansas, prepared by The Nature Conservancy, Kansas Chapter.

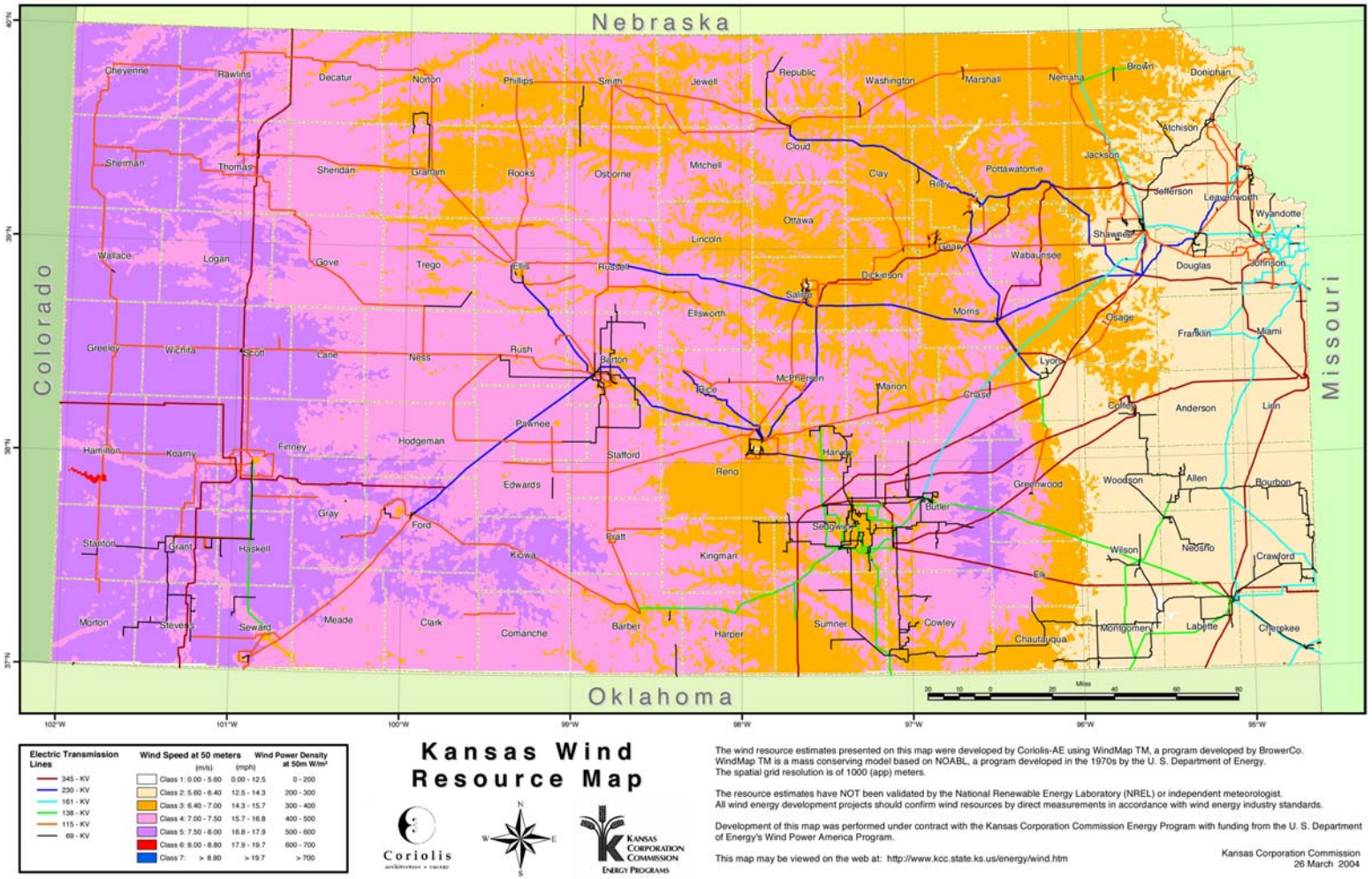

Figure 2—Kansas Wind Resource Map, prepared by Coriolis, Inc., with support from the Kansas Corporation Commission Energy Program.

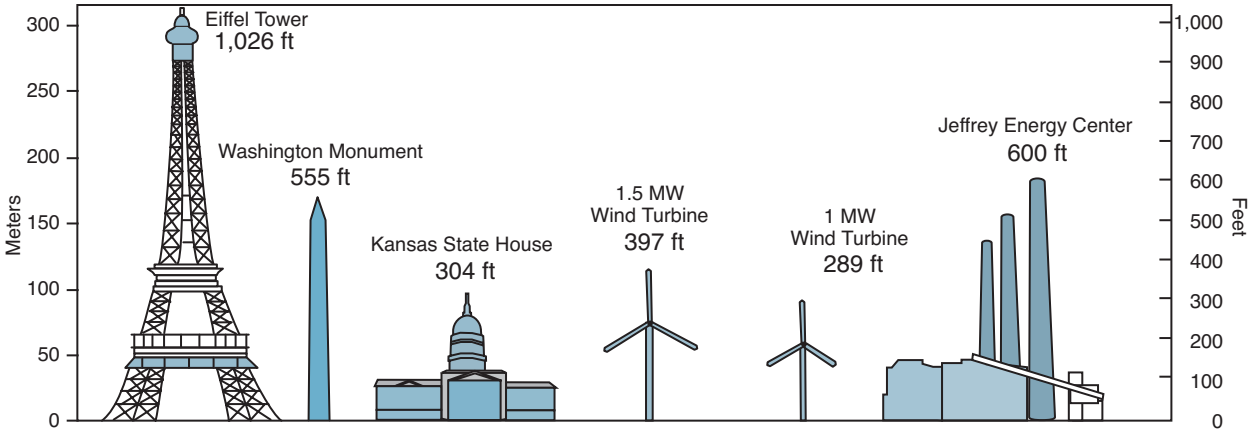

Figure 3—Height of 1.5-megawatt (MW) wind turbine relative to other well-known structures. The 1.5-MW turbine used for this illustration is the height of those proposed for a wind-energy development near Beaumont, in Butler County.

In addition to local issues and siting challenges, the wind-energy industry faces short-term uncertainty due to delays in Congressional renewal of the federal Production Tax Credit (1.8 cent per kilowatt-hour benefit for the first ten years of a facility's operation), which expired at the end of 2003. This uncertainty makes it harder for wind developers to receive power purchase agreements needed to obtain financing.

It is within this context that WPTF was asked to consider broad principles and guidelines, to develop expertise, and to provide planning tools for all parties so as to better make informed decisions. The task force was directed to report its findings and recommendations to the Governor by May 31, 2004. In late May 2004, WPTF asked for and received a one-week extension of this deadline to June 7, 2004.

Wind-energy Projects in the Flint Hills

Commercial wind projects have been proposed for local review in Butler, Riley, Wabaunsee, and Morris counties. The proposed areas for development have good wind resources and are close to existing electrical transmission lines. Typical commercial wind-energy projects range in size from 30 to 100 towers, each roughly 350 to 400 feet high from ground to blade tip.

A number of possible sites have been considered for wind-energy development in the 12-county area of the Flint Hills. A project in southeast Butler County, near Beaumont, received local and court approval, but is now back in court. County planning committees in Riley and Wabaunsee counties continue to review guidelines for commercial projects. Morris County has no zoning, so development may occur upon agreement between wind-energy companies and landowners.

At least two cities are also considering the possible use of wind energy to supplement their municipal electric units. These projects receive review by local authorities.

Zoning and Land-use Issues in Kansas

Proposed wind-energy development in the Flint Hills raises a number of questions about land use in Kansas. The task force spent time discussing zoning and the role of counties in making land-use decisions in relation to wind-energy development in the Flint Hills. It may be useful to review the current role of

counties in making land-use decisions and consider two very different examples of how Kansas has historically resolved land-use struggles: (1) local option control through zoning and (2) statewide land-use regulation.

Kansas law grants cities and counties the authority to regulate land use. Although some states require all counties and cities to engage in both planning and zoning, these remain optional in Kansas. Counties and cities can choose to have no planning or regulatory oversight, as is the case in many Kansas counties, including Chase and Morris counties in the Flint Hills region.

Zoning is a restriction on private property, so it must be reasonable and serve a public purpose. Under Kansas law, land used for agricultural purposes is exempt from zoning. However, some federal and state laws affect land use on agricultural land. For example, federal and state clean water laws may impact agricultural use. Similarly, federal rules stipulate the marking of structures built in all counties, zoned or not zoned: any structure over 200 feet in height must be lit. In general, however, land use in Kansas is controlled by local government and individual property owners.

Historically, Kansas has struggled over the question of who should be allowed to own agricultural land. Following the loss of so many individual farms during the Great Depression, the Kansas Legislature enacted the Corporate Farm Law in the 1930's. This statute underwent major revision in the early 1980's and reflects Kansans' strong reservations about corporate ownership of ranch and farm land.

Tallgrass Prairie National Preserve

The Tallgrass Prairie National Preserve (TPNP), also known as the Z Bar or Spring Hill Ranch, is at the heart of the Tallgrass Prairie and the Flint Hills. Located in Chase County, north of Strong City, this 10,894-acre ranch is a private-public partnership of the National Park Trust and National Park Service.

The National Preserve was dedicated in June 1994, the result of federal legislation developed under the leadership of then U.S. Senator Nancy Kassebaum, following years of contentious debate over the ownership of private land for a national grassland park. Under the law's provisions, the National Park Service can own a maximum of 180 acres. Currently, the Park Service owns 32 acres. The balance of the ranch is owned by the National Park Trust, a nonprofit group that purchases lands to protect them from development, which has leased the land for cattle grazing.

In January 2004, Governor Sebelius announced plans to involve the State of Kansas in a more active role in the development of the entire Z Bar Ranch. On April 6, 2004, the Governor hosted a special conference in Cottonwood Falls to discuss the purchase of the Preserve by the Kansas Park Trust, a new private trust that will replace the National Park Trust as the owner of the Z Bar Ranch. Even with transfer of ownership, the Preserve still would be managed by the National Park Service.

Under the leadership of Governor Sebelius, former Senator Kassebaum-Baker, former USDA Secretary Dan Glickman, and former Governor Mike Hayden, the Kansas Park Trust would raise private monies to cover the current mortgage and the re-purchase the grazing rights. Biologists are concerned that current grazing practices may not promote the recovery of native wildlife, especially the Greater Prairie Chicken. The new plan (which calls for putting in bison, building a visitor's center, and extending hiking trails) should allow for more effective preservation of the Z Bar lands and enhanced tourism in Chase County and the Flint Hills.

During the 1990's, corporate hog and dairy enterprises generated statewide debate, which resulted in the Kansas Legislature's passage of local option legislation for selected livestock businesses to maintain corporate ownership. Other major debates over use and control of farm and ranch lands have included

siting of electrical power plants, such as the Wolf Creek nuclear plant and the Jeffrey Energy Center, and the creation of the Tallgrass Prairie National Preserve (see sidebar, p. 13).

Another example of the State's response to a contentious land-use issue is the evolution of statewide regulation of the oil and gas industries. For many years, these industries operated in Kansas, often in rural counties, without a statewide regulatory framework to protect the public interest or the staff and budget necessary to carry out enforcement. As a result, the State of Kansas found it necessary to establish order through the development of uniform regulations that are currently enforced by the Kansas Corporation Commission.

Task Force Activities

The WPTF met for the first time on January 23, 2004, and held seven additional meetings from February through May. Meeting agendas and minutes were posted on the WPTF web site (www.kansasenergy.org/sercc_wptf_meetings.htm). Electronic versions of task force presentations, when available, were also posted at this site.

Governor's Message to WPTF
Presented by Joyce Allegrucci, Chief of Staff to the Governor, January 23, 2004

We have two natural resource treasures at the heart of the Task Force's charge: Wind and the Flint Hills/Tallgrass Prairie of Kansas. We have underappreciated both in our past.

Governor Sebelius supports the full and aggressive development of alternative energy sources in Kansas—especially including wind energy! Governor Sebelius supports the preservation of the Flint Hills/Tallgrass Prairie as a Kansas and a national treasure. The Governor's byword is *balance*—she does not believe that in the case of Wind Energy and the Prairie it is an either-or situation—we CAN and MUST have both.

The Governor's original idea with the Task Force was to help develop tools and best practices to assist in local decision-making. Ultimately, as more and more counties and more and more legislators have come to her asking for her involvement, she wants the Task Force to consider ideas in a full statewide context.

Issues for the Task Force and every interested Kansan to wrestle with:

- development – income for farmers and ranchers in the Flint Hills and elsewhere
- siting – voluntary guidelines for counties to consider
- electric transmission capability mostly out of the state's hands
- technology
- incentives for wind-energy development in western Kansas
- federal control on energy policy—Production Tax Credit held up because Energy Bill is on hold; State legislative issues need input from SERCC and the Task Force—e.g., tax incentives for wind (SB 85)

At their first meeting, WPTF members and co-chairs identified a number of topics related to wind energy, the Flint Hills, and Tallgrass Prairie, about which they wanted to learn more. At subsequent meetings, the task force heard from a number of experts on the impacts of development on wildlife, prairie ecology, nature-based tourism, wind energy, and geology and hydrology of the Flint Hills. A full listing of these presentations appears in Appendix 4.

