STATE OF IOWA

DEPARTMENT OF COMMERCE

UTILITIES BOARD

IN RE: MIDWEST RENEWABLE ENERGY PROJECTS LLC, Petitioner, v. INTERSTATE POWER AND LIGHT COMPANY, Respondent.	DOCKET NO. AEP-05-1

FINAL DECISION AND ORDER

(Issued December 28, 2005)

PROCEDURAL HISTORY

On January 12, 2005, Midwest Renewable Energy Projects LLC (Midwest Renewable) filed with the Utilities Board (Board), pursuant to 199 IAC 15.4 and 15.5, a petition to determine specific rates to be paid by Interstate Power and Light Company (IPL) for purchases of qualifying energy and/or capacity for a certain qualifying small power production facility. The petition also asked that the Board order IPL to purchase such energy and/or capacity from the facility pursuant to a long-term agreement that may, but need not, convey to IPL any environmental attributes, such as emission credits, alternate energy credits, or similar tradable certificates.

In its petition, Midwest Renewable requested that the Board issue a decision on an expedited basis. At the time, Midwest Renewable hoped that its proposed wind project could be in-service on December 31, 2005, to take advantage of federal tax credits. The Board, by order issued January 21, 2005, assigned the docket to its administrative law judge (ALJ) and directed the ALJ to convene a conference among the parties to discuss an expedited procedural schedule. After the conference, Midwest Renewable filed a motion asking the full Board to preside at the hearing and issue a decision, thereby avoiding the time required for potential intra-agency review. IPL and the Consumer Advocate Division of the Department of Justice (Consumer Advocate), the other parties to the proceeding, had no objection. The Board, on February 7, 2005, withdrew its assignment of the docket to the ALJ and established a procedural schedule.

Prefiled testimony was submitted and a hearing held on April 5, 2005. At the hearing, it became apparent that an expedited schedule was no longer necessary because wind turbines were not available to Midwest Renewable for a December 31, 2005, in-service date. Initial briefs were filed subsequent to the hearing. On May 20, 2005, prior to the deadline for reply briefs, IPL filed a motion to reopen the record to file additional testimony and evidence regarding an anticipated wind generation power purchase agreement (PPA) resulting from a request for proposals (RFP) that IPL had issued. On June 3, 2005, Midwest Renewable filed its own motion to

present additional evidence. Consumer Advocate did not object to either motion and the Board issued an order on June 13, 2005, reopening the record.

IPL was unable to file its PPA by the deadline established by the Board, but Midwest Renewable filed additional prefiled testimony and exhibits. IPL and Consumer Advocate filed responsive testimony and a second hearing was held on July 20, 2005. At the hearing, IPL presented additional evidence on its recently completed PPA. Final briefs were filed subsequent to the second hearing.

On August 12, 2005, IPL filed a motion to hold the docket in abeyance pending a ruling by the Federal Energy Regulatory Commission (FERC) on a petition for declaratory order filed by IPL asking FERC to determine IPL is no longer required to enter into a new contract or obligation to purchase electricity under the Public Utility Regulatory Policies Act of 1978 (PURPA), or to enter into a PPA with any unbuilt Qualifying Facilities (QF) project, such as the Midwest Renewable project. IPL claimed that the Energy Policy Act of 2005 relieved it of these obligations, making it unnecessary for the Board to determine avoided cost in this docket because there was no longer an obligation for IPL to purchase energy from a QF such as Midwest Renewable.

On September 21, 2005, the Board denied IPL's motion to hold the docket in abeyance. The Board notes that FERC as of this date has denied IPL the relief it requested.

Board member Stamp previously was an attorney with Dickinson, Mackaman, Tyler & Hagen, P.C., Law Firm, which is representing Midwest Renewable in this matter. However, during his time with the firm as it pertains to this matter, Board member Stamp did not do any work for Midwest Renewable, was not involved in counseling or advising Midwest Renewable, and was not privy to any confidential information involving Midwest Renewable. After reviewing the relevant professional codes, the Board's General Counsel has advised Board member Stamp that he may participate in the decision-making in this docket.

