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#### THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

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Before Commissioners:	Thomas E. Wright, Chairman Michael C. Moffet Joseph F. Harkins
In the Matter of the Patition of West	

In the Matter of the Petition of Westar Energy, Inc. and Kansas Gas and Electric Company (collectively "Westar") for Determination of the Ratemaking Principles and Treatment that Will Apply to the 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.

Docket No. 08-WSEE-309-PRE

## POST-HEARING SUGGESTED FINDINGS OF FACT AND CONCLUSIONS OF LAW WITH SUPPORTING <u>MEMORANDUM OF THE CITIZENS' UTILITY RATEPAYER BOARD</u>

COMES NOW the Citizens' Utility Ratepayer Board (CURB) and pursuant to the Commission's October 12, 2007, Order Setting Procedural Schedule, files its Suggested Findings of Fact and Conclusions of Law with Supporting Memorandum.

# I. PRELIMINARY MATTERS.

1. At the outset, it is important to note that CURB is generally in favor of electric utilities acquiring wind power as part of a balanced portfolio of supply resources. The Board recognizes that wind power may be more expensive in the short run but this fact alone should not disqualify the addition of wind power to the supply portfolio. However, CURB believes that wind resources must be acquired in the most economic manner possible, a least cost standard for wind, and that consumers should not be required to pay higher than necessary rates for wind in order to provide shareholders a premium return on wind costs. (Crane D. Test., at 12-13).

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2. CURB has itemized its suggested findings of fact following its discussion of individual issues to be decided by the Commission. Certain facts also relate to other issues, and CURB submits its suggested findings of fact in its entirety for consideration by the Commission.

#### **II.** ISSUES NOT IN DISPUTE.

3. Increasing the amount of renewable wind energy in a utility's supply portfolio is a reasonable goal for Westar and for other electric utilities in Kansas. (Crane, D. Test., at 5).

4. The Commission can grant Westar's requested pre-approval related to the acquisition of 146 MWs of wind generation through two Purchase Power Agreements. (Crane, D. Test., at 5).

5. Westar should investigate the option of implementing a "green tariff," in a manner that allows those customers willing to pay additional amounts for wind or other renewable generation to have the option to do so. (Crane, D. Test., at 6; Oakes, D. Test., at 7; Oakes, R. Test., at 4).

## III. STAFF'S PROPOSED STANDARDS.

6. Dr. Cita proposes that the appropriate standard to use in reviewing Westar's wind acquisition in this case is whether the wind acquisition is "prudent." He then recommends the Commission base its determination of prudence on whether it finds the proposed wind project is likely to provide a positive net benefit. Dr. Cita provides a net benefit analysis that includes the cost of Westar's proposed wind project compared to the benefit of Westar's wind projects. Dr. Cita estimates the cost of Westar's wind project at \$55 per MWh, but admits this estimate may be low. He then estimates the direct benefit of adding wind to the Westar's system at \$28 in savings (fuel and O&M) per MWh. Dr. Cita then adds \$20 MWh of savings for health benefit of reduced emissions,

but concedes that the true figure for health benefits may be more or less than \$20 MWh and that a one megawatt addition of wind would not necessarily result in a one megawatt reduction in emissions. Staff concludes that adding the wind projects as proposed by Westar, given the above analysis, does not have a positive net benefit. Dr. Cita then creates four scenarios related to carbon costs (taxes) that would be sufficient, given the other assumptions above, to create a positive net benefit for these wind projects.

7. While Dr. Cita has identified scenarios that may lead to a finding of a positive net benefit, he has not offered any evidence of the likelihood of any of those scenarios coming to pass. Dr. Cita is clear that the Commission must determine the likelihood of any of these scenarios actually occurring. Dr. Cita also concedes that there are many uncertainties about costs and benefits related to wind, and that each changed assumption changes the level of carbon tax needed to achieve a positive net benefit. Likewise, Westar submits numerous possible scenarios that may result in a positive net benefit. However, Westar provides little evidence of the likelihood of any particular scenario coming to pass.

8. CURB agrees with Dr. Cita, that the Commission must find a positive net benefit to determine whether Westar's wind acquisition is prudent. Further, the Commission must determine which cost and benefit scenario it is relying on, and the Commission must detail the evidence relied on to determine the likelihood of that scenario coming to pass.

#### **Proposed Findings of Fact:**

9. Regarding Staff's scenarios, Dr. Cita suggests the Commission could identify many other paths (forecast scenarios) that would lead to the same prudence conclusions. Whether the Commission finds Westar's wind acquisition prudent "depends on the Commission identifying such

a path and, *ideally, determining that it is likely to be followed or achieved in reality*." (Cita, D. Test., at 40).

10. Westar's customers will be paying the cost of wind, and Staff assumes that Westar's customers will receive the benefits of wind, but this is a simplifying assumption. Dr. Cita admits that it is likely to be the case that avoided external costs and the benefits associated with avoiding those costs would be realized by entities other than Westar's ratepayers. (Cita, Tr. Vol. 3, at 494).

