I O W A

R P U - 2 0 1 7 - 0 0 0 2

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

STATE OF IOWA

DEPARTMENT OF COMMERCE

UTILITIES BOARD

IN RE: INTERSTATE POWER AND LIGHT COMPANY	DOCKET NO. RPU-2017-0002

FINAL DECISION AND ORDER

(Issued April 17, 2018)

TABLE OF CONTENTS

INTRODUCTION AND PROCEDURAL BACKGROUND 2
LEGAL STANDARDS 5
CONDITIONS PRECEDENT 7
A. Energy Efficiency Plan 8
B. Reasonableness of Facility 8
1. Financial Modeling Assumptions 9
a. Capacity Factor 9
b. Federal Production Tax Credits (PTCs) 13
c. Energy Market Revenues (Net Energy Benefits) 18
d. Capacity Value 25
e. Transmission Costs 29
f. Duane Arnold Energy Center Purchase Power Agreement 30
2. Economic Analysis 39
RATEMAKING PRINCIPLES 44
A. IPL Proposed Principles 44
1. Ratemaking Principle No. 1: Return on Equity 45
2. Ratemaking Principle No. 2: Double Leverage 54
3. Ratemaking Principle No. 3: Depreciable Life 55
4. Ratemaking Principle No. 4: Cost Cap 57

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

5. Ratemaking Principle No. 5: Size Cap 59
6. Ratemaking Principle No. 6: Cancellation Cost Recovery........................62
7. Ratemaking Principle No. 7: Treatment of AFUDC 63
8. Ratemaking Principle No. 8: Environmental Attributes 65
B. Additional Principles 67
1. Ratemaking Principle: Production Tax Credits, Energy Benefits, and Capacity Factor 68
2. Ratemaking Principle: Energy Benefits 69
C. Ratemaking Principle: Production Tax Credits...72
1. Parties' Proposed Principles 72
2. PTC Order Principles 79
a. Potential Ratemaking Principle No. 1: Address PTC Carryforwards in Next General Rate Case...80
b. Potential Ratemaking Principle No. 2: No ROE on PTC Carryforwards 83
c. Potential Ratemaking Principle No. 3: Cap on PTC Carryforward Carrying Costs 84
d. Potential Ratemaking Principle No. 4: Flow PTC Carryforwards through Energy Adjustment Clause Rider 85
ORDERING CLAUSES 89

INTRODUCTION AND PROCEDURAL BACKGROUND

On August 3, 2017, Interstate Power and Light Company (IPL) filed with the Utilities Board (Board) a "Request for a Determination of Ratemaking Principles" (Application) pertaining to the company's New Wind II Project (New Wind II). On August 9, 2017, the Board issued an "Order Docketing Application for Ratemaking Principles and Setting Intervention Deadline."

In response to the Board's August 9, 2017, order, the following parties filed petitions to intervene: the Large Energy Group (LEG) (a group of IPL's major electric service customers); the Environmental Law & Policy Center and the Iowa

Environmental Council (collectively, “Environmental Intervenors”); MidAmerican Energy Company (MidAmerican); ITC Midwest LLC (ITC); Corn Belt Power Cooperative (Corn Belt) and Central Iowa Power Cooperative (CIPCO); Iowa Business Energy Coalition (IBEC) (an association of several of Iowa’s largest and most energy-intensive employers); NextEra Duane Arnold, LLC, Crystal Lake Wind, LLC, Osceola Windpower II LLC, and Story Wind, LLC (collectively, “NextEra”); and the Sierra Club Iowa Chapter(Sierra Club). The Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice, also filed an appearance.

IPL included a proposed procedural schedule in its initial filing. The Environmental Intervenors, Corn Belt, CIPCO, MidAmerican, ITC, IBEC, LEG, NextEra, and Sierra Club all filed comments on the procedural schedule. On August 24, 2017, the Board issued an order setting a procedural schedule and granting intervention to all petitioning groups. Board Member Richard W. Lozier, Jr. also issued a recusal statement on that date.

On August 28, 2017, OCA filed a “Motion to Revise Procedural Schedule.” The Board granted OCA’s motion on September 11, 2017, permitting OCA and the other intervenors to file rebuttal testimony concerning the direct testimony of all parties.

Direct testimony was filed on September 29, 2017, by the Environmental Intervenors, IBEC, NextEra, OCA, and LEG. Sierra Club filed direct testimony on October 2, 2017. On October 20, 2017, rebuttal testimony was filed by OCA, the

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Environmental Intervenors, CIPCO, Corn Belt, IPL, NextEra, and LEG. On October 27, 2017, a “Joint Statement of the Issues” was filed by IPL, OCA, CIPCO, Corn Belt, the Environmental Intervenors, IBEC, ITC, LEG, MidAmerican, NextEra, and Sierra Club. A “Separate Statement of Additional Issues” was filed by NextEra, CIPCO, Corn Belt, and LEG. The Board set a settlement deadline for October 27, 2017.

IPL filed an objection to the Separate Statement of Additional Issues and a motion in limine on November 2, 2017. On November 3, 2017, the Board issued an order shortening the time for response to IPL’s motion in limine to November 7, 2017. On November 7, 2017, NextEra, MidAmerican, and LEG filed responses to IPL’s motion in limine. On November 8, 2017, OCA filed its reply to IPL’s motion in limine and a motion for a one-day extension; the Board granted OCA’s motion and accepted OCA’s reply at hearing. On November 8, 2017, the Board issued an order reserving an additional day for hearing.

On November 13, 2017, IPL and NextEra filed surrebuttal testimony. On November 14, 2017, LEG filed surrebuttal testimony. The Board issued an order denying IPL’s motion in limine on November 15, 2017. On November 15, 2017, NextEra filed revised rebuttal testimony. On November 16, 2017, IPL filed sur-surrebuttal testimony.

A hearing was held on November 16, 2017. Post-hearing briefs were filed on December 14, 2017, by IBEC, OCA, MidAmerican, IPL, LEG, NextEra (along with

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

CIPCO and Corn Belt as joint owners of Duane Arnold Energy Center), and the Environmental Intervenors. On December 29, 2017, OCA filed a motion to reopen the record to consider the effect of the recently-signed federal Tax Cuts and Jobs Act of 2017 (Tax Act). On December 29, 2017, the Board issued an order shortening time for response by IPL to January 5, 2018. On January 5, 2018, LEG filed a "Joinder in Motion to Reopen the Record."

On January 12, 2018, IPL filed supplemental direct testimony with additional information addressing the Tax Act. On January 18, 2018, the Board issued an "Order Granting Motion to Reopen the Record and Requiring Response," (PTC Order) granting OCA's request to reopen the record. The Board also set forth potential ratemaking principles for comment from all parties. On January 26, 2018, IPL filed additional information addressing the Board's request. On February 2, 2018, LEG and OCA filed responses to the Board's order and IPL's additional information. On February 5, 2018, IBEC and LEG filed responses to the Board's order and IPL's additional information.

LEGAL STANDARDS

Iowa Code § 476.53 (2017) authorizes the Board to issue advance ratemaking principles for certain electric generating and transmission facilities. The Legislature intended this section to enable the development of electric generation and transmission to provide "reliable electric service to Iowa customers" and "economic

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

benefits to the state."[1] The Board may grant advance ratemaking principles through a contested case proceeding; the principles adopted by the Board will apply when the costs of the facility are included in electric rates in a general rate case.[2]

Utilities may request ratemaking principles for baseload generating facilities with a nameplate capacity of at least 300 megawatts (MW), alternate energy production facilities, or to significantly alter an existing generating facility.[3] For the purposes of the statute, an "alternate energy production facility" includes wind turbines, as well as any land or improvements necessary or convenient to the construction or operation of the facility and any transmission or distribution facilities necessary to conduct the energy produced by the alternate energy production facility.[4]

The standards for granting ratemaking principles for electric generating facilities are also set forth in Iowa Code § 476.53. As a condition precedent to granting ratemaking principles for a project, Iowa Code § 476.53(3)(c) requires the Board to find that:

> (1) The rate-regulated public utility has in effect a board-approved energy efficiency plan as required under section 476.6, subsection 15 [and]
> (2) The rate-regulated public utility has demonstrated to the board that the public utility has considered other sources for long-term electric supply and that the facility or lease is reasonable when compared to other feasible alternative sources of supply. The rate-regulated public utility may

[1] Iowa Code § 476.53(1).
[2] Iowa Code § 476.53(3)(a).
[3] Iowa Code § 476.53(3)(a)(2).
[4] Iowa Code § 476.42(1)(a)(1)-(3).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

> satisfy the requirements of this subparagraph through a competitive bidding process, under rules adopted by the board, that demonstrate the facility or lease is a reasonable alternative to meet its electric supply needs.

The Board is not limited in this proceeding to traditional ratemaking principles or traditional cost recovery mechanisms.[5] The order establishing the applicable principles must be issued before construction can begin on the project and the principles established in the order are binding with regard to the specific facility in a subsequent rate proceeding.[6]

"In determining whether a proposed facility is reasonable when compared to other feasible alternative sources of supply, the Board need not find that the facility is the 'least-cost' alternative."[7] Because there is no least-cost requirement, the Board may consider non-cost factors as part of its determination.[8]

CONDITIONS PRECEDENT

Before the Board considers IPL's requested ratemaking principles, the Board will determine whether IPL has met the statutory requirements of Iowa Code § 476.53. To grant ratemaking principles, the Board must find that IPL has a Board-approved energy efficiency plan in effect and that IPL has demonstrated it has "considered other sources for long-term electric supply and that the facility . . . is

---

[5] Iowa Code § 476.53(3)(b).
[6] Iowa Code § 476.53(3)(e) and (g).
[7] *In re Interstate Power and Light Company*, "Order Cancelling Hearing and Approving Settlement Subject to Modification and Reporting Requirements," Docket No. RPU-2016-0005, at p. 4 (Oct. 25, 2016) (citing *In re MidAmerican Energy Company*, "Order," Docket No. RPU-01-09, at p. 6 (May 29, 2002)).
[8] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

reasonable when compared to other feasible alternative sources of supply" as required by Iowa Code § 476.53(3)(c)(1)-(2).

A. Energy Efficiency Plan

IPL states it has in effect a Board-approved energy efficiency plan that runs from 2014 to 2018.[9] IPL states the plan has been evaluated by the Board in Docket No. EEP-2012-0001 and was originally approved on December 2, 2013.[10] IPL's contention that it currently has a Board-approved energy efficiency plan in effect is uncontested by the parties.

Board Discussion

No party has contested IPL's evidence on this issue. On December 2, 2013, the Board issued a "Final Order" in Docket No. EEP-2012-0001, accepting a non-unanimous partial settlement in the docket and approving IPL's energy efficiency plan as filed on November 30, 2012. The plan, as approved, has been in effect since 2014 and will continue until the end of 2018. Accordingly, the Board finds that IPL has in effect a Board-approved energy efficiency plan as required by Iowa Code § 476.6(15).

B. Reasonableness of Facility

To demonstrate that it has considered other sources for long-term electric supply and that New Wind II is reasonable when compared to other feasible alternative sources, IPL has provided information regarding various characteristics of

---

[9] Application at p. 7.
[10] *Id.*

New Wind II. The Board will evaluate each of the characteristics and whether, as a whole, the information supplied by IPL sufficiently demonstrates that New Wind II is a reasonable source of long-term electric supply.

1. Financial Modeling Assumptions

The primary method utilized by IPL to evaluate if New Wind II is reasonable involves a number of scenarios modeled using the Electric Generation Expansion Analysis System (EGEAS).[11] IPL states EGEAS is an "industry-standard resource planning tool that evaluates numerous combinations of existing resources and future resource alternatives" to determine the most reasonable options for expansion of electric generation facilities.[12]

a. Capacity Factor

As part of its EGEAS modeling, IPL assumed an average capacity factor of 44% for turbines included in New Wind II.[13] IPL states it utilized this capacity factor based on analyses prepared by Black & Veatch that rely upon the "favorable wind conditions" at sites IPL is considering for the project.[14] IPL states the project-specific capacity factor estimates were "derived through industry standard wind resource assessment practices" conducted in part by IPL and in part by wind developers or third-party consultants.[15]

---

[11] IPL Exh. Kitchen Dir. at pp. 3-4.
[12] *Id.*
[13] IPL Exh. Hanson Dir. at p. 5.
[14] *Id.*
[15] IPL Exh. Hanson Reb. at p. 4.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL states the assumed capacity factor is based on site-specific data, as well as "model data, long-term reference data, and turbine-specific power curves."[16] IPL further contends the process "considers correlations between on-site towers, vertical extrapolation to hub height, wind flow modeling, wake modeling, and the application of losses due to turbine availability, grid availability, blade soiling, icing, temperature, high wind speed, and electrical losses."[17]

IPL notes the total 500 MW of nameplate capacity for New Wind II (as well as the 500 MW of generation approved by the Board in New Wind I, Docket No. RPU-2016-0005) will come from a number of smaller component projects and the final combination of projects that will make up New Wind I and New Wind II is not yet confirmed.[18] IPL is considering new turbines with larger rotor spans than it originally considered as part of the New Wind II installations, which would increase the capacity factor at each of those sites and the project overall.[19] IPL states that while an assumed 44% capacity factor is already reasonable, that assumption becomes conservative if IPL determines that the larger turbines are feasible and cost-appropriate.[20]

OCA contends a 40% capacity factor is a more reasonable modeling assumption.[21] OCA states the Black & Veatch report utilized by IPL was originally

---

[16] *Id.*
[17] *Id.* at 4-5.
[18] *Id.* at 5.
[19] IPL Exh. Hanson Sur. at pp. 2-5.
[20] *Id.* at p. 5.
[21] OCA Exh. Shi Dir. at pp. 8-10.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

prepared for the New Wind I project and involves projections for a different type of turbine than what IPL is considering for New Wind II.[22] OCA witness Dr. Xiaochuan (Larry) Shi notes the Black & Veatch study only evaluated sites in Franklin County, but New Wind II will include projects from a number of locations.[23] The final placement of all of the wind turbines for the project is not yet finalized and as much as 330 MW of generating capacity could be located outside Franklin County.[24] Dr. Shi notes that while new technologies could improve the average capacity factor of the project, historical rates of approximately 35% at the Whispering Willow East wind farm would indicate a 40% capacity factor is more reasonable.[25]

At hearing, Dr. Shi testified that while 44% may be possible, he did not have enough information to verify IPL's assumption.[26] Dr. Shi did note that while he questioned IPL's Black & Veatch report, he could not point to any other information that would suggest the report was unreasonable or inaccurate.[27]

The Environmental Intervenors argue IPL's projected capacity factor is reasonable and supported by the record.[28] Environmental Intervenors note IPL's updated turbine information, as found in IPL witness Lee Hanson's surrebuttal testimony, "supports an even higher capacity factor from this model."[29] The Environmental Intervenors also comment that while the parties did not introduce any

---

[22] *Id.* at 9.
[23] *Id.*
[24] *Id.*
[25] *Id.* at 10.
[26] Tr. 149.
[27] *Id.* at 149-51.
[28] Environmental Intervenor Br. at p. 7.
[29] *Id.* (citing IPL Exh. Hanson Sur. at p. 3).

analysis or calculations that would call IPL's capacity factor into question, IPL began with a conservative value and introduced additional information to support its projections.[30]

LEG notes that while IPL is assuming a 44% capacity factor, IPL witness Mr. Hanson confirmed at hearing that he believes IPL's ability to recover costs should not be conditioned upon IPL achieving a 44% capacity factor.[31] LEG witness Dr. Robert Latham agrees with OCA witness Dr. Shi's testimony regarding issues with IPL's capacity factor assumption, noting the actual capacity factor for the Whispering Willow East wind farm has been approximately 35%.[32] Dr. Latham notes that while this number may be the result of curtailment due to IPL's wind energy price offer curves in the Midcontinent Independent System Operator, Inc. (MISO), market, IPL should not adjust its capacity factor upward from actual dispatch levels because IPL has the option to move its price offer curves.[33] LEG argues it is unacceptable to allow IPL's customers to bear the downside risk that IPL may be unable to obtain the 44% capacity factor across New Wind II.[34]

IBEC argues even a modest reduction in the capacity factor assumed by IPL could significantly erode the net benefits of the project.[35] IBEC believes IPL arrived at its capacity factor assumption in good faith, but IBEC contends that IPL's assumed

---

[30] *Id.* at 9.
[31] LEG Br. at pp. 8-9.
[32] LEG Exh. Latham Reb. at p. 10.
[33] *Id.*
[34] LEG Br. at p. 9.
[35] IBEC Br. at p. 3 (citing IBEC Exh. Brubaker Dir. pp. 6-7).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

capacity factor is dependent on a number of additional factors and is inappropriate in this case.[36] IBEC suggests IPL should not be able to recover project costs unless New Wind II achieves a capacity factor of at least 40%.[37]

MidAmerican argues a conditional principle, like the one proposed by IBEC, is unprecedented, and that it places a significant risk on IPL to achieve a result that can be affected by factors outside its control.[38] Further, MidAmerican states utilities already have an incentive to operate wind turbines as efficiently as possible because fuel cost savings and production tax credits (PTCs) are only generated while the turbines are operating.[39] Finally, MidAmerican contends conditional principles would lead to utilities making excessively conservative capacity factor assumptions and discouraging investment, which is inconsistent with the state's policy to encourage renewable energy.[40]

b. Federal Production Tax Credits (PTCs)

IPL states PTCs will result "from the generation of electricity using renewable resources" and New Wind II is expected to generate approximately $530 million in PTC benefits over the next ten years.[41] IPL's modeling assumptions state the PTC benefits generated by New Wind II will be credited to customers in the year the PTCs are earned.[42]

---

[36] *Id.*
[37] *Id.* at 5.
[38] *Id.*
[39] *Id.* at 11.
[40] *Id.*
[41] IPL Exh. Janecek Dir. pp. 10-11.
[42] IPL Exh. Janacek Dir. at p. 12.

