2007.10.01 16:49:22 Kansas Corporation Commission

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

OCT 0 1 2007

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In the Matter of the Petition of Westar)	<i>a</i> .
Energy, Inc. and Kansas Gas and Electric)	Susan Zahiffy Docket
Company (collectively "Westar") for	Ś	Room
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Determination of the Ratemaking Principles)	00
and Treatment that Will Apply to the)	Docket No. 08-115 EE-309-PRE
Recovery in Rates of the Cost to be Incurred)	
by Westar for Certain Electric Generation)	
Facilities and Power Purchase Agreements)	
under K.S.A. 2003 Supp. 66-1239)	

PETITION OF WESTAR ENERGY, INC. AND KANSAS GAS AND ELECTRIC COMPANY FOR DETERMINATION OF RATEMAKING PRINCIPLES AND TREATMENT

COME NOW Westar Energy, Inc. (Westar North) and Kansas Gas and Electric Company (Westar South) (collectively referred to as "Westar") pursuant to K.S.A. 2003 Supp. 66-1239 and any other applicable statutes, rules and/or regulations, and file this Petition with the State Corporation Commission of the State of Kansas ("Commission" or "KCC") for a determination of the ratemaking principles and treatment that will apply to the recovery in rates of the costs to be incurred by Westar in the purchase of wind generation facilities and pursuant to power purchase agreements (PPAs) for the purchase of wind energy identified herein. In support of this Petition, Westar states:

I. INTRODUCTION

1. Westar North and Westar South are corporations duly incorporated under the laws of the State of Kansas and are engaged, among other things, in the business of an electric public utility, as defined by K.S.A. 66-104, in legally designated areas within the State of Kansas. Westar holds certificates of convenience and authority issued by this Commission authorizing it to engage in such utility business. Westar does business under the name "Westar Energy."

- 2. Westar provides electric service at retail throughout the state of Kansas to approximately 673,000 customers. Westar also provides wholesale service to 51 municipalities and cooperatives which provide retail service to additional Kansas customers. Westar currently operates generating capacity consisting of a combination of nuclear, coal, oil and gas-fired generation with a rated capacity of nearly 6,100 MW.
- 3. Demand for electricity in Kansas is expected to grow at approximately 1.9% per year with energy consumption growing at approximately the same rate. Stated differently, Westar's customers' demand for electricity grows by about 100 MW per year and energy consumption by more than 400,000 MWh per year. In future years, Westar plans to enhance its energy efficiency and demand side management efforts through numerous programs, some of which are expected to begin in 2008. These programs are intended to slow the rate of growth in electricity demand and consumption.
- 4. Kansas Governor Sebelius has stated that it is her goal to have 1,050 MW of the state's generating capacity come from wind generation in 2010 and 2,100 MW in 2020. In response to the Governor's stated goal and because of the societal, environmental and fuel cost benefits associated with the expansion of Westar's renewable energy portfolio, Westar set a goal to develop 500 MW of wind generation by the end of 2010. The development of significant wind generation capability will also enhance the diversity of Westar's generation portfolio. In February 2007, Westar issued a request for proposals (RFP) from renewable resource developers to meet the 500 MW goal. William Moore discusses the reasons Westar is proposing to add wind generation to its generating fleet.
- 5. Westar's RFP sought 500 MW of wind generation. At this time, Westar has signed agreements to acquire approximately 300 MW to be operational by year-end 2008. This

represents the first step in a two-step process to reach Westar's 500 MW goal by 2010. In this Application, Westar seeks approval from the Commission for its purchase and ownership of approximately 149 MW of wind generation and purchase of approximately 146 MW of electricity from wind through PPAs. Westar will be negotiating for an additional 200 MW to be operational by the end of 2010. When negotiations are completed for the 2010 projects, Westar will return to the Commission for preapproval.

