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#### STATE OF INDIANA INDIANA UTILITY REGULATORY COMMISSION

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VERIFIED PETITION OF NORTHERN INDIANA PUBLIC SERVICE COMPANY, AN INDIANA CORPORATION, FOR APPROVAL PURSUANT TO IND. CODE §§ 8-1-2-42(a), 8-1-8.8-11 AND TO THE EXTENT NECESSARY 8-1-2.5-6 OF RENEWABLE WIND ENERGY PROJECT POWER PURCHASE AGREEMENTS WITH BUFFALO RIDGE I LLC AND BARTON WINDPOWER LLC, INCLUDING THE TIMELY RECOVERY OF COSTS THROUGH RATES AND CONFIDENTIAL TREATMENT OF POWER PURCHASE AGREEMENT PRICING AND RELATED CONFIDENTIAL INFORMATION.

**CAUSE NO. 43393** 

### LAPORTE COUNTY'S EXCEPTIONS TO NIPSCO'S PROPOSED ORDER SECTIONS 5-8

Intervenor LaPorte County, by counsel, submits its exceptions and additions to Sections

5-8 of NIPSCO's Proposed Order. LaPorte County is separately filing its response to the

discussion section of NIPSCO's proposed order.

Respectfully submitted,

DEAN-WEBSTER, WRIGHT & KITE, LLP

By:

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# **CERTIFICATE OF SERVICE**

I hereby certify that the foregoing was served this 28<sup>th</sup> day of May, 2008, by email and by

placing a copy of the same into the United States Mail, first class postage prepaid, addressed to:

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## STATE OF INDIANA

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CAUSE NO. 43393

**APPROVED:** 

# **<u>BY THE COMMISSION:</u>** Jeffrey L. Golc, Commissioner Lorraine Hitz-Bradley, Administrative Law Judge

On November 20, 2007, Petitioner Northern Indiana Public Service Company ("NIPSCO") filed its petition with the Indiana Utility Regulatory Commission ("Commission") in this matter. NIPSCO's Petition requests the Commission find two purchased power agreements ("Wind PPAs" or "PPAs") for the purchase by NIPSCO of energy generated by wind turbines are reasonable and necessary and authorize NIPSCO to recover the full costs (the "Wind PPAs' Costs") of the Wind PPAs, including all associated Midwest Independent Transmission System Operator ("Midwest ISO") costs, from retail customers through a tracking mechanism.

The Board of Commissioners of LaPorte County, Indiana ("LaPorte") and the NIPSCO Industrial Group ("Industrial Group") filed petitions to intervene on November 28 and 29, 2007, respectively. NIPSCO filed its case-in-chief on November 30, 2007 and a Motion for Protection and Nondisclosure of Confidential and Proprietary Information on December 4, 2007. The Commission issued separate docket entries on December 10, 2007 granting LaPorte's and the Industrial Group's interventions. NIPSCO's Motion for Protection of Confidential and Proprietary Information was granted by docket entry on December 13, 2007.

A procedural schedule was established at the prehearing conference held on December 21, 2007, which was incorporated in the Commission's January 9, 2008 Prehearing Conference Order. NIPSCO filed two unopposed motions requesting amendment to the procedural schedule on February 15, 2008 and March 6, 2008. Both motions were granted by docket entries issued on February 18, 2008 and March 7, 2008. In accordance with the modified procedural schedule, the Industrial Group and Indiana Office of Utility Consumer Counselor ("OUCC") filed their cases-in-chief on March 24, 2008. The OUCC and Industrial Group sought leave to file material under seal, which request was addressed by the Commission on March 27, 2008. NIPSCO filed its rebuttal evidence on April 11, 2008.

Pursuant to notice as required by law, proof of which was incorporated into the record by reference and placed in the official files of the Commission, a public evidentiary hearing in this Cause was held on April 25, 2008 at 10:30 a.m., E.D.T. in Room 224 of the National City Center, 101 W. Washington St., Indianapolis, Indiana. At the hearing, the parties' testimony and exhibits were admitted into the record.

Based upon the applicable law and the evidence herein, the Commission now finds as follows:

...

5. NIPSCO's Case-in-Chief. NIPSCO presented testimony from Frank A. Shambo, Vice President of Legislative and Regulatory Affairs, Bradley K. Sweet, Director of Generation

Dispatch and Energy Management, and Charles F. Adkins, a vice president in the consulting practice of NewEnergy Associates, LLC ("NewEnergy").