However, a number of parties are concerned that IPL's current net operating loss position (NOL) for tax purposes means IPL may not be able to utilize PTCs the year they are generated and the deferred credits (PTC carryforwards) would be classified as accumulated deferred income tax (ADIT) assets.[43] Classifying the PTC carryforwards as ADIT assets would increase IPL's rate base and allow IPL to earn a return on the balance until the PTCs are utilized.[44] OCA notes this process significantly reduces the benefit to customers.[45]

In response, IPL states it is in a NOL position (where tax deductions exceed taxable income) because it has elected to take advantage of bonus depreciation.[46] IPL argues that electing to take bonus depreciation benefits customers by reducing rate base, which minimizes overall customer costs.[47]

IPL has not requested an advance ratemaking principle to address PTC benefits and encourages the Board to address the treatment of PTC carryforwards in its next general rate case.[48] IPL argues it will pass PTC benefits to customers in the year earned, even though IPL will not be able to utilize the PTCs until the company has a federal income tax liability.[49]

[43] OCA Exh. Turner Dir. at p. 7.
[44] *Id.*
[45] *Id.*
[46] IPL Exh. Janecek Dir. at pp. 6-9.
[47] *Id.* at 6-10.
[48] IPL Br. at p. 65; IPL Response to Board Order (IPL Response) at pp. 6-7.
[49] IPL Exh. Janecek Dir. at p. 12.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL also acknowledges it does not account for PTC carryforwards as part of its economic modeling.[50] IPL states the uncertainty around PTC carryforwards (including the total value of the carryforwards), changes due to federal tax law, IPL's variable tax positions, and general timing issues could all affect the scope of the PTC carryforwards and make any modeling "uncertain and difficult."[51] IPL argues PTC carryforwards would be best addressed in a general rate case after New Wind II has been placed in service, when IPL would provide information about how the PTC benefits earned each year were passed to customers and how the PTC carryforwards should be treated.[52]

IPL contends another reason to consider PTCs outside of this proceeding is that any PTC carryforwards should not be attributed to New Wind II as a cost.[53] IPL states the PTC carryforwards generated by New Wind II are a product of IPL's overall tax position and affect the entire company, not just this individual project.[54] IPL argues its NOL position creates a number of ancillary benefits to customers that are not attributed to the project, and any resulting PTC carryforwards should not be allocated specifically to the project.[55]

IPL alleges it is assuming the risk by proposing to address recovery of PTC carryforwards in a future rate case.[56] IPL argues deferring the issue adds no risk to

---

[50] *Id.* at 15.
[51] *Id.* at 14-15.
[52] *Id.* at 15-16.
[53] IPL Br. at p. 68 (citing IPL Exh. Janecek Reb. at p. 2).
[54] *Id.*
[55] *Id.*; IPL Exh. Janecek Sur. at pp. 5-6.
[56] IPL Br. at p. 69.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL's customers and that IPL will still have to demonstrate to the Board that IPL's tax decisions are prudent.[57] IPL states the PTC carryforwards have no impact on the rate at which PTCs are earned or their value, and that the project still generates a net benefit to customers if the costs of PTC carryforwards are attributed to New Wind II.[58] IPL later states that in light of the Tax Act, attributing the PTC carryforwards (including carrying costs equal to IPL's 9.6% ROE from RPU-2017-0001) to New Wind II would be a net cost to customers, but notes the project would provide benefits such as emission-free energy at a low cost.[59]

OCA contends that while IPL's proposed PTC treatment mirrors New Wind I, IPL did not explain its NOL position and the issue of PTC carryforwards in that case.[60] OCA notes IPL will likely be in a NOL position until at least 2021.[61] OCA notes NOL carryforwards are treated as deferred tax assets, decreasing the value of the ADIT account and increasing the overall rate base.[62] OCA contends carrying the PTC benefits into the future would require customers to pay a carrying charge that would significantly reduce the benefits of the project to customers.[63] These carrying costs result from IPL's NOL position and the delay between when the PTC benefits

---

[57] *Id.*
[58] IPL Exh. Janecek Dir. at p. 11; Tr. 130-31.
[59] IPL Exh. Wheatley Second Supp. Dir. at pp. 8-9.
[60] OCA Br. at p. 6 (citing OCA Exh. Turner Dir. at p. 8).
[61] *Id.* (citing IPL Exh. Janecek Dir. at p. 13).
[62] *Id.* (citing IPL Exh. Janecek Dir. at pp. 13-15).
[63] OCA Br. at p. 8 (citing OCA Exh. Turner Dir. at p. 7).

are earned by IPL and when the debt balance to ADIT is reversed; by delaying this reversal, the rate base will remain at its higher level for a longer period of time.[64]

OCA contends IPL's NOL position may require IPL to consider a power purchase agreement (PPA) for additional wind generation, noting that a developer who can monetize the PTC benefits would allow IPL to reduce the risk and cost associated with adding these turbines to IPL's portfolio.[65] OCA states that if the Board chooses to defer the issue of PTC carryforwards to the next rate case, the Board and any parties are not bound by the ratemaking treatment adopted in IPL's most recent rate case (Docket No. RPU-2017-0001).[66]

IBEC also voices concern over the impact of PTC carryforwards on customer benefits.[67] IBEC contends including the PTC carryforwards in IPL's economic modeling reduces the net benefit of the project to customers by nearly 60%.[68] IBEC also notes a lower federal corporate income tax rate would result in an additional reduced net benefit.[69] IBEC states customers could be exposed to additional risk if the project is not placed into service while the full value of the PTCs is available.[70] IBEC also argues that at a tax rate of 25% and a capacity factor of 40%, the project would result in a cost to customers instead of a benefit.[71]

---

[64] *Id.*
[65] OCA Br. at pp. 8-9.
[66] *Id.* at 9.
[67] IBEC Br. at pp. 2-3.
[68] IBEC Br. at p. 3; IBEC Exh. Brubaker Dir. at p. 6; Tr. 205-06.
[69] IBEC Br. at p.3; Tr. 210-11.
[70] IBEC Br. at p. 4.
[71] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

LEG states the project presents significant risk to customers.[72] LEG also contends that a reduced tax rate, coupled with IPL's NOL position and use of PTC carryforwards within the ADIT account, will reduce the benefits to customers.[73] LEG requests customers be guaranteed the full value of the PTCs as part of the project.[74]

c. Energy Market Revenues (Net Energy Benefits)

IPL prepared multiple analyses to estimate the total revenues that New Wind II would generate by selling electricity into the MISO wholesale market over the 40-year life of the project.[75] IPL utilizes two different methodologies to estimate these benefits.[76] The first method used by IPL witness Martin Smith is based on a method offered by OCA in the New Wind I proceeding (OCA method) and the other is based on Mr. Smith's rebuttal testimony in the same docket (IPL method).[77] Both methods assume an annual average capacity factor of 44% over the assumed 40-year life of the project.[78]

To determine the revenues in each model, IPL begins by estimating the amount of electricity the project would generate in a given year during on-peak and off-peak periods (in megawatt-hours or MWh).[79] Mr. Smith then multiplies those values by the forecasted market price for electricity (called the locational marginal

---

[72] LEG Br. at p. 3.
[73] *Id.* at 7-8.
[74] *Id.*
[75] IPL Br. at p. 25.
[76] IPL Exh. Smith Dir. at p. 4.
[77] *Id.*
[78] IPL Br. at p. 25; IPL Exh. Smith Dir. at p. 5.
[79] IPL Exh. Smith Dir. at p. 4.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

price or LMP) in that year for those periods (in dollars per MWh).[80] To estimate the forecasted LMPs, IPL relies on Wood Mackenzie's market price forecasts for Iowa for the time period of 2020 to 2036.[81] Wood Mackenzie is a research and consulting firm that provides "forward looking insights;" IPL has used Wood Mackenzie forecasts since 2010.[82] To estimate costs after 2036, Mr. Smith increased market prices at a two percent rate.[83]

Mr. Smith utilizes two different sets of market price forecasts; the first assumes no regulatory limits or costs associated with carbon dioxide emissions (called the no-carbon scenario) while the second assumes that carbon dioxide emissions would be subject to limitations starting in 2023.[84] By using multiple methods and multiple price forecast scenarios, IPL intended to evaluate potential revenues "over a relatively wide range of plausible future scenarios."[85]

According to IPL, the difference between the OCA method and the IPL method is reflected in their assumptions regarding the amount of electricity sold during on-peak and off-peak hours and the amount of energy that would be sold into the market at $0 revenue.[86] The OCA method assumes all New Wind II sales would occur at off-peak prices, then reduces the total benefit by ten percent to account for transmission

---

[80] *Id.*
[81] *Id.* at 5.
[82] IPL Exh. Kitchen Dir. at pp. 9-10.
[83] IPL Exh. Smith Dir. at p. 5.
[84] *Id.*
[85] *Id.*
[86] *Id.* at 6.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

congestion, losses, or other restrictions.[87] Alternatively, the IPL method assumes 46% of New Wind II energy sales would occur at on-peak times, 54% of energy sales would occur at off-peak times, and then reduces the total benefit by 5% to reflect transmission congestion, losses, or other restrictions.[88]

IPL notes its estimates are similar to the actual numbers based on the Alliant West Load Balancing Area numbers from January 2015 to May 2017.[89] IPL estimates the project would generate between $3.0 billion and $3.8 billion in energy market revenues under the OCA and IPL models, respectively; IPL used the midpoint of the two estimates of $3.4 billion in energy market revenues as a modeling assumption.[90]

LEG and IBEC allege IPL overestimates the energy market revenues of New Wind II.[91] IBEC witness Maurice Brubaker argues a more conventional way to analyze the energy market revenues would involve modeling for at least 15 years.[92] IBEC also notes there are a number of alternative production cost models available, including the PROMOD model and database.[93]

---

[87] *Id.* The reduction reflects that ten percent of the output of New Wind II would be sold into the market at a price of $0/MWh.
[88] *Id.* at 6-7.
[89] *Id.* IPL originally stated that the numbers showed a 47/53 split between on-peak and off-peak sales for 15 different wind site locations. However, IPL noted in its brief that it erred in calculating the values and after adjustment the historical split is 45/55. IPL Br. at p. 26, n. 17.
[90] IPL Exh. Smith Dir. at pp. 11-12.
[91] LEG Exh. Latham Dir. at pp. 13-14; IBEC Exh. Brubaker Dir. at pp. 12-16.
[92] IBEC Exh. Brubaker Dir. at pp. 14-15.
[93] *Id.* at 15.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL responds to the parties' criticisms by conducting PROMOD modeling for the project.[94] IPL uses the PROMOD system to study the wholesale energy market in the Eastern Interconnect to project how often specific generating units will be dispatched and the LMPs for electricity at those times.[95] "These projections are based on computer models . . . that forecast the future generation mix and transmission buildout in the bulk electric power system."[96] IPL uses the PROMOD analysis to determine the reasonableness of the Wood Mackenzie forecasted LMPs.[97]

IPL states it uses MISO's 2017 MISO Transmission Expansion Plan (MTEP17) Existing Fleet Model and added approximately 2,500 MW of additional wind generation to the model to account for proposed or approved projects in the region.[98] IPL states the model was updated to include Wood Mackenzie's Second Half (H2) 2016 natural gas price forecast to reflect the lower natural gas prices than those that were originally included in the MISO Existing Fleet planning model.[99]

IPL states the PROMOD model estimates LMPs for the years 2021, 2026, and 2031 and that although the 2021 LMP estimate is approximately 10% below IPL's model, the estimates for 2026 and 2031 are approximately 10% above IPL's estimates.[100] IPL contends its projection of New Wind II's energy market revenues is

---

[94] IPL Exh. Smith Reb. at pp. 6-14.
[95] IPL Br. at p. 27.
[96] *Id.* (citing Tr. 274).
[97] IPL Exh. Smith Reb. at p. 7.
[98] IPL Br. at p. 28; IPL Exh. Smith Reb. at p. 6.
[99] IPL Exh. Smith Reb. at p. 8.
[100] *Id.* at 11-12.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

reasonable and is a conservative estimate of the benefits that could be generated by the project.[101] IPL argues LEG mischaracterizes IPL's modeling, including the use of weighted LMPs, assumptions regarding lower market prices, and not using PROMOD.[102]

IPL asserts LEG's alternative forecast is incomprehensible and unreasonable.[103] IPL contends LEG's modeling appears to be constructed from two years of historic LMP and wind generation data to project future LMPs, an unreasonable method that does not account for updated turbine technology, transmission system buildout, and locational differences in LMPs.[104] IPL concludes LEG's forecasts, which are between 37% and 47% lower than the PROMOD estimates for 2026 and 2031, rely on inappropriate projections and are unreasonable.[105]

IPL also addresses LEG's contention that "wind 'disproportionately' generates electricity at times when LMPs are lowest."[106] IPL states generation data from the last two and a half years indicates 45% of wind energy output occurred during on-peak hours and 55% occurred on off-peak hours.[107]

Additionally, IPL contends its use of Wood Mackenzie's natural gas price forecasts in EGEAS and PROMOD were reasonable because of Wood Mackenzie's

---

[101] IPL Br. at p. 28.
[102] *Id.* at 29-31.
[103] *Id.* at 31.
[104] *Id.* at 33 (citing IPL Smith Reb. at pp. 17-18).
[105] *Id.* at 32-34.
[106] IPL Br. at p. 34 (quoting LEG Exh. Latham Reb. at pp. 8-10).
[107] IPL Br. at p. 35; IPL Exh. Smith Dir. at p. 6; Tr. 277-78.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

status as a "reliable, industry standard source of forecasting data" used by MISO as part of its annual transmission expansion plan.[108] LEG argues the Wood Mackenzie prices are overestimated, and IPL should have utilized the New York Mercantile Exchange (NYMEX) natural gas futures contract pricing.[109] IPL contends LEG's assertions regarding Wood Mackenzie's forecast against actual data from the time period in question was inappropriate because the benchmarks used were not indicative of the market or spot price for natural gas.[110] Finally, IPL states LEG's natural gas price forecast is unreasonable because it severely underestimates future LMPs as compared to other industry standard sources of forecasting data.[111]