WPTF members and technical advisors formed several subcommittees in order to develop the guidelines and tools outlined in their charge (see Appendix 3). The following documents were adopted by the task force: (1) Guidelines for Kansas Landowners in Creating and Negotiating Equitable Wind Energy Leases (Appendix 6), (2) Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills (Appendix 5), and (3) Summary of Land Trusts and Other Conservation Mechanisms in Kansas (Appendix 7).

In addition to these documents, a small group of WPTF members consulted with the staff of the Data Access and Support Center (DASC), the state's GIS clearinghouse in the Kansas Geological Survey, based at the University of Kansas, to develop a web-based GIS mapping tool. This tool, called the "Wind and Prairie Mapper," is an online software service that allows users to build maps on their computers, using pre-prepared data sets, including such information as topography, roads, aerial photos, census data, cities and towns, as well as areas of untilled prairie, distribution of electric transmission lines, and extent of wind resources. The Mapper provides local decision-makers with a user-friendly planning tool and allows interested citizens a chance to examine the available data to better understand the issues and come to independent judgments. The Mapper is available at http://drysdale.kgs.ku.edu/prairie/flash/wind.html.

To facilitate communication about the task force, a web site and email listserve were developed and hosted by the Kansas Geological Survey. The WPTF listserve was available to the general public and was actively used during the five months in which the task force was working. The listserve will be discontinued following delivery of this report to the Governor, but the WPTF web site will continue to be available.

Public Forums

To collect public input, WPTF held two public forums. These 3-hour forums were held on Wednesday, April 28th, in Manhattan, and Thursday, April 29th, in El Dorado. Most task force members attended at least one meeting, with the majority participating in both forums. Most of the advisory members were also able to attend at least one of the forums.

For the public forums, WPTF selected an open-house format that allowed task force members to interact with, receive input from, and answer questions of those who attended. As people entered the room, they were greeted by the co-chairs and informed about the forum's purpose and the general procedure. For both forums, the rooms were set up with ten stations: three, each covering all options being considered for recommendation; and one each devoted to wildlife issues, web-based mapping, siting guidelines, land lease guidelines, land trusts and conservation easements, WPTF information, and public comment. In general, each station was staffed by at least two task force or advisory group members to answer questions and to receive input.

People attending the public forums were encouraged to fill out public comment sheets. Comments sent by electronic and posted mail were also received through May 3, 2004. Over 250 comments were received during the public input period (see summary below).

Many who participated in the public forums, including task force members and the general public, commented on the advantages of this open-house format over the traditional public hearing, where one person speaks into a microphone for an allotted amount of time. The forums enabled many more people to provide input to the process and fostered much more interaction and dialogue between the public and WPTF members and technical advisors. This public forum format is recommended as a "best practice" to be used at the local level to help educate and collect public input on proposed energy projects (see WPTF charge #3, p 1).

Summary of Public Comment

The written comments received at the public forums and sent by mail and electronic mail to WPTF co-chair Jerry Lonergan Kansas Inc. by May 3, 2004, were read and reviewed by WPTF co-chairs and made available to the task force as a whole. The vast majority of comments were from those opposing wind-energy development in the Flint Hills. Some of these also expressed opposition to development in other parts of the state—specifically, Cheyenne Bottoms, Red Hills (Gyp Hills), and Smoky Hills. Key points from both opponents and supporters of wind development are summarized below.

Opponents of Wind Development

The concerns expressed most commonly by opponents were (1) loss of a unique prairie ecosystem and (2) loss of visual aesthetics. Other frequently mentioned concerns focused on efficiency and economics of wind as an energy source, impacts of development on property values, heritage and legacy issues, fairness of land leases, and protection of wildlife.

Alternative suggestions included (1) putting in wind turbines in other parts of the state, (2) focusing on small residential wind turbines rather than commercial wind-energy projects, and (3) using tourism as an effective, less intrusive form of economic development.

Opponents also expressed support for ending the permanent property tax exemption and called for a 1- to 2-year moratorium on wind-energy development to allow time for further study of wind-development issues.

Supporters of Wind Development

Comments from supporters of wind development largely centered on (1) retaining local control of decision-making and (2) a legal tradition that has historically sided with landowner rights. Supporters also cited benefits of increasing income for landowners and economic development in economically stressed areas, using an environmentally safe energy source, and reducing dependence on foreign oil.

Other comments of supporters included (1) sites under consideration are not pristine, undeveloped spaces; (2) current prairie ranch practices hurt the land worse than wind development; and (3) with private ownership of land, most Kansans cannot access vistas and pristine areas that some ranchers are seeking to preserve.

A few supporters noted the caveat that wind-energy development should occur only with evidence that local benefits will occur (for example, local turbine ownership, sharing of revenues, etc.).

WPTF Basis Statements

Recognizing the differing viewpoints among its members, the task force worked to establish common ground from which they could develop recommendations. The following statements reflect shared assumptions about the Flint Hills/Tallgrass Prairie and wind energy, which underlie the recommendations and options presented in this report.

1. North America's native grasslands are some of the most diminished and threatened ecosystems in the world. More that 96% of the original Tallgrass Prairie has been lost. No other major North American ecosystem has been as severely impacted. Nearly two-thirds of the continent's surviving Tallgrass Prairie resides within the Flint Hills.
2. The World Wildlife Fund has recognized the Flint Hills as one of only six grasslands in the contiguous U.S. that is globally outstanding for biological significance (Ricketts et al., 1997).

3. The Flint Hills is home to many ranchers and landowners who have been traditional stewards of the prairie and who desire to retain the agricultural and ranching heritage by preserving the native grasslands for future generations.
4. The combination of the rich cultural, historical, and ecological resources in the Flint Hills coupled with its natural beauty endows Kansas with an unparalleled asset.
5. The region hosts a multitude of wildlife species, especially those dependent on expansive grasslands. It is one of the last strongholds of the Greater Prairie Chicken, a signature species of the Tallgrass Prairie ecosystem, as well as many other grassland nesting species that, because of habitat loss, have declined more than any other class of birds.
6. Human activity and construction in the Flint Hills will further diminish the nesting habitat for prairie grouse and other prairie birds.
7. Parts of the Flint Hills are more disrupted by human activity than others.
8. The Flint Hills serves as an important avian migration corridor.
9. The capacity of the present electric transmission system is limited in the Flint Hills and western Kansas.
10. The electric transmission system will be expanded in the future.
11. The federal tax credit for renewable energy will be reenacted by Congress.
12. There is a definite potential for development of a tourism industry in the Flint Hills.
13. The orientation of the task force should be long term (10 or more years), rather than short term (1 to 2 years).
14. U.S. and Kansas energy needs will continue to grow, and wind energy will be a part of that growth. There will be increasing pressure to use renewable energy sources.
15. The vast majority of the land in Kansas is privately held.
16. The Flint Hills is a multi-county region, and the issues involving wind-energy development in the Flint Hills transcend county lines.
17. In the Flint Hills region, some counties have zoning, some have no zoning, and some have only limited zoning in rural areas.
18. If wind energy is developed in the Flint Hills, certain landowners who have turbines on their land will realize economic gain.
19. Some landowners in the Flint Hills support wind-energy development; others are opposed.
20. The task force is not focused on small-scale residential wind-energy development.
21. Major wind development in western Kansas may be assisted by technological innovations, but not in the immediate future.
22. The task force report will inevitably please some people and displease others.

Recommendations

The broad recommendations endorsed by WPTF members are summarized in the Executive Summary (see p. 2). They reflect areas of agreement among task force members, some of whom held widely divergent views on wind-energy development in the Flint Hills.

In addition to these recommendations, the task force produced voluntary guidelines for siting wind-energy projects and for negotiating equitable land leases, as well as a summary of land trusts and conservation easements. As indicated below, these recommendations, written documents, and other WPTF activities fulfill, or move towards fulfilling, the eight specific tasks detailed in their charge (see p. 1).

WPTF Charges	WPTF Recommendations and Guidelines
1. Identify and analyze relationships between areas of Tallgrass Prairie most appropriate for preservation and areas most appropriate or desired for wind development.	• Recommendation 2: Develop an improved set of maps identifying areas in Kansas that should be protected.
2. Recommend guidelines, principles, and best practices to be utilized at the local level to help site wind-energy projects.	• WPTF Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills (Appendix 5) • WPTF Public forum process
3. Recommend voluntary guidelines or model agreements for land leases for wind-energy development.	• Recommendation 7: Landowners, wind developers, and county authorities should use the land lease guidelines developed by WPTF for creating and negotiating wind-energy land leases. • Guidelines for Kansas Landowners in Creating and Negotiating Equitable Wind Energy Leases (Appendix 6).
4. Recommend voluntary local siting guidelines for wind-energy development.	• Recommendation 8: Landowners, wind developers, and county authorities should use siting guidelines developed by WPTF and the Kansas Renewable Energy Working Group. • WPTF Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills (Appendix 5)
5. Develop tools that can be used in the decision-making process to site wind-energy projects.	• Wind and Prairie Mapper • WPTF Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills (Appendix 5)
6. Identify policies or authorizations needed by local government to address multi-county or regional issues.	• See WPTF Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills (Appendix 5):
7. Review efforts for land trusts and other mechanisms to preserve the prairie.	• WPTF Summary of Land Trusts and Other Conservation Mechanisms in Kansas (Appendix 7) • Recommendation 5: Identify sources of funding for conservation easements to encourage landowners to preserve ecologically significant native grasslands.
8. Consider that wind energy in the Flint Hills cannot be viewed in isolation: anything the Task Force recommends may have application and be of value to other areas of the state.	All of the above.

Options A and B

As the report deadline approached, the majority of WPTF members agreed they were unlikely to approve a single set of recommendations. In spite of the areas of agreement described above, strong divisions remained regarding a number of issues (e.g., a moratorium on wind-energy development in the Flint Hills). In light of these persistent divisions, WPTF has opted to present two options for the Governor's consideration.

Although this report presents two options, it should not be assumed that Option A and B received equal support from WPTF members. Each of the options is fully or partly endorsed by some members, while others find parts of both useful. Some members would have preferred the task force deliver a single set of recommendations, but no one was able to develop the compromise plan that WPTF could adopt unanimously.

The following summaries, coupled with the overview given in the Executive Summary, enable the Governor to select among the separate components within each option and craft a plan that best suits her dual goals of preservation and development.

The following section and Appendixes 8 and 9 were written by the proponents of the two options. At the request of the Option A and B proponents, the summaries and appendixes have been submitted without alteration. Options A and B are presented in their entirety in Appendixes 8 and 9.

Summary of Option A: Management of Wind Development to Conserve Grasslands of Statewide Importance

We Kansans have the honor of caring for the last meaningful grand expanse of the Tallgrass Prairie. Option A provides for a balance between commercial wind energy development and preservation of the Flint Hills/Tallgrass Prairie in keeping with the charge given to the task force by Governor Sebelius.

Option A promotes serious commitment to preservation of the Flint Hills/Tallgrass Prairie by avoiding commercial wind-energy development in the region defined by the TNC Intact Prairie map with a 7-mile buffer. Support for this concept reflects input from the two WPTF Public Forums where the vast majority of comments were in opposition to commercial wind energy development in the Flint Hills. Additional input and support for this concept has been obtained from a wide spectrum of Kansas residents such as members from Kansas Wildlife Federation, The Nature Conservancy, Audubon of Kansas, Tallgrass Ranchers, Protect the Flint Hills, Kansas Natural Resource Council, private landowners, ranchers, business owners, tourism interests, and biologists.

Wind-energy development is supported by a series of recommendations for transmission capacity upgrades and grid enhancements. Recommendations include improving transmission capacity on existing rights-of-way, facilitating research with the potential to overcome current transmission capacity limitations, and developing a list of grid recommendations to present to the legislature.

The rich cultural, historical, and ecological resources in the Flint Hills represent an underutilized opportunity to improve the local and state economy through nature-based and agri-based tourism. Recommendations include funding the Division of Travel and Tourism to increase tourism revenue in the Flint Hills.

Legislative action is recommended to form a regional or state authority to provide a uniform and comprehensive set of standards and regulations to preserve the Flint Hills/Tallgrass Prairie and other ecologically sensitive areas, while providing for responsible wind-energy development in the rest of the state. Option A also recognizes the importance of other grasslands and sensitive ecosystems in the state and provides for their evaluation and preservation.

Because of the time needed to study this option and implement recommendations for a course of action, Option A calls for at least a one-year moratorium on commercial wind-energy development in the Flint Hills.

Option A recognizes that 96% of the Tallgrass Prairie has been lost and is irreplaceable. This option provides for the mechanisms and the opportunity to preserve the last 4% for future generations. It has been said that "the measure of a society is not only what it creates, but what it refuses to destroy." The proponents of this set of recommendations believe that this generation of Kansans can and must be remembered as the one that said "this we must preserve."

