

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Phyllis A. Reha
David C. Boyd
J. Dennis O'Brien
Betsy Wergin

Vice Chair
Commissioner
Commissioner
Commissioner

In the Matter of Interstate Power and Light
Company's 2011 – 2025 Integrated Resource
Plan

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DOCKET NO. E001/RP-08-673

ORDER APPROVING RESOURCE
PLAN WITH MODIFICATIONS,
REQUIRING BASELOAD
DIVERSIFICATION STUDY AND
ADDITIONAL FILINGS, AND SETTING
DATE FOR NEXT RESOURCE PLAN

PROCEDURAL HISTORY

On November 1, 2010, Interstate Power and Light (IPL) filed its Integrated Resource Plan for the years 2011 – 2025.

On June 6, 2011, IPL filed a Notice of Changed Circumstances describing its decision to alter the process by which it would wind down and retire two generating units.

On June 30, 2011, the Sierra Club, Izaak Walton League of America—Midwest Office, Fresh Energy, and Minnesota Center for Environmental Advocacy (the Intervenors) filed comments providing recommendations to be implemented in future filings, citing significant resource decisions the Intervenors anticipate IPL will make in the near future.

On July 27, 2011, the Minnesota Department of Commerce (the Department) filed comments recommending approval of IPL's resource plan with modifications.

On September 30, 2011, IPL filed reply comments addressing the comments of the Intervenors and the Department, and stating that IPL did not anticipate renewing a power purchase agreement with the Duane Arnold Energy Center (DAEC), but that additional analysis was necessary and that "it would be premature to make any recommendation about DAEC in this docket." The resource plan filed on November 1 suggested that IPL would continue to purchase energy from DAEC.

On October 12, 2011, the Commission sought comment on IPL's resource plans in light of IPL's unresolved position on continuing to acquire energy from DAEC.

On October 26, 2011, IPL and the Department filed supplemental comments in response to the Commission's request.

On January 26, 2012, the matter came before the Commission.

FINDINGS AND CONCLUSIONS

I. Introduction and Factual Background

Interstate Power and Light is a utility with over 500,000 electricity customers in over 100 counties in Iowa and Minnesota. IPL owns (partially or entirely) generating facilities in both Iowa and Minnesota capable of producing approximately 2,600 megawatts of electricity. IPL's energy portfolio includes coal plants, intermediate or combined-cycle natural gas units, a 200 MW wind farm, and power purchase agreements with wind and nuclear generators, including the Duane Arnold Energy Center nuclear plant.

Minnesota Rule 7843.0300, subpart 2 generally requires electric utilities to submit proposed resource plans to the Commission every two years. The resource planning statute and rules are detailed, but basically require integrated resource plans to address (1) the projected energy needs of the utility's service area over the next 15 years; (2) the utility's plans for meeting projected need; (3) the analytical process the utility used to develop its plans for meeting projected need; and (4) the utility's reasons for adopting the specific resource mix proposed to meet projected need.¹

The resource planning process is designed to strengthen utilities' long-term planning by providing input from the public, other regulatory agencies, and the Commission. The process is also designed to ensure that utilities give adequate consideration to factors whose public policy importance has grown in recent years, such as the environmental and socioeconomic impact of different resource mixes. For example, the resource planning statute requires utilities to develop plans for meeting 50% and 75% of new and refurbished capacity needs with conservation and renewable energy. *Id.*, subd. 2. The statute also requires them to factor into resource decisions the environmental costs of different generation technologies. *Id.*, subd. 3.

Although the Commission must approve, reject, or modify the resource plans of investor-owned utilities, the resource planning process is largely collaborative and iterative.

The process is collaborative because there are few hard facts dictating resource choices or deployment timetables. The facts on which resource decisions depend—such as how quickly an area and its need for electricity will grow, or how much conservation potential the service area holds and at what cost—all require the kind of careful judgment that sharpens with exposure to the views of engaged and knowledgeable stakeholders.

¹ Minn. Stat. § 216B.2422 and Minn. Rules Ch. 7843.

The process is iterative because analyzing future energy needs and preparing to meet them is not a static process; strategies for meeting future needs are always evolving in response to changes in conditions in the service area. When demographics, economics, technologies, or environmental regulations change, a utility may need to adapt its resource strategy.

II. Positions of the Parties

The Department recommended approval of IPL's resource plan with modifications. Chief among the Department's concerns was IPL's plan to rely on wholesale market purchases of power to address its anticipated power and energy need shortfall. IPL proposed to purchase 50 MW in 2019 and 2020, 100 MW in 2021 and 2022, and 150 MW in 2023 and 2024. The Department's modeling recommends investment in natural gas generation to avoid the need for IPL to rely on the purchase of wholesale energy to meet its anticipated need. The Department also recommended that IPL add 1,500 MW of wind over a period of years and that it renew its power purchase agreement with DAEC, assuming the prices are reasonable.