OCA alleges that a significant area of risk to customers is that IPL may not deliver the benefits of New Wind II in a timely manner.[112] OCA contends IPL's Energy Adjustment Clause (EAC) provides for the delivery of all fuel impacts at the time the facility goes into service, rather than after the facility is included in rate base.[113] OCA states IPL has indicated that it would not pass benefits on to customers until the facility has been placed into rate base, with IPL alleging that any other treatment would violate the matching principle.[114]

---

[108] IPL Br. at p. 35; IPL Exh. Smith Sur. at pp. 3-4.
[109] IPL Br. at pp. 35-36; LEG Exh. Latham Dir. at pp. 9-10.
[110] IPL Br. at pp. 35-36; IPL Exh. Smith Dir. at pp. 21-22; IPL Exh. Smith Reb. at p. 21. For example, IPL notes the price quoted by LEG from IPL's FERC Form 1 filing was inapplicable because the form included delivery and gas hedging charges.
[111] IPL Br. at pp. 36-37.
[112] OCA Br. at p. 9.
[113] *Id.* at 9; Tr. 23-25.
[114] OCA Br. at p. 9 (citing IPL Exh. Wheatley Reb. at pp. 2-3; Tr. 168-69).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IBEC argues customers assume a significant risk if the market prices fall below IPL's assumptions. Specifically, IBEC states a 10% reduction in the market prices from IPL's projected LMPs would reduce the total project benefits by approximately 35%.[115]

LEG contends IPL's modeling and forecasting for market energy benefits is deficient in several regards. Primarily, LEG argues IPL's forecasts are overstated, and that New Wind II will not be able to deliver the energy market benefits as modeled.[116] LEG argues that its estimates, based upon "actual MISO market data from real transactions," are materially lower than IPL's estimates and lead to significantly diminished customer benefits.[117] In particular, LEG argues IPL did not weight its LMP data by output in each period, noting that his figures determined a price that was approximately 85% of the prices estimated by IPL.[118] LEG also contends that the natural gas price estimates IPL used in its EGEAS and PROMOD assumption are overestimated.[119] LEG comes to this conclusion by comparing Wood Mackenzie 2010-2017 natural gas price estimates to the "actual or market results" for those time periods, utilizing IPL's Federal Energy Regulatory Commission (FERC) Form 1 prices at the Emery location (which LEG witness Dr. Latham states is appropriate because it is close to the Ventura delivery point along the pipeline).[120]

---

[115] IBEC Br. at p. 4; IBEC Exh. Brubaker Dir. at p. 10.
[116] LEG Br. at p. 13.
[117] *Id.*; LEG Exh. Latham Dir. at pp. 11-16.
[118] LEG Exh. Latham Dir. at pp. 13-14.
[119] *Id.* at 9-11.
[120] *Id.* at 9-10.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

To estimate the prices for years 2017-2027, Dr. Latham uses the monthly market data from the Henry Hub Natural Gas Futures for 2017-2027, converted to annual prices; for the 2027-2032 period, he increased the 2027 prices by the percentage increases from IPL's 2017 data.[121] Dr. Latham states he adjusted the prices to account for Henry Hub's location in Louisiana, as compared to the Ventura delivery point in Iowa.[122] Dr. Latham states the Wood Mackenzie estimates for the time period were "systematically higher" than the actual pricing.[123]

d. Capacity Value

In addition to the benefits already discussed, IPL also contends New Wind II will provide capacity benefits to customers based on the increased capacity value.[124] IPL indicates that it intends to pass these benefits on to customers as soon as the project is in service and it has obtained the proper capacity accreditation from MISO.[125]

IPL estimates the capacity value of the project based on Wood Mackenzie's capacity price forecast for Iowa.[126] The current MISO accreditation rate for wind resources is 15.5 percent of the nameplate capacity of the project; in this case, the 500 MW nameplate capacity of New Wind II contributes 77.5 MW toward IPL's resource adequacy requirements.[127] IPL then uses this capacity accreditation and

[121] *Id.* at 10.
[122] *Id.*
[123] *Id.*
[124] IPL Br. at p. 42.
[125] *Id.*
[126] *Id.*; IPL Exh. Kitchen Dir. Schedule C.
[127] IPL Br. at p. 42 (citing IPL Exh. Kitchen Dir. at pp. 5-6).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Wood Mackenzie's capacity price forecast to determine a projected capacity value over the 40-year life of the project.[128]

LEG expresses a number of concerns about IPL's estimates, stating that the total impact is to overestimate the benefits of the project.[129] As part of this analysis, LEG witnesses Dr. Latham and Louie Ervin II point to IPL's assumption that IPL will receive full accreditation for the capacity of the project.[130] LEG states IPL has not yet received accreditation for New Wind II's capacity from MISO, and any number of factors could prevent IPL from receiving full, or any, accreditation for the project.[131]

IPL witness Christian Alva presented testimony regarding MISO interconnection and the resulting accreditation. Mr. Alva explains there are three types of interconnection service: Network Resource Interconnection Service (NRIS), Energy Resource Interconnection Service (ERIS), and Net Zero Interconnection Service.[132] LEG notes the key distinction between ERIS and NRIS is that ERIS "allows the generation facility to deliver energy to the MISO transmission system only when transmission capacity is available."[133] Alternatively, in NRIS, the "entire output is fully deliverable to anywhere in MISO to service load . . . which enables the generation to become MISO-accredited capacity."[134] LEG further states ERIS usually requires less transmission investment than NRIS because of the increased

---

128 *Id.*
129 LEG Br. at pp. 13, 18-20.
130 LEG Exh. Latham Dir. at pp. 8-9; LEG Exh. Ervin Dir. at pp. 4-9.
131 *Id.*
132 IPL Exh. Alva Dir. at p. 3.
133 LEG Exh. Ervin Dir. at p. 5.
134 *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

deliverability standards required for NRIS.[135] IPL notes one advantage of NRIS service is that it "allows the generating facility to achieve long-term capacity accreditation."[136] IPL states it has not made a final determination about whether it would request ERIS or NRIS service and it will evaluate the appropriate level for each project site once the scope of necessary upgrades and costs are known.[137]

LEG argues IPL may not be able to obtain NRIS and the accompanying accreditation because MISO does not currently have the transmission capacity necessary to accommodate NRIS in the region IPL has proposed for New Wind II due to the number of generation facilities vying for the same transmission capacity.[138] However, LEG acknowledged at hearing that IPL would not need to obtain NRIS for the entire project to receive capacity accreditation for the entire 500 MW of New Wind II.[139] IPL notes that it can still receive accreditation for 500 MW through ERIS with a transmission service request (TSR).[140] IPL states it intends to secure the maximum capacity accreditation allowed for the project "that is cost-effective and provides the most value for IPL's customers."[141]

LEG's larger contention is that the Wood Mackenzie forecast for MISO Zone 3, which includes Iowa, significantly overestimates the price of capacity.[142] LEG states he Wood Mackenzie price overestimates the price per kilowatt based on comparisons

---

[135] *Id.*
[136] IPL Exh. Alva Dir. at p. 4.
[137] *Id.* at 5.
[138] LEG Ervin Dir. at pp. 6-7.
[139] IPL Br. at p. 45; Tr. 213-15.
[140] IPL Br. at p. 45; IPL Exh. Alva Reb. at pp. 4-5.
[141] IPL Br. at p. 45.
[142] *Id.* at 18; LEG Exh. Latham Dir. Schedule 11.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

between the price forecast and the recent clearing prices in the MISO Planning Resource Auction (PRA or capacity auction).[143] IPL contends these arguments are unreasonable because there are times when the Wood Mackenzie estimates are below the PRA prices and the PRA prices are not always a good indicator of future prices because the history of the PRA prices has been highly volatile.[144]

Finally, IPL disputes Sierra Club's contention that IPL should redirect the capacity value of New Wind II to pay down the undepreciated balances of IPL's existing fossil-fired generation.[145] IPL states it prefers to use the benefits from New Wind II to lower its revenue requirement rather than pay down the rate base, and states Sierra Club's request does not contain specifics on how a condition based on that recommendation would work.[146]

LEG contends the overstated price estimates for future capacity needs indicate that IPL's assumptions about the capacity benefit provided by New Wind II are overstated.[147] LEG states the price estimates do not account for the fact that IPL wind facilities "have simply not been shown to be available for significant production at the key hours and days of MISO Zone 3 peaks."[148] LEG argues the data indicates that the output of IPL wind facilities is not generally dispatchable at key summer and annual peak hours.[149]

---

[143] LEG Exh. Latham Dir. at pp. 11-12; LEG Exh. Latham Schedules 5-8.
[144] IPL Br. at pp. 43-44; IPL Exh. Kitchen Reb. at pp. 3-4.
[145] IPL Br. at p. 46.
[146] *Id.* at 47.
[147] LEG Br. at pp. 13; 18-20.
[148] *Id.* at 19; LEG Exh. Latham Dir. at p. 12.
[149] LEG Br. at p. 20.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

e. Transmission Costs

The parties also contend that the cost of connecting New Wind II to the transmission system is not yet settled. The parties noted IPL may be in a position to obtain ERIS with TRS and attempt NRIS at a later point, which they contend could increase the total costs and may exceed the cost cap proposed by IPL.

IPL has stated it intends to seek NRIS or ERIS with TRS depending on the characteristics of each site.[150] IPL states this method allows the company to obtain the maximum accreditation in a cost-effective manner.[151]

LEG states IPL does not know the level of transmission service it will acquire or the actual costs of interconnection.[152] LEG argues there is currently little or no transmission service available for NRIS in the region where New Wind II would be placed and the number of facilities competing for the same transmission could limit IPL's ability to receive NRIS, or even ERIS.[153] LEG states these limitations would likely require significant transmission investment and upgrades for ERIS status, much less NRIS.[154]

LEG argues that the level of uncertainty regarding the level of service and associated costs make IPL's assumptions unreasonable.[155] LEG also contends that if other potential generators withdraw from the interconnection queue, costs to IPL for

[150] IPL Exh. Alva Reb. at pp. 4-5.
[151] *Id.*
[152] LEG Br. at p. 10; LEG Exh. Ervin Dir. at pp. 3-4.
[153] LEG Exh. Ervin Dir. at pp. 4-6.
[154] *Id.* at 7-8.
[155] LEG Br. at p. 12.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

New Wind II could increase as the total transmission costs would be distributed across fewer interconnection customers.[156] LEG notes that any transmission cost estimates include some allocation to the IPL generator interconnection projects that have an impact on nearby systems like Southwest Power Pool (SPP) and PJM; if other, higher-queued generator interconnection requests are withdrawn, MISO may need to perform a restudy that could change the cost estimates.[157]

IBEC echoes many of LEG's concerns about transmission planning, noting the project's ability to generate many of the assumed benefits is dependent upon New Wind II being able to interconnect to the transmission system and sell energy into the market.[158]

f. Duane Arnold Energy Center Purchase Power Agreement

As part of IPL's original analysis, IPL assumes its current PPA with NextEra for the Duane Arnold Energy Center (DAEC) in Palo would be allowed to expire at the end of 2025.[159] The co-owners of DAEC allege in their testimony and at hearing IPL's planning assumptions unreasonably exclude an extension of the DAEC PPA.[160]

In response to the concerns of the parties, IPL re-ran all 78 EGEAS scenarios with the DAEC PPA extended until the end of 2033 using a fixed price.[161] IPL indicates that it added the DAEC PPA as a modeling assumption and not a potential

---

[156] LEG Exh. Ervin Dir. at p. 9.
[157] *Id.* at 8.
[158] IBEC Br. at p. 6.
[159] IPL Exh. Kitchen Dir. at p. 5.
[160] NextEra Exh. Russo Dir. at pp. 3-4, 8; CIPCO Exh. Slaby Reb. at p. 4; Tr. 244-45.
[161] IPL Exh. Kitchen Sur. at pp. 3-5. IPL states that the modeling limitations of EGEAS require plants to be operational for full calendar years, therefore IPL assumed the value of DAEC until December 31, 2033, instead of DAEC's regulatory approval deadline in February 2034. *Id.* at 4.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

EGEAS model output, reasoning that "forcing" EGEAS to consider the DAEC PPA in every scenario would have the most significant impact on the model outputs.[162] IPL argues that ending the DAEC PPA is a planning assumption alone and that IPL has not made a final decision on whether to extend the PPA; any decision about moving forward with New Wind II has no bearing on the DAEC PPA.[163]

NextEra contends IPL's modeling assumptions are inadequate when it comes to the DAEC PPA, stating that DAEC provides significant energy, capacity, and societal benefits that IPL would be unable to replicate or replace with the New Wind II project.[164] NextEra states IPL has not sufficiently modeled the total impact of extending the DAEC PPA and alleges that if IPL does not extend the PPA by the fall of 2018, the owners will be forced to close the plant at a significant cost to multiple stakeholders.[165] NextEra also contends the Board should specify that any approval of New Wind II should not preclude the extension of the DAEC PPA and any approval of New Wind II should be conditioned upon a series of additional studies and reviews subject to a contested case proceeding before the Board.[166]

NextEra also argues EGEAS modeling is simply an economic model that does not satisfy the requirements of Iowa Code § 476.53 because it does not evaluate the kinds of cost and non-cost evidence previously considered in other advance

---

[162] IPL Br. at p. 19, n. 1.
[163] *Id.* at 21.
[164] NextEra Br. at pp. 8-12. NextEra joined with CIPCO and Corn Belt to submit a single brief on behalf of the DAEC Joint Owners; the Board will refer to the Brief as the NextEra Brief.
[165] *Id.* at 12.
[166] *Id.* at 5-7.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

ratemaking principle cases.[167] NextEra argues IPL has not considered DAEC impacts regarding job creation, transmission benefits and costs, and economic development benefits.[168] NextEra also notes the long-run economic realities of nuclear power plants effectively require a facility to operate under a PPA to ensure economic viability.[169]

NextEra states that if a new PPA is not in place by the fall of 2018, the facility will be retired.[170] NextEra contends shutting down DAEC may result in “the degradation of the transmission grid and resource adequacy” which could significantly impact customer costs.[171]

IPL responded to NextEra’s statements by stating it is NextEra’s responsibility to consider the reliability impact of retiring DAEC.[172] IPL also contends it is not the only utility that could negotiate a PPA with DAEC.[173] IPL states that for these reasons, the Board should not make any decision regarding the DAEC PPA in this proceeding.[174]

MidAmerican contends NextEra’s request to consider the PPA is unrelated to the issue in this case and could erode Iowa’s position as a renewable energy

---

[167] *Id.* at 9 (citing *In re MidAmerican Energy Company*, “Order Approving Settlement with Modifications,” Docket No. RPU-2014-0002 (Jan. 20, 2015)).
[168] *Id.*
[169] NextEra Exh. Dir. Russo at pp. 7-8.
[170] NextEra Br. at p. 9; NextEra Exh. Curtland Dir. at p. 7; NextEra Exh. Smith Dir. at pp. 2-3.
[171] NextEra Br. at p. 9 (citing NextEra Exh. Chao Dir. at pp. 3-9, Sch. A and B; LEG Exh. Ervin Reb. at p. 10; LEG Exh. Ervin Sur. at p. 7; Tr. 237-38).
[172] IPL Br. at p. 73; IPL Exh. Alva Reb. at p. 6; IPL Exh. Kitchen Sur. at pp. 14-15.
[173] IPL Br. at pp. 73-74.
[174] *Id.* at 74.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

leader.[175] MidAmerican states NextEra has previously attempted to include PPA negotiations and issues in ratemaking principle dockets and the Board has rejected the claims.[176] MidAmerican alleges NextEra has attempted to differentiate the argument in this case by questioning the reliability impact of the project, but NextEra has not requested a reliability study from MISO.[177] MidAmerican states that by filing under Attachment Y-2 of the MISO tariff, the owner of a generation facility may request a study of the reliability impact of retiring the facility.[178] MidAmerican argues NextEra has not requested an Attachment Y-2 study and that the company should have requested the study if it intends on retiring the facility or if it intended to present evidence on the reliability of the facility to the Board.[179]