Mr. Shambo's testimony provided an overview of NIPSCO's case in this proceeding. Mr. Shambo explained that NIPSCO made a decision to seek out 100 MW of renewable resources as part of the energy needs identified in its 2007 Integrated Resource Plan ("IRP"). <u>Mr.</u> <u>Shambo testified that NIPSCO did not consider actually building a wind farm itself; he could not think of any reason that a build option was not considered in the mix in the RFP. (Transcript, p. 22, lns. 8-25, p. 23, lns. 1-5) Wind is particularly attractive renewable resource. For example, wind power will diversify NIPSCO's generation portfolio, which now consists of coal, natural gas and hydroelectric generation. Mr. Shambo testified that unlike the traditional coal or natural gas powered generation, wind energy is not subject to fuel or transportation cost increases. It is also a non-emitting source and, therefore, will not require the installation of environmental air emission compliance equipment or result in any air emission related taxes as is potentially the case with traditional fuel sources. <u>Mr. Shambo explained</u> that the proposed PPA represents a <u>very small percentage of NIPSCO's annual load, and it is NIPSCO's expectation that it will need</u> <u>a lot more wind power. (Transcript, p. 23, lns. 1-5)</u></u>

Mr. Shambo highlighted other benefits of wind energy. He noted that wind power is not subject to the security risks commonly associated with imported fuels. <u>Wind power does not use fuel. (Transcript, p. 12, lns. 3-8)</u> NIPSCO will also gain experience in integrating wind into its operations and, in turn, the opportunity to educate its customers about renewable energy. Mr. Shambo stated that NIPSCO's customers are increasingly interested in the use of more renewable resources to meet their needs. Another benefit of securing contractual rights to wind power today is that it will aid in compliance with future greenhouse gas ("GHG") regulation.

Mr. Shambo believes utilities cannot ignore the increasing demand for GHG regulation and must develop an emission strategy that anticipates such regulation will be enacted. Moreover, investment today will more gradually reflect the additional costs resulting from GHG regulation and also avoid cost increases for renewable resources that may result after GHG regulation is passed.

Mr. Shambo testified that debate about the adoption of renewable portfolio standards ("RPS") at both the federal and state level also supports the acquisition of wind energy. An RPS standard could require substantial capital investment. Mr. Shambo believes that voluntary action by NIPSCO and other utilities to invest in renewable resources at a level appropriate for their individual circumstances may obviate the need for more costly government mandates. <u>NIPSCO</u> watches what the other utilities in the State of Indiana are doing in terms of renewables in their portfolios more closely than it watches the national trend because the trend on renewables is very different around the country. (Transcript, p. 28, lns. 5-24)

Mr. Shambo also stated that the Wind PPAs are contingent on Commission approval. He noted that NIPSCO believes the wind energy it will acquire under the Wind PPAs constitutes a renewable energy resource as that term is used in Ind. Code § 8-1-8.8-10 and should qualify for timely cost recovery. Mr. Shambo testified that timely approval of the Wind PPAs and the cost recovery sought by NIPSCO is necessary for the parties to the Wind PPAs to move forward. Commission approval will also help protect against ratings agencies viewing the Wind PPAs adversely in determining NIPSCO's credit rating.

Mr. Shambo said NIPSCO is requesting that the Wind PPAs' Costs be recovered on a timely basis through retail rates over the respective terms of each Wind PPA through a rate

adjustment mechanism in accordance with Section 42(a). Mr. Shambo explained that under the proposed tracking mechanism, the energy costs of the Wind PPAs would be recovered in a fashion similar to fuel costs in the FAC, i.e. based on the estimated cost for the upcoming quarter and trued-up to actual cost in a subsequent quarter. The tracking mechanism would initially be implemented in conjunction with NIPSCO's FAC filing. Mr. Shambo stated that the Wind PPAs' cost recovery should not be subject to the Section 42(d)(1) test or any FAC benchmarks, including benchmarks set forth in the settlement agreement approved in Cause No. 38706-FAC71-S1. NIPSCO is seeking recovery for all costs associated with the Wind PPA's for the full term of the agreements without further review by the Commission, except for any challenge to NIPSCO's operating behavior under those contracts. (Transcript, pp. 10, lns. 15-24, p. 11, lns. 1-22) Although NIPSCO may propose to change how the costs from the Wind PPAs are allocated among customers in its upcoming rate case, NIPSCO does not intend for any change in its cost recovery. (Transcript, p. 14, lns. 9-22) He noted that NIPSCO's proposed recovery mechanism is the same as was approved for use by Duke Energy, Vectren South and I&M.

Mr. Shambo testified that the approval of the Wind PPAs and related cost recovery was reasonable and in the public interest. He noted that improvements in wind generation technology, improvements in the science of locating the best wind resources, and continually increasing environmental emission restrictions all make renewable wind energy more important and economically viable than ever before. Given the current and potential future benefits of renewable wind energy, Mr. Shambo felt it is appropriate for NIPSCO to offer its retail customers and other stakeholders the opportunity to include commercial scale, renewable wind energy in its portfolio of electric generation supplies.

Mr. Shambo also testified that the Wind PPAs are economic over their respective terms.

These purchases position NIPSCO to meet a possible RPS and protect customers from price increases likely result from the demand for additional renewable resources. Moreover, the projects NIPSCO is acquiring from will receive tax credits for the wind developers so long as they are in service by December 31, 2008 (which is expected). These tax credits are not currently available to wind projects that are in service after December 31, 2008.