- 6. Even though wind generation is, by nature, intermittent and non-dispatchable, wind generation forms an important part of Westar's long-term energy supply plan. Because wind generation can be a significant source of energy to meet the needs of Westar's customers, the addition of the planned 500 MW of wind generation is expected to defer the need to construct a new intermediate or baseload plant by several years.² On a per MWh-basis, the cost of wind generation is lower than the cost of a new pulverized coal generating plant.
- 7. In order to acquire the 295 MW of wind generation currently under contract and to reach its goal of 500 MW from wind generation by the end of 2010, Westar will have to make significant investments and financial commitments. Westar, therefore, is seeking a determination of future rate treatment of its investment in wind generation facilities at three different locations in Kansas. As summarized in Table 1 below, Westar will own 100% of the wind generation at one location, will purchase 100% of the wind generation through a PPA at a second location and will split equally between ownership and purchased power at the remaining location. A determination by the Commission that provides certainty regarding the ratemaking

¹ The PPAs involve the purchase of power in the amount of at least \$5,000,000 annually and therefore qualify for predetermination under K.S.A. 66-1239. The amounts of wind generation to be added are stated as manufacturer's nameplate capacity numbers.

² The addition of approximately 300 MW of wind generation proposed by Westar in this Application will allow Westar to defer the need to construct a new intermediate or baseload plant by approximately two years.

treatment and recovery of such costs will significantly improve Westar's ability to reach its 2010 renewable energy goal and to attract capital on reasonable terms.

Table 1 Summary of Wind Projects						
Developer/Wind Farm Name	In- Service	MW	Location	Structure		
RES America/Central Plains Wind Farm	2008	99	Wichita Co.	Owned		
Horizon Wind Energy/Cloud County Wind Farm	2008	96	Cloud Co.	PPA		
BP Alternative Energy/ Flat Ridge Wind Farm	2008	50 / 50	Barber Co.	Owned/PPA		
TOTAL		295				

- 8. The contract summaries, PPAs and term sheets for the asset purchase agreements for each of these projects are attached as confidential exhibits to the testimony of Greg Greenwood as Exhibits GAG-2, GAG-3 and GAG-4. These exhibits are confidential in their entirety. They are confidential and commercially sensitive because the agreements were individually negotiated in a highly competitive market in which Westar expects to participate again in the near future. Disclosure of the information contained in these agreements would be prejudicial to Westar's ability to negotiate in the future and, as a result, prejudicial to Westar's customers and the public interest. Because virtually everything in each of these exhibits is confidential, provision of a public, redacted version would not be meaningful or constructive. Therefore, Westar requests that it be permitted to file the confidential versions of these exhibits without also submitting redacted versions for public review.
- 9. Investors seeking to invest in a basic electric utility with moderate to low service area growth will gravitate toward utilities regulated under predictable, consistent and

constructive terms. Westar, therefore, is seeking this determination of ratemaking principles and treatment to provide greater assurance that equity and fixed-income investors will earn a reasonable return. Westar is not seeking predetermined rate treatment that is explicitly tied to maintaining investment grade credit quality. Nonetheless, based on discussions with the ratings agencies, Westar believes that granting the requests will result over time in improved credit quality.

- 10. The Commission's approval of Westar's request would signal Westar customers as to the rate implications of Westar making substantial investments to meet their growing needs for electricity through the use of renewable energy resources. Commission approval would signal investors that their premise for investing in Westar as a basic electric utility has been confirmed.
- 11. Westar's requests are based on conventional, well-established ratemaking principles. K.S.A. 66-1239 explicitly permits such a determination of ratemaking principles and treatment. A utility seeking such a ruling from the Commission is required to provide in its petition for a determination: (a) a description of its conservation measures; (b) a description of its demand side management efforts; (c) its ten-year generation and load forecasts; and (d) a description of all power supply alternatives considered to meet its load requirements. In reviewing the utility's request, the Commission may consider if the public utility issued a request for proposal from a wide audience of participants willing and able to meet the needs identified under its generating supply plan, and if the plan selected by the public utility is reasonable, reliable and efficient.
- 12. When evaluating Westar's Application, the Commission's goal should be to establish a "just and reasonable" rate structure and to allow Westar to meet its obligations to

provide sufficient and efficient electric service, in part through diversification of its generation portfolio. K.S.A. 66-101b.