11. Dr. Cita does not set forth any evidence of the likelihood of a carbon tax being realized. Nor does he know what magnitude the tax could be, or what date that carbon tax would occur (Cita, Tr. Vol. 3, at 496).

12. Dr. Cita admits that if the cost assumptions change in his four scenarios, that will affect whether or not the four scenarios are likely to be prudent. (Cita, Tr. Vol. 3, at 498).

13. Dr. John Cita estimates the bus bar assessment cost of wind, not including upgraded transmission costs, at \$55 per megawatt hour. This amount does not include the cost of acquiring firm transmission. (Cita, Tr. Vol. 3, at 487, 499).

14. Dr Cita concedes that in his cost analysis he used \$10 MWh for integration costs (dispatch inefficiency), when it is more likely that the integration cost are closer to \$15 MWh, resulting in a total cost of \$60 MWh rather than \$55 MWh. (Cita, Tr. Vol. 3, at 501).

15. Staff believes that Westar's O&M estimate and capacity factor estimate are "optimistic," meaning costs could be above \$60 MWh. (Cita, D. Test., at 27; Cita, Tr. Vol. 3, at 501).

16. On the benefit side of Dr. Cita's net benefit analysis, Dr. Cita assumes the addition of
1 megawatt of wind energy reduces output among the conventional units by 1 megawatt. He

associates the benefit to be equal to \$28 in fuel savings with this assumption. (Cita, Tr. Vol. 3, at 503).

17. Dr. Cita next adds a \$20 per megawatt hour for external cost savings or public health savings derived from an EPA study. The \$20 is based on an estimate that could be as high as \$940 million in heath related costs per year associated with power plan emissions. However, Dr. Cita admitted the amount could be lower too. An alternative estimate was \$180 million, using a different assessment of the value of a human life, so the amount could be as low as \$180 million. (Cita, Tr. Vol. 3, at 505-506).

18. The \$20 figure for external costs savings or public health savings utilized by Dr. Cita assumes a one-to-one relationship between adding 1 megawatt of wind and reducing 1 megawatt of conventional generation. Dr. Cita admits it isn't likely that there will actually be a one-to-one relationship between adding 1 megawatt of wind and a corresponding reduction of 1 megawatt of emission reduction. In fact, adding 1 megawatt of wind might only result in ½ of a megawatt of emission reduction. (Cita, Tr. Vol. 3, at 510-512).

19. Even after adding in \$20 in externality health benefits, Dr. Cita's calculation was still at a negative present value. At this point, Dr. Cita adds consideration of a possible carbon tax under 4 scenarios. Dr. Cita agrees, however, if any of the direct costs end up higher than estimated, a higher level of carbon tax assumptions would be required to reach a net benefit that would make ownership prudent. Specifically, lower than estimated capacity factors or higher O&M expenses would require a higher carbon taxes under Dr. Cita's scenario to reach the a positive net benefit. (Cita, Tr. Vol. 3, at 512-513).

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20. Dr. Citas agrees that it is a fair assessment to say that the higher the analysis requires carbon taxes to be, the less likely it might be that the Commission can reach a prudence standard. (Cita, Tr. Vol. 3, at 513).

21. Dr. Cita cautions the Commission against thinking it is likely that carbon taxes will be higher rather than lower. (Cita, D. Test., at 42). This suggests that Westar's assumed carbon tax of \$30.46/ton starting in 2015, a figure that is required under Westar's analysis to have a positive net benefit, is less likely to happen. (Cita, D. Test., at 38).

22. Dr. Cita testifies that "had Westar proposed 100% ownership, since ownership is likely to cost more that PPAs, the tax levels identified in the four scenarios presented above would not be high enough for a 100 percent ownership level." (Cita, D. Test., at 41).

23. Dr. Cita testifies that "In short, the greater percentage of wind resources owned by the utility, the higher future carbon taxes and/or external cost savings need to be for the acquisition of wind resources to be prudent." (Cita, D. Test., at 41-42).

24. Dr. Cita testifies that "the prudence of ownership (compared with PPAs) is likely to hinge on ever more extreme carbon tax scenarios and ever higher estimates of external cost savings. Thus, higher ownership proportions would put the Commission in a position of being ever more speculative about the future." (Cita, D. Test., at 42).

25. Basing the approval of wind generation ownership on the anticipated scenarios discussed by Dr. Cita to justify the Commission's prudence decision places ratepayers at risk for paying more for wind energy than is really necessary. (Cita, D. Test., at 42-43).

26. Dr. Cita also admits there is a level of forecasts and uncertainty on the cost and benefit side of his net benefit calculation. (Cita, Tr. Vol. 3, at 495).

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27. Dr. Cita cautions the Commission not to conclude carbon taxes will be too high because it is more probable that a carbon tax will be low as opposed to high, due to the political implications of passing a carbon tax. The higher the analysis requires the carbon tax to be, the less likely the Commission can reach a prudence standard. (Cita, Tr. Vol. 3, at 513).