Mr. Shambo stated that the energy to be supplied from Buffalo Ridge and Barton will be used by NIPSCO to meet its native load obligations. NIPSCO selected the purchase of 100 MW of wind energy from the long list of options considered in its IRP as a cost competitive solution to the 20-year energy requirements of NIPSCO's retail customers. NIPSCO will also receive any RECs that are associated with energy generated by Buffalo Ridge and Barton and purchased by NIPSCO. <u>NIPSCO will use the value of the RECs for the benefit of its ratepayers in a number of different ways. (Transcript, p. 13, lns. 3-9) NIPSCO's general objective will be to use the RECs in the best way that it can possibly use them for its customers. (Transcript, p. 13, lns. 10-21)\_Mr. Shambo explained these RECs could be counted towards NIPSCO's compliance with any future GHG or RPS regulations.</u>

NIPSCO witness Bradley K. Sweet described the Wind PPAs NIPSCO has executed with Barton and Buffalo Ridge. The PPA with Buffalo Ridge is for wind generated by turbines located in Brookings County, South Dakota. It provides for the sale of 50.4 MW of electrical output and associated RECs for 15 years. The PPA with Barton is for wind generated in Worth County, Iowa and provides for the sale to NIPSCO of 50 MW of electrical output and associated RECs for 20 years. Mr. Sweet testified that Barton and Buffalo Ridge are now both affiliates of Iberdrola, the largest owner/operator of wind farms in the world. <u>Those projects will not</u> interconnect directly with NIPSCO's transmission. (Transcript, p. 98, lns. 14-24) Mr. Sweet explained that the terms of the Wind PPAs are identical except with respect to pricing and duration. The Buffalo Ridge PPA provides for a fixed price over a 15 year term while the Barton PPA has an escalating price over its 20 year term. Mr. Sweet described the RECs NIPSCO is entitled to receive under the Wind PPAs. These RECs are intended to capture any changes to government rules, regulations or law or changes to registration systems put in place over the terms of the Wind PPAs. The RECs are tradable credits corresponding to each MWh of electricity generated by a renewable-fueled or environmentally friendly source. Mr. Sweet noted that Mr. Adkins accounted for the value of the RECs in his analysis of the Wind PPAs. Mr. Sweet stated that NIPSCO does not currently intend to sell these RECs. However, the value of RECs could increase dramatically in the future. NIPSCO would consider selling RECs in the future to generate proceeds that would be used to reduce the cost of the Wind PPAs to its retail customers. If the circumstances dictate that the sale of RECs makes sense, NIPSCO will pass through to ratepayers the sales proceeds from the RECs in whatever mechanism it is using to allocate the costs of the wind power. (Transcript, p. 107, lns. 10-16)

Mr. Sweet confirmed that wind power is a clean energy source that operates without emitting any greenhouse gases or other pollutants. (Transcript, p. 96, Ins. 10-18) As NIPSCO adds wind power to its systems and reduces the amount of coal-fired generation, it would reduce the harmful effects on people's health caused by pollutants. (Transcript, p. 97, Ins. 1-7) NIPSCO's existing generation is almost exclusively coal-fired generation. (Transcript, p. 97, Ins. 8-10) Mr. Sweet was not aware of any other type of generation that produces more greenhouse gases than coal-fired generation. (Transcript, p. 97, Ins. 15-25, p. 98, In. 1)

Mr. Sweet also stated that Buffalo Ridge and Barton will interconnect with transmission owning members of the Midwest ISO. NIPSCO will take delivery of the wind energy at metering points specified for the two projects. Mr. Sweet explained that the Midwest ISO marketplace allows participants to avoid the difficulties of requiring each buyer to arrange physical delivery of generation to their load. NIPSCO will be the Market Participant with respect to the wind energy and will make the energy available in the Midwest ISO real-time energy market as a price taker for the projects' actual output and will "settle" the sale price for the wind energy sold into the Midwest ISO against the price paid for the wind energy. Because the Midwest ISO treats wind energy projects as intermittent resources, NIPSCO avoids real-time Revenue Sufficiency Guaranty ("RSG") and Uninstructed Deviation charges assessed under the Midwest ISO's tariff. Mr. Sweet testified that Barton and Buffalo Ridge are classified as energy resources only and are not classified as network resources under the Midwest ISO tariff.

Charles Adkins described the process NIPSCO engaged in to identify potential wind energy purchases and evaluate the merits of the proposals it received. Mr. Adkins was retained by NIPSCO to aid in this process. Mr. Adkins testified that NIPSCO's 2007 IRP demonstrated that NIPSCO's forecasted demand reflects steady growth and shows a need for additional generating capacity to meet the needs for electricity within NIPSCO's service area. The 2007 IRP set a target of securing 100 MW of renewable energy resources, which Mr. Adkins noted was consistent with the wind energy resources I&M and Duke Energy contracted to receive.