PURPA AVOIDED COSTS

Under FERC rules that implement PURPA, utilities are required to interconnect with qualifying cogeneration and small power production facilities (i.e., QFs) and purchase their electric output based on the utility's "avoided costs." FERC rules (and parallel Board rules) define "avoided costs" as:

> [T]he incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source. (18 CFR 292.101(b)(6) and 199 IAC 15.1)

Midwest Renewable's petition asked the Board to set PURPA avoided cost rates for purchases from its QF by IPL under 199 IAC 15.5(4). Specifically, these rates would apply to IPL's purchases from an 80 MW wind generation QF proposed by Midwest Renewable. Under 199 IAC 15.5(4) through 15.5(6), the Board determines avoided cost rates in contested case proceedings for QFs larger than 100

kW if the QF and utility cannot agree on a purchase rate. This is the first such PURPA avoided cost case to come before the Board. All other large QFs and utilities have been able to reach agreement on purchase rates.

IPL said the avoided cost rate for Midwest Renewable's 80 MW project should be $27.72 per MWh. This estimate is based on IPL's economic dispatch analysis using the Electric Generation Expansion Analysis System (EGEAS) model. IPL said its EGEAS estimate was confirmed by a slightly higher contract rate from IPL's wind generation RFP, which IPL argued established the upper bound for its avoided cost.

IPL argued that there was little dispute in the docket that avoided costs can be determined either by an economic dispatch analysis or though a competitive bidding process. (Tr. 31, 139, 322-23.) IPL noted in its brief that FERC has recognized the validity of competitive bidding for determining avoided cost. Administrative Determination of Full Avoided Costs, Sales of Power to Qualifying Facilities, and Interconnection Facilities Order Terminating Proceeding, Docket No. RM88-6-000, 84 FERC ¶ 61,265 (1998). IPL maintained that avoided cost should be set at the lesser of the EGEAS analysis or the competitive bidding results, but that in this case the differences between the two are so small as to have little significance. (Tr. 139, 204-05.)

In support of its first avoided cost methodology, IPL said it used EGEAS to conduct an economic dispatch analysis based on its generation planning, and that EGEAS considers all combinations of existing resources and future resource

alternatives, incorporating the avoided cost factors listed in 199 IAC 15.5(6). (Tr. 140, 197-98.) IPL used EGEAS to first derive an optimal resource expansion plan and then used it to derive a second plan, which was identical to the first but with an 80 MW wind farm (similar to Midwest Renewable's proposal) added at zero cost. IPL noted that to properly reflect the intermittent nature of wind generation, it used an hourly output profile for the 80 MW wind farm consistent with its existing Iowa wind resources. (Tr. 141, 248-49.) IPL said the resulting annual cost differences between the two resource plans reflects the avoided cost that would result from adding an 80 MW wind resource as zero cost. The levelized annual cost differences used by IPL produced an avoided cost of $27.72 per MWh. (Tr. 140-41.)

In support of its second avoided cost methodology, IPL presented evidence about its RFP to solicit competitive bids for long-term contracts for 100 MW of wind generation. IPL introduced the contract with the winning bidder, which was determined to be confidential, at hearing. The winning bid rate in the RFP process is close to the rate resulting from the EGEAS analysis.