Summary of Option B: Finding Common Ground in the Flint Hills

The primary goals of Option B are to identify and maintain an appropriate balance between conservation and use of Kansas' natural resources and to promote positive economic development while respecting the state's scenic and cultural heritage. This option was written as a compromise approach with much of the basis and strategies drawn from the different proposals presented to the task force. Feedback and input was obtained from landowners (farmers and ranchers), wind developers, county decision-makers, and task force members.

Specifically, Option B accomplishes the following objectives:

1. Preserves ecologically significant and sensitive areas of Tallgrass Prairie.
2. Promotes economic development in Kansas, particularly in rural areas.
3. Meets Kansas' growing energy needs in an environmentally responsible manner.
4. Maintains local control of land-use decisions.

Meaningful preservation of the Tallgrass Prairie and other grasslands of statewide importance can only be accomplished by identifying specific areas of ecological significance through mapping and engaging stakeholders to develop siting criteria for any commercial or industrial development incompatible with sustaining the prairie ecosystem, including but not limited to wind turbines. Analysis can also be done on specific proposed project sites. For those areas appropriate for protection, promotion of conservation easements is recommended.

To promote environmentally conscious tourism in the Flint Hills, we need to develop and fund a tourism plan for the Flint Hills region. If the State decides to pursue the tourism effort, we should identify and preserve critical scenic resources using scenic easements, task force and other existing siting guidelines, and assessments of the visual impact of development on those scenic resources.

Other recommendations include:

- Provide further guidance to landowners in creating and negotiating wind leases by building on the task force guidelines.
- Capitalize on Kansas' existing aerospace industry expertise and infrastructure to attract and retain wind energy industry manufacturing facilities and associated jobs.
- Restructure the existing wind-energy property tax exemption to allow for partial exemption, or regulations of payments in lieu of taxes, or other appropriate measures.

- Utilize the work of the SERCC Transmission Task Force to develop a state plan for improving electrical transmission capacity. Several strategies and suggestions are laid out for consideration.

Avoid a moratorium on wind energy construction in Kansas. Not only would a moratorium on wind-energy development drive the wind industry out of Kansas, it would send a strong negative signal to all business considering locating in the state. Respect for private property rights, community values, and local control of land use also discourages the implementation of a broad moratorium. Finally, a moratorium which usurps private property rights raises possible legal and constitutional issues. It is recognized that some time may be necessary to accomplish a few of the recommendations identified in this option. Temporary measures and guidelines are built into the strategies to provide protection of scenic and natural resources.

Conclusion

Over the past five months, WPTF members worked hard to educate themselves on the many issues surrounding wind-energy development in the Flint Hills. The recommendations and options included in this report represent a range of strategies for developing the state's wind-energy potential and for preserving the Tallgrass Prairie. Respecting the diversity of opinion within the task force, WPTF members offer two options for the Governor's consideration (while not suggesting that either option received majority support from WPTF members).

In spite of the differences, the task force found much common ground as they endeavored to develop guidelines, tools, and recommendations to help the State balance preservation of the Tallgrass Prairie with development of wind-energy resources. The task force hopes this report will be of assistance to the Governor and State and local officials as they work to develop sound energy and preservation policy.

References

Fermata, 2004, Assessment of the Economic and Tourism Impacts of Siting Wind Energy Developments in Kansas Natural Areas: prepared for the Kansas Department of Commerce, Division of Travel and Tourism Development by T. L. Eubanks, 39 p. (http://www.fermatainc.com/kansas/index.html).

Ricketts, T. H., Dinerstein, E., Olson, D. M., Loucks, C. J., and Eichbaum, W., 1999, Terrestrial Ecoregions of North America—A Conservation Assessment: Island Press, 508 p.

SERCC, 2003, Kansas Energy Plan 2003: Kansas Geological Survey, Open-file Report 2003-3, 46 p.

Appendix 1—Letter from Governor Sebelius Requesting Establishment of Special SERCC Task Force

December 2, 2003

Lee Allison, Chairman
State Energy Resources Coordinating Council
Kansas Geological Survey, University of Kansas
1930 Constant Ave.
Lawrence, KS 66047

Dear Lee:

I am writing today to formally request that a special task force of the State Energy Resources Coordinating Council (SERCC) be appointed to study and make recommendations relating to the siting of Windpower Projects in the Flint Hills/Tallgrass Prairie region of our state.

As you know, for the past decade studies have consistently ranked Kansas in the top three states for potential wind resources. A study released in 2002 ranked Kansas as the number one state in potential wind resources when existing transmission availability was factored in. The development of our state's wind energy potential could play a role in helping to turn our state back into an energy exporter, enhance economic development and promote future energy security and independence.

At the same time, we all recognize the beauty of the Flint Hills. We also recognize that the Flint Hills contain approximately two-thirds of all the remaining resource of unplowed tallgrass prairie in the world, and is the only area with landscape expanses of tallgrass prairie. This is a true treasure of national and international proportion, and as Kansans we fully understand we are the stewards of this treasure.

Today, we find many of our communities and citizens struggling to make tough choices as they work to enhance the opportunities provided by the development of our state's wind energy resources while striving to meet our responsibilities of being good stewards of some of our most precious and beautiful natural resources. As Governor, I believe the state has a role to play in assisting our communities and citizens by developing tools and resources that can help them in the decision-making process. In my view, a special S.E.R.C.C. Task Force is the appropriate state entity for the development of such tools and resources.

The Task Force should thoroughly examine and consider all of the key issues involved and recommend fundamental guidelines, principles, and best practices that can be utilized by local governments, landowners, project developers, and other interested stakeholders to site future wind energy projects in this environmentally sensitive region of the state. As it studies the issues involved, the Task Force should solicit input and information from a wide variety of experts, as well as the general public. The Task Force's primary goal should be to develop recommendations that will help decision-makers find an appropriate balance that promotes our state's wind energy potential and preserves those natural ecosystems and places of scenic beauty, like the Flint Hills and the tallgrass prairie that cannot be easily replaced.

The Task Force should be composed of individuals from a wide variety of backgrounds and experiences that will ensure adequate consideration and analysis of all relevant issues. I ask that the Task Force

complete its study and report its recommendations back to me no later than May 31, 2004. It is my sincere hope that decision-makers will allow time for this process to work. My Administration is hopeful that some consensus can be reached about the delicate balance between encouraging economic development of environmentally sensitive energy resources and the protection of the prairie.

Thank you very much for your attention to this request and for your service to the people of Kansas.

Sincerely,

Kathleen Sebelius
Governor of the State of Kansas

Appendix 2—Wind and Prairie Task Force Members and Technical Advisors

Task Force Members

Jerry Karr, Co-chair, Farmer and former State Senator, Emporia

Jerry Lonergan, Co-chair, President, Kansas, Inc., Topeka

Rose Bacon, Rancher, Council Grove

Claude Blevins, County zoning administrator, Alma

Sheila Frahm / John Strickler (co-appointment), Kansas Natural Resources Legacy Alliance, Colby / Manhattan

Jan Jantzen, Kansas Flint Hills Adventures, Emporia

Jim Ludwig, Westar Energy, Topeka

Alan Phipps, County commissioner, Matfield Green

Alan Pollom, The Nature Conservancy, Topeka

Richard Porter, Rancher, Reading

Scott Ritchie, Rancher and businessman, Wichita

Richard Seaton, Audubon of Kansas, Manhattan

Jennifer States, JW Prairie WindPower, Lawrence

Don Stephens, Rancher, Greenwood and Elk counties

Joe Stout, Rancher, Cottonwood Falls

David Yearout, Planning consultant, El Dorado

Monty Wedel, County planner, Manhattan

Ex Officio, Technical Advisory Members

Charles Benjamin, Attorney, Lawrence

Niki Christopher, Attorney, Lawrence

Ryan Dyer, Chair, Prairie Band Potawatomi Energy Committee, Mayetta

Bruce Graham, Kansas Electric Power Cooperatives, Topeka

Mike Irvin, Kansas Farm Bureau, Manhattan

Ward Jewell, Professor, electrical engineering, Wichita State University, Wichita

Ed Martinko, State Biologist, Kansas Biological Survey, KU, Lawrence

Robert Robel, Professor emeritus, biology, Kansas State University, Manhattan

Appendix 3 – SERCC Charge to the Wind and Prairie Task Force

Background

The State Energy Resources Coordination Council is the energy-planning and policy arm of state government. SERCC's *Kansas Energy Plan 2003* identified wind power as having potential to be a significant energy source in Kansas.

Parts of the Flint Hills have high potential for wind energy. The presence of electric transmission lines crossing the Flint Hills between the state's two largest population centers also makes the region suitable for the siting of wind turbines to produce electricity.

Commercial wind-energy development is relatively new in Kansas, and landowners and local governments are still learning about the issues and concerns involved in siting increasingly larger turbines.

Concerns have been raised that wind-energy development may further fragment remaining untilled Tallgrass Prairie, impact wildlife, and create visual and auditory nuisances to neighbors. Each county in the Flint Hills region is following a steep learning curve to understand and resolve a complex set of questions and issues.

It is appropriate to step back from the contentious debates of specific proposals to consider broad principles and guidelines, to develop expertise, and to provide planning tools for all parties so as to better make informed decisions.

Charge to the Task Force

The SERCC Wind and Prairie Task Force is established to carry out the Governor's goal of assisting local communities in their decision-making processes relating to siting of wind-energy projects in the Flint Hills region and helping resolve potential conflicts between economic development and preservation of the Tallgrass Prairie.

The Task Force is charged to:

1. identify and analyze relationships between areas of tallgrass prairie most appropriate for preservation and areas most appropriate or desired for wind development;
2. recommend guidelines, principles, and best practices to be utilized at the local level to help site wind-energy projects;
3. recommend voluntary guidelines or model agreements for land leases for wind-energy development;
4. recommend voluntary local siting guidelines for wind-energy development;
5. develop tools that can be used in the decision-making process to site wind- energy projects;
6. identify policies or authorizations needed by local government to address multi-county or regional issues;
7. review efforts for land trusts and other mechanisms to preserve the prairie; and
8. consider that wind energy in the Flint Hills cannot be viewed in isolation: anything the Task Force recommends may have application and be of value to other areas of the state.

The WPTF should consider this document to be a starting point. The task force is encouraged to use its expertise to make sure the proper questions are being asked and to pursue the issues in whatever direction they need to go.

The WPTF is to accept public and expert comments in such a way as to minimize confrontation and polarization. The goal is to demonstrate procedures that can serve as models to most effectively hear different views, share information, and build consensus or at least understanding for decision-making.

Specific questions
In order to carry out the charge, the task force will need to answer the following questions that are specific to the Flint Hills/ Tallgrass Prairie:

- What is the extent and nature of Tallgrass Prairie lands?
- Where are the areas of electricity transmission and other types of development in the Flint Hills/Tallgrass Prairie?
- What areas of Prairie have the highest need for preservation
- What areas of Prairie are most susceptible to wind-energy development?
- What are the potential impacts of wind development on wildlife, viewshed, and soundscape?
- Where are the major electricity transmission corridors in the Flint Hills/Tallgrass Prairie? What is the existing and anticipated future capacity on the transmission lines? How much additional wind-generated electricity can be accommodated by the system?
- What state resources are currently available to assist local government, landowners, and wind developers to make informed decisions?
- What are the potential impacts of wind-energy development on tourism values in the Flint Hills/Tallgrass Prairie, and how might nature-based tourism be enhanced?

Timetable

The Governor directed that the WPTF complete its study and report its recommendations to her by May 31, 2004. The WPTF will set its own schedule as necessary to meet its charge. Progress reports will be made at each regularly scheduled meeting of SERCC and as otherwise necessary.

Organization

WPTF is tasked with developing and evaluating policy recommendations that are based on technical, economic, and social considerations. The WPTF may establish subcommittees and draw on outside expertise as necessary to achieve its goals.

The Wind and Prairie Task Force is established as an arm of the State Energy Resources Coordination Council, as authorized by Executive Order 2002-4, and operates under rules and guidelines applicable to official bodies of the State of Kansas.

Appendix 4—List of Presentations at Wind and Prairie Task Force Meetings

Message from Governor Sebelius, Joyce Allegrucci, Chief of Staff, Governor Sebelius

State Energy Plan, Lee Allison, State Geologist, Kansas Geological Survey, University of Kansas; SERCC Chair

Overview of Local Planning Issues, David Yearout, Planning Consultant, El Dorado

Overview of Wind Development and Industry, Richard Nelson, Engineering Extension, Kansas State University

Visual Aspects of Turbines, Lorn Clement, Associate Professor of Landscape Architecture, Kansas State University; Riley County Planning Board

Gray County Wind Farm / FPL Video, Tom Hogan, Gray County Energy Center, FPL

Lease and Leasing Issues, Roger McEowen, Extension Service, Kansas State University

Transmission Overview, Larry Holloway, Kansas Corporation Commission, and Ward Jewell, Professor of Electrical Engineering, Wichita State University

Tourism Overview & Flint Hills Plan, Scott Allegrucci, Kansas Department of Commerce, Travel and Tourism Division, and Ted Eubanks, Fermata, Inc.