28. Dr. Cita is leaving to the Commission the determination of the likelihood of a carbon tax being realized, and when it might be realized. (Cita, Tr. Vol. 3, at 496).

29. Staff does not take a position "regarding the likelihood of a specific carbon tax being implemented by a certain date." (Cita, D. Test., at 39).

30. Staff does not take a position "regarding the potential for external cost savings attributable to the acquisition of wind energy." (Cita, D. Test., at 39).

31. Dr. Cita admits that if the costing assumptions he started with changed, it would affect whether or not the four scenarios he laid out are likely to be prudent. (Cita, Tr. Vol. 3, at 498).

32. Westar presents numerous scenarios related to possible costs and benefits of wind. (Elenbaas, D. Test., at 14-22). While Westar scenarios evaluate alternative forecasts of fuel price, alternative  $CO_2$  allowance prices and varying levels of wind speed and resultant capacity factors, Westar does not provide any evidence of the likelihood of any of these particular scenarios coming to pass. (Elenbaas, D. Test., at 18).

# IV. THE COMMISSION SHOULD DENY WESTAR'S REQUEST TO OWN 149 MW OF WIND GENERATION BECAUSE PPA COST IS LESS THAN OWNERSHIP COST.

33. The evidence relating to the cost of obtaining wind energy through PPAs fluctuated throughout this proceeding. CURB believes the evidence supports a finding that PPA cost is less than the cost of wind ownership.

#### **Proposed Findings of Fact:**

34. CURB calculates, based on Westar's witness Oakes' Exhibit DFR-1 Revised, during the 20 year period through 2028, company-owned wind generation will cost ratepayers approximately 14% more than the PPAs, not including the 5-7% dispatch inefficiency costs the Company has failed to include in its analysis. (Crane, D. Test., at 21-22).

35. In calculating the revenue requirement impact contained in Exhibit DFR-1 Revised, Mr. Oakes uses the same assumptions used by Mr. Greenwood and Mr. Moore. (Greenwood, Tr. Vol. 2, at 170; Oakes, Tr. Vol. 2, at 299). It is therefore not unreasonable for Ms. Crane to use Exhibit DFR-1 Revised as the basis of her calculation.

36. In Rebuttal, Westar made two changes to Exhibit DFR-1 Revised, to arrive at Exhibit DFR-2. These two changes relate to regulatory lag and the inflation factor allied to the PTC. In the first two years of its analysis in Exhibit DFR-2, Westar reduced capital costs by one quarter to one third, and eliminated expenses related to O&M, depreciation and payments in lieu of taxes on the portions of wind plant proposed to be owned by Westar. These changes reduce ownership costs in the first two years of the analysis by \$39.5 million. (Oakes, R. Test., at 6). All other assumptions remain the same. Westar also changed the inflation rate on the PTC from 1% to 2.3%. This change reduces ownership costs by \$10 million per year. (Oakes, R. Test., at 6).

37. Even after Westar makes these changes to reduce the cost of ownership, Exhibit DFR-2 stills shows that the total revenue requirement over 20 years is \$443,474,985 for owned projects, but only \$434,214,103 for the PPAs. PPA projects result in lower overall total revenue requirements to consumers over 20 years.

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38. Westar's changes, reflected in Exhibit DFR-2, do result in a Net Present Value (NPV) over 20 years of \$209,736,196 for ownership, which is about \$12 million lower than the NPV for PPAs. However, Mr. Oakes acknowledges that in the NPV analysis, the numbers in the earlier years of the analysis have a larger impact on NPV than the numbers in later years. (Oakes, TR. Vol. 2, at 309). Mr. Oakes acknowledges that this lower NPV for ownership in Exhibit DFR-2 is a function of removing \$40 million in the first two years of the analysis for regulatory lag. (Oakes, Tr. Vol. 2, at 311). Mr. Oakes also agrees that if these costs in the first two years were not assumed away in Exhibit DFR-2, the NPV of ownership would be higher than the NPV of PPAs. *(Id.)*.

39. But for Westar removing costs in the first two years of its analysis for regulatory lag in Exhibit DFR-2, Ms. Crane's analysis is correct; the cost of PPAs is cheaper than the cost of ownership from the consumer's perspective. Until midway through the hearing process, there was nothing in the record that would prevent Westar from seeking these exact costs in its 2008 rate proceeding. Westar's analysis is only valid if it agrees not to seek the costs specifically excluded from Exhibit DFR-2 in its next rate case. Not until midway through the hearing process, did Westar specifically "stipulate" that it would not seek, in its 2008 rate case, pro-forma adjustments for depreciation, operating and maintenance and the PILOT payments for the wind farms put into operation in 2008. (Bregman, Tr. Vol. 2, at 316-317). With this Stipulation, at best, Westar can only say that the cost of PPAs is about equal to the cost of ownership.