Midwest Renewable argued the avoided cost rate for its 80 MW proposed project should be no less than $47.65 per MWh. Midwest Renewable said its rate was based on an economic dispatch analysis using actual hourly plant operating data provided by IPL. Midwest Renewable stated its analysis matches the 2004 hourly operation of IPL's generation plants with hourly output from the 80 MW Top of Iowa (TOI) wind farm used as a proxy for Midwest Renewable's project. The output from

the TOI wind farm is part of IPL's current generation portfolio. Midwest Renewable then reduced hourly generation from IPL's most expensive operating plants (i.e., plants last dispatched) to match the corresponding hourly output from TOI. The production cost savings are said by Midwest Renewable to be IPL's avoided costs. Midwest Renewable then extrapolated the 2004 results to 2006 and adjusted them to incorporate data for IPL's new Emery combined cycle plant. Finally, Midwest Renewable escalated and levelized the adjusted 2006 results over a 20-year period using a 2.5 percent annual escalation rate and 8.62 percent discount rate, producing a levelized annual avoided cost of $47.65 per MWh. (Tr. 21-22, 54-55, 60-61, 245; Exs. 3 and 16.) Twenty years is the project life Midwest Renewable used in its analysis.

Consumer Advocate advocated using $31 per MWh for IPL's avoided cost rates for Midwest Renewable's 80 MW facility. Consumer Advocate said there was no single method for determining avoided costs, and that because of the wide disparity between IPL's and Midwest Renewable's results and the limited time to investigate those results, Consumer Advocate developed an alternative benchmark for avoided cost using IPL's recent actual and planned purchase rates for wind generation. Specifically, Consumer Advocate said its recommendation is an average of the estimate IPL used in its 2004 PURPA avoided cost filing for wind energy purchases under "Planned Capacity Additions" and the average cost of IPL's wind purchases since 2000. (Tr. 321; Ex. 201, Sch. A, p. 4, and Sch. C, p. 7.) By using

this data, Consumer Advocate believed its benchmark reflected the factors listed in 199 IAC 15.5(6) for determining avoided costs and reflected rates that have been sufficient to stimulate wind development. Also, by using an aggregate of actual and planned wind purchases, Consumer Advocate said its method was less susceptible to upward swings due to natural gas price volatility or downward swings due to future additions of wind generation.

Board rule 199 IAC 15.1, which mirrors the FERC rule, defines avoided costs in terms of incremental costs to the electric utility. If not for the QF purchases, the utility would either have to generate this energy and capacity or purchase it from another source. Pursuant to the rule, avoided costs can be based either on an operational analysis of the utility's system or on market purchase prices established through competitive bidding.

IPL used both operational analysis and competitive bidding for estimating avoided costs. IPL's EGEAS model incorporates current and forecasted load growth and supply additions and estimates the cost savings from adding an 80 MW wind farm at zero cost, over a 13-year time frame. The levelized avoided cost produced by this analysis is $27.72 per MWh. IPL's competitive bidding process produced a figure that is close to the EGEAS analysis.

IPL's analysis is logically structured and uses EGEAS, an industry-recognized analytical tool for system expansion planning. No evidence was presented by other parties that convincingly challenged IPL's use of the model or any of its specific

inputs or assumptions. (Tr. 100-01, 162, 342-45.) While the lack of challenging evidence may have been due, at least in part, to an expedited schedule, none of the parties requested additional time for review after the request for expedited treatment was withdrawn at the first hearing.

The Board does not believe it is reasonable to compare IPL's 80 MW EGEAS estimate with the 2004 PURPA avoided cost report used by Midwest Renewable. Although both are generated using the same EGEAS data inputs, the analyses are separate and different. (Tr. 170-73, 239-40.) The PURPA report reflects avoided costs associated with only 1 MW, not the 80 MW being considered here. The evidence demonstrated that the average avoided costs for an 80 MW wind farm are likely to be less than those for a 1 MW wind generator. (Tr. 137, 158-61, 246-48; Ex. 102, Sch. B.) It also is not reasonable to compare IPL's 80 MW estimate with the updated PURPA report, as suggested by the other parties, because again this relates only to 1 MW, not 80 MW. (Tr. 62-67; Exs. 13-15). While IPL may have offered slightly higher rates than $29 per MWh to other wind generators, this does not justify a higher avoided cost, particularly since these higher rates may reflect "all in" rates that transfer environmental attributes to IPL, an issue addressed later in this order. It is important to note that PURPA does not dictate what a utility might pay for capacity and energy through negotiation; PURPA only dictates what a utility must pay to a PURPA QF if negotiations are unsuccessful.