MidAmerican also states that any concerns regarding potential capacity shortfalls in the region, as claimed by NextEra, should be considered in a future rate case or other proceeding after the PPA expires in 2025.[180] MidAmerican notes IPL has shown that New Wind II provides benefits even if DAEC is included in the economic analysis beyond 2025, making any arguments over the DAEC PPA irrelevant in this proceeding.[181]

---

[175] MidAmerican Br. at pp. 4-5.
[176] *Id.* at 12 (citing *In re MidAmerican Energy Company*, “Final Decision and Order,” Docket No. RPU-2009-0003, at pp. 30-31 (Dec. 14, 2009)).
[177] MidAmerican Br. at p. 12; Tr. 89-90, 235-36.
[178] MidAmerican Br. at p. 12; Tr. 89-90.
[179] MidAmerican Br. at pp. 12-13; Tr. 235-36.
[180] MidAmerican Br. at p. 13.
[181] *Id.* (citing IPL Exh. Kitchen Sur. at pp. 1-2).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

LEG argues the Board should consider IPL's generation capacity requirements if IPL does not extend the DAEC PPA beyond 2025.[182] LEG states an additional review of the costs of retiring DAEC should be conducted before New Wind II is approved, noting that the retirement could leave IPL short on capacity, which would have to be purchased in the market.[183] LEG also alleges the Attachment Y-2 study could indicate that a significant transmission investment may be required to mitigate the retirement of DAEC; if the reliability loss is significant enough, MISO could designate DAEC as a System Support Resource (SSR).[184] As a SSR, MISO would require DAEC to continue operation at historical cost levels and would pass the costs to load-serving entities (LSEs) like IPL, which would bear the primary cost of operating the facility until the reliability concerns could be alleviated with additional generation or transmission.[185]

LEG states MISO has an obligation to ensure grid reliability and a generating facility must receive approval from MISO before retiring the facility.[186] Until the parties present more information regarding the kinds of investments that may be required to mitigate DAEC's retirement, the total cost to IPL's customers is unknown.[187]

---

[182] LEG Br. at p. 24; LEG Exh. Ervin Reb. at p. 9.
[183] LEG Br. at pp. 24-25.
[184] LEG Br. at pp. 25-26; LEG Exh. Ervin Reb. at p. 11.
[185] LEG Br. at p. 26; LEG Exh. Ervin Reb. at p. 11.
[186] LEG Exh. Ervin Reb. at p. 10.
[187] LEG Br. at pp. 26-27; LEG Exh. Ervin Reb. at pp. 10-11.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Board Discussion

The Board finds a 44% capacity factor, as proposed by IPL, is a reasonable assumption. Although the Black & Veatch report was not prepared specifically for New Wind II, IPL has introduced sufficient evidence to indicate 44% is a reasonable assumption for this project based on the report's findings. To the extent the report considers a smaller geographic area, it is not clear that use of a larger area would indicate whether the factor should be increased or decreased. Also, to the extent the report considered older, less efficient turbines, the potential use of newer technology supports the use of a higher capacity factor. While other parties noted a 40% capacity factor may be more reasonable or achievable, no parties introduced evidence into the record that establishes the 44% capacity factor is unreasonable or untenable.

Next, IPL's models assume PTC benefits are delivered to customers at the time they are earned and do not include PTC carryforwards. No party has contested the assumption that PTC benefits should be delivered to customers in the year earned. Although the parties have raised numerous issues regarding how the PTC benefits to customers could erode over time through the use of PTC carryforwards, the record shows the final impact of those carryforwards is still uncertain. Further, there has not been a sufficient showing that IPL's original model unreasonably excludes the value of PTC carryforwards or that IPL would not actually pass the benefits of the PTCs to customers as the PTCs are earned.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

For these reasons, the Board finds IPL's modeling assumptions of PTCs, including passing benefits through to customers as the PTCs are earned and not modeling the costs of the PTC carryforwards, are reasonable. Further, IPL has satisfactorily demonstrated that attempting to assign a fixed value to PTC carryforwards is unrealistic at this time.

Although the timing of when benefits are returned to customers is relevant to the overall cost of the project, the mechanism by which the benefits pass to customers is not specifically relevant to the determination of whether IPL's energy market revenue assumptions were reasonable.

As for the next assumption, the Board finds IPL's net energy market benefit estimate is reasonable. IPL has provided extensive documentation regarding Wood Mackenzie and made reasoned modifications to the models where appropriate to accommodate recognized concerns with the models. Further, IPL's multiple modeling runs with multiple methods provided sufficient support to indicate that the projected net benefit of $3.4 billion is a reasonable assumption over the 40-year life of the project.

The Board notes that many of the parties' arguments regarding the net energy benefits assumption can be distilled to the notion that deviations from the assumptions have impacts on the final outcome, but did nothing to further indicate specifically why IPL's assumptions were so deficient as to be unreasonable. While the Board appreciates that no one model or set of models is perfect, the Board finds

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL's mix of methodologies and the inclusion of generally accepted industry models and forecasts are sufficient to demonstrate that IPL's net energy benefit assumptions are reasonable, at least in the absence of better evidence that the assumptions are not reasonable.

The first component of the capacity value discussion was largely resolved at hearing. LEG contended that IPL may not be able to obtain NRIS for the entire project due to constraints on the transmission system and significant competition in the region. IPL did not introduce evidence that would necessarily contradict this conclusion; however, IPL showed, and LEG acknowledged, that IPL would not require NRIS on the entirety of the project to obtain the assumed accreditation. Although NRIS would provide the required accreditation, IPL showed that it could still be accredited for New Wind II's capacity through ERIS with TRS, and IPL would pursue NRIS or ERIS based on the situation relative to each wind site.

IPL demonstrated the LRA prices are both relatively new (with the first auction in 2013) and highly volatile. Even if the LRA prices were used to determine whether estimates are reasonable, IPL showed the Wood Mackenzie forecasts have been below the LRA prices at points in time. Finally, IPL indicated the LRA pricing does not consider other sources of capacity value, including the ability to execute bilateral contracts with third parties that are captured in the Wood Mackenzie forecasts. For these reasons, the Board finds IPL's capacity value assumption is reasonable and past experience with the LRA does not show otherwise.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

The issue of the DAEC PPA involves overlapping arguments regarding IPL's modeling assumptions, a cost comparison of an extended DAEC PPA, the long-term economic viability of the facility, non-cost considerations including in-state employment opportunities and generation portfolio profiles, and potential mitigation of retiring Iowa's only in-state nuclear facility. These arguments involve such issues as transmission benefits and costs, resource adequacy, and economic development benefits. To that extent, the parties' arguments about the long-term impact of a potential DAEC retirement should be considered as part of the larger economic analysis.

The Board finds IPL's use of a fixed price for the DAEC PPA and its inclusion as an assumption, and not an output, are reasonable assumptions to evaluate how New Wind II would be affected by extension of the PPA. Although using a range of probable prices to model a PPA would be reasonable, the Board agrees with IPL that using the most recent data available as part of the PPA process is also a reasonable method in this case. The participants in the negotiation are sophisticated corporations with extensive experience as owners, operators, and market participants for both capacity and energy. Using a price derived from continued interactions between the parties is not an unreasonable way to model the assumption.

Further, including the DAEC PPA as an assumption, and not an output, does not make the modeling unreasonable. IPL provided models both with and without the DAEC PPA extended between 2025 and 2033. By including the PPA as an

assumption, IPL demonstrated that the capacity and energy benefits provided by the facility until 2025 and then from 2025 to 2033 would be included as a baseline against which New Wind II would be analyzed. For purposes of analyzing whether New Wind II is a reasonable alternative, this was a reasonable approach to modeling. Accordingly, the Board finds IPL's modeling assumptions have appropriately included the DAEC PPA.

2. Economic Analysis

To demonstrate it has met its statutory obligation, IPL evaluated the economic impact of New Wind II as compared to other electric generating resources. IPL states it evaluates the need for new electric generation through its electric Integrated Resource Plan (IRP), which is updated biennially.[188] IPL starts with a load forecast based on statistical analysis and other factors.[189] IPL also considers the future energy needs of customers by utilizing EGEAS.[190]

To determine if New Wind II is economically reasonable, IPL conducted modeling runs in EGEAS to cover a broad range of potential future economic conditions and scenarios.[191] Based on IPL's EGEAS modeling assumptions, EGEAS indicated that New Wind II (500 MW of wind generation) was a cost effective source of long-term electric supply in 140 of the 156 scenarios examined.[192] The scenarios

---

[188] IPL Exh. Kitchen Dir. at pp. 2-3.
[189] *Id.* at 3.
[190] *Id.* at 3-4.
[191] *Id.*
[192] *Id.* at 10-11, IPL Exh. Kitchen Sur. at pp. 5-7 (stating that EGEAS selected 500 MW of wind turbine facilities as the least-cost generation expansion option in 73 of 78 scenarios and 67 of 78 scenarios with and without the DAEC PPA assumed, respectively).

modeled by IPL in EGEAS include adjusting the base assumptions by making adjustments to the sensitivities, one component at a time; these scenarios include lower and higher load forecasts, no energy market use, a range of fuel costs for both coal and natural gas, and varying costs of wind energy, among other factors.[193] IPL argues EGEAS' selection of 500 MW of wind generation in 140 of 156 scenarios is conservative because three of the scenarios assume the cost of wind power increases by $10 per megawatt-hour (MWh), which would drive the cost of the project above IPL's proposed cost cap principle.[194]

IPL also argues New Wind II would improve the "fuel diversity of IPL's generation system," increasing the total amount of wind in IPL's generating mix and reducing IPL's reliance on the MISO energy market to meet the needs of IPL's customers.[195] For example, IPL states it met more than 25% of its total energy requirement in 2016 by purchasing energy from MISO.[196] IPL states that adding New Wind II would help insulate IPL from fluctuations and general rate increases in market energy prices at costs either at or below market or PPA pricing.[197]

OCA argues that while many of the assumptions in New Wind II are similar to IPL's New Wind I project, information revealed in this proceeding indicates a greater "uncertainty as to IPL's ability to achieve and fully deliver the projected net benefits"

---

[193] IPL Exh. Kitchen Dir. at p. 10.
[194] IPL Exh. Kitchen Dir. at 12.
[195] *Id.*
[196] *Id.* at 6.
[197] *Id.* at 16-17.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

to customers.[198] In particular, OCA notes IPL's assumptions regarding the capacity factor of the wind turbines and IPL's current NOL position for tax purposes could diminish the benefits of New Wind II to customers.[199]

IBEC argues the project itself is unnecessary because any capacity need that might be addressed by the project will not materialize until sometime between 2026 and 2031.[200] IBEC alleges that by failing to address IPL's NOL tax position and the request for a full rate of return on any deferred tax assets, IPL's EGEAS modeling is unreliable.[201]

LEG contends IPL does not have a need for additional capacity until at least 2026, which corresponds with IPL's modeled expiration of the DAEC PPA and the 431 MW of electrical output that IPL purchases from DAEC.[202] LEG contends New Wind II is not sufficient to address IPL's claimed capacity and energy needs because wind generation is poorly positioned to meet IPL's on-peak energy demand periods or consistently deliver energy the way that baseload generation like DAEC can.[203] LEG also claims IPL's modeling improperly assumes that IPL's capacity and energy needs must come from IPL-owned property and not from the MISO market.[204] LEG claims that by ignoring the MISO market and the significant amount of wind energy

---

[198] OCA Br. at p. 5.
[199] *Id.* at 5-10.
[200] IBEC Br. at p. 1 (citing Tr. 103-04).
[201] *Id.*
[202] LEG Br. at p. 4.
[203] *Id.* at 4-5 (citing LEG Exh. Latham Dir. at pp. 6-7).
[204] *Id.* at 14.

planned for MISO Zone 3 raises the expected prices of wind energy in IPL's model, overstating the total wind revenue that will be generated.[205]

NextEra, along with DAEC co-owners CIPCO and Corn Belt, allege IPL's EGEAS modeling is insufficient to show it has considered New Wind II against other sources of supply, such as an extension of the DAEC PPA.[206] NextEra indicates that EGEAS is an economic model that does not consider non-cost factors, including the potential societal impact that could result should DAEC be retired.[207] NextEra contends IPL should consider these non-cost factors, especially for DAEC; NextEra states that some of these factors include its long-term operations, DAEC's role in providing energy and capacity to a variety of electric providers, significant charitable contributions, and providing high-paying jobs.[208]

The Environmental Intervenors contend the assumptions used by IPL in its financial and economic models are reasonable and New Wind II should be approved.[209] However, they argue IPL's model unreasonably limits the total size cap on the project to 500 MW of nameplate capacity; based on the EGEAS scenarios, IPL has shown a need for at least 700 MW of wind energy.[210] Environmental Intervenors also allege the conservative nature of IPL's modeling assumptions means that IPL understates the total need for wind energy in the future.[211]

---

[205] *Id.* at 14-15.
[206] NextEra Br. at pp. 7-12.
[207] *Id.* at 9.
[208] *Id.* at 11-12.
[209] Environmental Intervenors Br. at pp. 2-9.
[210] *Id.* at 9-11 (citing IPL Exh. Kitchen Dir. Sch. D).
[211] *Id.* at 10.

<u>Board Discussion</u>

As addressed above, the Board finds the assumptions used by IPL to build its economic models are reasonable in these circumstances. However, this finding by itself is insufficient to determine that the outcome of the model is reasonable or sufficient to indicate that IPL has compared New Wind II to other sources of supply.

IPL prepared and introduced 156 separate sensitivities, all modeled in EGEAS, of potential future scenarios that could impact the cost of service to IPL's customers. These models consistently indicate building 500 MW of wind generation, like New Wind II, is the lowest present-cost method to serve IPL's capacity and energy needs. Further, IPL introduced evidence of the associated societal benefits of the project including increased tax base and property taxes for Iowa communities, lease payments and revenues to Iowa landowners, and construction and maintenance jobs for Iowa workers.

The Board finds the extensive additional analyses requested by Next Era would be unnecessary in light of the statutory test imposed on a ratemaking principle applicant and the Legislature's stated goal of encouraging renewable energy development as identified at Iowa Code § 476.53. Under Iowa Code § 476.53, IPL is required to show New Wind II is a reasonable alternative when compared to other long-term sources of supply. IPL is not obligated under the statute to show New Wind II would be superior in every regard to DAEC, or any other alternative, in order to receive ratemaking principles from the Board.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

In addition to the non-cost benefits of the project, IPL states New Wind II would allow IPL to better meet its capacity and energy needs. The Iowa Supreme Court has held that as the applicant in this proceeding, IPL is not obligated to show that it has a present capacity need in order to receive ratemaking principles.[212] In that case, the court noted the statute contemplates non-cost considerations such as "[c]ompliance with environmental regulations, present or future, requiring clean energy, diversifying fuel sources, and accounting for the impact of the volatility of fuel prices" as part of a ratemaking principles proceeding.[213] Here, IPL has sufficiently demonstrated New Wind II would not only meet the company's stated needs, but would do so in a manner that is reasonable as compared to other feasible sources of long-term supply.

The Board finds IPL has satisfied the requirements of Iowa Code § 476.53(3)(c)(2) by showing it has considered other sources for long-term electric supply and New Wind II is reasonable when compared to other feasible alternative sources of supply. For these reasons, the Board will grant IPL ratemaking principles for New Wind II.