40. Owning a portion of wind is more about gathering a profit for shareholders than attempting to acquire wind in the most economic manner for customers. According to Mr. Moore, "could we forget everything and just buy 500 megawatts of PPA whether its wind or anything? Of course, we could do it." (Moore, Tr. Vol. 1, at 65). However, with PPAs "there is no opportunity for

us to earn any type of return for our investors." (Moore, Tr. Vol. 1, at 63). Mr. Moore acknowledges that Empire District Electric Company purchases all of its wind under PPAs. Further, Mr. Moore acknowledges that contrary to the utility ownership model, Westar owns no coal mines, no natural gas wells, no railroad tracks or natural gas pipeline, and in fact depends entirely on purchase contracts with independent companies to acquire 100% of these resources on behalf of the company. There is no reason to view wind PPAs any differently than these other resources, and no reason to allow a utility to own wind if PPAs are a more economic means of acquiring wind.

# V. IF THE COMMISSION DETERMINES THE COST OF PPAs VERSUS OWNERSHIP IS ABOUT EQUAL OR TOO CLOSE TO CALL, THE COMMISSION SHOULD DENY WESTAR'S REQUEST TO OWN 149 MW OF WIND GENERATION BECAUSE PPAs PRESENT LESS RISK FOR CONSUMERS THAN OWNERSHIP.

41. Even if the Commission determines the cost of PPAs versus ownership is about equal or too close to call, the Commission should deny Westar's request to own wind generation because the risk to consumers under the ownership option is substantial and there is less risk to consumers under the PPA option.

## **Proposed Findings of Fact:**

42. "A developer selling power under a PPA, who intends to own that plant for a long time, will have an incentive to build a plant of the highest quality (reliability) to assure the maximum production and sales under the PPA. This is because wind power PPAs have no demand charges and all revenues are variable based on production." (Greenwood, D, Test., at 12-13).

43. Commission Staff concluded there is risk associated with the ownership portion of Westar's application and that the cost of wind ownership by Westar will likely be more than the cost of acquiring wind through PPAs. (Sanderson, Tr. Vol. 3, at 415; Glass, Tr. Vol. 3, at 437-438).

44. Under the portion of Westar's proposal where Westar buys the wind generation through PPAs, Westar shareholders and ratepayers would be protected against increased costs resulting from turbine failures. However, under Westar's ownership option, ratepayers will be responsible for any increased cost for turbine failures and any other components of the wind generation. (Sanderson, Tr. Vol. 3, at 421-422).

45. There is no risk to shareholders or ratepayers in acquiring wind generation through PPAs. (Crane, Tr. Vol. 2, at 357-359).

46. Commission Staff believes that the probability that Westar understated wind ownership costs is far greater than the probability that Westar overstated ownership costs. Commission Staff has also concluded that the cost of wind ownership for Westar is likely to be more than the cost estimates made by Westar in its application. (Glass, Tr. Vol. 3, at 437).

47. The PPAs provide rate stability that is not offered by the Company-owned facilities. The PPA rates are fixed for the term of the agreements. However, the costs of the Company-owned generation are not. Under the traditional regulatory model, ratepayers would be at risk for construction cost overruns, lower than expected availability factors, lower than expected capacity factors, changes in capital costs, changes in O&M costs, and other factors. None of these risks are present with the PPAs. (Crane D. Test., at 24).

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## A. The Risk that Actual Capacity Factors Will Likely Exceed Estimated Capacity Factors Should Not Be Dumped Exclusively On Consumers.

48. The evidence was undisputed that estimated capacity factors have been notoriously overstated in other wind farms in Kansas. It is also undisputed that the risk of this occurring falls solely on ratepayers in Westar's ownership option, but ratepayers have no such risk when the wind generation is purchased through a PPA.

#### **Proposed Findings of Fact:**

49. Commission Staff concluded actual wind production will turn out to be lower than what Westar forecasted in its application, and the risk that actual wind production will be lower is on ratepayers with Westar's ownership proposal. (Glass, Tr. Vol. 3, at 439).

50. Staff concluded the estimated capacity factor used in Westar witness Greenwood's analysis was too high. (Glass, Tr. Vol. 3, at 445; Cita, Tr. Vol. 3, at 501).

51. Actual capacity at the existing three wind sites in Kansas has always been less than the original estimated capacity factors. (Glass, Tr. Vol. 3, at 445-446).

52. As capacity factors decline from estimates, revenue requirements increase, all other things being equal. (Glass, Tr. Vol. 3, at 446).

53. With respect to ownership of wind generation, any risk of not meeting the projected capacity factors falls on ratepayers. (Glass, Tr. Vol. 3, at 446).

54. One of the reasons the Spearville wind project actual capacity factors ended up lower than estimated capacity factors was the absence of firm transmission. (Glass, Tr. Vol. 3, at 450).

55. The average capacity factor for Kansas wind projects is 37.7%, which is 10% lower than the capacity factor used in Table 1 of the testimony of Westar witness Mr. Elenbaas. (Crane, D. Test., at 17).