- 13. When determining whether Westar's proposal is just and reasonable, the Commission can consider matters of policy. *Midwest Gas Users Ass'n v. State Corp. Commission*, 5 Kan. App. 2d 653, 659 (1981); *see also Gas Service Co. v. State Corp. Com'n of Kansas*, 8 Kan. App. 2d 545, 548 (1983) ("The matter of rate design involves a policy decision which is legislative in nature"). Thus, the Commission can and should consider the societal and environmental benefits associated with renewable wind energy.
- 14. As with the addition of any new plant, Westar's development of wind generation is expected to result in a higher revenue requirement for customers in the early years after inclusion in rates. In addition to the societal and environmental benefits associated with wind energy, the use of wind energy which has no fuel cost will allow Westar to displace other fuel costs associated with coal or natural gas generation. Also, wind generation could result in lower revenue requirements over the life of the facilities under certain circumstances. For example, Westar's 20-year revenue requirement is lower when either 295 MW of wind generation as discussed in this Application 500 MW of wind generation as contemplated by Westar's plan is included if a high fuel cost scenario is assumed. Also, if a "cap and trade" system with a CO₂ allowance price of \$25/ton is assumed beginning in 2015, Westar's revenue requirement is lower both with the addition of 295 MW of wind generation and with the addition of 500 MW of wind generation than without wind generation using both high and base fuel cost scenarios. The likelihood that a CO₂ "cap and trade" system or a carbon tax will be implemented at some point in the future is discussed in the testimony of James Ludwig.

- 15. Black & Veatch Corporation conducted an analysis of Westar's wind power supply plan in conjunction with updating Westar's overall long-term supply plan and evaluated the costs associated with a supply plan that includes wind generation as compared to a plan without wind generation. The results of this analysis are presented in detail in the testimony of Michael Elenbaas.
- Application will be completed and enter commercial operation in 2008. The 200 MW contemplated in step two will enter commercial operation before year-end 2010. To recover the costs associated with the ownership of these new facilities, Westar plans to file rate change applications, adjusted for known and measurable changes, including Westar's investment in the wind generation facilities. Westar intends to recover the costs associated with the purchase of wind energy under PPAs through its Retail Energy Cost Adjustment (RECA).
- 17. Westar's investment in these wind generation facilities is reasonably expected "to produce energy from a renewable resource for the use of its customers." Thus, under K.S.A. 66-117(e), Westar is entitled to seek "a return on such investment equal to an increment of from 1/2% to 2% plus an amount equal to the rate of return fixed for the utility's other investment in property found by the Commission to be used or required to be used in its services to the public." Westar, therefore, asks the Commission to approve a rate of return for Westar's investment in the proposed wind generation facilities that are owned by Westar equal to the approved rate of return for Westar's KCC-jurisdictional electric business plus 1.0%.

II. DESCRIPTION OF THE FACILITIES AND SELECTION PROCESS

18. Westar proposes to develop 295 MW of wind generation at three different locations in Kansas. Westar will own 149 MW of the wind generation to be constructed and will enter into PPAs to purchase the remaining 146 MW of wind energy.