The Intervenor contend that IPL will make significant resource decisions in the near future that will require IPL to reassess its resource planning. They assert that within that context, IPL should be required to shore up its analyses in future resource planning filings. The Intervenor contend that IPL should be required to provide more detail about the cost of environmental controls in its existing units, perform a Minnesota-focused demand-response study, incorporate into its resource plan modeling more diverse fuel-cost scenarios, and justify its expectations for performance from its aging plants. They criticized IPL's demand-side management modeling, contending that the assumed administrative costs are too high. The Intervenor also seek a flood-risk assessment for certain of IPL's generating units, and for IPL to revise its load growth assumptions given changes in IPL's customer base. The Department concurred in many of the Intervenor's recommendations.

IPL, in reply, agreed with some of the Department's and the Intervenor's recommendations. IPL agreed to report on the cost of adding environmental controls, and on the flood risk to its Prairie Creek plants. IPL agreed with the Department that adding a combined-cycle plant would be an option in place of relying on several consecutive years of wholesale power purchases, but disagreed with the Department analysis that led to the conclusion that wind generation would be most cost effective to address anticipated power needs.

IPL disagreed with the Intervenor's assertion that IPL's modeling incorporated outdated trend data, and disputed the Intervenor's characterization of the administrative costs of IPL's demand-side management program.

IPL also stated that it may not elect to renew the DAEC power purchase agreement. The Department contended that, in light of the uncertain future of the DAEC power purchase agreement in IPL's resource mix, the Commission should require IPL to conduct a reliability analysis considering the DAEC power along with other demand- and supply-side alternatives.

III. Commission Action

The Commission has reviewed Interstate Power and Light's resource plan, as supplemented by its Notice of Change in Circumstances, in light of the plan's ability to perform the five functions

highlighted in the rule describing resource-plan review:²

- Maintain or improve the adequacy and reliability of utility service.
- Keep customer bills and utility rates as low as practicable, given regulatory and other constraints.
- Minimize adverse socioeconomic and environmental effects.
- Enhance the utility's ability to respond to changes in financial, social, and technological factors that affect its operations.
- Limit the risk of adverse effects on the utility and its customers from financial, social, and technological factors outside the utility's control.

Having examined the entire record and having considered the arguments of the parties, the Commission concludes that Interstate Power and Light's 2011 – 2025 resource plan, as modified by the Notice of Change in Circumstances and with the further modifications of the Commission outlined below, is in the public interest and should be approved.

A. Resource Needs

The Commission agrees with the Department that IPL's proposal to rely on short-term wholesale energy purchases for six consecutive years before investing in a new generation facility is unreasonable. Reliance on wholesale purchases to meet anticipated need can serve to bridge a time where need is not quite sufficient to justify a longer-term investment. But using wholesale power purchases as a "bridge to a bridge" for an extended period leaves ratepayers unreasonably exposed to price and reliability risks. The Commission concludes that the extent of IPL's plan to rely in the long-term on market purchases is not reasonable for resource planning purposes.

The Commission will not require IPL to renew its power purchase agreement with the Duane Arnold Energy Center or to invest in wind in order to meet its anticipated need, but will require IPL to consider both options in the course of identifying the most cost-effective way to meet its anticipated need. The Commission will require IPL to keep the Commission apprised of developments in its resource mix, including request-for-proposal results, resource planning decisions, and related filings in other jurisdictions such as Iowa.

B. Future Resource Plan Analysis

The Commission concurs with the Intervenor's and Department's concerns regarding the specificity of, and justifications for, IPL's resource plan assumptions. Greater detail and transparency in the premises underlying resource plan models and conclusions serves the public interest by contributing to meaningful resource plan evaluation and feedback. The Commission will therefore require IPL to include in its next resource plan several modeling and analytical revisions, discussed below. IPL will be further required to meet with the Department to discuss forecasting concerns.

² Minn. Rules, part 7843.0500, subp. 3.

The Commission has established at the direction of the legislature a range of anticipated likely costs for carbon dioxide regulation.³ The Commission believes it is in the public interest for utilities to incorporate the anticipated costs in their base case for resource planning purposes. Including CO₂ costs in the base case ensures that the resource planning process is consistent with the statutory requirement to include CO₂ costs as a factor in resource acquisition proceedings. The Commission will therefore require IPL's next resource plan to incorporate in its base case the mid-point of the Commission approved range for CO₂ costs.