56. A 1% point change in net capacity factor results in a change in cost of the wind per MWh of approximately \$1.25 to \$1.65. (Crane, D. Test., at 17).

# B. The Risk that Actual Costs Will Likely Exceed Estimated Costs Should Not Be Dumped Exclusively On Consumers.

57. The evidence established that actual costs will likely exceed estimated costs and the risk of this occurring falls solely on ratepayers under Westar's ownership option, but ratepayers do not bear such a risk under the PPA option.

## **Proposed Findings of Fact:**

58. Westar's application did not include additional costs for wind energy, such as regulation, intra-hour costs, and increased integration capacity costs. Each of these costs are affected by the intermittent nature of wind, and Commission Staff witness James Sanderson believes these costs could be significant. (Sanderson, Tr. Vol. 3, at 416-419).

59. Commission Staff estimates dispatch inefficiency costs to be between \$8 and \$22 per megawatt hour. Although Commission Staff utilized \$20 per megawatt hour, Dr. Cita testified that \$15 per megawatt hour would be a more likely forecast. (Sanderson, Tr. Vol. 3, at 420; Cita, Tr. Vol. 3, at 500-501).

60. Commission Staff concluded that the probability is that actual O&M costs will turn out to be higher than the wind O&M cost estimates contained in Westar's forecasts. Commission Staff further concluded that the risk that costs will end up higher than forecasted is on ratepayers with the ownership option; however, if wind generation is purchased through PPAs, the risk is on the wind developer, not on ratepayers. (Glass, Tr. Vol. 3, at 438).

61. Dr. Cita also believes that Westar's O&M forecasts are overly optimistic. (Cita, Tr. Vol. 3, at 501).

62. PPA wind developers absorb nearly all the performance and O&M cost risk associated with wind generation. (Glass, Tr. Vol. 3, at 440).

63. The history of wind turbine reliability and durability has not been very good. Various factors cause uncertainty in the cost for wind generation, including the fact that O&M estimates are based on turbine manufacturer estimates, not actual field data. Field data (actual performance of existing wind generators) is limited because the newer models haven't been around long enough to develop it and because wind turbine manufacturers don't release their field data. This makes Commission Staff skeptical of O&M estimates based on turbine manufacturer estimates. (Glass, Tr. Vol. 3, at 443-444).

64. Unscheduled maintenance and the difficulty in predicting it affects capacity factors and how actual capacities might be different than estimated capacity factors. (Holloway, Tr. Vol. 2, at 388).

65. Under the PPA model, the risk of catastrophic failures of gear boxes and generators is on the wind developer, not ratepayers. Under the ownership model, the risk of catastrophic failures is on ratepayers. (Holloway, Tr. Vol. 2, at 388-389).

66. CURB witness Andrea Crane testified that actual operation and maintenance expenses for existing facilities have, in many cases, tended to exceed estimated costs due to the poor performance of the turbines, unscheduled outages, and other factors. However, in many cases it is difficult to find detailed cost studies for existing turbines due to the confidential nature of the data. In addition, changes in technology make it difficult to determine how the track record in an existing facility will compare to a newer facility using the next generation of turbine technology. (Crane D. Test., at 17-18).

67. Westar has not developed any estimates of what upgraded transmission costs may be for the 300 MWh of wind energy being proposed in this docket. (Reed, Tr. Vol. 2, at 264).

68. Because the transmission for the three proposed wind projects is non-firm transmission, it is possible Westar may need to turn off or turn down the generation at these wind farms from time to time. (Reed, Tr. Vol. 2, at 265-266).

69. In its analysis to evaluate whether or not to add wind to its portfolio, Westar did not do any studies to identify or estimate any additional SPP imbalance charges that may result by adding 300 Megawatts of wind energy. (Reed, Tr. Vol. 2, at 270).

# VI. IF THE COMMISSION APPROVES WESTAR'S REQUEST TO OWN 149 MW OF WIND GENERATION, THE COMMISSION SHOULD IMPLEMENT STAFF'S RECOMMENDED INCENTIVE MECHANISM TO SPREAD THE RISKS BETWEEN RATEPAYERS AND SHAREHOLDERS.

70. CURB maintains that the Commission should not approve Westar's ownership of wind generation. However, if the Commission decides to approve wind generation ownership by Westar, it should implement Staff's recommended incentive mechanism to spread the risks between ratepayers and shareholders. Without an effective incentive mechanism, the risk that the wind farms will under-perform will fall exclusively on ratepayers, as they have with the KCPL Spearville wind farm where ratepayers will absorb the substantial costs associated with the wind farms' failure to perform as estimated by the utility.

#### **Proposed Findings of Fact:**

71. Staff's recommendation of rate basing Westar's proposed owned wind farms "is contingent upon the acceptance of an effective incentive mechanism." (Glass, D. Test., at 19).

72. Staff does not believe the used and useful criteria is met without an incentive mechanism. (Glass, Tr. Vol. 3, at 453).