RATEMAKING PRINCIPLES

A. IPL Proposed Principles

IPL proposes eight principles for approval by the Board. The parties provided comments on the principles, proposed modifications to the principles offered by IPL,

---

[212] *NextEra Energy Resources LLC v. Iowa Utils. Bd.*, 815 N.W.2d 30, 40 (Iowa 2012).
[213] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

and offered new principles for consideration by the Board. The Board is given leeway to determine applicable ratemaking principles for the project and will evaluate the principles offered by the parties to ensure that the final principles are just and reasonable.[214] The reasonableness of the ratemaking principles will also be considered in light of the stated intent of the Legislature that ratemaking principles should encourage the development of electric generation in the state.[215]

1. Ratemaking Principle No. 1: Return on Equity

The first principle offered by IPL reads:

> Rate of Return on Equity (ROE): The allowed rate of return on common equity capital on the portion of New Wind II costs incurred under Ratemaking Principle No. 4 (Cost Cap) that are included in Iowa electric rate base, shall be 11.0 percent. Notwithstanding the foregoing, all transmission facilities necessary to support New Wind II and that are classified as intangible assets in accordance with the uniform system of accounts shall earn the rate of return on equity authorized by the Iowa Utilities Board in a future rate case.[216]

IPL states the ROE it is seeking in New Wind II is identical to the rate it received in New Wind I.[217] IPL argues this ROE reflects the allocation of risk between IPL and its customers regarding New Wind II.[218] IPL contends the Board has previously recognized that generation is riskier than other types of utility investment and that the

---

[214] *See* Iowa Code § 476.53(3)(b) (stating that the Board "shall not be limited to traditional ratemaking principles or traditional cost recovery mechanisms" when determining appropriate principles); *see also In re MidAmerican Energy Company*, "Final Decision and Order," Docket No. RPU-2009-0003, at pp. 70, 76, 78, 83, 86 (Dec. 14, 2009) (addressing the Board's findings that individual ratemaking principles are appropriate or not at least in part on a reasonableness standard).
[215] Iowa Code § 476.53(1).
[216] Application at p. 18.
[217] IPL Br. at p. 49.
[218] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

company is assuming the risk of developing the project in time to receive full PTC benefits at a cost below the approved New Wind I cost cap.[219] IPL states the Board should consider these risks when setting the allowed ROE.[220]

IPL witness Dr. Roger Morin argues an ROE of 11.6% would be fair and reasonable based upon his analysis of the company's cost of common equity and project risk premium.[221] IPL reiterates it is only seeking an ROE of 11.0%, below Dr. Morin's recommendation, to "promote value for IPL's customers and to be consistent with the Board-approved New Wind I."[222] IPL notes Dr. Morin's conclusions are supported by a detailed ROE analysis; the only other ROE analysis in this case was provided by OCA witness Marcos Munoz.[223]

IPL contends the purpose of utility regulation is to set just and reasonable rates based upon providing the utility an opportunity to earn a fair and reasonable return on its investment.[224] IPL cites to the United States Supreme Court cases of *Bluefield Water Works & Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) to support the notion that a fair and reasonable ROE is "commensurate with returns on investment in other firms with corresponding risks;

---

[219] *Id.* (citing *In re Interstate Power and Light Company*, "Final Decision and Order," Docket No. RPU-2008-0001, at pp. 63-64 (Feb. 13, 2009).
[220] IPL Exh. Morin Dir. at pp. 63-65; Tr. 261-63.
[221] IPL Exh. Morin Dir. at p. 7 (as indicated by the page number at the upper right of Dr. Morin's testimony).
[222] IPL Br. at p. 50.
[223] IPL Br. at p. 50.
[224] *Id.* (quoting IPL Exh. Morin Dir. at p. 11).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

sufficient to assure confidence in IPL's financial integrity; and sufficient to maintain IPL's creditworthiness and ability to attract capital on reasonable terms."[225]

Dr. Morin came to his recommended ROE of 11.6% by using three different models: the discounted cash flow (DCF) methodology, the capital asset pricing model (CAPM) methodology, and a risk premium methodology.[226] Dr. Morin notes all three methodologies are generally accepted and used by the financial community; he used all three because while each methodology provides useful information, no single method "provides the necessary level of precision for determining a fair return."[227]

Dr. Morin's DCF model resulted in an estimated company-wide ROE between 9.03% and 9.44% (after adding flotation costs).[228] Next, Dr. Morin determined that a company-wide ROE under the CAPM method would be 9.3%, or 9.5% with flotation costs.[229] Dr. Morin also prepared an empirical CAPM (ECAPM) estimate to accommodate for empirically-observed flaws in the original CAPM method; Dr. Morin provided an ECAPM of 10.0%.[230]

Finally, Dr. Morin's historical risk premium analysis and flotation cost resulted in an ROE of 10.7%.[231] After offering estimates for IPL's company-wide ROE range, Dr. Morin estimated the allowed risk premium in the utility industry (the risk premium

---

[225] IPL Br. at p. 51 (quoting IPL Exh. Morin Dir. at p. 13).
[226] IPL Exh. Morin Dir. at p. 17.
[227] *Id.* at 18.
[228] *Id.* at 33.
[229] *Id.* at 46.
[230] *Id.* at 50-51.
[231] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

granted by regulators over Treasury yields), which resulted in an ROE of 10.5%.[232] Dr. Morin states that the total flotation costs represent approximately five percent of the gross proceeds, or approximately 20 basis points.[233]

Based on his models, Dr. Morin states the upper half of his ROE range (9.9-10.7%) should be used to reflect the large construction programs proposed by IPL in the near future and uncertain regulatory treatment; Dr. Morin recommends a company-based ROE of 10.3%, the midpoint of this range.[234] Coupling those risks with a fixed ROE over the 40-year life of the project leads Dr. Morin to a project risk premium of 130 basis points, resulting in a final ROE recommendation of 11.6%.[235] IPL is seeking an ROE of 11% in the proceeding.[236] IPL argues that OCA witness Munoz also independently arrived at a New Wind II ROE of 11.0%.[237]

IBEC witness Michael Gorman contends an appropriate ROE for the project is 9.6%, which represents the settled ROE approved in IPL's most recent general rate case before the Board in Docket No. RPU-2017-0001.[238] Mr. Gorman contends the Board should not include a project ROE adder to this rate but he would be comfortable with a 25 basis point increase (for a total ROE of 9.85%) to

---

[232] *Id.* at 51-55.
[233] *Id.* at 58.
[234] *Id.* at 62-63.
[235] *Id.* at 65-66.
[236] Application at p. 18; Tr. 47.
[237] IPL Br. at p. 56.
[238] IBEC Exh. Gorman Dir. at p. 3.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

accommodate the risks associated with having a fixed ROE over the life of the project.[239]

IPL argues the Board should reject Mr. Gorman's estimate.[240] IPL contends Mr. Gorman's proposal improperly relies on the ROE settlement from the rate case, is not supported by any detailed financial modeling, and his 25 basis point adder is based on the difference between 20-year and 30-year Treasury bonds, which bear no relationship to New Wind II.[241]

IPL also contends the 10.5% ROE requested by OCA witness Brian Turner is not supported by any analysis.[242] IPL claims Mr. Turner's recommendation improperly adjusts OCA witness Mr. Munoz's 11.0% ROE finding by 50 basis points to address customer risks that are overstated or speculative.[243] IPL contends the potential risks regarding capacity factor, the depreciable life of the project, questions about operations and maintenance expenses, and compounding risks have been addressed in the record or will be addressed at a later time by the Board.[244]

OCA believes the ROE for New Wind II should be lower than the ROE approved in New Wind I to reflect the increased risk to customers identified over the course of this proceeding.[245] OCA notes IPL witness Dr. Morin essentially requests the same ROE for New Wind II even though his ROE estimates are consistently

---

[239] *Id.*; IBEC Br. at p. 2.
[240] IPL Br. at p. 54.
[241] *Id.* at 54-56.
[242] *Id.* at 56-59.
[243] *Id.* at 57.
[244] *Id.* at 57-59.
[245] OCA Br. at p. 20.

below his estimates for New Wind I.[246] OCA also contends Dr. Morin has adjusted the manner in which he arrived at his recommended ROEs in order to place less weight on the DCF analysis to produce an inflated ROE.[247] OCA contends many of the risks relied upon by Dr. Morin were also present during New Wind I, and have been reduced since New Wind I was approved.[248] OCA alleges setting an ROE for the life of the project is not a risk to IPL but is a luxury that IPL did not have to request as a principle.[249] OCA also notes a lower ROE in New Wind II would better reflect the lower estimates determined by Dr. Morin as part of this proceeding.[250]

OCA notes the parties are more aware of the risk presented to customers with New Wind II than they were for New Wind I, including IPL's NOL position, subsequent PTC carryforwards, and the requested capacity factor assumption.[251] OCA contends the economic uncertainties identified by the parties in this proceeding are borne entirely by IPL's customers and the ROE should be adjusted downward pursuant to Mr. Turner's testimony to reflect this risk.[252]

OCA states Mr. Munoz's testimony includes both a traditional DCF methodology and a modified DCF that is more generous to the company.[253] Mr. Munoz notes the modified DCF results in a more generous outcome for the company

---

[246] *Id.* at 15 (citing to numbers for New Wind I and New Wind II from IPL Exh. Morin Dir. at p. 65 and IPL Exh. Morin Dir. at p. 60 in RPU-2016-0005 and RPU-2017-0002, respectively).
[247] OCA Br. at p. 16.
[248] *Id.* at 17.
[249] *Id.* at 18-19.
[250] *Id.* at 20.
[251] *Id.* at 5-10.
[252] *Id.* at 19.
[253] *Id.* at 20-21; OCA Exh. Munoz Dir. at pp. 16-23.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

and reflects a fixed ROE over the life of the project that would "provide a fair rate of return to shareholders, sustain the attraction of adequate capital to provide safe and reliable service, and protect ratepayers from providing unreasonable profits."[254] Mr. Munoz used 13-year to 15-year historical dividends for each of the proxy companies instead of the current dividend yields for the group; OCA states this modification tends to produce a more stable ROE over the life of the project than utilizing just the current dividend yields.[255]

Further, Mr. Munoz included a 50 basis point incentive adder to his determined 10.5% ROE to reflect statutory goals and the Board's prior ratemaking principles.[256] OCA contends this adder is not the same as Dr. Morin's risk premium adder and IPL witness Dr. Morin misstates the purpose of Mr. Munoz's adder.[257] OCA contends Mr. Turner's recommended reduction of the ROE by 50 basis points is an effective way to address the heightened risk identified in this project, especially when coupled with other ratemaking principles that would be designed to protect customers.[258]

MidAmerican argues approving an ROE of 10.5% as advocated by OCA would "upset the balance of risk and reward" shared by IPL and its customers in a way that would discourage renewable development in Iowa.[259] MidAmerican contends the ROE is a critical component of a ratemaking proceeding and should balance

[254] OCA Exh. Munoz Dir. at pp. 21-23.
[255] OCA Br. at p. 21.
[256] *Id.*
[257] *Id.* at 22.
[258] *Id.* at 22-23.
[259] MidAmerican Br. at p. 5.

incentives to encourage investment, recognize the long-term risks associated with these projects, and avoid overpaying for infrastructure investment.[260] MidAmerican further argues the Board should disregard IBEC's proposed ROE because it flies in the face of evidence presented by IPL and OCA and Board precedent.[261] MidAmerican contends the Board should not reduce the ROE pursuant to OCA's recommendation because the downward reduction is "essentially an unsupported proposal."[262] MidAmerican states OCA's recommendations also fail to account for the upside benefit to customers that IPL's planning assumptions may prove to be too conservative.[263] MidAmerican contends IPL's requested 11.0% ROE is well supported by the record and prior Board precedent.[264]

Board Discussion

Parties in this docket have suggested that the project ROE is used to adjust the balance of risk between customers and the company. In this case, IPL and OCA provided ROE analyses, both of which indicated that an ROE of 11.0% is reasonable; however, OCA indicated that the ROE should be reduced by 50 basis points to reflect the PTC carryforward risk to customers. The Board has recently approved a ROE of 11.0% in two other advance ratemaking principle dockets for wind projects, although both of those projects involved a settlement regarding the ROE. The Board also notes that a ROE of 11.0% is in line with the implied risk premium the Board has

---

[260] *Id.* at 6.
[261] *Id.* at 7.
[262] *Id.* at 7-8.
[263] *Id.* at 8, n. 25.
[264] *Id.* at 8-9.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

allowed for prior wind cases when compared to the average authorized ROE for rate cases in a given year.

The parties state that this case is different because they were unaware of the PTC carryforward issue in New Wind I; accordingly, the parties contend that New Wind II should be approved at a lower ROE to better reflect the risk to customers. IPL responds by offering to address this issue in a future rate case where the Board can determine the appropriate way to handle the PTC carryforwards and contends this arrangement would place the risk on IPL. IPL also notes the PTC benefits to customers will be provided in the year the PTCs are earned, even though IPL's NOL position would prevent the company from utilizing the PTCs at that time.

The Board recognizes there is risk to customers as shown by the net cost estimates provided by OCA, and IPL's experts indicate that New Wind II does not share the same risk balance or profile as New Wind I. There is also increased risk to the company through the requested treatment of PTC carryforwards and the allocation of PTC benefits to customers before the benefits are realized by the company. After considering the ROEs proposed by the parties, the Board finds the ROE requested by IPL best balances the risks to both IPL and its customers and that the 50 basis point reduction requested by OCA is unnecessary. Accordingly, the Board finds the ratemaking principle, as proposed by IPL, should be approved with an ROE of 11.0%.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

2. Ratemaking Principle No. 2: Double Leverage

IPL's second proposed ratemaking principle states:

> Double Leverage: The issue of double leverage can be addressed at a later date in the context of a future rate case or other proceeding filed after New Wind II facilities are placed in service.[265]

This principle would defer the issue of double leverage until a future IPL rate case or other proceeding once New Wind II has be placed in service.[266] IPL notes that none of the parties have contested the proposed double leverage principle.[267]

Board Discussion

Deferring the question of double leverage until the facilities are in service is consistent with prior Board decisions on this issue.[268] Further, no party has contested the proposed principle, or attempted to show that it is unreasonable or inappropriate in this proceeding. The Board finds that considering the issue of double leverage after New Wind II is in service is an appropriate way to address the issue. However, the Board believes that the principle should reflect that double leverage will be addressed in IPL's next general rate case. Accordingly, the Board will approve IPL's proposed double leverage principle with modified language.

---

[265] Application at p. 18.
[266] IPL Br. at p. 48, n. 28.
[267] *Id.*; *see e.g.*, OCA Br. at p. 23.
[268] *See e.g.*, *In re Interstate Power and Light Company*, "Order Cancelling Hearing and Approving Settlement Subject to Modification and Reporting Requirements," Docket No. RPU-2016-0005, at Attachment p. 1 (Oct. 25, 2016).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

3. Ratemaking Principle No. 3: Depreciable Life

The third principle offered by IPL reads:

> Depreciable Life: The depreciable life of New Wind II for ratemaking purposes shall be 40 years. IPL shall be able to revise the depreciable life in the event an independent depreciation expert provides support for a different useful life and a change in depreciable life is approved by the Board in a contested case proceeding in which the parties to this proceeding may participate and present evidence either in support of or in opposition to the proposed change in depreciable life. IPL shall notify such parties of any application filed with the Board asking that the depreciable life of New Wind II be revised.[269]

IPL contends the depreciable life principle, which establishes a depreciable life for New Wind II assets of 40 years and includes a process by which IPL could shorten the depreciation period, is reasonable.[270] IPL contends the 40-year depreciable life requested in the principle mirrors the depreciable life principle approved in New Wind I and is supported by IPL's past experience and letters from GE, the turbine manufacturer, and Black & Veatch, the "owner's engineer" for New Wind II.[271]

OCA indicates that although it does not object to the 40-year depreciable life, IPL should not be allowed to unilaterally modify the depreciable life of New Wind II as a shorter depreciable life would affect the projected customer benefits of the project.[272] OCA recommends modifying IPL's proposed principle to preclude IPL from collecting any reserve deficiency resulting from a possible early retirement,

---

[269] Application at p. 18.
[270] IPL Br. at p. 59.
[271] *Id.* (citing to IPL Exh. Hanson Dir. at pp. 20-21, Sch. C).
[272] OCA Exh. Shi Dir. at p. 15; OCA Br. at p. 23 (citing OCA Exh. Turner Dir. at pp. 10-11).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

which would cause IPL to "bear a modest amount of risk related to the depreciable life assumption" but leaves the "bulk of the financial and operational risks" of New Wind II with customers.[273]

IPL claims OCA's concerns about IPL unilaterally shortening the depreciable life of the project are unfounded because IPL would be required to introduce evidence from an independent depreciation expert and receive approval from the Board after a contested case proceeding.[274] IPL also contends OCA's recommendation to prohibit IPL from collecting any reserve deficiency resulting from early retirement of the assets would improperly place the risk of early retirement entirely on IPL.[275]

IBEC contends the depreciable life assumption is aggressive because the typical life of recently-completed projects is between 20 and 30 years.[276] IBEC contends that if the depreciable life of the project is less than the assumed 40 years, there is a substantial reduction in the benefits to customers.[277]

Board Discussion

The Board finds IPL has presented sufficient evidence to support using a 40-year depreciable life as part of the ratemaking principles analysis. The Board will now consider the parties' dispute over the appropriate procedure and outcome should IPL desire to shorten the depreciable life of the project in the future.