Update of Wind Development in Other States and Government Incentives, Donna Johnson, Pinnacle Technology

Wildlife and Bird Interactions with Wind Farms, Ed Martinko, State Biologist, Kansas Biological Survey, University of Kansas

Effect of Energy Development and Human Activity on the Use of Sand Sagebrush Habitat by Lesser Prairie—Chickens in Southwestern Kansas, Robert Robel, Professor Emeritus of Biology, Kansas State University

Wind Power Expansion—Key Development and Integration Issues, Ed DeMeo, National Wind Coordinating Committee

Markets for Wind Energy, Les Evans, Garrad Hassan, SERCC liaison to WPTF

Brief Overview of the Hydrology of the Flint Hills, Al Macfarlane, Geohydrologist, Kansas Geological Survey

Economic and Tourism Impacts of Siting Wind Energy Developments in Kansas Natural Areas, Ted Eubanks, Fermata, Inc.

Ecology and Biodiversity of the Tallgrass Prairie, Spencer Tomb, Associate Professor of Biology, Kansas State University

Appendix 5—Wind and Prairie Task Force Siting Guidelines/Standards Related to Wind Development in Kansas and the Flint Hills

Prepared by Siting Guidelines Subcommittee: Monty Wedel, Claude Blevins, David L. Yearout, Don Stephens, John Strickler, Michael Irvin, and Jan Jantzen

The following guidelines have been developed in response to three charges of the task force:

- "to recommend guidelines, principles, and best practices to be utilized at the local level to help site wind energy projects"(Charge #2);
- "to recommend voluntary local siting guidelines for wind-energy development" (Charge #4); and
- "to develop tools that can be used in the decision-making process to site wind-energy projects" (Charge #5).

Presented below are guidelines for development of appropriate regulations that local governments may consider as wind-energy projects are proposed. These guidelines are intended to be comprehensive in addressing realistic issues, both positive and negative, that these developments bring to communities.

The guidelines were developed as tools to help county planners, wind developers, and residents. Some counties may find the guidelines are more extensive than needed; others may choose to implement the entire set; still others may add some additional requirements.

State Context

The authority to regulate land use is granted to local governments (cities and counties) through the State's planning and zoning statutes, generally found at K.S.A. 12-741 et seq. The statutes outline how land-use regulations are to be accomplished at the local level. Cities and counties in Kansas vary with regard to the exercise of this power. Numerous counties in Kansas have chosen not to adopt zoning or subdivision regulations.

In several instances, the State has preempted or restricted local authority with regard to certain land-use control. A few examples are:

- control over certain State-owned property,
- control over oil and gas wells,
- control over siting of group homes,
- control over siting of certain manufactured housing, and
- control over land used for agricultural purposes.

In general, however, the State does not engage in the enactment, administration, or enforcement of land-use regulations of the type envisioned in the planning and zoning statutes. These powers are left to the local governments to be enacted if the local governments so choose.

Note: These guidelines do not address an enactment of State land-use regulations, even though the topic has been discussed. If the State is to engage in land-use regulations, new legislative authority will be necessary.

The following is a summary of possible options at the county levels of government.

Regional Planning and Zoning

Existing statutes authorize two or more counties to enter into interlocal agreements to provide for planning and zoning within those counties. These statutes also authorize such agreements among

incorporated cities. Under this "regional" approach, regulations could be enacted that would address commercial wind-energy systems, but these would need to be included in a general zoning regulation in order to be enforceable.

Unzoned Counties – Options

1. Status Quo – Unzoned counties may simply choose not to regulate the siting of wind-energy development. Under this option, the ultimate decision on the siting of such development will remain with the developers and landowners, either individually or collectively.

2. Adopt Zoning – Unzoned counties may decide to utilize their statutory authority to adopt zoning regulations, which could then be used to regulate wind-energy development. If a county chose this option, they could adopt zoning regulations for the entire county or a portion of the county, or they could cooperate with a city to zone a portion around a city. If they chose to adopt zoning regulations, they would have to:

    - follow the process specified in K.S.A. 12-741 et seq.,
    - create and appoint a planning commission,
    - prepare and adopt zoning regulations in accordance with the public hearing process.

    As part of the process of adopting zoning, counties are encouraged to:

    - prepare and adopt a comprehensive plan, and
    - prepare and adopt subdivision regulations in accordance with the public hearing process.

    Note: Zoning and subdivision regulations must be enforced to be effective. Counties are advised not to pursue these regulations unless they are prepared politically and financially to enforce them using local staff and/or the local court system.

3. Other Regulations – Unzoned counties may be able to utilize a licensing requirement or some other special legislation to control or regulate certain aspects of a wind-energy development; however, these regulation will not address the location of proposed developments. Check with local counsel to determine whether or not these alternatives are available and/or advisable.

4. Moratorium – Unzoned counties may adopt a moratorium on wind-energy development to allow sufficient time to study alternatives and to determine whether or not regulation of wind-energy development is necessary or desired. If a county decides to adopt a moratorium, it should be for a specified and limited amount of time (e.g., six months or one year) and should state the reasons for the action (e.g., to study the issues and determine options or to adopt zoning regulations).

Zoned Counties – Options

Counties that already have some form of zoning may either use existing zoning regulations to guide wind-energy development or adopt regulations that are specific to such development. Zoned counties should first review their current zoning regulations to determine how wind-energy developments are addressed. If they are not specifically mentioned in the regulations or if they are listed as a permitted use without any public review process, the county may want to consider developing special regulations to regulate wind-energy developments.

The following checklist of general issues and concerns is intended as a guide for developing regulations for wind-energy development. For further detailed reference, see wind-energy development regulations developed by individual counties (e.g., Butler and Riley).

1. Definitions – At the very least, wind-energy regulations need to define the difference between commercial and non-commercial projects. A definition of total height and how it is measured should also be included.

2. Application Process and Procedures – The regulations should outline the application and hearing process and should specify, in some detail, the type of information that should be requested as part of the application for a wind-energy development. If it doesn't already exist, the county should consider a zoning process that enables the elected officials to make the final decision. Specific types of information that counties may want to consider requiring in an application include:

    - A site plan with sufficient detail to understand the nature and scope of the proposed project and the attributes of the specific location.
    - A visual impact assessment that will provide a simulation of how the project will look from various vantage points.
    - An environmental assessment to include:
        - wildlife and wildlife habitat;
        - noise impacts;
        - soil erosion and dust;
        - safety issues;
        - water quality and quantity;
        - historic, cultural, and archeological impacts;
        - fire risks (e.g., grassland fires at site); and
        - other impacts of local importance.
    - An economic assessment to include:
        - tax revenues and public infrastructure enhancements required;
        - business and job generation;
        - impact on tourism; and
        - other areas of local importance.
    - A decommissioning and reclamation plan to include:
        - when and under what circumstances decommissioning and reclamation occurs;
        - the expected end of the project life;
        - how the decommissioning and reclamation plan is secured (e.g., bonds, contract).

3. Project Guidelines/Standards – Counties should consider developing guidelines or standards in the following categories:

    - Visual
        - tower color and tower layout;
        - blade glint;
        - buffer zones;
        - ridge line versus lower land areas; and
        - lighting requirements on towers.
    - Noise
    - Safety
        - setback requirements;
        - access to the site by roads; and
        - ice throwing.
    - Environmental (considered but not limited to)
        - soil erosion;
        - water quality;
        - air quality; and

    - biological impacts (e.g., endangered and threatened species).
- Historical and cultural archeological resources.
- Regional impacts (e.g., broader impacts that result from multiple projects in region).

4. Third-party Review – As part of the application fee, counties may want to consider requiring developers to pay for third-party expert review of the application or parts of the application.

Appendix 6—Wind and Prairie Task Force Guidelines for Kansas Landowners in Creating and Negotiating Equitable Wind Energy Leases

Prepared by WPTF Land Lease Guidelines Subcommittee: Richard Porter, Jennifer States, and Scott Ritchie

The following guidelines were developed in response to the task force's charge "to recommend voluntary guidelines or model agreements for land leases for wind-energy development" (Charge #3). They are adapted from guidelines prepared by Roger A. McEowen,[1] with input from Bernard E. Nordling.[2]

Legal Issues for Landowners

A wind-energy agreement should never be negotiated without first having the agreement reviewed by legal counsel. A wind-energy agreement is a legally binding agreement that should be reviewed carefully and understood clearly before being executed. It is important to understand that wind-energy agreements are long-term agreements that will impact the land subject to the agreement for many years, likely beyond the lifetime of the landowner that executes the agreement.

These guidelines, written from the landowner's perspective, are intended to assist landowners in negotiating equitable leases with wind-energy developers.

Spotting Issues and Raising Questions

The following is a list of questions that landowners should ask of a commercial wind-energy company when considering any wind-energy agreement:

- How much of the land will be subject to the agreement? Care should be taken to limit the land subject to the agreement to just the area that is reasonably necessary for the proper exercise of the company's proposed wind-energy development project. The developer will likely want to define the premises subject to the lease as broadly as possible because the developer will not know precisely where each improvement will be located until after the lease is signed. A narrow definition of the land subject to the agreement will restrict the developer to acquiring rights over additional acreage only upon payment of additional compensation. How long will the land subject to the agreement be affected? What events can trigger early termination of the agreement?
- Does the agreement contain a provision allowing automatic renewals? As a general rule, it is wise to avoid agreements that provide for automatic renewal periods. A developer may argue that it needs an automatic renewal provision in order to get the wind-energy development project financed. You may, therefore, consider whether you would be willing to grant renewals upon the payment of additional compensation.
    - Based on the property rights that are given up, are the proposed payments adequate for the present time and for the life of the agreement?
        - The answer to this question requires an understanding of the mechanics and economics of wind-energy production.

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[2] Of Counsel, Kramer, Nordling and Nordling, LLC, Hugoton, KS; Assistant Executive Secretary, Southwest Kansas Royalty Owners Association; Member of KS Bar.

- If the agreement offers an up-front lump-sum payment, is the payment representative of a fair amount for the property rights involved?
- What are the tax consequences of the wind-energy payments that will be paid under the agreement?
    - The answer to this question depends on tax changes at the federal and state levels, an area of the law that is in a constant state of flux.
    - If an easement (rather than a lease) is involved, what are the tax consequences that result from granting a perpetual easement instead of granting an easement for a term of years? The granting of a perpetual easement could constitute a sale of land for tax purposes.
    - Questions concerning the tax consequences of wind-energy payments may need to be asked of tax counsel rather than (or in addition to) the wind-energy company.
- Does the developer want to develop the land or simply use a portion of the surface for a term of years? A wind-energy developer needs rights over sufficient property to allow the construction of wind turbines and related physical structures, the installation of power lines or cables to carry the electricity to a power company, and access from public roads to and from the land containing the wind turbines and related structures. A developer may also want to have access to larger portions of the property in order to meet wind interference requirements by equity investors and/or lending parties, even though only a portion of the land will actually be used. You should, therefore, weigh the compensation you are receiving against the amount of land involved in the transaction so that enough compensation is received for the amount of land that is leased. If the developer wants a lease that gives the developer rights over a large amount of real estate merely to prevent another developer from using the additional acreage, consideration should be given to negotiating a "non-compete easement" for that additional acreage rather than having the additional acreage tied up in the lease.
- Does the agreement guarantee that a set number of wind-energy turbines will be constructed on the land by a specific date and, if not, is the developer willing to guarantee a minimum amount of payments? While the developer may not have any way of knowing where or when the turbines will be installed, the lease should include a provision specifying the payments to be made to the landowner if the project is developed without putting any turbines on the property even though the developer retains the property under the lease.
- Are payments under the agreement based on revenues generated by the wind turbines? Can the landowner get information as to how the owner's revenue will be calculated?
- Is the developer able to sell or transfer without the landowner's consent any of the land-use rights obtained under the agreement? If so, will the original developer remain liable if the new developer or holder of the easement right does not pay the landowner or otherwise defaults? The developer will likely insist upon being allowed to transfer the lease to another party either in its entirety or in part. If the lease contains such an assignability clause, the party who initially negotiated the contract with the landowner may not be the one responsible under the lease after an assignment. The landowner should consider including a provision that makes each party that is an owner of some portion of the original lease responsible for its performance (or non-performance) now or in the future.
- What events trigger the developer's right to terminate the contract? Can the developer terminate the contract at any time without cause? If so, how are payments due under the agreement to be handled?
- What termination rights does the landowner have? How does the landowner exercise those rights? A well-drafted lease can provide for specified termination events without comprising the developer's financial interest in the project. Such events may include a provision that the lease terminates (1) at the expiration of its term, (2) on the written agreement of the parties, (3) in the event of an uncured breach by either party, (4) the failure of the lessee to conduct

operations for a specified period of time, and (5) the failure of the lessee to commence generation of wind energy within a given period of time.