Mr. Adkins testified that NIPSCO used a request for proposals ("RFP"), issued in 2006, to test the market availability and viability of a broad range of supply-side, demand-side and renewable options from various providers. Mr. Adkins explained that the goal of the RFP was to provide NIPSCO with capacity and energy with a reliable, least-cost and diversified energy portfolio. <u>NIPSCO did not evaluate a build option for the wind turbines</u>; no evidence was presented in this proceeding of the cost to build a wind turbine. (Transcript, p. 53, lns. 17-19, p.

54, lns. 3-7) Mr. Adkins agreed that one of the benefits of transitioning to wind power is reduction in pollution that causes adverse health effects. (Transcript, p. 55, lns. 10-17) He also agreed that ratepayers benefit from the use of a fuel that is clean because they do not have to breathe in the pollution created by an unclean fuel source. (Transcript, p. 61, lns. 10-14)

NIPSCO received a total of nine responses that included proposals for renewable/DSM technology. Mr. Adkins explained that proposals were required to pass several screens to warrant further consideration. The first screen ensured the proposals were complete, received on time and signed by a duly authorized officer or agent. No renewable/DSM proposal was screened out at this level. The second screen evaluated the bids' compliance with the requirements of the RFP. Mr. Adkins stated that three wind proposals and one DSM proposal failed to meet these requirements and were eliminated. The requirements these four responses failed to fulfill included failure to: (1) deliver to a Midwest ISO commercial pricing node; (2) provide audited financials; (3) have a credit rating of no less than BBB-; (4) have a sufficient tangible net worth; and (5) provide evidence of transmission feasibility.

Mr. Adkins explained that NIPSCO engaged in further evaluation of Indiana-based wind proposals in response to proposed legislation affording incentives for electric utilities to procure Indiana-based wind power. NIPSCO invited two developers of Indiana-based wind energy to reinstate their bids. Only one provider chose to resubmit a proposal. NIPSCO added this provider to its short-list of bidders and commenced two-party negotiations with the developers to further refine the commercial terms of their proposals.

NIPSCO, with Mr. Adkins' assistance, evaluated the competing proposals based on economic value. <u>The only due diligence of the potential sites at Barton and Buffalo Ridge</u>

performed by NIPSCO "was to look at the various regions in the country to see what their relative wind patterns were." (Transcript, p. 48, lns. 9-21) Based upon information from the National Renewable Energy Lab, Mr. Adkins testified that the Barton/Buffalo Ridge area and the entire lake area on Lake Michigan are the best areas for wind power in the United States. (Transcript, p. 48, lns. 22-25, p. 49, lns. 1-5) NIPSCO considered the locational marginal price ("LMP") in this analysis. Mr. Adkins explained that the wind proposals were adjusted to include the LMP for each proposed delivery point and for the NIPSCO load zone using historical data for 2006 from the Midwest ISO. A positive differential reflected a benefit and a negative differential reflected a cost. No bidder submitting a wind proposal included congestion costs in its bid. (Transcript, p. 62, lns. 15-19) Inherent differences in the availability of wind among the wind proposals, driven largely by the geographic location and the consistency of the wind, were also accounted for.

Based on this analysis, Mr. Adkins concluded that the proposals from Buffalo Ridge and Barton offered the greatest economic value to NIPSCO. <u>NIPSCO selected the longest term</u> <u>available for each PPA because the longer the term the more economical the wind proposal was</u> from a net present value basis. (Transcript, p. 50, lns. 18-25) In the later years of the PPA, the <u>savings from the wind proposal continue but the capital costs would not necessarily increase</u>. (Transcript, p. 52, lns. 10-24) Mr. Adkins recalled that Iberdrola indicated in the negotiation sessions that the wind projects would have a useful life of 20 to 30 years. (Transcript, p. 53, lns. 7-16)

<u>6. OUCC's Case-in-Chief</u>. Barbara Smith, a Utility Analysis in the Electric Division of the OUCC, discussed the OUCC's position regarding NIPSCO's wind power purchases from Barton and Buffalo Ridge. Ms. Smith noted that the OUCC supports using wind energy to

diversify generation portfolios when the overall cost impact is reasonable. She also acknowledged wind energy can have a positive environmental benefit when it displaces energy from fossil fuel generation. However, she said that in this case, the transmission to carry the wind energy from either South Dakota or Iowa to Indiana is not robust and, therefore, adds much uncertainty.

Ms. Smith described the Midwest ISO Generation Interconnection Queue ("Queue") process and Buffalo Ridge's and Barton's status in the Queue. Buffalo Ridge is in the final stage of the Queue, having submitted an interconnection agreement to FERC and placed in service the transmission upgrades required to connect the wind energy to the Midwest ISO commercial pricing node. Barton is still in the third stage which requires preparation of a Facility Study identifying a detailed timetable and a refined cost estimate for the required transmission facility upgrades. Ms. Smith noted that Barton's current status meant the details regarding what is needed to connect this project to the Midwest ISO grid, including timeframes and facility upgrades, are not yet known.