- 19. To begin the process of developing renewable generation, Westar issued an RFP in February 2007. In its RFP, Westar asked developers to submit proposals for the sale of an ownership interest in renewable generation facilities to Westar and for Westar's purchase of renewable energy under a PPA. Westar required all wind energy proposed projects to comply with the Kansas Energy Council's Wind Energy Siting Handbook. Developers were asked to provide wind data and energy forecasting information, as well as information regarding their experience and involvement with prior wind projects. Westar received responses from 17 different developers. All of these responses were related to wind developments.
- 20. After receiving responses to its RFP, in order to select the projects it wished to pursue, Westar assembled a team of internal employees, outside counsel, and external consultants. This team conducted an evaluation of each of the proposed projects. Westar analyzed each proposal in seven different categories: public/community acceptance, environmental compatibility/acceptance, credit risk, levelized cost/revenue requirements/PPA or ownership, transmission upgrade costs, wind turbine equipment evaluation, and developer experience. After this initial evaluation, Westar narrowed the projects under consideration to seven projects.
- 21. At this point, Westar's team conducted half-day due diligence sessions with each of the six remaining developers under consideration. Then, weights were assigned to refined evaluation categories: environmental analysis/public acceptance, production tax credit certainty, credit risk, levelized cost/revenue requirements/PPA or ownership, transmission costs, developer construction experience, wind turbine equipment evaluation, and developer interview. Each

developer was scored in each category. In addition to the developers' scores, Westar also considered transmission constraints, wind diversity goals, and excess turbine diversity.³

- 22. After this final evaluation, Westar identified the portfolio of projects that best met all of the criteria discussed and provided the developers with draft PPAs and term sheets for the proposed ownership agreements. Westar has finalized PPAs and term sheets with three developers for a total of 295 MW of wind generation. These agreements are described below and in more detail in the testimony of Greg Greenwood. As previously stated, Westar intends to negotiate agreements to obtain an additional 200 MW of wind generation in order to reach its 2010 goal of 500 MW.
- 23. A map showing the location of each of the planned projects, as well as the existing wind facilities in Kansas, is attached as Exhibit A. The wind generation portfolio selected by Westar and for which Westar seeks approval consists of the following projects:
 - The Central Plains is located in Wichita County between Leoti and Scott City.

 The developer for this project is RES America Development, Inc. Westar will own 99 MW of wind generation at this location. It is expected to be in service late in 2008.
 - The Meridian Way Wind Farm is located in Cloud County. The developer for this project is Horizon Wind Energy (Horizon). Westar will purchase energy from 96 MW of this project through a PPA with Horizon. It is expected to be in service in late 2008.

³ As is discussed in the testimony of Greg Greenwood, Westar and its consultants believed it desirable to limit the number of different types of turbines to be installed, if possible, in order to increase efficiencies and control costs of maintaining and operating the wind generation. "Excess turbine diversity" refers to a mix of facilities that had more than what Westar believed to be the optimum number of turbine types.

- The Flat Ridge Wind Farm is located in Barber County. The developer for this project is BP Alternative Energy North America, Inc. (BPAE). Westar will own 50 MW of the wind generation and will purchase 50 MW through a PPA with BPAE. The project is expected to be in service in late 2008.
- 24. All projects will have a minimum of a two-year turbine warranty, which is the current industry standard, down from the five-year warranties that were available only a year or so ago. Each owned project will have a service and maintenance agreement for a minimum of two years. During that period, the plants will be operated and maintained by the turbine manufacturer and the developers' employees. All agreements for the owned facilities will also have turbine availability and power curve guarantees.
- 25. In summary, the investment in the wind generation facilities that Westar will own is expected to be approximately \$282 million, including owner costs, transaction costs, expected allowance for funds used during construction (AFUDC), and a contingency for design changes and other miscellaneous items. The total cost per MWh that Westar expects to incur under the wind generation PPAs is approximately \$44.00 per MWh, excluding the value of renewable energy credits which are estimated in Westar's analysis at \$3.50 per MWh. This results in a net price of approximately \$40.50 per MWh under the PPAs.
- 26. Diversification between ownership and the purchase of wind energy through PPAs will help to mitigate the risk associated with construction of facilities of this size and the risks associated with operating and maintaining the facilities. Westar believes that the economic costs for ownership or PPAs are roughly equivalent the option with the lower cost varies depending on the assumptions made. Given this, Westar believes a balanced approach between

ownership in projects and PPAs is a reasonable and prudent strategy. Thus, Westar made the choice to split the wind generation between ownership and PPAs.