---

[273] OCA Br. at pp. 23-24.
[274] *Id.* at 59-60.
[275] *Id.* at 60.
[276] IBEC Br. at p. 4.
[277] *Id.* (citing IBEC Exh. Brubaker Dir. Sch. 6).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

The Board finds the principle provides significant safeguards to prevent IPL from unilaterally reducing the depreciable life of New Wind II assets. Unlike the principle approved in New Wind I, the language proposed by IPL in this case does not specify that the change has to be requested in rate case. The Board finds a rate case to be an appropriate time to consider this information. By requiring the parties to proceed through a rate case proceeding, all interested parties would have the opportunity to consider the impact of a shortened depreciable life. This would also allow the Board at some future point to consider changing the risk balance between IPL and its customers, if necessary and appropriate. Accordingly, the Board finds IPL's proposed depreciable life principle is reasonable and should be approved as modified.

4. Ratemaking Principle No. 4: Cost Cap

IPL's fourth ratemaking principle states:

> Cost Cap: IPL shall be permitted to include in rates the actual costs of New Wind II up to $1,780 per kW, on a Project-wide basis, inclusive of AFUDC and all costs of transmission network upgrades, upgrades required as a result of Midcontinent Independent System Operator studies, generator tie lines, transmission interconnection and any other appurtenant facilities associated with the foregoing, whether owned by IPL or any other entity, without the need to establish prudence or reasonableness. In the event that actual costs are lower than the projected costs, rates shall recover only actual costs. In the event actual costs exceed the cost cap, IPL shall be required to establish the prudence and reasonableness of any IPL investment costs in excess of the cost cap amount before such excess can be included in rates.[278]

[278] Application at pp. 18-19.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL states this cost cap is $50 per kW lower than the cost cap approved in New Wind I.[279] IPL notes that the proposed cost cap includes "the Allowance for Funds Used During Construction (AFUDC), the purchase of the wind turbines through a Turbine Supply Agreement, a Balance of Plant (BoP) construction contract, engineering and structural work for New Wind II substation, Owner's Costs, transmission interconnection and network upgrade costs, and contingency."[280]

No party disputed IPL's proposed cost cap.[281] However, LEG contends IPL should not be permitted to recover transmission interconnection and network upgrade costs above the cost cap if IPL chooses to seek ERIS with TRS service, then seeks to increase its accredited capacity or interconnection with NRIS in the future.[282]

LEG's concern is that IPL would find NRIS too expensive for many of the sites under consideration to stay under the cost cap and therefore seek ERIS with TRS. Although this method is cheaper, it would potentially be only a temporary solution; long-term accreditation and transmission service would likely require NRIS, as discussed in the transmission cost assumption component of this order. LEG contends that by potentially recovering the additional transmission costs outside of this proceeding, IPL is understating the true costs of the project.

---

[279] IPL Exh. Hanson Dir. at p. 4.
[280] *Id.* at pp. 4-5.
[281] *See e.g.*, OCA Br. at p. 24 ("OCA did not take issue with IPL's proposed ratemaking principle on Cost Cap.").
[282] LEG Br. at p. 28.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Board Discussion

The Board will not adopt LEG's transmission cost proposal. As currently constructed, the cost cap principle specifically states that "all costs of . . . transmission interconnection" up to the cost cap are presumed reasonable and prudent. To the extent that those costs ultimately exceed the cost cap, for whatever reason, IPL would have to seek recovery of those costs in a ratemaking proceeding by establishing that the excess costs incurred were prudent and reasonable. The Board notes rate recovery would take place in a contested case proceeding where interested parties could introduce evidence and contest the reasonableness or prudence of IPL's incurred costs. This provides an effective mechanism for addressing any additional transmission costs, if they are incurred in the future. For these reasons, the Board approves IPL's cost cap principle as proposed.

5. Ratemaking Principle No. 5: Size Cap

The fifth ratemaking principle requested by IPL reads:

> Size Cap: The ratemaking principles shall apply to any new wind facility constructed as part of New Wind II, that qualifies for 100% of the federal Production Tax Credit, regardless of its location in Iowa, up to a total of 500 MW.[283]

IPL contends its proposed size cap principle, which is identical to the size cap proposed in New Wind I, is reasonable and supported by IPL's EGEAS modeling.[284] IPL contends the size cap "aligns with IPL's ongoing efforts to identify, acquire, and develop a portfolio of wind projects . . . at locations with high performing wind

[283] Application at p. 19.
[284] IPL Br. at p. 61.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

resources, where property rights already have been or can be secured, and where MISO has initiated interconnection studies."[285] IPL argues a size cap of 500 MW allows IPL to focus on projects with projected customer benefits.[286] Additionally, the principle requires all 500 MW subject to the ratemaking principles to be eligible for 100% of PTCs, alleviating concerns about timely delivery of benefits or delayed in-service dates.[287]

OCA states it does not object to IPL's requested cap size, but it is concerned that the language of the principle appears to give IPL unlimited discretion on where in Iowa the New Wind II facilities could be located.[288] OCA argues IPL should be required to demonstrate that the final project design "can reasonably be expected to satisfy the capacity factor assumptions that accompany this project prior to IPL recovering the cost of this project."[289]

Environmental Intervenors and Sierra Club allege the Board should approve a higher size cap; namely, the cap should be extended to 700 MW.[290] Environmental Intervenors claim IPL has unnecessarily limited its cost cap to 500 MW of wind, even though its EGEAS runs indicated the need for 700 MW in the 2020-21 timeframe.[291] They claim if IPL used less conservative cost and performance inputs and removed the artificial 500 MW maximum, EGEAS would select up to 1,500 MW of wind power

---

[285] *Id.*
[286] *Id.*
[287] *Id.* at 62.
[288] OCA Br. at p. 25.
[289] *Id.*
[290] Environmental Intervenors Br. at pp. 9-10.
[291] *Id.* at 10; citing IPL Exh. Ktichen Dir. Sch. D; Sierra Club Exh. Hausman Dir. at p. 8).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

in the 2020-2024 timeframe.[292] The Environmental Intervenors also claim IPL is in a position to take advantage of a higher size cap, noting that the company has identified a number of suitable sites that are expected to achieve full PTC qualification and sufficient capacity factors.[293]

Environmental Intervenor's primary concern with IPL's size cap principle is that the cap is too restrictive. They support approving the project, but request that IPL consider, and the Board approve, increasing the size cap of the project by 200 MW. The Environmental Intervenors claim a higher cap would provide IPL the flexibility to develop at least the 500 MW originally sought as well as any additional feasible generation between 500 MW and 700 MW.[294]

Board Discussion

The Board finds the size cap principle should be capped at 500 MW of new wind development. The economics of a 500 MW project are well developed in the record after hearing evidence from all parties. Although the Environmental Intervenors contend the EGEAS runs indicate IPL can justify up to 700 MW of wind generation, the Board finds that the record is insufficient to support a 40% increase in the size cap at this time.

OCA also raises a concern that the ratemaking principle would permit IPL to combine wind turbine sites from across the state to meet the size cap, which could erode the benefits of the project should the combined elements fail to meet IPL's

[292] *Id.* (citing Environmental Intervenors Exh. Baer Dir. at pp. 13-15; IPL Exh. Kitchen Dir. Sch. E).
[293] *Id.* at 10-11.
[294] Environmental Intervenors Br. at p. 11.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

capacity factor projections. However, it appears that location diversity may also represent a benefit by diversifying some operational factors. For these reasons, the Board will approve IPL's size cap principle as proposed.

6. Ratemaking Principle No. 6: Cancellation Cost Recovery

IPL's sixth ratemaking principle states:

> Cancellation Cost Recovery: If IPL cancels construction of New Wind II for good cause, IPL's prudently incurred and unreimbursed costs shall be amortized over a period not exceeding ten years, effective with IPL's next electric rate case. The unamortized balance shall not be included in rate base in any determination of interim and final rates thereafter during the period of the amortization provided, however, that the prudence of the costs and the good cause for cancellation may be disputed by any party and shall be subject to determination by the Board.[295]

IPL states the cancellation cost recovery principle mirrors a principle proposed and approved in New Wind I.[296] IPL notes none of the intervenors have objected to the cancellation cost recovery principle.[297]

OCA does not take issue with the specifics of IPL's proposed cancellation cost recovery principle.[298] However, OCA notes that in light of uncertainty surrounding the PTC benefits and availability, this principle introduces a higher risk to customers than

[295] Application at p. 19.
[296] IPL Exh. Wheatley Dir. at p. 23.
[297] IPL Br. at pp. 48-49.
[298] OCA Br. at p. 26.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

similar principles approved in other projects.[299] OCA states this is another risk to refute Dr. Morin's contention that a risk premium for the project is appropriate.[300]

Board Discussion

The parties have not contested this principle, which mirrors principles previously approved by the Board. The Board acknowledges OCA's concern that this provision may represent additional risk in New Wind II over other dockets, but this potential increase is insufficient to justify modification or omission of the principle from the ratemaking process. The Board finds IPL's cancellation cost recovery principle is reasonable and is approved as proposed.

7. Ratemaking Principle No. 7: Treatment of AFUDC

The seventh ratemaking principle requested by IPL reads:

> Treatment of AFUDC: Interest costs incurred on New Wind II will be capitalized using the appropriate AFUDC rates in effect during the construction period. An AFUDC rate that recognizes a return on common equity rate of the greater of 10.0 percent or whatever percentage the Board find[s] reasonable during IPL's most recent rate case shall be applied to construction work in progress.[301]

IPL states "AFUDC is the carrying cost of the funds or expenditures used to construct a new generating plant and is reflected as part of the plant investment."[302] IPL notes this principle mirrors the AFUDC principle approved in New Wind I by granting an ROE of 10% or the rate approved by the Board in IPL's most recent rate case,

---

[299] *Id.*
[300] *Id.*
[301] Application at p. 19.
[302] IPL Br. at p. 62.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

whichever is greater.[303] All other AFUDC calculations would follow the traditional methodology as approved by the FERC.[304] IPL states it should receive an ROE on AFUDC of 10.0% for New Wind I and New Wind II because both projects are subject to similar timeframes, costs, and risks, and the lower cost cap and time to obtain 100% PTC certification in New Wind II renders the principle reasonable in this proceeding.[305]

OCA contends the appropriate ROE for the AFUDC is 9.6%, consistent with the ROE approved by the Board in IPL's last electric rate case (Docket No. RPU-2017-0001).[306] OCA contends that using the most recent approved general ROE reflects the fact that AFUDC costs are "incurred under current market conditions;" an ROE of 10.0% would exceed current market conditions.[307]

Board Discussion

The Board recognizes that the limitation at Section 5 of the settlement agreement in Docket No. RPU-2017-0001 precludes a party from relying on the parties' settlement in that case as precedent.[308] The 10.0% ROE used in IPL's principle reflects the ROE that the Board approved in IPL's 2010 electric rate case

---

[303] *Id.*
[304] *Id.* at 62-63.
[305] *Id.* at 63.
[306] OCA Br. at p. 26; OCA Exh. Turner Dir. at p. 15.
[307] OCA Br. at p. 26.
[308] One of the provisions of the settlement submitted to the Board in Docket No. RPU-2017-0001 stated that "No party will be deemed to have approved, accepted, agreed, or consented to any ratemaking principle . . . under the provisions of this settlement agreement or the attachments thereto or be prejudiced or bound thereby in . . . [a] future proceeding before the Board. No party or representative thereof shall directly or indirectly refer to this agreement or any part of any order of the Board referring to this agreement as precedent." Tr. 69-70.

(Docket No. RPU-2010-0001), which was used as part of the non-unanimous settlement approved in New Wind I. However, IPL's contention that New Wind II AFUDC should receive an ROE of 10.0% belies the language the company itself proposed in this principle. IPL did not specifically request an AFUDC of 10.0% to match the current treatment for New Wind I. Instead, the company proposed a rate of at least 10.0%. This language is designed to treat the ROE for New Wind I as a floor for the ROE IPL would receive without precluding IPL from receiving a higher ROE should it be granted by the Board in RPU-2017-0001.

Accordingly, the Board finds that an ROE of 9.6%, the rate approved for IPL after review and settlement in Docket No. RPU-2017-0001, is the appropriate return on equity for AFUDC funds pursuant to this project.

8. Ratemaking Principle No. 8: Environmental Attributes

IPL's eighth and final ratemaking principle states:

> Environmental Attributes: The Iowa jurisdictional portion of any revenues from the sale of renewable energy credits and carbon shall be recorded above-the-line by IPL. IPL's customers shall be entitled to the full value of any renewable energy credits, carbon credits, and environmental emission allowances (Environmental Attributes), beyond those needed for compliance with applicable regulatory requirements, associated with investment included in IPL's Iowa jurisdictional rate base. IPL shall use commercially reasonable efforts to maximize the value of Environmental Attributes associated with New Wind II.[309]

[309] Application at p. 19.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL's proposed environmental attribute principle once again mirrors the principle approved in New Wind I.[310] IPL contends the principle as proposed entitles IPL customers to the full value of environmental attributes earned by New Wind II in IPL's jurisdictional rate base, less any attributes needed to meet regulatory requirements.[311] The principle also requires IPL to "use commercially reasonable efforts to maximize the value of the New Wind II environmental attributes."[312] IPL contends that nothing in the principle would prevent the company from retiring renewable energy credits (RECs) at the request of customers or from participating in the Board's I-REV program.[313] IPL contends the principle already provides the company with sufficient flexibility to maximize the value of any environmental attributes in a way that best meets customer needs.

OCA did not take issue with the environmental attributes principle.[314] However, Environmental Intervenors state IPL's proposed principle effectively requires IPL to sell RECs and provide the value of credits to customers.[315] Environmental Intervenors argue this method no longer comports with the Board's renewable energy verification program, which requires participating utilities to retire RECs on behalf of customers annually.[316] Environmental Intervenors contend that retiring RECs provides "clear and reliable guidance . . . about generation and

[310] IPL Br. at p. 64.
[311] *Id.*
[312] *Id.*
[313] *Id.*
[314] OCA Br. at p. 27.
[315] Environmental Intervenor Br. at p. 11.
[316] *Id.*

consumption of renewable electricity" and that there is value in providing ways for customers to "understand, track, and communicat[e]" about renewable electricity supply and usage.[317] Environmental Intervenors request the Board modify the principle to align the principle to permit IPL to participate in the Board's renewable energy percentage verification program.[318]

Board Discussion

The Environmental Intervenors raised an issue with IPL's environmental attributes principle. The Board finds that the language as proposed by IPL would not preclude a company from participating in the I-REV program under the appropriate circumstances. The Board notes that I-REV is not compulsory and participation in the program could permit IPL to "maximize the value" of the RECs under the appropriate circumstances. Although the Board understands that many customers place a high value on lower bills, there is also a value utilities can provide to customers seeking improved renewable energy development and use. Accordingly, the Board will approve IPL's proposed environmental attribute principle.

B. Additional Principles

Throughout the course of this proceeding, the parties offered additional ratemaking principles for consideration by the Board.