- If the agreement is terminated, whether by agreement of the parties or otherwise, what happens to the wind-energy structures and located facilities erected on the property? What is the developer required to remove? How soon must structures be removed? Who pays for their removal?
- How much compensation is provided to the landowner for roads, power lines, and wind rights?

Crafting an Equitable Agreement

When a wind-energy agreement is being negotiated, certain issues are critical to the creation of an equitable agreement. Unfortunately, one of the common problems with any written contract is that once it is proposed either party may refuse to negotiate changes to the terms of the agreement. **The company's ability to refuse to negotiate terms of the proposed agreement will depend largely on whether a landowner has meaningful options and competent legal representation.**

Key provisions to a wind-energy agreement that require careful attention by legal counsel for landowners contemplating a wind farm include the following:

- Is the proposed contract a lease or an easement? If a lease is involved, it should be long enough for the developer to recoup its investment (probably at least 20 years). Does the developer have a right of renewal? If so, does the landowner have the right to renegotiate any of the lease terms? Any lease should not be perpetual—a violation of the rule against perpetuities might be involved (at least in those states, such as Kansas, that have retained the rule).
- If an easement is involved, does the easement include turbine sites, substations, air space, buffer areas, vegetation restrictions, building restrictions, transmissions, and associated rights of way?
- Is a sale of the land contemplated? If so, how is the selling price computed? Any sale price should consist of the fair market value of the land plus the wind-energy value. Remember, the granting of a perpetual easement could constitute a sale for tax purposes.
- What is the amount of compensation to be paid? Take care to ensure that the definition of "gross revenue" is done properly. Is it defined as the sale of electrons, sale of green credits, or otherwise?
- Is the revenue to be a flat amount annually, an annual payment per tower, a percentage of gross proceeds, a payment of a certain amount of kilowatt hours generated annually, or an amount based on the selling price of megawatts per year, whichever amount is greater? Which revenue calculation method is best for the landowner?
- Is an inflationary factor built into the contract payment provisions? To protect the landowner's interest, an inflation factor should be built in.
- Does the agreement cover land that will not be needed for the wind farm and related structures? From the landowner's perspective, there shouldn't be. Take care to limit the description of the land subject to the agreement to only those areas reasonably necessary for wind-energy development. Also, any land not actually used or reasonably necessary for wind-energy production should be released from the restrictions of the agreement.
- How long can the land be tied up without any construction of a wind-energy facility? Are land-use restrictions applicable during this pre-construction phase? If so, a clause should be included compensating the landowner for the reasonable value of those restrictions.
- A wind-energy lease will likely contain a Force Majure clause that relieves the developer of making any payments while there is delay caused by "the effect of any Law, proclamation, action, demand or requirement of any governmental agency or utility, or litigation." Also,

during this delay, the clock stops on the time periods specified in the length of the lease. The clauses have been common in oil and gas leases for decades.

- Does the agreement call for a minimum payment to the landowner if few or no turbines are constructed?
- An up-front lump-sum payment has tax consequences—make sure they are understood.
- What are the intentions of the developer concerning the use of the land? That makes understanding the use provisions of the agreement of primary importance. The construction clause should limit the construction of wind-energy structures to not more than three or four years with adequate compensation paid to the landowner for restricting the use of the land during that time. If additional time is needed for construction, the amount of additional compensation to be paid the landowner should be specified.
- Can the developer assign the agreement? While a developer will likely want the ability to assign the lease and subordination language, any assignment language should provide for notice to be given the landowner and a requirement that the original lessee will remain liable for the proper performance or non-performance of all express and implied lease obligations, unless the assignee is as financially sound as the developer.
- Is the landowner willing to consent to a mortgagee of the developer? If so, a clause should be included that limits the landowner's obligations to the mortgagee.
- Consider including an indemnification clause that indemnifies the landowner for any liability to the wind-energy company incurred as a result of activities conducted by third parties (e.g., crop tenants, custom harvesters, and subsurface tenants) on the property.
- What are the landowner's rights concerning usage of the property? Has the landowner reserved rights to use the land for livestock grazing, the raising and harvesting of crops, the construction of improvements that are necessary and incidental to farming or other agricultural activities?
    - The rights of the landowner should be spelled out clearly, with the landowner's rights subject only to the rights of the developer necessary to produce wind-generated power. In other words, the only rights of the wind-energy company should relate to the production of wind energy. The landowner should retain full use of the property subject only to those rights.
    - Does the landowner need the lessee's permission to build any structure higher than 20 feet (or some other specified height)? If so, this is a further reason for landowners to limit the land subject to the lease and obtain additional compensation for such restrictions. In any event, the lease should contain a provision allowing drilling rigs to be placed on the property to drill for oil and gas under any existing oil and gas lease.
- How are taxes and utilities to be handled? Is the developer required to pay any increase in real estate taxes as a consequence of the installation of the wind-energy facility? Is the developer required to pay all water, electric, telecommunications, and other utility service used by the wind facility? Is the developer required to pay all property taxes levied against the wind-energy facility?
- Consider the use of a clause that requires the landowner to be treated as favorably as neighbors (consider how to define "neighbor') executing similar agreements.
- Include a clause requiring the removal of all improvements the developer makes upon termination (whether voluntary or otherwise) of the agreement. For developments in some areas, a provision should be included specifying which party gets the rock that gets excavated to build the wind-energy structures.
- Require the agreement to be recorded (not just a memorandum of the agreement) to eliminate the necessity of having to locate a copy of the lease in the event of sale or mortgage of the property.

    - Under Kansas law, a wind-energy lease agreement, unless it is recorded, is only valid between the parties to the agreement and those that have actual notice of the agreement.
- Have the contract reviewed by the landowner's insurance agent for analysis of any additional risks created by the wind-energy project. Does the landowner's existing comprehensive farm liability policy cover liability for damage to the wind-energy structures on the land? Does the lease require the developer to show the landowner as an additional insured? Does failure to do this cause termination of the lease?
- Will the agreement violate any USDA land-use restrictions if the subject land is enrolled in a USDA program? If such a possibility exists, consider including in the agreement a clause requiring the developer to indemnify the landowner for any lost government payments or the imposition of any penalties.
- Evaluate the agreement with an eye toward the risk faced by the landowner. That includes environmental concerns, issues that could be raised by neighbors (i.e., nuisance-related concerns), and potential violation of applicable zoning and set-back requirements. It is probably a good idea to require the developer to maintain liability insurance coverage related to wind-energy activities on the land. The landowner should be named as an additional insured, and the policy should provide that it cannot be cancelled by the developer without prior written notice to the landowner.
- What does the agreement provide for if the property is condemned? Which party receives any condemnation payments?
- Of particular concern is a provision in many wind-energy agreements under which the landowner agrees to indemnify and reimburse the developer if a third party on the property with the landowner's permission damages the wind farm structures. For example, if a landowner contracts with a custom cutter to harvest wheat on the premises that is also subject to a wind-energy lease and the custom cutter's activities set the wheat field on fire that causes damages to the wind farm structures, the landowner, under such an indemnification provision, is liable for the resulting damages.
    - From the landowner's perspective, such a clause should not be included in the agreement. Indeed, such clauses are typically not included in oil and gas leases in Kansas.
- Another concern is that with some wind-energy agreements, the developer with which the landowner executes the contract is a shell corporation created for liability purposes. This corporate structure could shield the developer from liability.

Summary

While wind farming has the potential to provide significant economic benefits for rural landowners, substantial peril exists for landowners that don't ask the proper questions and don't successfully negotiate unfavorable terms in wind-energy leases. Clearly, any proposed lease agreement should be evaluated by legal counsel, and an attempt should be made to negotiate any unfavorable terms. Failure to do so could result in many years of dissatisfaction with legal remedies limited to the written provisions of the lease agreement.

Appendix 7—Wind and Prairie Task Force Summary of Land Trusts and Other Conservation Mechanisms in Kansas

Prepared by Land Trust Subcommittee: Joe Stout, Alan Phipps, Jerry Karr

The following summary was developed in response to the task force's charge "to review efforts for land trusts and mechanisms to preserve the prairie" (Charge #7).

Grassland Reserve Program

This voluntary program was authorized by the 2002 Farm Bill and is administered by the Natural Resources Conservation Service (NRCS) and USDA Farm Service Agency (FSA). The purpose is to help landowners and operators restore and protect rangeland, pastureland, and grassland, while maintaining the grazing operation.

The program offers permanent and 30-year easements, as well as 10-year, 15-year, 20-year, and 30-year rental agreements. In exchange for voluntarily limiting future use of the land, landowners receive payments from the USDA. If the NRCS determines that restoration is needed, a restoration agreement is incorporated within the rental agreement or easement.

In Kansas there were 1,070 applications for this program in 2003, covering 448,191 acres. Twelve proposals covering 6,390 acres were approved in 2003, with payments totaling $2,237,980. Due to limited funds, only the applications for permanent easements were approved. To date, none have been funded.

More information is available at the USDA NRCS web site (**http://www.nrcs.usda.gov/programs/**).

Farm and Ranch Lands Protection Program

This government program, authorized by the 2002 Farm Bill, is a voluntary program that helps farmers and ranchers keep their land in agriculture. It provides matching funds to entities such as state, tribal or local governments and non-governmental organizations with existing farm and ranch land protection programs to purchase conservation easements. NRCS manages the program.

This program differs from the Grassland Reserve Program in several ways. This program includes cultivated farm land as well as rangeland. The landowner submits the application for a conservation easement to the governmental entity or non-governmental organization. If the application is approved, the USDA provides only matching funds. The actual conservation easement is held by the participating eligible entity.

In Kansas, examples of eligible non-governmental organizations include the Kansas Land Trust, the KLA Ranchland Trust, and The Nature Conservancy, which are described below.

Through 2002, more than 170,000 acres have been protected in 35 states. In Kansas, a total of four applications were approved during 2002-2003, covering 6,264 acres in Butler, Chase, and Riley Counties. The 2004 allocation for Kansas was $835,000, but it appears these funds will likely be returned due to a lack of sponsoring organizations.

More information is available at the USDA NRCS web site (**http://www.nrcs.usda.gov/programs/**).

Kansas Livestock Association Ranchland Trust

The Kansas Livestock Association (KLA) Ranchland Trust has founded a separate, non-profit land trust that is currently awaiting its designation from the IRS as a charitable organization exempt from income taxes under Section 501(c)(3) of the Internal Revenue Code. This designation would allow the KLA Ranchland Trust to receive tax deductible donations of conservation easements.

The stated mission of the KLA Ranchland Trust is to preserve Kansas' ranching heritage and open spaces for future generations through the conservation of working landscapes. It is authorized to acquire, own, hold, protect, and defend conservation easements. This effort was in response to KLA members in the Flint Hills who expressed an interest in a rancher-landowner governed organization to assist landowners who are considering conservation easements for the long-term preservation of their working ranchlands.

A conservation easement is a legally recorded agreement or contract, between the landowner and another entity, which restricts the use of designated land for conservation purposes. Donors of conservation easements retain title to their property and voluntarily grant conservation easements to protect their land from future development.

Although each conservation easement is unique, in general, conservation easements generally restrict such uses as:

- development of subdivisions for residential or commercial activities,
- construction of nonagricultural buildings,
- nonagricultural commercial activities, and
- surface mining.

Examples of uses generally allowed include:

- continued agricultural use;
- construction of buildings, fences, water improvements, etc., necessary for agriculture and compatible with conservation objectives;
- sale, devise, gifting or other method of transferring parcels, subject to terms of the easement;
- landowner control of access; and
- additional family and employee residences compatible with conservation objectives.

The donation of an easement can qualify as a charitable contribution for income tax purposes if certain provisions are met. In general, it must be granted in perpetuity; it must provide a conservation purpose; it must be granted to a qualified organization; it must prohibit all surface mining and the resource data documenting the conservation values of the property must be collected prior to the donation of the easement.

Current tax law restricts an easement donor's deductions to no more than 30% of their adjusted gross income in any year for up to 6 years. The Bush Administration has proposed legislation in both the House and the Senate to expand this deduction, but, to date, this legislation has not been successful.

The KLA Ranchland Trust has no funds to purchase conservation easements, but they have not ruled out future efforts to raise funds for specific conservation easement projects.

The Nature Conservancy

The Nature Conservancy is a national conservation organization whose stated mission is "to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive." Their methods include acquisition of private lands, assisting conservation-minded individuals in acquiring and protecting certain lands, and promoting the use of conservation easements.

The Nature Conservancy helped pioneer the concept of conservation easements in 1961 (see discussion of conservation easements in section on KLA Ranchland Trust). They now protect more than 2 million acres in the United States by conservation easements.

In Kansas, the Nature Conservancy has acquired the following areas for conservation purposes:

- Cheyenne Bottoms Preserve (41,000 acres in Barton County),
- Smoky Valley Ranch (16,800 acres in Logan County),
- Konza Prairie (8,600 acres co-owned with Kansas State University in southern Riley and northern Geary counties),
- Flint Hills Tallgrass Prairie Preserve (2,188 acres in eastern Butler and western Greenwood counties), and
- Welda Prairie Preserve (128 acres in Anderson County).