IPL must also justify its assumptions regarding the performance of its Tier II (mid-life) plants, and detail the cost and purpose of adding environmental controls to its Tier I (newer) plants. In its next resource plan filing, IPL will also need to include scenarios reflecting a broad range of coal and natural gas prices. These modifications are necessary to ensure that IPL's resource planning allows for meaningful and transparent forecasting of the company's resource mix, which is in the public interest. IPL's next resource plan will be due on or before November 1, 2013.

C. Baseload Diversification Study

The Commission will require IPL to conduct a baseload diversification study within nine months to clarify and permit evaluation of IPL's needs and supply options. The Commission agrees that there are significant resource decisions imminent in IPL's plan that justify a fresh look at IPL's resource mix, but do not require a new, full-blown resource plan. The Commission will require that the baseload diversification study incorporate the additional details and analysis that will also be required in the Company's next resource plan, as described in the ordering paragraphs, below.

D. Demand-Side Management

The Commission concludes that IPL's proposed 1.4 percent demand-side management energy savings target is reasonable for planning purposes. State law sets a 1.5% annual energy savings goal for all utilities.⁴ But, for resource planning purposes, it is reasonable to err on the side of caution for purposes of assuring reliability. The Commission will require IPL to include in its next resource plan the results of its Minnesota-specific demand response study and to include scenarios that reflect the demand response capacity savings in Minnesota.

E. Conclusion

For all the reasons set forth above, the Commission will approve Interstate Power and Light's resource plan, as supplemented by the June 6, 2011 Notice of Changed Circumstances, and with the accompanying modifications and required filings described below.

³ Minn. Stat. 216H.06.

⁴ Minn. Stat. § 216B.2401.

ORDER

1. The Commission approves Interstate Power and Light's Integrated Resource Plan subject to the conditions below. Approving this resource plan does not extend to particular generation projects that are currently under review in other proceedings or will be subject to review under future proceedings. Instead, it is a general finding that the plans filed by Interstate Power and Light appear to be reasonable.
2. IPL shall consider wind additions averaging about 100 MW annually, provided that:
 - a. The Company shall use a bidding process; and
 - b. the bidding process results in a reasonable price.
3. IPL shall meet with the Department to discuss forecasting issues.
4. IPL shall include in its base case a CO₂ cost at the mid-point of the Commission-approved range for subsequent resource plans.
5. The Commission approves IPL's proposed 1.4 percent DSM energy savings target for resource planning purposes.
6. The Commission finds that IPL's proposed level of long-term market reliance (long-term defined as years 2015 – 2025) is unreasonable for planning purposes.
7. IPL shall consider a renewal of the power purchase agreement with DAEC, provided that the price is reasonable.
8. Within nine months of the date of this Order, IPL shall file a baseload diversification study. Included with the baseload diversification study, IPL shall also:
 - a. specify the costs of environmental controls on each of IPL's Tier 1 units, the environmental controls to be used, the in-service dates, and the regulations with which they are intended to comply;
 - b. justify its assumptions regarding heat rates and availability over time at its generating units, with a specific emphasis on the operational performance of its Tier 2 coal units; and
 - c. run contingencies for coal of +30 percent, +20 percent, +10 percent, and -10 percent of their base assumptions, and contingencies for a broad range of natural gas prices.
9. Within nine months of the date of this Order, IPL shall make a compliance filing regarding the Company's plans for their Tier 2 units that justifies IPL's decision and incorporates a revised analysis of IPL's future resource mix. IPL shall include a flood risk assessment of the Company's Prairie Creek units provided IPL expects to continue their operation, in their Tier 2 unit analysis.

10. IPL shall file a notice of changed circumstances regarding the status of its DAEC power purchase agreement within 30 days after a decision is reached, but no later than the time of its next resource plan filing. IPL shall also file with the Commission, as they become available: information concerning responses to power purchase requests for proposals, the outcome of power purchase request for proposals, and any related Iowa filings.
11. In its next resource plan IPL shall:
 - a. justify its assumptions regarding heat rates and availability over time at its generating units, with a specific emphasis on the operational performance of its Tier 2 coal units;
 - b. provide detailed information regarding environmental control proposals, their costs, and the regulations for which they are needed to comply;
 - c. run contingencies for coal of +30 percent, +20 percent, +10 percent, and -10 percent of their base assumptions, and contingencies for a broad range of natural gas prices.
 - d. incorporate its demand response study and include the potential for demand response capacity savings in Minnesota within its scenario analyses.
12. IPL shall make its next resource plan filing on or before November 1, 2013.
13. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary



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