---

[317] *Id.*
[318] *Id.* at 12.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

1. Ratemaking Principle: Production Tax Credits, Energy Benefits, and Capacity Factor

IBEC proposed a potential conditional requirement to address its concerns regarding the PTCs, energy benefits, and capacity factor of the project. The condition states: "On a three-year rolling basis, customers should be guaranteed full PTC and energy benefits based on achieving not less than a 40 percent capacity factor."[319] IBEC states this language would ensure that customers receive benefits generated by the PTCs but would also recognize that capacity factors vary from year to year.[320]

IPL contends that conditioning recovery on achieving a certain capacity factor, even one below the capacity factor assumed as part of the economic analysis of the project, is unprecedented and effectively removes all risk from customers.[321] IPL also contends the requirement is unreasonable and would "defeat the purpose of the advance ratemaking principle statue" by undermining the certainty ratemaking principles are intended to provide.[322] As noted in the Board's discussion of the modeling assumptions, IPL contends that such a requirement ignores IPL's incentives to maximize the variables of capacity factor that are within the company's control and imputes potential company liability over factors outside its control, including the weather and "fluctuations in demand."[323]

---

[319] IBEC Exh. Brubaker Dir. at pp. 18-19.
[320] *Id.*
[321] IPL Br. at p. 40.
[322] *Id.* (citing IPL Exh. Hanson Sur. at pp. 5-6).
[323] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

2. Ratemaking Principle: Energy Benefits

OCA proposed a ratemaking principle addressing the energy benefits from the project which states:

> IPL will recognize any reduction in fuel costs from New Wind II as a benefit to its customers through a reduction in the EAC or similar mechanism as soon as New Wind II is placed in service, consistent with fuel cost treatment associated with new generating plants.[324]

OCA notes IPL has identified reduced fuel costs as a primary benefit of New Wind II to customers because "[r]educing IPL's fuel costs will help control customers' bills and provide a hedge against the fuel price volatility that affects the delivered cost of power from other generating sources."[325] OCA contends this principle is necessary to "prevent IPL from altering the projected benefits to customers in the future."[326]

IPL contends OCA's proposed principle is redundant and unnecessary.[327] IPL alleges the energy market benefits of New Wind II will flow through the EAC at the time New Wind II is placed in service; a ratemaking principle setting out that requirement is not needed.[328]

IPL witness Douglas Kopp indicated at hearing that he understood any reduction in fuel costs would be recognized as soon as New Wind II became operational.[329] IPL witness Amy Wheatley agreed reduced fuel costs would be

---

[324] OCA Br. at pp. 11-12.
[325] *Id.* at 11 (quoting Application at p. 2).
[326] *Id.*
[327] IPL Br. at p. 41.
[328] *Id.* at 41-42.
[329] Tr. 23-26.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

realized in the EAC tariff at the time the reductions were generated, but IPL could request a waiver that would allow IPL to keep the benefits until the assets were placed in rate base.[330] However, Ms. Wheatley also stated the matching principle would require that New Wind II assets be included in rate base before PTC benefits would flow to customers under the EAC under the matching principle.[331] Ms. Wheatley notes the matching principle requires costs to match revenues; in other words, rates for service must reasonably reflect the costs of providing that service.[332]

OCA contends Ms. Wheatley's reliance on the matching principle is "misplaced," stating that the principle, as identified in Docket Nos. EAC-2016-0006 and EAC-2017-0006, relates to MidAmerican's PTC-related costs and benefits and the approved principles in those dockets reflect a balanced allocation of risks, costs, and benefits between MidAmerican and its customers.[333] OCA states IPL's contention is inappropriate because MidAmerican's EAC prescribes a matching principle for PTCs generated by new wind facilities; IPL's EAC does not contain the same language and IPL does not operate under a revenue-sharing arrangement like MidAmerican.[334]

---

[330] Tr. 168.
[331] Tr. 176.
[332] IPL Exh. Wheatley Reb. at pp. 2-3.
[333] OCA Br. at pp. 9-10; *see In re MidAmerican Energy Company*, "Order Approving Settlement, with Modifications, and Requiring Additional Information," Docket No. RPU-2013-0004, at pp. 12-13 (Mar. 17, 2014) (discussing more generally concerns about matching costs to revenues).
[334] *Id.* at 10.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Board Discussion

The Board will not adopt the conditions proposed by IBEC. Although IBEC did not specifically request that the conditions be set forth as a principle, conditioning approval of the project would effectively act as a principle, which in this case would undermine the certainty sought in a ratemaking proceeding. The result could compromise the Board's ability to fulfill the statutory goals of Iowa Code § 476.53.

The conditions, as proposed, also suffer because of the limited timeframe and variability of the capacity factor. IBEC has not demonstrated to the Board that three years is the appropriate length of time to evaluate the capacity factor of the project given evidence on the record that capacity factor varies greatly over time. Further, turbine placement is only one part of the complicated series of factors, largely beyond company control, that could impact the final capacity factor. For these reasons, the Board rejects these conditions as a principle.

The Board also finds OCA's proposed energy benefits principle is unnecessary. The Board acknowledges OCA's concerns that relying on the language of the EAC tariff may not present the same kind of certainty as a principle. However, IPL would have to seek and receive Board approval to modify its EAC tariff; interested parties would then have an opportunity to contest IPL's potential modification and could request that the Board open a contested case proceeding regarding the matter. If OCA believes IPL intends to modify its tariff in this manner, the issue can be addressed if or when IPL makes that filing.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

C. Ratemaking Principle: Production Tax Credits

Multiple parties in this proceeding expressed concern with IPL's plan to request to include PTC carryforwards in the ADIT account, where they would earn a return until IPL has sufficient tax liability to utilize the PTCs. The parties provided a total of four separate proposed ratemaking principles. In addition, the Board laid out four potential ratemaking principles, based on testimony in the record, and requested comments from the parties.

1. Parties' Proposed Principles

OCA proposed a series of principles to address IPL's treatment of PTCs and PTC carryforwards. The first principle reads:

> All PTCs earned by IPL shall be attributed to ratepayers as reduction to test-year expense beginning in the rate proceeding in which New Wind II is first included in rate base regardless of whether the PTCs were recognized on the test year tax return or not. However, the deferred PTC balance included as an addition to rate base shall only include a level matching the actual credit provided to ratepayers.[335]

OCA's second potential principle is a combination of a principle discussed at hearing and related language included in its post-hearing brief. When combined, the condition, or principle, would state:

> When New Wind II goes into service, IPL will timely deliver the PTCs to allow its customers to capture the full value of the PTCs. IPL will not charge customers a full rate of return on any PTC carryforwards used in its calculation of revenue requirement.[336]

[335] OCA Exh. Turner Dir. at pp. 7-8.
[336] Tr. 27; OCA Br. at pp. 8, 14.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IBEC proposed a similar PTC ratemaking principle which reads: "Customers should not be required to pay a full rate of return on the ADIT asset."[337]

Finally, LEG advocated for similar ratemaking principle language to address IPL's use of the PTCs. When the two elements of LEG's statements are combined the proposed principle states: "IPL should guarantee customers the full current value of PTCs. If IPL is allowed to create a deferred tax asset account, then customers should not be required to pay a full rate of return on those assets."[338]

IPL contends the Board should reject OCA's proposed principles because IPL is assuming the risk of requesting rate recovery by deferring the issue of PTC carryforward recovery until a future rate case.[339] IPL states this is consistent with how the Board addressed IPL's Whispering Willow East project and in that proceeding OCA endorsed placing a "known amount of PTC carryforwards that IPL had previously accumulated" as ADIT assets.[340] IPL contends utilities in other jurisdictions with similar NOL positions have requested, and have been granted, permission to utilize PTC carryforwards as ADIT assets.[341]

IPL also contends IBEC's proposed principle, which is substantively similar to components of OCA's and LEG's principles, is unreasonable.[342] IPL reiterates its position that the appropriate time to address IPL's tax position and associated PTC

---

[337] IBEC Exh. Brubaker Dir. at p. 18.
[338] LEG Br. at p. 27.
[339] IPL Br. at p. 69.
[340] *Id.* at 69-70.
[341] *Id.* at 70 (stating that the Minnesota Public Utilities Commission allowed Minnesota Power to utilize similar accounting treatment in its last general rate case; *see* IPL Exh. Janecek Reb. at pp. 6-7, Sch. B).
[342] IPL Br. at p. 70.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

carryforwards is in the next general rate case.[343] IPL also states the proposed principle would penalize IPL with a lower ROE as a result of its NOL position, which reduces rate base and rates.[344] IPL argues the proposal is particularly unfair because IPL will grant the PTC benefits to customers before receiving payment from the federal government.[345]

IPL argues the parties' positions on PTC carryforwards are incorrect in a number of ways. First, IPL states PTC carryforwards would not reduce the value of PTCs earned by New Wind II because the PTC carryforwards "have no impact on the rate at which PTCs are earned or their value."[346] IPL also contends the PTC carryforwards are only in question because of IPL's NOL position, which is a benefit to customers.[347] Finally, IPL alleges the PTC carryforwards should not be considered a cost of New Wind II directly, but even if the Board assigns the costs to New Wind II exclusively, the project will benefit customers by providing emission-free energy at a low net cost.[348]

OCA contends a principle is appropriate to reflect the parties' understanding of the PTC carryforward risk to customers.[349] OCA states the parties were not aware of this risk at the time ratemaking principles were approved for Whispering Willow East or New Wind I but that should not preclude a ratemaking principle in this case to

---

[343] *Id.*
[344] *Id.* at 70-71 (citing IPL Exh. Janecek Reb. at pp. 5-6).
[345] IPL Br. at p. 71.
[346] *Id.*
[347] *Id.*
[348] IPL Exh. Wheatley Second Supp. Dir. at p. 9.
[349] OCA Br. at pp. 7-8.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

address risk to customers.[350] OCA also argues its acceptance of the ratemaking treatment in IPL's rate case does not mean that it is reasonable for IPL to treat PTC carryforwards from 1,000 MW of wind energy as ADIT assets along with any ongoing bonus depreciation elections.[351] OCA contends that the decision made in another state is irrelevant because the details of that proceeding are not fully known in this case.[352] Finally, OCA notes that if the Board declines to include a ratemaking principle regarding PTC carryforwards, the parties would not be precluded from advocating for different approaches or treatment of the PTC carryforwards in a future case.[353]

IBEC contends IPL's proposed PTC carryforward treatment significantly erodes customer benefits from the project and that a ratemaking principle is necessary should IPL be allowed to record the PTC carryforwards as ADIT assets.[354] LEG makes the same contentions.[355]

On January 12, 2018, IPL provided revised and updated financial models from Ms. Wheatley to reflect the general impact of the Tax Act on IPL's modeling assumptions and results. IPL states the revised analysis shows that New Wind II still provides long-term net benefits to customers.[356]

---

[350] *Id.* at 8.
[351] *Id.* at n. 2.
[352] *Id.*
[353] *Id.*
[354] IBEC Br. at pp. 2-3, 5.
[355] *See* LEG Br. at pp. 8, 27.
[356] IPL Exh. Wheatley Sup. Dir. Cover Letter at p. 2.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

In its response to the PTC Order and IPL's filing, OCA states it accepts IPL's recommendation to address the ratemaking treatment of the PTC carryforwards until a future rate case.[357] However, OCA notes its acceptance relies on "IPL's acknowledgement that it must demonstrate that it has prudently managed its tax situation in its next general rate case proceeding and the uncertainties that could impact its tax situation" as previously address by OCA.[358] OCA states that by addressing the matter at a later date, the Board and parties will better understand IPL's NOL position and the impact of the Tax Act on IPL's tax planning.[359] OCA notes it concurs with IPL's position to the extent that IPL asserts that the approach "will be fair and protect the rights of all parties."[360]

OCA argues the parties will need greater clarity to ensure that IPL will provide full PTC benefits to customers as promised and reflected in its modeling.[361] OCA notes IPL's promises include net benefits to customers, reduced fuel costs, and timely delivery of the full value of PTCs.[362] OCA contends the Board should hold IPL to its current stated intent to deliver PTC benefits through reduced cost of service in an EAC because IPL has not committed to file a rate case at the time New Wind II is placed into service.[363]

---

[357] OCA Response at p. 2.
[358] *Id.*
[359] *Id.*
[360] *Id.*
[361] *Id.* at 3.
[362] *Id.*
[363] *Id.* (citing IPL Exh. Wheatley Second Supp. Dir. at p. 2; OCA Exh. Turner Supp. Reb. at p. 6).

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

OCA also proposes a new ratemaking principle, which states: "Once the assets associated with New Wind II are placed in-service, IPL will provide customers with the full value of all PTCs earned by the New Wind II assets through the energy adjustment clause (EAC)."[364] OCA contends this principle would ensure timely delivery of PTC benefits earned or generated by New Wind II.[365]

In its response to the PTC Order, IBEC contends the updated financial analysis provided by IPL indicates that it still intends to consider PTC carryforwards as ADIT assets in rate base and seek a full rate of return.[366] IBEC reiterates its position that allowing IPL a full rate of return on PTC carryforwards results in significant costs to customers, even under an optimistic market revenue forecast.[367]

IBEC also contends the treatment of PTC carryforwards should be addressed in this proceeding.[368] IBEC agrees with OCA that the costs of the PTC carryforwards should be assigned to New Wind II because without this project, the PTCs and associated PTC carryforwards would not be produced.[369] IBEC also alleges that addressing the issue of PTC carryforwards is now appropriate because although the full impact of the Tax Act is unknown, it is better to move forward with a general understanding of the Tax Act at this point in time.[370] IBEC argues if the Board allows IPL a return on the PTC carryforwards, the Board should cap the return at the cost of

---

[364] OCA Exh. Turner Supp. Reb. at p. 8.
[365] OCA Response at p. 4.
[366] IBEC Response at p. 2.
[367] *Id.* at 2-3.
[368] *Id.* at 3.
[369] *Id.*
[370] *Id.* at 3-4.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

debt.[371] Finally, IBEC reiterates its opposition to the project because of the limited demonstrated benefits to customers relative to the significant risk posed by the project.[372]

LEG alleges the development of the factual record in this docket has demonstrated the costs and benefits of New Wind II were not accurately reflected in IPL's original application and the original net present benefit anticipated in the application has now become a net cost.[373] LEG contends the risks of the project have continued to increase while benefits have evaporated.[374]

LEG echoes IBEC's contention that customers should not be required to pay an ROE on PTC carryforwards and the carryforwards should be assigned as project costs.[375] LEG alleges IPL proposed New Wind II primarily to generate PTCs and IPL fully knew and understood the connection between proposing New Wind II and the generation of PTC carryforwards.[376] Finally, LEG agrees with IBEC that IPL customers should at all times receive the full value of all PTCs generated by the project and the Board should cap any allowed return on PTC carryforwards at the cost of debt.[377]

---

[371] *Id.* at 4.
[372] *Id.* at 4-6.
[373] LEG Response at p. 3.
[374] *Id.*
[375] *Id.* at 4-5.
[376] *Id.* at 4-5.
[377] *Id.* at 5.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

2. PTC Order Principles

The Board offered four potential principles for comment by the parties in its PTC Order. Each party was given an opportunity to provide comments on the principles identified in the PTC Order and discuss the impact of the potential principles on the project. IPL, OCA, IBEC, and LEG all prepared comments on each of the four proposed principles.