73. Staff is not proposing a specific incentive mechanism at this time, but is only outlining the major elements needed for an effective incentive mechanism. Staff recommends that the details of an incentive mechanism be worked out in Westar's next rate case. (Glass, D. Test., at 19).

74. Staff proposes an Incentive Mechanism that includes (1) an estimate of the wind farm's capacity factor and (2) a dollar amount to act as the compensation for over or under performance. If the wind farm produces above the estimated capacity factor, then Westar shareholders would be compensated by ratepayers for the achievement. If the wind farm produces below the estimated capacity factor, then ratepayers would be compensated by Westar shareholders for the wind farms under-performance. (Glass D. Test., at 20).

75. Staff recommends that the Commission adopt its recommended Incentive Mechanism to hold Westar accountable, at least in part, for cost increases caused by actual capacity factors that end up being lower than estimated. (Glass, Tr. Vol. 3, at 447).

76. If actual capacity factors turn out to be lower than Westar's estimated capacity factors, the risk falls exclusively on ratepayers without Staff's recommended Incentive Mechanism. (Glass, Tr. Vol. 3, at 450).

77. Staff does not believe the risk that actual capacity factors will turn out lower than estimated capacity factors should be dumped exclusively on ratepayers. (Glass, Tr. Vol. 3, at 449-450).

78. Staff uses the term "PPA optimal" because acquiring wind generation through PPAs has the least risk to ratepayers and, from the ratepayer perspective, is clearly the best option with regard to risk. (Glass, Tr. Vol. 3, at 451-452).

79. Staff believes the more wind capacity owned by Westar, the further you move from the non-risk situation of the PPA. (Glass, Tr. Vol. 3, at 452).

80. Staff believes the best way to ensure Westar's plants are operated in a way that is used and useful is through an incentive mechanism, which is ex ante, rather than to use a prudence review, which is ex post. The ex ante incentive mechanism is much simpler, is very clear what the performance standard would be, and is not just punitive but encourages Westar to perform better. A prudence review requires severe monitoring and is after the fact, delayed, and litigious. (Glass, Tr. Vol. 3, at 455-456).

81. Staff's Incentive Mechanism doesn't push all the risk to shareholders or ratepayers, but instead provides a balance. (Glass, Tr. Vol. 3, at 469).

82. Staff's recommended Incentive Mechanism is weather neutral and is aimed at operation. (Glass, Tr. Vol. 3, at 470-71).

83. Staff proposed an incentive mechanism in the KCPL 06-KCPE-828RTS docket involving the Spearville wind farm which, if implemented, would have protected ratepayers from the risk and ultimate fact that the actual capacity factor at Spearville was substantially less than the

estimated capacity factor. Because it was not implemented, the risk fell to ratepayers. (Glass, Tr. Vol. 3, at 447-450).

84. The Spearville wind farm produced at about 70% of what KCPL projected it to produce. Had the mechanism been in place, KCPL would have been in a penalty situation of between one and ten million dollars. (Glass, Tr. Vol. 3, at 461-462).

85. Westar has two windmills at the Jeffrey that are part of rate base. Ratepayers are paying for those windmills, yet for the past 7 months of 2006, they have produced no energy. (Glass, Tr. Vol. 3, at 472).

86. In its PPA contracts with wind developers, Westar asked for a guarantee that was not but punitive only, as opposed to the reward/penalty incentive mechanism proposed by Staff for Westar ownership. Because Westar's management could change, Staff believes it would be good to have an incentive mechanism in place that would deal with a potential change in management and protect ratepayers. (Glass, Tr. Vol. 3, at 4572-473).

87. Staff recommended an incentive mechanism related to capacity factor rather than O&M because it was Staff's opinion that the capacity factor is a more important mechanism to ensure that ratepayers are protected from the risk that revenue requirements increase dramatically as production decreases. Dr. Glass testified about the inverse relationship between capacity factor and levelized revenue requirement, as well as the asymmetrical risk/penalty to ratepayers when capacity factors are overestimated. (Glass, Tr. Vol. 3, at 447-449; Glass, D. Test., at 12-16).

88. As an alternative to the Incentive Mechanism recommended by Staff, the Commission could establish an incentive mechanism by simply limiting Westar's recovery of its ownership cost to the per megawatt price payable under the PPA. Westar would benefit from such an incentive

mechanism if it could generate power more cheaply through ownership than through the PPAs. Staff considered this type of mechanism as well, and it is a mechanism the Commission could also consider. (Glass, Tr. Vol. 3, at 440-441).

# VII. IF THE COMMISSION APPROVES WESTAR'S REQUEST TO OWN 149 MW OF WIND GENERATION, THE COMMISSION SHOULD DENY WESTAR'S REQUEST FOR A 1 PERCENT RATE OF RETURN PREMIUM.