A number of questions and concerns were raised with respect to Midwest Renewable's analysis. For example, Midwest Renewable's analysis does not include power purchases, but relies exclusively on IPL plant operating data. This ignores an important part of the overall supply picture. Further, Midwest Renewable's analysis might erroneously give greater weight to more expensive units, which may be operating for reasons other than serving load. Therefore, the costs of these units might not be avoidable. (Tr. 150-52, 245-46, 299-302.) Midwest Renewable's analysis appears to place special emphasis on the Emery plant, which was undergoing testing through much of 2004, the base period used by Midwest Renewable. (Tr. 20-22, 301.) Also, because of minimum loading requirements, base load plants may not always be avoidable during off-peak periods. (Tr. 301-02.) Midwest Renewable never responded to these specific points. These apparent flaws in Midwest Renewable's analysis are the most reasonable explanation for the wide discrepancy between the results offered by IPL and Midwest Renewable.

Consumer Advocate's avoided cost estimate was based on a simple average. While Consumer Advocate did not endorse IPL's avoided cost analysis, it noted that IPL's EGEAS analysis is relatively close to Consumer Advocate's method and the best bids received in IPL's RFP. (Consumer Advocate Initial Brief, pp. 14-15; Tr. 155-56.) Consumer Advocate's analysis included smaller wind contracts, which may account for Consumer Advocate's higher result. (IPL Initial Brief, p. 15; Ex.

201, Sch. C, pp. 7, 9; Ex. 202, Sch. E, p. 14.) Also, Consumer Advocate relied on 2002 data, making its analysis somewhat dated. (Tr. 191-92, 332-33.)

IPL's EGEAS analysis is generally confirmed by the results of its RFP. Although slightly higher, the RFP results are consistent with the EGEAS results. Consumer Advocate and Midwest Renewable argued that the avoided cost from competitive bidding should be regarded as the price IPL pays for delivered wind energy, rather than the winning bid or contract price. (Tr. 31, 323.) This concern has some merit because there are some pricing contingencies in IPL's contract with the winning bidder. However, these concerns are largely alleviated by renewal of the federal production tax credit. (Tr. 518, 530-32, 536-38; Ex. 105, pp. 19-21.) The results of the RFP bolster the credibility of IPL's EGEAS analysis.

Based on the evidence presented to the Board in this docket, the most reasonable avoided cost estimate is the one produced by IPL's 80 MW EGEAS analysis. However, as pointed out by Midwest Renewable, there is a flaw in IPL's analysis. IPL's EGEAS analysis reflects levelized avoided costs over 13 years, rather than the 20-year term of Midwest Renewable's proposed project. (Midwest Renewable Reply Brief, p. 11; Tr. 366, 369-70; Ex. 22, Cols. 5 and 6.) IPL did not contest this point and its witness testified that the avoided cost rate "should be determined to be no greater than $29/MWh depending on the term." (Tr. 420.) Therefore, the Board finds the avoided cost for Midwest Renewable's proposed 80 MW wind project to be $29/MWh. This figure, endorsed by IPL, closely

approximates the results of IPL's EGEAS analysis, $27.72 per MWh, adjusted to reflect the 20-year term of Midwest Renewable's proposed contract rather than the 13-year period used by IPL.

Midwest Renewable argued that a transmission cost adjustment should be added to IPL's avoided cost estimate. IPL said there are no such costs and noted that its past wind contracts have not involved added transmission costs. (Tr. 201-02, 263-64.) Transmission costs are location specific and nothing in Midwest Renewable's analysis takes into account generation location. (Tr. 410.) Also, Midwest Renewable proposed no specific adjustment for transmission. The record here does not support consideration of a transmission cost adjustment.