Ms. Smith explained that the OUCC was concerned about the potential for increasing transmission congestion and related costs in the area where Barton and Buffalo Ridge are located because the Midwest ISO listed active projects totaling nearly 22,000 MW of wind generation that have requested interconnection by 2014 in the Buffalo Ridge, South Dakota area while only 1,900 MW of outlet transmission capacity is planned for this region in that same time period. She believed that increases in transmission congestion and related costs are likely to increase absent additional transmission capacity investments.

Ms. Smith believed that NIPSCO's use of historical data to forecast congestion was

inadequate because of the increasing amount of generation and the substantially smaller amount of transmission in the Midwest ISO transmission Queue. At the request of the OUCC and other intervenors, NIPSCO conducted an additional LMP analysis using the Renewable Midwest ISO future projection information. NIPSCO conducted this analysis and made modifications recommended by the Intervenors. Ms. Smith testified this analysis showed the cost of congestion increasing for Barton, Buffalo Ridge and Indiana wind through 2016. The Barton transmission congestion costs decreased in the final 2021 model, while the Buffalo Ridge and Indiana wind costs continued to rise. Ms. Smith believed these results indicate that the transmission and congestion costs are volatile. She contended NIPSCO should have considered this volatility as part of the RFP results prior to any negotiation and sought pricing at the NIPSCO load zone to help mitigate the risk of any probable congestion costs between the wind farm location and the NIPSCO load zone.

Ms. Smith noted that local Indiana wind testing and development has increased since NIPSCO conducted its RFP and recommended that NIPSCO initiate a new RFP to solicit energy from a selection that includes new wind development. She also recommended NIPSCO perform a detailed congestion cost analysis on any newly selected wind energy resource prior to negotiating prices in future purchased power contracts. She explained that while Indiana wind appeared to be more expensive that out-of-state wind based on the total impact on NIPSCO's overall generation fleet, Indiana wind may be more economic given the uncertainty of future transmission congestion over the term of the contract. She opined that while the future congestion costs to bring South Dakota and Iowa wind to Indiana are not known, congestion will continue to worsen over the next seven years. She stated that since NIPSCO has not agreed to assume the risk of congestion costs, ratepayers will be left to bear that risk. She did not believe

this was reasonable. She recommended the Commission require NIPSCO to pay congestion costs without recovery from ratepayers.

In addition, Ms. Smith recommended NIPSCO submit certain reports to the Commission and OUCC including: (1) quarterly updates on the remaining Midwest ISO studies including the facilities needed for interconnection and the timetable for interconnection; (2) quarterly reports within each FAC listing the hourly congestion cost components of LMP for each wind farm; and (3) annual reports showing the actual wind energy delivered on an hourly basis. Ms. Smith also urged NIPSCO staff to become more actively and consistently engaged in discussions on current Midwest ISO Queue issues and wind delivery through active participation in the Midwest ISO Interconnection Process Task Force and the Indiana Wind Working Group.

7. Industrial Group's Case-in-Chief. Mr. Dauphinais, testifying on behalf of the Industrial Group, opposed NIPSCO's purchase of wind power under the Wind PPAs. Although he did not, in general, oppose the purchase of wind power, Mr. Dauphinais believed NIPSCO failed to show that the Wind PPAs represent the least cost option for either wind power or power in general. Mr. Dauphinais expressed concern that the Wind PPAs present a significant transmission congestion cost, would result in a net present value cost rather than a benefit and fail to provide the option for NIPSCO to require the wind facilities to seek network resource interconnection service from the Midwest ISO.

Mr. Dauphinais testified that NIPSCO was responsible for all Midwest ISO charges including imbalance and congestion costs at and after the delivery point under the Wind PPAs. He stated that the total per MWh cost for transmission congestion and marginal transmission losses for the Midwest ISO to move power from the Barton and Buffalo Ridge delivery point to

NIPSCO's native load in that hour is represented by the difference between the LMP at the NIPSCO load zone and the projects' nodes. Mr. Dauphinais testified that LMPs are very volatile and in a given hour can be as high as \$3,500 or as low as negative \$500 per MWh and the difference between individual LMPs can be equally as volatile depending on aggregate power flows and the location of transmission constraints.

Mr. Dauphinais noted that Buffalo Ridge and Barton are located 500 to 350 miles, respectively, from the approximate geographic center of the NIPSCO service territory. He contended this distance increased the likelihood that transmission constraints will be encountered on the path from generation to load. He also asserted that this distance increased the likelihood that any transmission reinforcements constructed to mitigate those constraints will be greater in length and cost. Mr. Dauphinais believed the congestion will be magnified by the flood of requests for interconnection of new wind generation in the area where Barton and Buffalo Ridge are located.