III. WESTAR'S CONSERVATION MEASURES AND DEMAND SIDE MANAGEMENT EFFORTS

- 27. Westar's overall rate structure is designed to encourage the efficient use of energy. This is accomplished primarily through the use of summer/winter pricing differentials, demand ratchets and some time-of-use tariffs. In addition, Westar has an active interruptible service program. Westar typically realizes a system peak demand reduction of approximately 200 MW when it calls for interruptions.
- 28. In the summer of 2006, Westar formed an Energy Efficiency and Conservation Task Force. The task force is composed of several Westar employees and its role is to develop a comprehensive and implementable Energy Efficiency Initiative. The task force facilitated the implementation of state-of-the-art commercial and residential informational websites, developed implementation plans for five Energy Efficiency/Demand Side Management programs and initiated the primary customer research necessary to ensure competent program design that addresses appropriate customer segments for each program.
- 29. In the summer of 2007, Westar named a director of Energy Efficiency and formed an Energy Efficiency Department. The Energy Efficiency and Conservation Task Force was superseded by this department but continues to play an advisory role.
- 30. Westar's Energy Efficiency Department intends to implement the following programs that were identified by the Energy Efficiency and Conservation Task Force:
 - a. High efficiency heat pump program with mandatory direct load control (DLC),

- b. High efficiency residential/commercial water heating heat pump program with mandatory DLC,
- c. Residential and commercial DLC program for central A/C, electric water heaters, swimming pool pumps, and other interruptible devices,
- d. "Kansans for Energy Efficiency" program for senior citizens and low income households, and
- e. A program with targeted energy audits to identify energy efficiency opportunities for commercial and large residential customers.
- 31. Westar has solicited proposals from vendors of DLC and Demand Side Management. Assuming successful contract negotiations, Westar expects to begin implementing these programs in 2008.
- 32. Other energy efficiency initiatives the Energy Efficiency Department plans to implement include:
 - a. Continuation and expansion of consumer education programs,
 - b. Weatherization kits for low-income customers,
 - c. Evaluation of opportunities to improve efficiency on Westar's system,
 - d. Promotion of compact florescent light use among customers,
 - e. Development of a real time pricing pilot program in cooperation with Staff, and
 - f. Continuation of the business case study for automated meter infrastructure and meter data management.
- 33. Westar's forecast filed in the Emporia Energy Center (EEC) predetermination docket, Docket No. 07-WSEE-616-PRE projects that given the initial set of energy efficiency

and demand side management programs, by 2016, Westar's most likely peak reduction forecast reaches 89 MW and the most likely energy sales reduction for electric customers reaches 44,000 MWh. Although it is too early to quantify peak reduction and energy sales reduction, it is likely that these estimates are too low. In the coming months, Westar expects to revise these estimates.

34. Westar's new Energy Efficiency Department and energy efficiency initiatives are discussed in detail in the testimony of James Ludwig.

IV. WESTAR'S TEN-YEAR GENERATION AND LOAD FORECAST

- 35. In connection with its predetermination application for the EEC, Docket No. 07-WSEE-616-PRE, filed with the Commission in December 2006, Westar submitted a ten-year peak and energy forecast. Based on that forecast, Westar expects its peak load to increase to approximately 6000 MW and its energy sales to increase approximately 5 million MWh by 2016.
- 36. Wind generation does not provide dispatchable generation and therefore will not provide Westar with a significant amount of increased capacity. Instead, wind should be considered an energy resource that is available with no associated fuel costs in many hours of the year in lieu of fuel burning generation or purchased power. Because wind does not provide significant capacity, however, Westar's investment in the proposed wind generation facilities will not have a substantial effect on its ability to meet peaking demand or on Westar's ten-year peak demand forecast.⁴
- 37. Westar is therefore submitting the ten-year peak demand forecast that it relied on in Docket No. 07-WSEE-616-PRE the EEC predetermination docket and that is its current operative forecast. The supporting testimony for this forecast is presented by Paul Dietz.