89. While CURB maintains its position that the Commission should not approve Westar's request to own wind generation, CURB adamantly opposes Westar's request for a 1% rate of return premium pursuant to K.S.A. 55-117(e). CURB believes the Chairman adequately described Westar's request when he asked CURB witness Andrea Crane whether the rate of return premium is just "a little bit of sugar to help make this all go down." (Tr. Vol. 2, at 368). Unfortunately, Westar is requesting nearly \$50 million of "sugar" beyond the rate of return it will receive on plant in service without the rate of return premium. Allowing shareholders a 10% return on equity for this investment, the same as all of Westar's other investments, should be sugar enough. The Commission should deny Westar's request for a 1 percent rate of return premium.

90. When enacted in 1978, utilities had to risk capital and invest first, then come to the Commission to seek recovery of their investment. Now, with pre-approval, no such risk exists and the Commission should do a public interest analysis before considering a request for a rate of return premium.

#### **Proposed Findings of Fact:**

91. K.S.A. 66-117(e) permits the KCC to apply a return on investment premium, but it does not require that utilities be awarded a return premium. Thus, the KCC has the discretion to decide whether or not a premium return is warranted. (Crane D. Test., at 29-30).

92. Westar's request for a 1% premium in its overall return represents a 2.24% increase in return on equity. The 1 percent return on investment premium requested by Westar will add approximately \$46.8 million to ratepayers' bills over the next 20 years. No party has disputed CURB witness Andrea Crane's calculation of this cost. (Crane, D. Test., at 31-32; Glass, Tr. Vol. 3, at 443).

93. Awarding a return on investment premium would provide a significant incentive for utilities to own wind generation rather than to enter into PPAs that may be more economical. This creates a bias toward ownership by the utility, ownership that may not be in the best interests of ratepayers. The Company's own studies in this proceeding demonstrate that the addition of wind generation is likely to cost ratepayers more than the addition of conventional generation alone and that owning wind generation is more expensive for ratepayers than entering into PPAs. (Crane, D. Test., at 30).

94. The KCC should not require ratepayers to pay a premium return to shareholders, especially since it is ratepayers that will be exposed to the subsequent risks of ownership, such as potential O&M cost increases, capacity factor fluctuations, transmission upgrade costs, regulation, intra-hour costs, and increased integration capacity costs, performance problems, and rapidly evolving technology. (Crane, D. Test., at 30; Cita, Tr. Vol. 3, at 501; Glass, Tr. Vol. 3, at 437-439; Reed, Tr. Vol. 2, at 265-266; Sanderson, Tr. Vol. 3, at 416-419).

95. The potential for federal renewable portfolio standards weighs against approving a premium return to shareholders for investing in wind energy. (Crane, Vol. 2, at 369).

96. If the premium return determination is made in this predetermination proceeding, the Commission will not be able to revisit that issue in the 20 years the wind turbines are intended to be in operation. (Crane, Vol. 2, at 370, 372).

97. Ratepayers will be experiencing significant rate increases over the next few years with respect to Westar's planned \$2.64 billion of capital expenditures over the 2006-2009 period, including \$344.8 million of actual expenditures made in 2006. The 2006-2009 capital expenditures will initially add over \$300 million to the Company's annual revenue requirement, assuming Westar's currently authorized rate of return. Westar's jurisdictional ratepayers will likely be responsible for a large majority of this additional revenue requirement. Westar has also indicated that a high level of capital expenditures is likely to continue for some intermediate period. In evaluating Westar's request for a return on investment premium, it is imperative that the KCC consider the significant financial burden that will be placed on the State's ratepayers in any case. There is no reason to place an even greater burden on ratepayers by awarding shareholders a premium return, especially when one considers the significant rate increases that ratepayers are likely to experience over the next few years. The requested return on investment premium will add approximately \$46.8 million to ratepayers' bills over the next 20 years. Moreover, shareholders will receive this premium without incurring any additional risk. (Crane, D. Test., at 31-32; Tr. Vol. 2, at 343, 370).

98. Utilities should be a partner with the Governor, the legislature, and other organizations that are advocating for wind energy, so a premium return should not be necessary. (Crane, Vol. 2, at 370-371).

99. Staff concluded the only relevance of the 1 percent rate of return adder requested by Westar is that it raises the cost of ownership for ratepayers. (Glass, D. Test., at 7; Tr. Vol. 3, at 441).

100. Staff pointed out that the rate of return adder will make wind generation even more expensive and less competitive as an investment from a ratepayer's point of view. Staff also notes that to maintain public support for renewable resources, the added expense of wind generation needs to be minimal – if the gap between wind generation and conventional generation becomes too large, public opinion may turn against wind generation. (Glass, D. Test., at 23).

101. Return on investment premiums authorized under K.S.A. 55-117(e) were not authorized or required to spur investment in the three prior wind projects built in Kansas (Grey County, Elk River, and Spearville). (Holloway, Tr. Vol. 2, at 380-385).

# VIII. THE COMMISSION SHOULD IMPLEMENT SUBSEQUENT REPORTING REQUIREMENTS FOR WESTAR'S PROPOSED WIND GENERATION.

102. Public policy favors open information about the costs and operating attributes of the projects ratepayers are being asked to pay for. While details remain to be worked out, all parties appear to be in general agreement that reporting requirements should be implemented by the Commission.