Mr. Dauphinais acknowledged that NIPSCO had used historical data to estimate the cost of transmission congestion and marginal transmission losses over the terms of the Wind PPAs, but that he believed this was an entirely inadequate approach. He advocated use of a production cost simulation technique utilizing a detailed power flow mode notwithstanding limitations related to the number of assumptions involved in such a forecast. In response to requests from the Intervenors and OUCC, NIPSCO did perform production cost runs for 2011, 2016 and 2021 using the Midwest ISO's Reference Future and Renewable Future assumptions. Mr. Dauphinais said the results suggest that under certain conditions, the per MWh cost of the Wind PPAs, including congestion, may exceed that of Indiana wind facilities. He went further, noting that only one of the two Wind PPAs show a lower projected per MWh cost, including congestion, during any period evaluated than the projected Midwest ISO price at the NIPSCO load zone. He concluded that the Wind PPAs would not likely provide a net present value benefit due to the results for 2011 and 2016 and are not the least cost option for NIPSCO to meet the needs of its native load customers.

Mr. Dauphinais testified that NIPSCO made only limited attempts to hedge the congestion cost risk associated with the Wind PPAs. He acknowledged that Financial Transmission Rights ("FTRs") could not be obtained for the Wind PPAs because they are not designated as network resources and that FTRs would not provide an effective long-term hedge for the congestion risk even if NIPSCO could acquire them. No other method is readily available to hedge the long term congestion cost risk associated with the Wind PPAs.

Mr. Dauphinais raised additional concerns with the absence of any provision in the Wind PPAs placing an obligation on Buffalo Ridge or Barton to seek the level of interconnection service necessary from the Midwest ISO to allow the facilities to be designated as network resources for NIPSCO. He stated NIPSCO would not be able to take credit for the capacity attributes of the facilities for resource adequacy purposes unless it can make such a designation. Mr. Dauphinais testified that if Midwest ISO capacity prices rise to the level of PJM capacity prices, a 20% capacity factor for Barton and Buffalo Ridge would be worth close to \$1.3 million in avoided cost annually to NIPSCO. He acknowledged that current Midwest ISO capacity rates are between 19% and 38% of PJM capacity costs. Mr. Dauphinais did not believe the cost of obtaining network resource status for Buffalo Ridge and Barton would have an impact on the normal per MWh charge. He said any additional costs required could be passed through as an additional cost to NIPSCO.

Mr. Dauphinais also disagreed with NIPSCO's allocation of the Wind PPAs' Costs on a per kilowatt hour basis. He testified that had NIPSCO negotiated for the proper level of interconnection service, the Wind PPAs would provide capacity and that the failure to obtain the proper level of interconnection service should not be a determining factor for cost allocation. Mr. Dauphinais advocated allocating costs based on how the costs would have been allocated if NIPSCO had built the facilities itself and obtained the proper level of interconnection service such that it had capacity attributes. In addition, Mr. Dauphinais testified that the form of payment under the Wind PPAs negotiated between NIPSCO and the Wind PPA facilities should not determine cost allocation for ratepayers.

Mr. Dauphinais recommended that the allocation of the Wind PPAs' costs should be determined in NIPSCO's upcoming rate case. The rate case will allow adequate time to thoroughly review the appropriate allocation of the cost associated with the purchase. He also noted that NIPSCO indicated that it may propose to change how the Wind PPAs' costs are recovered from or allocated to NIPSCO's customers in a future rate case.

If the Commission determined to resolve cost allocation now, Mr. Dauphinais believed the Wind PPAs' Costs should be allocated to classes using the most recent production plant investment demand allocation method approved by the Commission. According to Mr. Dauphinais, cost recovery factors should then be derived by dividing the amount allocated to each class by an estimate of sales to that class.

Mr. Dauphinais recommended that the Commission reject the Wind PPAs, as proposed, due to the significant congestion risk associated with moving power from Buffalo Ridge and Barton across approximately 350 to 500 miles to the NIPSCO service territory via the Midwest

ISO market. He said any approval should be conditioned on correcting the terms of the Wind PPAs as they pertain to securing the capacity attributes of the facilities for NIPSCO and to renegotiate the delivery point for the Wind PPAs to a point in or very near the NIPSCO service territory. Mr. Dauphinais further testified that if NIPSCO is authorized to recover the Wind PPAs' Costs through a tracking mechanism, any additional off-system sales profits created by the Wind PPAs should be passed on to ratepayers.