In addition, the Nature Conservancy, Kansas Chapter, has initiated a community-based conservation program, the Flint Hills Initiative, which employs "multiple strategies to abate the degradation of Flint Hills prairie." The Conservancy is also a founding member of the Tallgrass Legacy Alliance, a diverse alliance of ranchers, agricultural and environmental organizations, and public agencies.

More information about The Nature Conservancy, Kansas Chapter is available online (**http://nature.org/wherewework/northamerica/states/kansas/**).

Kansas Land Trust

The Kansas Land Trust (KLT) was founded in 1990 as a not-for-profit corporation to protect and preserve lands of ecological, scenic, historic, agricultural, or recreational significance in Kansas. As a land trust, the organization may utilize a variety of long-term protection mechanisms, but it primarily accepts conservation easements from willing landowners. KLT currently holds 15 conservation easements, protecting nearly 3,000 acres in eight counties. They processed 40 conservation easement inquiries in 2003, involving 42,000 acres in 25 counties. Fifteen of those inquiries are still progressing toward a conservation easement.

In selecting easement candidates, KLT lists the following priorities:

- Lands that contain endangered, threatened or rare species or natural communities.
- Lands that contain, or have the potential to contain, ecosystems of educational or scientific value.
- Lands that are recognized to possess outstanding scenic qualities.
- Wetlands, floodplains, or other lands necessary for the protection of water quality.
- Prairies, woods, and other indigenous communities.
- Lands of agricultural, forestry, hydrological, geological, or wildlife habitat significance.
- Lands adjacent to, or encompassed within publicly owned or protected lands.
- Buffer areas adjacent to existing Kansas Land Trust lands or other protected lands.
- Lands within greenbelts or natural area corridors. KLT is particularly interested in protecting properties that are important for the movement of wildlife between habitats or through developed areas so that natural areas do not become isolated.

National Heritage Area

According to material from the National Park Service, "a National Heritage Area is a place designated by the United States Congress, where natural, cultural, historic, and recreational resources combine to form a cohesive, nationally distinctive landscape arising from patterns of human activity shaped by geography." This is a new kind of national designation, which seeks to preserve and celebrate many of America's

defining landscapes. Such a designation would entail a partnership between a local volunteer group and the National Park Service.

A state or local agency, a commission, or a private nonprofit corporation is designated as the management entity and empowered to create a management plan for the heritage area, and is authorized to receive Federal funds on the area's behalf.

The National Park Service has outlined four critical steps that need to be taken prior to congressional designation of a national heritage area:

1. Completion of a suitability/feasibility study.
2. Public involvement in the suitability/feasibility study.
3. Demonstration of widespread public support among heritage area residents for the proposed designation.
4. Commitment to the proposal from key constituents, which may include governments, industry, and private, non-profit organizations, in addition to area residents.

More information about National Heritage Areas is available online (**http://www.cr.nps.gov/heritageareas/**).

Some Final Notes

In addition to the governmental and charitable entities described above, conservation easements may be held by counties, cities, or charitable corporations, associations, or trusts (see Kansas Statutes 58-3810 and 58-3811).

Conservation easements appear to be the primary mechanism available in Kansas for preserving the prairie. However, no public funds have been identified to help in the purchase of conservation easements. As a result, none of the land trusts in Kansas, which might have served as sponsoring organizations, were able to offer matching funds in the Farm and Ranch Lands Protection Program. Thus, without the matching funds (amounting to $417,500) of potential sponsoring organizations, Kansas will return its 2004 allocation of $835,000 to other states that are able to provide matching funds.

It is our recommendation that the Governor identify a source of public funds that can be directed to qualifying land trusts in Kansas to enable them to provide the matching funds required to participate in the Farm and Ranch Lands Protection Program or other such programs designed to preserve existing prairie for agricultural or conservation purposes. This approach would allow Kansas to leverage State funds with other Federal and private funds to preserve a greater number of acres.

Appendix 8—Option A: Management of Wind Development to Conserve Grasslands of Statewide Importance

Prepared by Alan Pollom, Rose Bacon, Jan Jantzen, Dick Seaton, and Scott Ritchie[1]

Introduction

We Kansans have the honor of caring for the last meaningful grand expanse of the Tallgrass Prairie. There is no shirking that fact, whether one chooses to view it as a privilege or a burden. Although the topography and thin rocky soils have protected prairie well for generations, without the active engagement of private landowners and a concerned public, the future of the prairie will be called into question.

As directed by Governor Sebelius, the charge of this special Task Force is to make recommendations to help decision-makers find an appropriate balance between wind energy development in Kansas and preservation of natural ecosystems and places of scenic beauty, like the Flint Hills. Option A is an attempt to fully meet the Governor's charge.

Goal

Encourage commercial wind-energy development in the State, but avoid such development in the Flint Hills and other grasslands of statewide importance.

Basis

North America's native grassland is one of the most diminished and threatened ecosystems in the world. More than 96% of the original Tallgrass Prairie in North America has been lost. No other major North American ecosystem has been as severely impacted. Nearly two-thirds of the continent's surviving Tallgrass Prairie resides within the Flint Hills. This unique landscape is still relatively unspoiled by the pressures of modern development and is worthy of meaningful preservation for the following reasons:

1. The World Wildlife Fund has recognized the Flint Hills as one of only six grasslands in the contiguous U.S. that is globally outstanding for biological distinctiveness (Ricketts et al., 1997).
2. The Flint Hills is home to many ranchers and landowners who have been traditional stewards of the prairie and who desire to retain the agricultural and ranching heritage by preserving the native grasslands for future generations. Industrialization of the Flint Hills would irreversibly change the agricultural heritage of the area.
3. The vast majority of written comments from the WPTF Public Forums, electronic mail, and letters were from those opposing wind energy development in the Flint Hills.[2]
4. The combination of the rich cultural, historical, and ecological resources in the Flint Hills, coupled with its natural beauty, endows Kansas with an unparalleled asset. These attributes create an underutilized opportunity for nature- and agriculture-based tourism, which have tremendous potential to improve the economy of the region as well as the State.
5. The region hosts a multitude of wildlife species, especially those dependent on expansive grasslands. It is one of the last strongholds of the Greater Prairie Chicken, a signature species of

[1] Option A was developed with input from a wide spectrum of Kansas residents such as members from Kansas Wildlife Federation, The Nature Conservancy, Audubon of Kansas, Tallgrass Ranchers, Protect the Flint Hills, Kansas Natural Resource Council, private landowners, ranchers, business owners, tourism interests, and biologists.

[2] See summary of public comment, p. 16 of this report.

the tallgrass prairie ecosystem[3] as well as many other grassland nesting species that, because of habitat loss, have declined more than any other class of birds. The Flint Hills also serve as an important avian migration corridor.

6. Future improvements in technology and transmission capabilities will allow more options and other locations for energy production, such as in western Kansas where wind resources are greater. Although technology and transmission capabilities will change, the industrial development of native grasslands is irreversible.

Implementation Strategies

Meaningful preservation of the Flint Hills and other grasslands of statewide importance can be accomplished only by limiting commercial wind-energy development to areas other than predominately native grasslands since the very scale of such developments renders them inherently incompatible with efforts to preserve a world-class natural treasure. The following implementation strategies are recommended:

1) Enact, at a minimum, a one-year moratorium for commercial wind-energy development in the Flint Hills to allow the Kansas Legislature and the Governor's office time to study the following recommendations and develop appropriate courses of action. Turbine locations that fall on or inside a 7-mile buffer from the intact prairie layer, as identified on The Nature Conservancy (TNC) intact prairie map,[4] would be affected by the moratorium and permanent preservation. A buffer is necessary to preserve the aesthetic qualities of the Flint Hills viewshed[5] and directly protect multiple marketing strengths identified in a tourism study commissioned by the Kansas Department of Commerce. Those key strengths are Frontier History, Hunting, Eco-tourism, and Agri-tourism.

2) Review the recent tourism study provided to the state by Fermata, Inc. (available at (http://www.fermatainc.com/kansas/index.html), and fund the Division of Travel and Tourism Development Development to promote and sustain both new and existing nature-, agriculture-, and culture-based tourism business in the Flint Hills region. In addition to the option of direct appropriations, allocations from the state Economic Development Incentive Funds and a portion of the wind impact fee, proposed in strategy 3-iv below, should be prioritized for Flint Hills tourism promotion.

3) Identify sources of funding for conservation easements[6] to encourage landowner preservation of ecologically significant grasslands. Sources of funding might include:
    i) federal conservation easement programs such as USDA's Grassland Reserve Program and the Farm and Ranch Lands Protection Program, as well as funds from private conservation organizations (see Appendix 7);

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[3] Large arrays of wind turbines cause significant habitat abandonment for some grassland bird species (Robel et. al, 2004). They may also inhibit dispersal, thus affecting metapopulation dynamics.

[4] Map created August 2000 by The Nature Conservancy using interpretation of Landsat Thematic Mapper satellite imagery. Dark green shading indicates areas with largely intact natural vegetation. Light green shading indicates fragmented areas with a concentration of natural community remnants (http://www.kansasenergy.org/wptf/windmap_untilled_8x11.pdf).

[5] Based on L. A. Clement, Jr., KSU Associate Professor of Landscape Architecture's "Visibility Zone," the distance in which commercial wind turbines could be visible to the naked eye. This zone is identified as being possibly 400 times the total height of the tower and blade (for a 350-foot turbine, this zone would equal 140,000 feet or approx. 26.5 miles). Newer model turbines can be more than 400 feet high.

[6] A conservation easement is a voluntary contract between a landowner and the holder of the easement to preserve the land in perpetuity from development incompatible with the conservation purposes of the easement.

ii) a portion of the state share of any new gaming-related revenues;

iii) voluntary habitat vehicle tag (license plate) program to raise funds to purchase conservation easements on critical habitat (similar to Minnesota's critical habitat license plate program);

iv) a Kansas wind-development impact fee, to be applied, in part, for conservation purposes.

These new funds should <u>not</u> be made available for fee title purchase of private lands

4) In recognition that Kansas has other ecologically sensitive areas and important grasslands outside the Flint Hills that deserve attention, require that all Kansas commercial wind-energy projects be subject to review and requirements as prescribed by the relevant natural resources, environmental quality, wildlife conservation, historical preservation, and tourism agencies of the state of Kansas. Project review would include evaluation of, among other factors, the level of conformance with recommendations made by the siting committee of the Kansas Renewable Energy Working Group.[7] These guidelines were carefully developed with broad representation by both wind industry and conservation interests.

5) The current permanent exemption from Kansas property tax afforded to commercial wind-energy developments should be repealed.

6) Various incentives can be explored that would encourage wind-energy development to be located in western Kansas where wind resources are greater,[8] and outside other native grasslands and sensitive ecological areas that are outside the designated Flint Hills region.

7) Strongly recommend the Kansas congressional delegation and the Kansas state legislature **<u>reject</u>** any attempt to mandate that regulated utilities obtain a certain minimum percentage of their electric power from renewable sources (renewable portfolio standard, or RPS) **<u>unless</u>** coupled to a **<u>meaningful</u>** set of environmental protections and siting guidelines.

8) Develop a state plan for improving electrical transmission capacity in specific areas of Kansas to permit commercial wind-energy development where there would be fewer cultural, historical, and ecological impacts. Special emphasis should be given to capacity upgrades on existing transmission right-of-ways.

9) The State should actively promote experiments with potential to overcome transmission capacity problems in parts of the state that can be developed without compromising important ecological values. One example is the new transmission line being built between Kingman and Cunningham, Kansas, by Composite Technology Corp., in cooperation with the City of Kingman; another is 3M Corporation's advanced power-line cable, which is being field-tested in several states. 3M's cable is capable of transmitting two to three times more electricity than conventional power-line cables of the same diameter, without the need for more towers.

10) Study and develop a specific list of transmission grid problems to present to the Kansas state legislature and congressional delegation for legislative redress [i.e., problem of interconnection between the Southwest Power Pool (SPP) and Rocky Mountain Power Association (RMPA) power pools in western Kansas and eastern Colorado.]

11) Consider directing the KCC to establish a System Benefit Charge to be applied to electric rates, a portion of which would fund implementation strategies #7, 8, and 9 above. These funds should also be considered for funding a staff and budget for wind-energy regulation.

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[7] Siting Guidelines for Wind Projects in Kansas, Kansas Renewable Energy Working Group (http://www.kansasenergy.org/Kansas_Siting_Guidelines.PDF).

[8] Kansas Wind Resource Map, developed for the Kansas Corporation Commission, Energy Programs by Coriolis-AE.

12) Enhanced rate of return on investment could be authorized for utilities upgrading transmission or buying energy from renewable sources but only if those sources are generated in compliance with implementation strategy #4. Two bills, HB 2525 and HB 2523, were introduced in the past legislative session and could be reintroduced to successfully accomplish this recommendation.

13) Option A makes several recommendations that require legislative action. Existing state agencies such as the Kansas Corporation Commission may be required to play a role for which new procedures policies and regulations would need to be developed. It could also be necessary to establish a statewide or regional body with authority to implement these recommendations.