#### **Proposed Findings of Fact:**

103. Prior wind generation projects in Kansas have either been more expensive than originally estimated or have not operated as efficiently as was originally projected. (Crane, D. Test., at 34; Glass, Tr. Vol. 3, at 445-446, 450).

104. While there appears to be political support for wind generation projects, there has not been much underlying data regarding actual costs and operational details. (Crane, D. Test., at 34; Glass, D. Test., at 8-12).

105. CURB and Staff support wind generation reporting requirements, but prefer that they be in addition to an Incentive Mechanism if the Commission approves Westar's proposed ownership option. (Crane, D. Test., at 34-36; Crane, Tr. Vol. 2, at 361-362; Glass, Tr. Vol. 3, at 471).

106. The Commission should require Westar, and other utilities, to file and make available for public review, reports related to the cost and operating statistics for wind generation. (Crane, D. Test., at 6; Greenwood R. Test., at 20).

107. Westar should be required to provide information on the following on any Company-owned wind generation projects:

- Actual capital costs for any Company-owned project, separately identifying direct construction costs, overheads, and AFUDC;
- > Actual capital costs per MW for any Company-owned projects; and
- > The net capacity accredited to each unit by SPP, if any.

In addition, for both its PPAs and its Company-owned generation, the Company should be required to provide the following:

Budgeted monthly availability and capacity factors for each unit;

- Actual availability and capacity factors for each unit, on both a monthly and cumulative life-of-project basis;
- > Budgeted operating and maintenance costs, by month;
- > Actual operating and maintenance costs, by month;
- Estimated energy generated, by month, for each unit, as assumed in the Company's annual budget;
- > Actual energy generated, by month, for each unit;
- > Total monthly average cost per kwh; and
- An explanation for any maintenance outages, along with the duration of each such outage.

(Crane D. Test., at 35).

108. Westar does not object to having reporting requirements for wind generation with

some conditions regarding confidentiality of some developer specific information. (Greenwood, R.

Test., at 20-21).

# IX. THE COMMISSION'S ORDER SHOULD SPECIFY WHAT REGULATORY ISSUES AND TREATMENT IT IS DECIDING IN THIS DOCKET, AND SPECIFICALLY RESERVE FOR FUTURE DETERMINATION ALL OTHER REGULATORY ISSUES RELATED TO WESTAR'S PROPOSED WIND GENERATION.

109. K.S.A. 2006 Supp. 66-1239(c)(4) states,

(4) The commission shall issue an order setting forth the rate-making principles and treatment that will be applicable to the public utility's stake in the generating facility or to the contract in all rate-making proceedings on and after such time as the generating facility is placed in service or the term of the contract commences. (emphasis added).

110. While CURB believes only the specific rate-making principles and treatment actually

addressed in this proceeding will "be applicable ... in all rate-making proceedings on and after such time as the generating facility is placed in service or the term of the contract commences," CURB recommends the Commission Order state with specificity that it is only deciding certain specified rate-making principles contained in the Order, and that it is specifically reserving for future determinations any and all other regulatory issues that apply or may apply to Westar's proposed wind generation facilities.

111. Future regulatory Issues include, but are not limited to, future prudence reviews, used and useful reviews, O&M costs, depreciation, cost of removal and salvage, etc.

# X. CONCLUSION.

112. On behalf of Kansas small business and residential ratepayers, CURB urges the Commission to deny Westar's application to own wind generation facilities and approve its application to purchase wind generation through PPAs. In the event the Commission approves Westar's application to own wind generation, CURB urges the Commission to adopt the Incentive Mechanism proposed by Commission Staff and deny Westar's request for a 1% premium under K.S.A. 66-117(e).

Respectfully submitted,

an'ell

David Springe #15619 C. Steven Rarrick #13127 Citizens' Utility Ratepayer Board 1500 SW Arrowhead Road Topeka, KS 66604 (785) 271-3200 (785) 271-3116 Fax

## VERIFICATION

STATE OF KANSAS	)	
	)	ss:
COUNTY OF SHAWNEE	)	

I, C. Steven Rarrick, of lawful age, being first duly sworn upon his oath states:

That he is an attorney for the above named petitioner; that he has read the above and foregoing document, and, upon information and belief, states that the matters therein appearing are true and correct.

C. Steven Rarrick

SUBSCRIBED AND SWORN to before me this  $\frac{l}{l}$  day of December, 2007.

with

Notary of Public

My Commission expires: <u>8-03-2009.</u>

A SHONDAD. TITSWORTH	
	SHONDA D. 111 SWORTH Notary Public - State of Kansas Apot Expires August 3, 2009
[ My /	Appt. Expires August 3, 2009

#### CERTIFICATE OF SERVICE

08-WSEE-309-PRE

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing document was placed in the United States mail, postage prepaid, or hand-delivered this 14th day of December, 2007, to the following:

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Shonda Titsworth

\* Denotes those receiving the Confidential version