8. NIPSCO's Rebuttal Testimony. Messrs. Shambo, Sweet and Adkins offered rebuttal testimony on behalf of NIPSCO. Mr. Shambo addressed Mr. Dauphinais' proposals on the allocation of the Wind PPAs' Costs to NIPSCO ratepayers. He testified that NIPSCO is proposing to recover the Wind PPAs' Costs on a volumetric basis and that this treatment is similar to the methodology approved for I&M's, Duke Energy's and Vectren South's wind power purchase trackers. Mr. Shambo also explained that Mr. Dauphinais' proposal will change the impact on residential and small commercial customers and increase the complexity of the rate adjustment proceeding. He disagreed with Mr. Dauphinais' position that the Wind PPAs should be treated as if they had a capacity component. He noted that NIPSCO presently has no contractual right to require Buffalo Ridge and Barton to seek designation as network resources and that even if they were so designated, any capacity value NIPSCO could receive from the Wind PPAs is not the same as the capacity provided by NIPSCO's generating units. Mr. Shambo acknowledged that NIPSCO needs capacity, and the Wind PPAs do not provide it with capacity. (Transcript, p. 17, lns. 9-21) He said wind power availability is significantly different than that provided by NIPSCO's generating units in that it does not always produce power when electricity is needed.

Mr. Shambo disagreed with Mr. Dauphinais' contention that NIPSCO is purchasing wind

generation capacity rather than fuel. While wind power provides a useful, environmentally friendly supplement to generation facilities, it cannot, by itself, provide a tool to ensure that NIPSCO can meet the reasonable demands of its customers at all times. Mr. Shambo stated that the Wind PPAs represent purchased power, not capacity. Mr. Shambo urged the Commission to reject Mr. Dauphinais' invitation to simply ignore the form of payment agreed to by the parties negotiating the contract. He agreed that Mr. Dauphinais' recommendation did not preclude NIPSCO from passing on to customers the reasonable costs of designating the wind facilities as designated network resources if that designation would benefit ratepayers. (Transcript, p. 15, Ins. 5-15) Mr. Shambo testified different structures bring different costs and benefits to ratepayers. For example, ratepayers will pay no return on the wind turbines and other capital expenditures required to produce the wind energy. They will incur no expenses if the wind never blows. Had NIPSCO constructed these turbines itself NIPSCO's rates would reflect all expenses associated with their maintenance.

Mr. Shambo did agree with Mr. Dauphinais' recommendation that NIPSCO pass through any off-system sales profits created by the Wind PPAs. However, he disagreed with Mr. Dauphinais' position that NIPSCO should purchase power from the Midwest ISO rather than acquiring wind power from Barton and Buffalo Ridge. Mr. Shambo believed such a strategy would be short-sighted because concern continues to mount about GHG emissions by utilities and pressure for use of renewable energy is great. <u>Given that prices of various fuel sources seem</u> to be moving at changing rates that he has not seen in his career, Mr. Shambo opined that it is really a challenge to be able to say with a lot of clarity that any decision is going to be the one best option. (Transcript, p. 35, lns. 7-24) Mr. Shambo testified that NIPSCO and its customers will be better served by gaining experience with renewable energy other than hydro power through these relatively small long term commitments. He further explained that adoption of an RPS will likely increase the cost of acquiring renewable resources. <u>Mr. Shambo admitted that</u> there is currently no requirement, at either the state or federal level, that a utility have any percentage of renewable resources by any particular date. (Transcript, p. 19, lns. 12-22) Combined with federal tax credits to wind developers which have not been renewed, Mr. Shambo opined that now is the most economic time to acquire renewable resources. Regardless of whether NIPSCO's analysis is sufficient under a least cost standard, Mr. Shambo urged the Commission to exercise its independent authority under Ind. Code § 8-1-8.8-11 to authorize recovery of the Wind PPAs' Costs.

Mr. Shambo also responded to Ms. Smith's conclusion that the Wind PPAs should be disapproved. He testified that the evidence does not support her recommendation that a new request for proposal should be issued because of additional studies and wind development in Indiana. According to Mr. Shambo, NIPSCO's additional evaluations show that the other parties' primary concern with the Wind PPAs, adverse LMP differentials, is not projected to make prices for Indiana wind power more favorable than the prices under the Wind PPAs. <u>NIPSCO is not willing to assume the risk of the congestion costs or to share those risks with the ratepayers. (Transcript, p.16, lns. 7-16)</u> Mr. Shambo also questioned whether Indiana, alone, could construct sufficient wind generation to satisfy mandatory renewable energy requirements at the level proposed in prior federal and state legislation. Mr. Shambo did state that NIPSCO was willing to explore the Midwest ISO Interconnection Process Task Force and Indiana Wind Working Group in more detail and to identify personnel whose participation would be the most meaningful to NIPSCO.

Mr. Sweet disagreed with Mr. Dauphinais' assertion that NIPSCO would have to pay the

congestion and transmission losses incurred to transmit the power from South Dakota and Iowa to the NIPSCO load zone. <u>Mr. Sweet agreed that the farther power is transmitted, the greater the line losses. (Transcript, p. 99, lns. 18-25, p. 100, lns. 1-3)</u> Mr. Sweet explained that LMP is not designed to price the cost of transmitting power from one part of the Midwest ISO footprint to another. <u>When wind power comes on at Barton or Buffalo Ridge, it will more likely back off other generation in that local area wherever the load is, whether it be Minneapolis or Chicago, Wisconsin or Milwaukee. (Transcript, p. 102, lns. 2-10) The electrons from Barton and Buffalo Ridge probably will not make it to the NIPSCO territory. (Transcript, p. 102, lns. 11-20) More than likely, the load and generation are relatively close to each other. (Transcript, p 103, lns. 17-22)</u>