*The recommendations of Option A are not intended to be "voluntary." Voluntary guidelines cannot be said to provide **any** actual protection to the Flint Hills and other grasslands of statewide importance. Uniform regional or statewide regulations would avoid county-by-county discrepancies, thereby benefiting both local governing bodies and wind developers by laying out comprehensive policies and procedures.*

Implicit in these actions is a need to hold many discussions and informational meetings with key players to outline necessary steps. Because of the obvious timing issues and the very contentious state of public sentiment in the Flint Hills, a moratorium is clearly indicated in order to allow for a thoughtful process. Until a (minimum)one-year legislative moratorium can be obtained, it is recommended that Governor Sebelius seek voluntary moratoriums from county commissioners, power purchasers, and wind developers.

Summary

This option attempts to recognize the role of Kansans as the stewards of the last stand of the Tallgrass Prairie, while at the same time offering enhanced opportunities for landowners and communities that play the critical role in that stewardship. It promotes investment in technology, infrastructure, and pricing structure that benefits future wind development and utility companies.

In the final analysis, however, the rightness or wrongness of all our deliberations cannot simply be measured in dollars. The fallacy of that reasoning is the assumption that we have any real notion of how to place a value on the loss of something irreplaceable. **During the course of our deliberations we have heard many times that more than 96% of the tallgrass prairie is already gone. It is a given that every acre of that loss occurred precisely because someone saw an opportunity to seize a greater immediate return.** And now, we must ask ourselves if an effort to preserve the last 4% is radical or reasonable. A continuation of business as usual will surely seal the fate of the Flint Hills and the unique culture they have nourished.

It has been said, "the measure of a society is not only what it creates but what it refuses to destroy."[9] The proponents of this set of recommendations believe that this generation of Kansans can and must be remembered as the one that said "this we must preserve."

[9] John C. Sawhill, former President of The Nature Conservancy.

Appendix 9—Option B: Finding Common Ground in the Flint Hills

Background

The State Energy Resources Coordination Council is the energy-planning and policy arm of state government. SERCC's Kansas Energy Plan 2003 identified wind power as having potential to be a significant energy source in Kansas.

Parts of the Flint Hills have high potential for wind energy. The presence of electric transmission lines crossing the Flint Hills between the state's two largest population centers also makes the region suitable for the siting of wind turbines to produce electricity.

Commercial wind-energy development is relatively new in Kansas, and landowners and local governments are still learning about the issues and concerns involved in siting increasingly larger turbines.

Concerns have been raised that wind-energy development may further fragment remaining untilled Tallgrass Prairie, impact wildlife, and create visual and auditory nuisances to neighbors. Each county in the Flint Hills region is following a steep learning curve to understand and resolve a complex set of questions and issues.

It is appropriate to step back from the contentious debates of specific proposals to consider broad principles and guidelines, to develop expertise, and to provide planning tools for all parties so as to better make informed decisions.

Charge to the Task Force

The SERCC Wind and Prairie Task Force is established to carry out the Governor's goal of assisting local communities in their decision-making processes relating to siting of wind-energy projects in the Flint Hills region and helping resolve potential conflicts between economic development and preservation of the Tallgrass Prairie.

Governor's Message to the SERCC Wind and Prairie Task Force, Presented by Joyce Allegrucci, Chief of Staff to the Governor, January 23, 2004
"We have two natural resource treasures at the heart of the Task Force's charge: Wind and the Flint Hills/Tallgrass Prairie of Kansas. We have underappreciated both in our past. Governor Sebelius supports the full and aggressive development of alternative energy sources in Kansas, especially including wind energy! Governor Sebelius supports the preservation of the Flint Hills/Tallgrass Prairie as a Kansas and a national treasure. The Governor's byword is balance. She does not believe that in the case of Wind Energy and the Prairie it is an either-or situation. We CAN and MUST have both. The Governor's original idea with the Task Force was to help develop tools and best practices to assist in local decision-making. Ultimately, as more and more counties and more and more legislators have come to her asking for her involvement, she wants the Task Force to consider ideas in a full state-wide context."

Goals

The primary goals of Option B are to identify and maintain an appropriate balance between conservation and utilization of Kansas' natural resources and to promote positive economic development while respecting the state's scenic and cultural heritage.

Specifically, Option B accomplishes the following objectives:

1. Preserve ecologically significant and/or sensitive areas of tallgrass prairie.
2. Promote economic development in Kansas, particularly in rural areas.
3. Meet Kansas' growing energy needs in an environmentally responsible manner.
4. Maintain local control of land-use decisions.

Basis

1. The State of Kansas should preserve certain ecologically significant and/or sensitive areas of the Flint Hills region for the following reasons:
    a. North America's native grasslands are some of the most diminished and threatened ecosystems in the world. More that 96% of the original tallgrass prairie has been lost. No other major North American ecosystem has been as severely impacted. Nearly two-thirds of the continent's surviving tallgrass prairie resides within the Flint Hills.
    b. The World Wildlife Fund has recognized the Flint Hills as one of only six grasslands in the contiguous U.S. that is globally outstanding for biological significance (Ricketts et al., 1997).
    c. The Flint Hills is home to many ranchers and landowners who have been traditional stewards of the prairie and who desire to retain the agricultural and ranching heritage by preserving the native grasslands for future generations.
    d. The combination of the rich cultural, historical, and ecological resources in the Flint Hills, coupled with its natural beauty, endows Kansas with an unparalleled asset.
    e. The region hosts a multitude of wildlife species, especially those dependent on expansive grasslands. It is one of the last strongholds of the Greater Prairie Chicken, a historic symbol of the tallgrass prairie ecosystem, as well as many other grassland nesting species that, because of habitat loss, have declined more than any other class of birds. Human activity and construction in the Flint Hills will further diminish the nesting habitat for prairie grouse and other prairie birds. The Flint Hills also serve as an important avian migration corridor.
2. A tourism study of the Flint Hills was recently completed by Fermata, Inc., commissioned by the Division of Travel and Tourism Development, which concluded that the Flint Hills had multiple marketing strengths, e.g. Frontier History, Hunting, Eco-tourism and Agri-tourism. This tourism potential could be diminished or destroyed if Wind Energy Conversion Systems are not carefully sighted in the Flint Hills. Misplaced Wind Energy Conversion Systems could significantly detract from the scenic resources of the region. The study also concluded that tourism in the Flint Hills will not happen without some State involvement in marketing, branding, etc.
3. Certain areas in the Flint Hills are more developed and more fragmented by development than other areas. These differences in level of development and fragmentation can be mapped.
4. Laurence Clement, Kansas State University Professor of Landscape Architecture, categorized the visual impacts of wind turbines as follows:
    a. Sweep Zone: The zone of immediate influence is identified by the diameter of the rotor blades (100 feet or so, depending on machine type).
    b. Visual Intrusion Zone: The distance in which wind turbines could be perceived as visually intrusive in the landscape identified as being 5 times the total height of the wind turbine tower and blades (for a 350-foot turbine, this zone would equal 1,750 feet or approximately 1/3 of a mile).
    c. Visual Dominance Zone: The distance in which wind turbines could be perceived as dominating the visual landscape. This zone is identified as being 10 times the total height of the wind turbine tower and blades (for a 350 foot tall turbine, this zone would equal 3,500 feet or approximately 2/3 of a mile).

    d. Visibility Zone: The distance in which the wind turbine could be visible to the naked eye. This zone is identified as being possibly 400 times the total height of the wind turbine tower and blades (for a 350 foot tall turbine, this zone would equal 140,000 feet or approximately 26.5 miles).

5. Several factors should be considered when judging how far the naked eye can realistically see:
    a. atmospheric conditions (water molecules in the air, dust, pollution, clouds, fog, etc.),
    b. buildings and man-made obstructions,
    c. trees, and natural obstructions,
    d. variations in terrain, and
    e. curvature of the earth.
6. The vast majority of Kansas land is privately held. Kansas has a strong tradition of respecting landowner rights. The State grants local government the authority to control the use of land. Counties and cities vary on the exercise of this authority. Many counties in the Flint Hills have county-wide zoning; several do not. On occasion, the State has assumed authority over land use, specifically with respect to oil and gas development, which is controlled through a permitting system by the Kansas Corporation Commission. Consequently, counties are preempted from controlling oil and gas development at the local level.
7. Kansas, the United States, and the world need to develop renewable forms of energy. Fossil fuels and other nonrenewable energy sources are finite and will continue to diminish over time. The external costs of other energy sources are also a reason for pursuing renewable energy, which, in general, do not have similar external costs. Wind is a renewable energy resource whose development is being promoted by the United States government through federal tax credits. Wind energy will therefore be a growing part of our energy future.
8. Wind energy is a site-specific resource. Wind-energy projects must be located in areas where there is an adequate wind resource, adequate electric transmission capacity and an adequate market for the power. The Kansas Flint Hills are desirable for wind-energy development due to the convergence of transmission capacity, proximity to a utility customer base, and a sufficient wind resource
9. Western Kansas has excellent wind resources, but limited electric transmission capacity. Although the wind resources are greater in the western part of Kansas, the capacity of the present electric transmission system is limited. Although it is impossible to determine how many generating facilities could be connected without a detailed engineering analysis of all potential sites, it is estimated that the present transmission system in western Kansas limits additional generation to about 200–300 megawatts (2–3 wind farms). In the Flint Hills region, it is estimated that the present transmission system could probably accommodate 200–300 megawatts of additional generation (2–3 wind farms).
10. It is assumed that the electric transmission system capacity in Kansas will be increased at some point in the future, either through the construction of new transmission lines, upgrading of the continental interconnect between the eastern and western United States, or the upgrading of existing transmission lines through technological advances. The timeframe for such upgrades is difficult to project.

Recommendations and Implementation Strategies

Meaningful preservation of the Flint Hills and other grasslands of statewide importance can only be accomplished by (1) identifying specific areas of ecological significance and (2) engaging stakeholders in both the public and private sectors in partnership to develop siting criteria for any commercial or industrial development incompatible with sustaining the prairie ecosystem, including but not limited to wind turbines.

Recommendation 1: Preserve ecologically significant native grasslands

Approximately 96 percent of North America's native prairie has been lost to human intrusion. While Kansas contains roughly two percent of the remaining native grassland in the U.S., much of it is in parcels too small or isolated to be of strategic ecological significance.

Strategy 1A: Identify ecologically significant areas of native grassland

A top priority should be to build upon recent work to map remaining untilled native grasslands to determine those areas requiring protective measures. Direct the Kansas Geological Survey to lead a partnership between the Kansas Biological Survey, with assistance from the KGS Data Access and Support Center (DASC), Kansas State University (Fish and Wildlife Research Unit and the Division of Biology), Kansas Department of Wildlife and Parks, local landowners, and other entities as needed to accomplish this task. The mapping process should use existing databases as much as possible to avoid significant costs; however, some additional resources would be necessary and State funds may need to be allocated in order to complete this task by the start of the 2005 legislative session. Such mapping classifications might also include consideration of a scenic resources overlay.

Strategy 1 B: Classify and prioritize areas

These environmentally unique areas and areas of high wildlife value in the Flint Hills can be identified and protected from commercial wind-energy development and other disruptive developments. A three-tier classification system should be devised that would prioritize the remaining native prairie lands into three distinct classes for development potential. This system would serve as a guide to landowners, developers, and appropriate county governments to use in making decisions about future development. Such a system should be devised from the mapping process described above. An example of such system is outlined below.

The system would have 3 priority levels: (1) no development, (2) development with some restrictions, and (3) development with few restrictions.

The untilled grasslands of the Flint Hills could be characterized into four categories. Possible criteria for characterization could include the following:

1. extent of unobstructed viewshed area;
2. richness and diversity of plant and animal species;
3. prevalence of rare and endangered plants and animal species and species of conservation concern; and
4. degree of habitat fragmentation.

This characterization could be drawn from the following:

1. Viewshed layer: to include transmission lines, oil and gas wellheads, roads with more than 500 vehicles per day, areas of urban development, etc. *Fewer of these = higher priority for preservation.*
2. Plant and animal layer: to include numbers of plant and animal species whose ranges occur (GAP data already available statewide from Kansas State University). *Higher number of species = higher priority for preservation.*

3. Rare and endangered species layer: to include state and federal endangered/threatened (T&E) species and species in need of conservation (SINC). *Higher number of these = higher priority for preservation.*

4. Degree of fragmentation layer: using The Nature Conservancy (TNC) map of areas with largely intact natural or semi-natural vegetation in the Flint Hills, or other similar database, and considering any prairie unit less than 2,000 acres as a fragment. Also consider the bisecting of tracts with transmission lines or roads and the presence of oil and gas wellheads and other development data available from DASC. *Fewer fragments and less development = higher priority.*

Strategy 1C: Proposed project site analysis

Until such time as this system can be devised, wind-energy developers and appropriate county authorities are encouraged to contact the Kansas Biological Survey to request such a classification analysis of the proposed project site to provide assistance to decision-makers with regard to immediate wind-energy development proposals.