GREEN CREDITS

Environmental attributes, or Green Credits, associated with wind generation have been created by states with mandated renewable energy purchase requirements. Green Credits are designed to represent the environmental attributes associated with renewable energy, which can be detached, sold, and re-combined with non-renewable energy to comply with a state's renewable requirements. Iowa does not allow the use of Green Credits for compliance with its mandatory 105 MW alternate energy production (AEP) purchase requirement. In states that do allow their use, the value of Green Credits is derived from the cost of complying with a state's renewable energy regulatory requirements; Green Credits have no intrinsic value.

Currently, there is no authorized national or Midwest regional exchange or clearinghouse for trading Green Credits, although a Midwest regional exchange may be developed. Green Credits are not specifically addressed by Iowa Code chapter 476, FERC rules, or the Board's avoided cost rules. Any market for Green Credits in Iowa is therefore unregulated and there is no readily ascertainable value to the credits; their value is determined through individual transactions between willing buyers and sellers.

IPL argued the avoided cost determination should be an "all in" price, which would include Green Credits associated with Midwest Renewable's generation. IPL noted that FERC determined in American Ref-Fuel Company, et al., EL03-133-00, "Order Denying Rehearing" (4/15/04), that Green Credits belong to the QF generator, unless the purchase contract or state law provide otherwise. IPL said in its recent RFP, the bid prices were "all in" and included both energy and associated Green Credits.

IPL said the EGEAS analysis it presented does not account for the negative (nondispatchable and relatively unreliable) or positive (Green Credit) attributes of wind power. (Tr. 23.) To balance the exclusion of the negative characteristics, IPL argued that the avoided cost rate must be "all in," including Green Credits, or the value of Green Credits would have to be subtracted from its EGEAS results.

Consumer Advocate also argued that the avoided cost purchase price should include Green Credits. Because IPL is required by state and federal law to make

purchases from PURPA QFs, the purchases should include all associated attributes. While IPL is forced to purchase from Midwest Renewable, Consumer Advocate noted that Midwest Renewable does not have to sell to IPL; Midwest Renewable can sell its power in the wholesale market and retain the Green Credits.

Midwest Renewable said IPL's avoided cost purchases from it should not include Green Credits associated with Midwest Renewable's generation and that Midwest Renewable should retain ownership of the credits. Midwest Renewable said it might decide to sell those credits to IPL, but it should not be compelled to by the inclusion of Green Credits as part of the PURPA avoided cost determination. Midwest Renewable cited the PURPA definition of avoided cost, which is "the cost to the electric utility of the electric energy which, but for the purchase from such cogenerator or small power producer, such utility would generate or purchase from another source." 16 U.S.C. 824a-3(b) and 16 U.S.C. 824a-3(d). Midwest Renewable said the FERC rules implementing PURPA contain a similar definition. 18 CFR 292.101(b)(6). Midwest Renewable pointed out that neither these definitions nor the Board's rules, which mirror FERC's rules, include any reference to environmental attributes.

The Board can find no mention of environmental attributes or Green Credits in PUPRA, FERC rules, or Board rules. In fact, FERC has explicitly ruled that PURPA avoided costs do not include Green Credits:

> [T]he avoided cost that a utility pays a QF does not depend on the type of QF, i.e. whether it is a fossil-fuel-cogeneration

> facility or a renewable-energy small power production facility. The avoided cost rates, in short, are not intended to compensate the QF for more than capacity or energy.
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> States, in creating [Green Credits], have the power to determine who owns the [Green Credits] in the initial instance, and how they may be sold or traded; it is not an issue controlled by PURPA.

American Ref-Fuel Company, et al., Docket No. EL03-133, "Order Granting Petition for Declaratory Order," ¶ 23-24 (10/1/03).