Mr. Sweet agreed with Mr. Dauphinais that LMPs constantly change, but disagreed this should weigh against NIPSCO's purchase of wind from Buffalo Ridge and Barton. He noted that other Indiana utilities face the same risk with respect to their wind energy purchases. Congestion constraints and losses on the transmission system can occur anywhere, in Indiana or in South Dakota. Mr. Sweet also disagreed with the contention of Mr. Dauphinais that any transmission reinforcements constructed to mitigate constraints will be greater in length and, thus, greater in cost because of the distance of Buffalo Ridge and Barton to NIPSCO. He said the length of a constraint is not the distance between the injection and withdrawal point. The constraint may not be a line at all but may be a transformer or even as small as a current transformer on a breaker.

Mr. Sweet also disagreed with Mr. Dauphinais' assertion that transmission congestion and related costs will necessarily increase in the area where Barton and Buffalo Ridge are located. Mr. Sweet acknowledged that announced capacity exceeded transmission but noted that projects must enter into Interconnection Agreements to connect to the Midwest ISO transmission grid which assure additional wind projects will not be built until transmission upgrades are completed. Mr. Sweet also noted that the Midwest ISO is evaluating transmission expansion beyond the 1,900 MW of outlet transmission planned in the area of Buffalo Ridge and Barton the benefit of which is projected to exceed the costs. Mr. Sweet agreed that when NIPSCO is making the choice as to where to invest its transmission dollars, it is more likely to invest close to home for a designated network resource than for an intermittent source out of state. (Transcript, p. 126, lns. 9-17)

Mr. Sweet also explained that NIPSCO did not seek to require Barton and Buffalo Ridge to be designated as network resources because most wind providers do not request that designation due to the additional costs for transmission upgrades above those required for energy resource interconnection service. The additional transmission upgrades are for the entire connected capacity of the project, but wind farms receive only a small percentage of the connected capacity as a capacity resource due to the intermittent nature of wind generation.

Mr. Adkins explained in rebuttal that NIPSCO had used historical LMP data from the Midwest ISO because that was the only data available at the time. He acknowledged that an ideal approach would have been to use both a historical and a prospective model in projecting future LMP. However, a forecast did not exist at the time NIPSCO was evaluating its wind projects and developing such a projection is not a trivial matter because it would involve developing an integrated resource plan for the entire Midwest ISO system, siting future generation resources, and developing a transmission expansion plan.

Mr. Adkins testified NIPSCO, at the request of the OUCC and the Intervenors, used

newly available data from the Midwest ISO to project LMP prices after filing its case-in-chief. The result of the revised analysis using projected LMP prices was that in all years except one the economic savings of selecting Barton and Buffalo Ridge over Indiana wind are maintained. The MISO fundamental model was only for three (3) years-2011, 2016 and 2021. (Transcript, p. 71, Ins. 4-9) He concluded that the transmission congestion risk is unlikely to jeopardize these savings. Mr. Adkins noted that his analysis of the Net Present Value Utility Cost ("NPVUC") conducted in the context of NIPSCO's 2007 IRP had demonstrated that purchasing wind power from Barton and Buffalo Ridge was economically superior to purchasing Indiana wind or not buying wind at all. This analysis included the LMP differential based on a one-year historical look using 2006 actual data. (Transcipt, p. 76, Ins. 2-15) Under that analysis, the difference between the NPVUC of the Indiana wind option and the NPVUC of the out-of-state wind option is less than 1%. (Transcript, p. 66, Ins. 6-23) Mr. Adkins did not calculate the margin of error for his the calculations in this analysis. (Transcript, p. 68, lns. 5-7) This analysis compared the Barton and Buffalo Ridge projects on one side and one Indiana wind farm on the other side. (Transcript, p. 88, Ins. 5-16) Mr. Adkins also stated that the forecasted Midwest ISO renewables data represented a rather conservative case because it did not consider any future transmission enhancements and assumes enactment of an RPS that results in even more wind generation located in the west. Mr. Adkins agreed that finding the least-cost mix of resources is a primary or main driver with regard to the decision whether to acquire one resource versus another. (Transcript, p. 80, lns. 8-21)

Mr. Adkins also responded to Ms. Smith's contention that future LMPs will only continue to increase in the upcoming years. He acknowledged that the underlying economics (inflation, fuel escalation, etc.) will cause future LMPs to increase in the upcoming years but

disagreed that congestion will necessarily increase. The purpose of LMP is to identify economic

incentives to correct congestion.

<u>...</u>

# HARDY, GOLC, LANDIS, SERVER AND ZIEGNER CONCUR: APPROVED:

I hereby certify that the above is a true and correct copy of the Order as approved.

Brenda A. Howe Secretary to the Commission