Strategy 1D: Promote conservation easements

Once ecologically significant areas of native prairie have been accurately identified, the State of Kansas should identify sources of funding for conservation easements to encourage landowners to preserve these grasslands. This strategy does not endorse state purchase of private lands, but rather provides incentives for private landowners to voluntarily commit ecologically sensitive areas to conservation purposes. Possible funding sources include:

1. federal conservation easement programs such as the USDA's Grassland Reserve Program and Farm and Ranch Lands Protection Program, as well as funds from private conservation organizations (see Appendix 7);
2. a portion of the state share of any new gaming-related revenues;
3. voluntary habitat vehicle license plate program to raise funds to purchase conservation easements on critical habitat;
4. wind development excise/impact fee, if such is found to be the best alternative to the property tax exemption; and
5. a System Benefit Charge (SBC) on electric rates.

A review of numerous funding mechanisms used in other states should be conducted to find funding possibilities that might have potential for Kansas. Some effort along these lines has been done by the Kansas Natural Resources Legacy Alliance.

Recommendation 2: Promote environmentally conscious tourism in the Flint Hills

A recent study of travel and tourism in the Flint Hills, commissioned by the Department of Commerce, Division of Travel and Tourism Development Development, identified several key marketing strengths, including frontier history, hunting, eco-tourism, and agri-tourism. The study also concluded that tourism in the Flint Hills will not flourish without the State's pursuit of a strategic tourism plan in the region. If the State decides to pursue the tourism efforts and provide funding essential for its success, consideration of visual impact of any new development should be reviewed.

Strategy 2A: Develop a tourism plan for the Flint Hills region

Review the recent tourism study provided to the state by Fermata, Inc., and direct the Kansas Department of Commerce, Division of Travel and Tourism Development Development to develop a plan that will promote and sustain both new and existing tourism-oriented businesses in the Flint Hills region. Specific opportunities include scenic highway tours; native grassland preserve eco-tours; wind energy center tours; hunting, hiking, and camping locations; sites of historical and cultural significance; and museums, among others. Funding will be needed for Flint Hills tourism promotion by the Division of Travel and Tourism

Development. In addition to direct appropriations, allocations could be made from the state's Economic Development Incentive Fund.

Strategy 2B: Identify and preserve critical scenic resources

The state should undertake a study to identify the critical scenic resources that need to be protected as a statewide asset. This could be accomplished within a current State agency, such as the Division of Travel and Tourism Development, or by contract with a university or private entity, as appropriate. Examples of potential critical scenic resources in the Flint Hills could include areas around:

i. The Tallgrass Prairie National Preserve
ii. The Flint Hills Scenic Byway
iii. The Konza Prairie Biological Station
iv. State parks
v. State-designated scenic overlooks on the scenic byway system

A three-tier classification type system, similar to the one for the biological resources, could be devised to prioritize areas such as those listed above. To preserve the scenic resources of Kansas, consideration could be given to providing a buffer around identified critical assets. The buffer could vary depending on the classification of the resource. The visual concepts of intrusion zone, dominance zone and visibility zone (as defined under Basis, above), or variations thereof, could be utilized to identify appropriate buffer areas. Examples of possible areas needing a buffer would be those that are readily visible from national and state preserves or wildlife refuges, state parks, and state-designated scenic byways or overlooks. These scenic protection areas would encourage landowners, developers, appropriate local authorities, and appropriate state agencies to adequately review development proposals for potential impact on scenic quality prior to proceeding.

Strategy 2C: Pursue scenic easements

The State or other appropriate authority is also encouraged to pursue acquisition of scenic easements in these scenic protection areas, either through outright purchase or donation. These easements could serve to limit the location, type and height of particular developments. Obviously, purchase of scenic easements would require a funding source. Donations of scenic easements would probably necessitate some form of incentive such as tax credits or abatements similar to conservation easements.

Strategy 2D: Use existing guidelines and assess visual impact on scenic resources

Until such time as the scenic resources study and tourism plan are completed, landowners, wind developers and appropriate county authorities are encouraged to use the following sample guidelines in siting wind energy developments in the Flint Hills. The guidelines developed by the Kansas Renewable Energy Working Group and the National Wind Coordinating Committee are available on the WPTF web site under "Additional Resources" (http://www.kansasenergy.org/sercc_wptf_resources.htm). Sample guidelines developed by the Task Force are attached as Appendix 5.

To further ensure the protection of scenic resources in the Flint Hills prior to completion of identification of critical scenic resources and appropriate buffer areas, wind developers should conduct a review of proposed projects in order to determine the potential of a negative impact on scenic resources of the State. Methods for conducting this review include (1) computer modeling using existing wind assessment programs and (2) ground-truthing, using appropriately sized helium balloons to simulate turbine hub height and determine the visual impact from critical scenic resources. Consideration should be given to the visual impact of structures and development already in existence in the area of the proposed project. The viewshed layer of the biological mapping (described in Strategy 1A, above) can partially assess the level of existing development in certain areas.

Recommendation 3: Provide guidance to landowners in creating and negotiating wind leases

Further work should be done in concert with citizens, industry stakeholders, and legal advisors, to develop and promote guidelines for landowners in creating and negotiating equitable wind leases. Sample guidelines developed by the Task Force are attached as Appendix 6.

Recommendation 4: Capitalize on Kansas' existing aerospace industry expertise and infrastructure to attract and retain wind-energy industry manufacturing facilities and associated jobs

Strategy 4A: Support long-term, stable incentives for wind industry

The Kansas Legislature should put forth a resolution to memorialize the state's congressional delegation to support longer-term incentives for the U.S. wind industry and end the cyclical nature of past support, which has failed to provide the stable business climate necessary to attract investment in domestic manufacturing.

Strategy 4B: Study and make recommendations on attracting wind-industry manufacturing and associated jobs to Kansas

Direct the Department of Commerce to conduct a study of opportunities to capitalize on Kansas' central location in the "wind belt" and existing aerospace industry expertise and infrastructure to attract and retain wind-industry manufacturing facilities and associated jobs. Draw upon the work currently being done by the Kansas Board of Regents to study education needs and employment opportunities within the renewable energy field. Further direct the Department of Commerce to report study findings and recommendations to the Governor.

Recommendation 5: Restructure existing wind-energy property tax exemption

Concerns have been raised that the existing wind-energy property tax exemption for the life of the facility is an excessive incentive program, especially in light of the state's current budget constraints. The appropriate authority or committee should begin immediately to study and make a recommendation to the legislature on how to modify the tax structure for wind energy to allow for partial exemption, or regulations of payments in lieu of taxes, or other appropriate measures.

Strategy 5A: Provide 10-year exemption or abatement

Provide an exemption or abatement from property tax for wind energy for a period of 10 years from the date of commercial operations. Upon expiration of the exemption period, the wind-energy project should be taxed at full value (structure this so it is similar to other energy-producing facilities).

Strategy 5B: Provide for uniform statewide taxation at full local rates on 30% of assessed value

Rather than provide a total property tax exemption for wind energy, Kansas could adopt a policy similar to other states, such as South Dakota, which provides for a partial abatement from the full taxation rate.

Strategy 5C: Modify statutes governing payments in lieu of taxes

Modify the statutes governing payments in lieu of taxes from tax exempt properties to provide a predictable tax revenue stream that can be used in setting local budgets and mil levies.

Strategy 5D: Enact wind development impact/excise fee

Enact a Kansas wind-development impact/excise fee, in recognition of the statutory 100% tax exemption for wind-energy developments.

Eligibility for the wind-energy state and local tax benefits should not be granted to wind energy or other development located within an ecologically significant native grassland identified under Strategy 1, above.

Recommendation 6: Avoid a moratorium on wind-energy construction in Kansas

Not only would a statewide or regional moratorium on wind-farm construction drive the wind industry out of Kansas, thus depriving the state of the environmental benefits derived from properly sited wind energy displacing polluting energy resources, it would also send a strong negative signal to all business considering locating in the state. To enact a moratorium against an entire industry so soon after enacting incentive programs targeting the same industry may discourage investment in this state from a broad array of industries and businesses.

Respect for private property rights, community values, and local control of land use also discourages use of a broad moratorium. Counties with zoning already have the option to reject proposed wind energy that fails to meet community standards. Likewise, counties without zoning may enact a county-wide moratorium on wind energy or any other development that threatens ecologically significant native grasslands or other community standards in order to prepare zoning regulations to address proper siting of wind energy or other developments. A statewide or regional moratorium would prevent private landowners and local governments desiring wind energy (and the jobs and revenue they provide) from allowing properly sited wind-energy projects to be built.

Finally, a statewide or regional moratorium that usurps private property rights, especially those of landowners already entered into wind lease agreements, raises state and federal constitutional issues regarding takings of private property without due process and questions over tortuous interference.

It is recognized that some time may be necessary to accomplish a few of the recommendations identified herein. Temporary measures and guidelines are built into the strategies to provide protection of scenic and natural resources. See Strategy 1C for biological resources and Strategy 2D for scenic resources. If the State desires to institute a moratorium with regard to this issue, such moratorium should specify explicitly the areas affected, specify the tasks to be accomplished by the end of the moratorium (such as the mapping outlined previously), and be for the shortest time necessary to accomplish the tasks. Consideration should also be given to all development activities that impact the scenic and ecological resources of the Flint Hills.

Recommendation 7: Encourage appropriate regional electric transmission development

One factor driving wind-industry interest in the Flint Hills region is the available transmission capacity in the region relative to other windy areas in the state. Efforts should be made to provide reasonable and cost-effective upgrades to the regional transmission network in western Kansas to facilitate renewable-energy development in less ecologically sensitive areas.

<u>Strategy 7A: Use the recommendations of the SERCC Transmission Task Force to develop state plan for improving transmission capacity</u>

The SERCC Transmission Task Force has been established to:

1. identify capacities, needs, limitations, and opportunities in the Kansas electric transmission grid,
2. determine the reliability of the Kansas grid to disruption and outages, and
3. recommend solutions to removing constraints, developing transmission capacity, and ensuring reliability of the transmission grid in Kansas.

Use the SERCC Transmission Task Force report to develop a state plan for improving electrical transmission capacity. The following strategies are suggestions the Transmission Task Force may want to consider.

Strategy 7B: Direct KCC to continue and increase participation in SPP activities

Direct the Kansas Corporation Commission to continue and increase active participation in the Southwest Power Pool regional transmission planning process and Regional State Committee activities designed to address multi-state transmission design and cost-allocation issues with the goal of facilitating transmission system enhancements in western Kansas.

Strategy 7C: Authorize enhanced rate of return on investment for utilities for support and use of appropriate renewable resources

Enhanced rate of return on investment could be authorized for utilities upgrading transmission for renewable resources or buying energy from renewable resources, but only if those renewable power generation resources are sited outside ecologically significant areas identified in Strategy 1A above. Two bills introduced in the past legislative session, HB 2523 and 2525, could be amended and reintroduced to successfully accomplish this recommendation.

Strategy 7D: Promote experiments to overcome transmission capacity problems

The State should actively promote experiments with potential to overcome transmission capacity problems in parts of the state that can be developed without compromising important ecological values. A number of businesses and research organizations are conducting research to improve transmission line capacities and efficiencies. One example is the new transmission line being built between Kingman and Cunningham, Kansas, by Composite Technology Corp., in cooperation with the City of Kingman; another is 3M Corporation's advanced power-line cable, which is being field-tested in several states.

Strategy 7E: Establish System Benefit Charge to fund above strategies

Consider directing the KCC or appropriate authority to establish a System Benefit Charge to be applied to electric rates, a portion of which would fund implementation strategies for transmission. These funds should also be considered for funding a staff and budget for the State Energy Resources Coordination Council.

Postscript

Other Development Activities

Most of the strategies are structured to address wind-energy development. However, other kinds of development can have as significant an impact and should be addressed as well. Without including other development activities in the overall evaluation of impacts, much of the potential ability to protect the sensitive natural resources from intrusive or destructive development will be lost. Recommendations should include all development (residential, commercial, industrial, and wind energy) and also include the improper management of the grassland in such a way as to destroy the prairie (e.g., infestation of woody plants such as eastern red cedar or exotic species such as *Sericea lespedeza*). Increased education of landowners, developers, county governments, and the general public is needed to create more awareness and appreciation for the prairie and its proper management and its importance to humankind.

Continued Support of Local Authority

Incorporate within all of the foregoing state actions a clear and definitive recognition of the value and importance of the local governments maintaining jurisdiction and authority over the elements that are of local importance. As such, the local cities and counties should continue to be empowered to utilize the

existing statutory authority to engage in land-use planning and regulatory enactments. These laws give full authority to engage in such activity, including the ability to cooperatively and jointly combine such efforts with other cities and/or counties for a regional approach. However, these are still recognized as an authorization and not a mandate. Whether a city or county chooses to enact any local plans or regulations under these laws should remain a local decision.

Local impacts of all the types of developments previously mentioned exist at the local level and should be addressed at the local level. Of specific importance are the impacts on local roads and bridges. The ability to deal with those impacts must remain at the local level and should not be incorporated into any state regulatory process.