> If avoided cost rates are not intended to compensate a QF for more than capacity and energy, it follows that other attributes associated with the facilities are separate from, and may be sold separately from, the capacity and energy.

American Ref-Fuel Company, et al., Docket No. EL03-133, "Order Denying Rehearing," ¶ 16 (4/15/04). Simply put, because there is nothing in state or federal law that requires Midwest Renewable to sell its Green Credits to IPL in a PURPA avoided cost transaction, the Board will not impose this requirement. Midwest Renewable may, but need not, sell its Green Credits to IPL.

The evidence in this proceeding supports this conclusion. IPL's argument that its EGEAS avoided cost estimate should be interpreted as implicitly including the value of Green Credits because the estimate does not include wind generation's negative attributes is not persuasive and is contradicted by testimony IPL presented at hearing. IPL said that the EGEAS analysis modeled wind as a "non-dispatchable resource with an hourly output profile consistent with IPL's existing Iowa wind resources." (Tr. 141, 162.) Also, IPL testified that its EGEAS analysis would have

produced the same avoided cost result if Midwest Renewable's project had been a fossil fuel cogeneration facility with the same hourly operating characteristics as an 80 MW wind farm. (Tr. 248-49.) The fossil-fuel cogeneration facility would not have Green Credits to convey to IPL and would not be required to provide them as part of a PURPA avoided cost transaction. If the cogeneration facility's avoided costs are the same as the wind facility and do not include Green Credits, then the Board believes the wind facility's avoided cost payments should not include Green Credits.

The fact that IPL has negotiated for inclusion of Green Credits in other wind contracts is not persuasive. Parties are free to negotiate contract terms. This is the first time the Board has been asked to set a PURPA avoided cost; in other wind transactions, the parties were able to agree on price and other terms. While IPL may have negotiated the conveyance of Green Credits in other transactions, Green Credits are not part of the PURPA avoided cost and Midwest Renewable is not compelled to transfer them as part of a PURPA transaction.

FINDINGS OF FACT

Based on a review of the entire record in these proceedings, the Board makes the following findings of fact:

1. It is reasonable to require IPL to pay Midwest Renewable an avoided cost rate of $29 per MWh for purchases of energy and/or capacity from Midwest Renewable's proposed 80 MW wind project.

2. It is unreasonable to adjust the avoided cost for any transmission costs.

3. It is unreasonable to require Midwest Renewable to transfer environmental attributes or Green Credits from the 80 MW project to IPL as part of the avoided cost rate.

CONCLUSIONS OF LAW

The Board has jurisdiction of the parties and the subject matter in this proceeding, pursuant to Iowa Code ch. 476 (2005), 199 IAC 15, and the Public Utility Regulatory Policies Act of 1978.

ORDERING CLAUSES

IT IS THEREFORE ORDERED:

1. The petition to set avoided cost rate filed by Midwest Renewable Energy Projects LLC on January 12, 2005, is granted to the extent discussed in this order, and Interstate Power and Light Company is required to pay Midwest Renewable $29 per MWh for purchases of energy and/or capacity from Midwest Renewable's proposed qualifying small power production facility in Worth County that are made pursuant to the Public Utility Regulatory Policies Act of 1978 and 199 IAC 15. If the parties are unable to agree on terms for the sale of environmental attributes, IPL is required to make the energy and/or capacity purchases regardless of whether the agreement conveys to IPL any associated environmental attributes.

2. Motions and objections not previously granted or sustained are denied or overruled. Any argument in the briefs not specifically addressed in this order is

rejected either as not supported by the evidence or as not being of sufficient persuasiveness to warrant comments.

UTILITIES BOARD

/s/ John R. Norris

/s/ Diane Munns

ATTEST:

/s/ Judi K. Cooper
Executive Secretary

/s/ Curtis W. Stamp

Dated at Des Moines, Iowa, this 28th day of December, 2005.