⁴ However, because the addition of significant amounts of wind generation will affect the capacity factors of its generating plants, the addition of wind will allow Westar to defer its next intermediate or baseload coal plant.

- 38. As part of the Stipulation and Agreement reached in the EEC predetermination docket, Westar and Commission Staff are working together to update and adjust Westar's load forecasting methodology.
- 39. Westar's generation supply plan has been updated from the EEC predetermination docket. This plan is discussed in the testimony of Michael Elenbaas.
- 40. As indicated above, Black & Veatch has analyzed the impacts of Westar's plan to add 500 MW of wind generation on its system as well as the initial step of adding the approximately 300 MW, which is the subject of this Application. These analyses are presented by Mr. Elenbaas. The rate effects associated with adding the approximately 300 MW of wind generation are addressed in the testimony of Dick Rohlfs.

V. POWER SUPPLY ALTERNATIVES CONSIDERED

41. Westar sought bids from a wide variety of renewable power supply alternatives through its renewable RFP process. As discussed above, all responses were for wind energy and Westar considered a number of projects in different locations and evaluated both ownership and purchase of power through PPAs. Westar also considered several different types of wind turbines.

VI. REQUEST FOR DETERMINATION OF RATEMAKING PRINCIPLES AND TREATMENT

- 42. Westar seeks the determination of the following ratemaking principles and treatment to be applied to its proposal to add 295 MW of wind generation to its generating fleet:
 - a. That Westar's proposal to own 149 MW of wind generation and to enter into PPAs to purchase 146 MW of wind generation is prudent,
 - b. That the 295 MW of wind generation that Westar will develop will be considered used and useful for the provision of service to Westar's customers,

- c. That the actual amount expended to construct the plant, up to \$282 million, for the projects to be owned by Westar will be included in rate base. Amounts spent in excess of the estimate will be subject to prudence review, based on a comparison to the cost of plants of similar vintage and design,
- d. That the two wind PPAs submitted be approved for recovery through Westar's RECA,
- e. That, in the event Westar files a rate case while developing the two wind generation plants that it will own, Westar will include in rates all of its investment and associated costs related to the plants that are in commercial operation at least 120 days before the deadline for the Commission's order in that rate case, and that for plants not having yet reached commercial operation, rate base shall include construction work in progress (CWIP) through such date,
- f. That, pursuant to K.S.A. 66-117(e), the Commission approve a rate of return for Westar's investment in the proposed wind generation facilities equal to the approved rate of return for Westar's KCC-jurisdictional electric business plus 1.0%,
- g. That the Commission act on this Application no later than December 31, 2007, and for such other and further relief as may be appropriate.

Respectfully submitted, WESTAR ENERGY, INC. KANSAS GAS AND ELECTRIC COMPANY

Martin J. Bregman, #12618 Executive Director, Law Cathryn J. Dinges, #20848 Corporate Counsel 818 South Kansas Avenue Topeka, Kansas 66612

(785) 575-1986; Telephone (785) 575-8136; Fax

VERIFICATION

STATE OF KANSAS)	
)	ss:
COUNTY OF SHAWNEE)	

Martin J. Bregman, being duly sworn upon his oath deposes and says that he is one of the attorneys for Westar Energy, Inc. and Kansas Gas and Electric Company; that he is familiar with the foregoing Petition of Westar Energy, Inc. and Kansas Gas and Electric Company for Determination of Ratemaking Principles and Treatment; and that the statements therein are true and correct to the best of his knowledge and belief.

Martin J. Bregman

SUBSCRIBED AND SWORN to before me this / day of October, 2007.

Sally Wilson
NOTARY PUBLIC~STATE OF KANSAS
MY APPRICES 6/19/2011

Sally Wilson Notary Public

My Appointment Expires: 6/19/2011