IPL reiterates its contention that the Board should not include a PTC carryforward principle in this case but should address the issue of PTC carryforwards in a future rate case.[378] IPL contends addressing the issue of PTC carryforwards is premature, as the company is still evaluating the impact of the Tax Act on the company's overall tax planning.[379] IPL again argues addressing the PTC carryforwards in a future case would allow the Board to examine the actual value of PTC carryforwards in question and examine how the PTC carryforwards relate to the company's overall tax position.[380]

IPL also restates its contention that PTC carryforwards should not be attributed as a project-specific cost to New Wind II because they are a reflection of IPL's overall tax strategy.[381] IPL alleges nothing in Iowa Code § 476.53, Board rules, or Board dockets would require the PTC carryforwards be classified as a facility

---

[378] IPL Response at p. 6.
[379] *Id.*
[380] *Id.* at 6-7.
[381] *Id.* at 9-10.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

cost.[382] IPL notes the parties should be allowed to address the issue of PTC carryforwards in a future rate review.[383]

OCA accepts IPL's contention that the Board should address the treatment of PTC carryforwards in a future rate case, subject to the conditions as described above.[384] However, OCA contends the carrying costs associated with PTC carryforwards generated by New Wind II should be attributed to the project because the PTC carryforwards are directly tied to the principle benefit of New Wind II: the expected PTCs that the project would generate.[385] OCA contends the PTC carryforwards are, in part, a function of IPL's NOL position, but this does not change the financial analysis around the project.[386] OCA states a comparison between New Wind II and other long-term sources of supply necessarily requires a comparison of likely costs and benefits and IPL relies on project-specific cash flows based on expected carrying charges for the facility and that the costs should be included in the economic modeling.

a. Potential Ratemaking Principle No. 1: Address PTC Carryforwards in Next General Rate Case

The first potential principle (Principle 1) identified in the Board's order states:

> IPL will provide customers with the value of the PTCs earned by New Wind II by recording the PTCs as a deferred income tax liability in the accumulated deferred income tax (ADIT) component of rate base. The PTCs that IPL cannot utilize in

[382] *Id.* at 10.
[383] *Id.* at 12.
[384] OCA Response at pp. 2-4.
[385] *Id.* at 8.
[386] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

> the year earned to offset taxable income ("PTC Carryforwards") will be recorded in rate base as an ADIT asset.[387]

IPL states the language of this ratemaking principle generally adopts IPL's position on the treatment of PTC carryforwards.[388] IPL proposes modifying the principle to state that the company will record PTCs "as a reduction to cost of service in the year the PTCs are earned," as well as to include that the PTC carryforwards will be included as an ADIT "in interim and final rates in IPL's future electric rate reviews."[389] Finally, IPL proposes modifying the principle to include: "The ROE returned on the PTC carryforwards will be the ROE approved by the IUB in the most recent electric rate review. The total carrying cost of PTC carryforwards shall not exceed the value of the PTC benefits delivered to electric customers."[390]

IPL contends these modifications clarify IPL's intended PTC carryforward treatment, as well as provide a fair and reasonable ROE.[391] Further, IPL alleges the modifications would address any concerns that the carrying costs on the PTC carryforwards would exceed the benefits delivered to customers.[392]

IPL notes that even if PTC carryforwards are fully attributed to New Wind II, the project would still provide energy and capacity benefits to customers; if the project is completed under the cost cap, as IPL anticipates, the project would

---

[387] PTC Order at p. 2.
[388] IPL Response at p. 15.
[389] *Id.*
[390] *Id.*
[391] *Id.* at 15-16.
[392] *Id.* at 16.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

generate a net benefit to customers.[393] IPL also contends OCA's argument that a full ROE on the PTC carryforwards would necessitate further evaluation of PPAs is unreasonable because New Wind II would provide stable long-term pricing regardless of changing market conditions.[394] IPL notes if the Board should choose to adopt a PTC carryforward principle it should utilize Principle 1 as modified.[395]

OCA argues if the Board chooses not to address PTC carryforwards in a future rate case, the Board should not adopt Principle 1 as modified by IPL.[396] OCA states it does not object to IPL's use of unutilized PTC benefits as an ADIT asset, but OCA contends this action would not pass the benefits to customers and any reduction in cost of service does not deliver benefits to customers unless IPL has "made a rate case filing reflecting this reduction to cost of service."[397]

OCA also contends the modified Principle 1 is flawed because it reflects an assertion that IPL's past actions would lead to the conclusion that the company's future tax position management is prudent.[398] OCA alleges the Board should determine the prudency and reasonableness of IPL's tax position in IPL's next rate case, precluding the Board from adopting the modified principle.[399] OCA contends there is no "sound rationale" for a principle that would grant an ROE on PTC carryforwards, and IPL should consider and explore alternatives to self-owned

---

[393] *Id.* at 16-17.
[394] *Id.* at 18.
[395] *Id.* at 14, 19.
[396] OCA Response at p. 6.
[397] *Id.*
[398] *Id.* at 6-7.
[399] *Id.* at 7.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

projects such as a PPA with a developer that would be able to monetize the PTC benefits while providing many of the same benefits as New Wind II.[400] Finally, OCA restates its concerns that any deviation from the assumptions modeled by IPL will result in significant risks to customers.[401]

b. Potential Ratemaking Principle No. 2: No ROE on PTC Carryforwards

The second potential ratemaking principle (Principle 2) identified in the PTC Order reads:

> IPL will provide customers with the value of the PTCs earned by New Wind II by recording the PTCs as a deferred income tax liability in the accumulated deferred income tax (ADIT) component of rate base. The PTCs that IPL cannot utilize in the year earned to offset taxable income ("PTC Carryforwards") will be recorded in rate base as an ADIT asset. IPL will not earn a return on equity on the PTC carryforwards.[402]

IPL commented that Principles 2 and 3 would penalize IPL by limiting the ROE on any PTC carryforwards to, at best, the cost of debt.[403] IPL states this would reduce the effective project ROE for New Wind II, diminishing the economic viability of the project and making it unlikely that IPL would pursue the project.[404] IPL states these principles would undermine the stated goal of

---

[400] *Id.*
[401] *Id.* at 9.
[402] PTC Order at p. 2.
[403] IPL Response at p. 20.
[404] *Id.*

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

Iowa Code § 476.53 to encourage the development of new sources of generation and capacity.[405]

IPL also contends these principles do not reflect the value of PTCs that IPL will provide to customers because they ignore that any carrying charges incurred are outweighed by the PTC benefits generated and provided to customers, effectively punishing IPL for its NOL position.[406] Finally, the principles would have an impact on PTC carryforwards unrelated to New Wind II in a manner that would be inconsistent with other PTC carryforwards.[407]

OCA notes that not permitting IPL to earn an ROE on the PTC carryforwards, but potentially allowing IPL to apply debt rate on the PTC carryforwards would be an acceptable way to "recognize the increased risks of New Wind II."[408]

c. Potential Ratemaking Principle No. 3: Cap on PTC Carryforward Carrying Costs

The third potential ratemaking principle (Principle 3) identified by the Board states:

> IPL will provide customers with the value of the PTCs earned by New Wind II by recording the PTCs as a deferred income tax liability in the accumulated deferred income tax (ADIT) component of rate base. The PTCs that IPL cannot utilize in the year earned to offset taxable income ("PTC Carryforwards") will be recorded in rate base as an ADIT asset. IPL will not earn a return on equity on the PTC

[405] *Id.* at 20-21.
[406] *Id.* at 21.
[407] *Id.* at 21-22.
[408] OCA Exh. Turner Supp. Reb. at p. 3.

> carryforwards. The total carrying cost on the ADIT asset cannot exceed the value of the PTCs provided to customers.[409]

As discussed with Principle 2 above, IPL contends the Board should not adopt Principle 3 because it would hinder the economic viability of New Wind II to the point that the company would likely not move forward with the project.[410] IPL notes the carrying costs of the PTC carryforwards are unlikely to exceed the value of the PTCs to be delivered to customers because the value of the PTC benefits "far exceed" the estimated PTC carryforwards.[411]

OCA states it has the same general comment on Principle 3 as Principle 2, but notes that limiting carrying costs is only a moderate protection.[412] OCA accordingly proposes limiting carrying costs to 50% of the value of PTCs provided to customers.[413]

d. Potential Ratemaking Principle No. 4: Flow PTC Carryforwards through Energy Adjustment Clause Rider

The fourth ratemaking principle (Principle 4) offered by the Board reads:

> Once the assets associated with New Wind II are included in rate base, IPL will provide customers with the value of the PTCs through the energy adjustment clause (EAC) in the year IPL utilizes the PTCs to offset taxable income.[414]

---

[409] PTC Order at pp. 2-3.
[410] *See* IPL Response at pp. 19-22.
[411] IPL Response at p. 16.
[412] OCA Exh. Turner Supp. Reb. at p. 4.
[413] *Id.*
[414] PTC Order at p. 3.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

IPL states it does not object to Principle 4, provided the principle is modified to clarify that the benefits of PTCs would be provided to customers through the EAC at the time New Wind II is included in rates.[415] IPL proposes modifying the principle to state that the PTCs would have to be provided through "a modification to" the EAC, which would have "to be filed prior to the initiation of a rate proceeding in which New Wind II assets are included in rates" and removing the temporal limitation in the last sentence.[416]

IPL contends these modifications are reasonable and reflect IPL's intent to include New Wind II in rates when it is placed in service.[417] IPL also states the principle, as modified, would comply with the matching principle where costs must match revenues.[418]

OCA contends that Principle 4, along with IPL's modifications, does not ensure timely delivery of New Wind II benefits to customers.[419] OCA states that IPL's assertion that it intends to file a rate case "shortly after or coincident with placing New Wind II facilities in service" does not provide sufficient clarity or certainty about IPL's claim.[420] OCA states a rate case in 2020 would not ensure that benefits earned in 2018, 2019, and 2020 are passed to customers.[421] OCA reiterates that IPL's reliance

---

[415] IPL Response at pp. 22-23.
[416] *Id.* at 23.
[417] *Id.* at 24.
[418] *Id.*
[419] OCA Response at p. 4.
[420] *Id.* at 4-5 (citing IPL Response at p. 24).
[421] *Id.* at 5.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

on the matching principle to claim that New Wind II benefits should not pass through the EAC until New Wind II is placed in rates is unfounded.[422]

Board Discussion

After reviewing the principles offered and the comments of the parties, the Board finds PTC carryforwards should be addressed in a future rate case and should not be the subject to a ratemaking principle. The Board makes this finding for a number of reasons. First, the Board disagrees with IPL that the costs of PTC carryforwards should not be attributed to New Wind II. Although the PTC carryforwards result in part from IPL's NOL position, the PTC carryforwards most directly relate to the generation of PTCs.

Second, the parties presented a number of options on how to best address the issue of PTC carryforwards. OCA abandoned its original approach, which would reduce the test year expense once New Wind II assets would be placed in rate base. OCA, along with IBEC and LEG, next suggested a principle that would require IPL to timely credit the PTC benefits to customers and would prohibit IPL from obtaining a full rate of return on the PTC carryforwards.

The proposed principle shows that the parties are concerned about both the timely delivery of benefits and about IPL's ability to generate a return on the PTC carryforwards that are generated. The parties, along with PTC Order Principles 1 and 4, are designed to minimize the time between then the PTCs are earned and when the benefits are delivered to customers. The parties generally supported

[422] *Id.* at 4-5.

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

passing these benefits through the EAC, which would take place automatically instead of requiring approval from the Board.

IPL contends the matching principle would require New Wind II to be in rate base before PTCs would pass through to customers. The Board agrees with this assessment. The structure of IPL's EAC would pass energy benefits through to customers at the time the benefits are earned, but PTC benefits would not flow through until the New Wind II assets are placed in to rate base. To place the assets in rate base, IPL would have to bring a general rate case and receive approval from the Board. IPL could not begin to recover the costs of New Wind II through customer rates until the assets are placed in to rate base, providing IPL with an incentive to request a rate case as soon as the New Wind II assets are placed in service. This also complies with the matching principle, where the benefits flow to customers at the time customers begin to pay for the costs of the project. Accordingly, the Board finds it unnecessary to address the parties' concerns about timely delivery of PTC benefits.

The additional principles that attempt to limit IPL's return on PTC carryforwards are also unnecessary. Primarily, these principles would limit the return on PTC carryforwards in a manner that would discourage the development of renewable energy generation contrary to the stated goals of Iowa Code § 476.53(1). By addressing IPL's return on PTC carryforwards in a future rate case, the Board and parties will have a better understanding of the total value of the PTC carryforwards,

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

the associated carrying costs, and the total impact to IPL and its customers based on the return requested.

The Board notes that by addressing the appropriate return in the future, IPL is assuming the risk of the ROE to be set in that contested case. Nothing in this order should be read to indicate that the Board has made a final decision on the appropriate return which should be granted to IPL for PTC carryforwards. The Board believes this decision reflects shifting some of the risk of PTC carryforwards from customers to IPL. Addressing the PTC carryforwards in a future general rate case will permit the Board to consider the reasonableness and prudency of IPL's entire tax position, including its PTC carryforwards.

For these reasons, the Board finds that a ratemaking principle to address PTC carryforwards in this case is inappropriate and therefore unreasonable.

ORDERING CLAUSES

IT IS THEREFORE ORDERED:

1. Interstate Power and Light Company has demonstrated that it has in effect an approved energy efficiency plan, that it has considered other sources for long-term electric supply, and that New Wind II is reasonable when compared to other sources of long-term electric supply as required by Iowa Code §476.53(3)(c)(1)-(2). The Request for a Determination of Ratemaking Principles filed by Interstate Power and Light Company on August 3, 2017, is granted.

2. Pursuant to Iowa Code § 476.53(3)(a), the Utilities Board specifies the following ratemaking principles shall apply to Interstate Power and Light Company's New Wind II project:

a. Rate of Return on Equity (ROE): The allowed rate of return on common equity capital on the portion of New Wind II costs incurred under Ratemaking Principle No. 4 (Cost Cap) that are included in Iowa electric rate base, shall be 11.0 percent. Notwithstanding the foregoing, all transmission facilities necessary to support New Wind II and that are classified as intangible assets in accordance with the uniform system of accounts shall earn the rate of return on equity authorized by the Iowa Utilities Board in a future rate case.

b. Double Leverage: The issue of double leverage shall be addressed at a later date in the context of IPL's next rate case or other proceeding filed after New Wind II facilities are placed in service.

c. Depreciable Life: The depreciable life of New Wind II for ratemaking purposes shall be 40 years. IPL shall be able to revise the depreciable life in the event an independent depreciation expert provides support for a different useful life and a change in depreciable life is approved by the Board in a contested rate case proceeding in which the parties to this proceeding may participate and present evidence either in support of or in opposition to the proposed change in depreciable life. IPL shall notify such

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

parties of any application filed with the Board asking that the depreciable life of New Wind II be revised.

d. Cost Cap: IPL shall be permitted to include in rates the actual costs of New Wind II up to $1,780 per kW, on a Project-wide basis, inclusive of AFUDC and all costs of transmission network upgrades, upgrades required as a result of Midcontinent Independent System Operator studies, generator tie lines, transmission interconnection and any other appurtenant facilities associated with the foregoing, whether owned by IPL or any other entity, without the need to establish prudence or reasonableness. In the event that actual costs are lower than the projected costs, rates shall recover only actual costs. In the event actual costs exceed the cost cap, IPL shall be required to establish the prudence and reasonableness of any IPL investment costs in excess of the cost cap amount before such excess can be included in rates.

e. Size Cap: The ratemaking principles shall apply to any new wind facility constructed as part of New Wind II, that qualifies for 100% of the federal Production Tax Credit, regardless of its location in Iowa, up to a total of 500 MW.

f. Cancellation Cost Recovery: If IPL cancels construction of New Wind II for good cause, IPL's prudently incurred and unreimbursed costs shall be amortized over a period not exceeding ten years, effective with IPL's next

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

electric rate case. The unamortized balance shall not be included in rate base in any determination of interim and final rates thereafter during the period of the amortization provided, however, that the prudence of the costs and the good cause for cancellation may be disputed by any party and shall be subject to determination by the Board.

g. Treatment of AFUDC: Interest costs incurred on New Wind II will be capitalized using the appropriate AFUDC rates in effect during the construction period. An AFUDC rate that recognizes a return on common equity rate of 9.6 percent shall be applied to construction work in progress.

h. Environmental Attributes: The Iowa jurisdictional portion of any revenues from the sale of renewable energy credits and carbon shall be recorded above-the-line by IPL. IPL's customers shall be entitled to the full value of any renewable energy credits, carbon credits, and environmental emission allowances (Environmental Attributes), beyond those needed for compliance with applicable regulatory requirements, associated with investment included in IPL's Iowa jurisdictional rate base. IPL shall use

Filed with the Iowa Utilities Board on April 17, 2018, RPU-2017-0002

commercially reasonable efforts to maximize the value of Environmental Attributes associated with New Wind II.

UTILITIES BOARD

/s/ Geri D. Huser

/s/ Nick Wagner

ATTEST:

/s/ Trisha M. Quijano
Executive Secretary, Designee

Dated at Des Moines, Iowa, this 17th day of April, 2018.