STATE OF IOWA

BEFORE THE IOWA UTILITIES BOARD

IN RE:	)	DOCKET NO. RPU-2023-0002
INTERSTATE POWER AND LIGHT COMPANY, PROPOSED RATE INCREASE	)	SURREBUTTAL TESTIMONY

SURREBUTTAL TESTIMONY OF DEVI GLICK ON BEHALF OF ENVIRONMENTAL LAW & POLICY CENTER, IOWA ENVIRONMENTAL COUNCIL, AND THE SIERRA CLUB

June 3, 2024

I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q Please state your name and occupation.

A My name is Devi Glick. I am a Senior Principal at Synapse Energy Economics, Inc. ("Synapse"). My business address is 485 Massachusetts Avenue, Suite 3, Cambridge, Massachusetts 02139.

Q Are you the same Devi Glick who filed direct testimony in this docket?

A Yes.

Q What is the purpose of your surrebuttal testimony?

A In this surrebuttal testimony, I am responding to the rebuttal testimony of Interstate Power and Light (IPL) Company witnesses' Brent Kitchen regarding the Company's resource planning process and Christopher Boberg regarding the Company's Energy Infrastructure Reinvestment (EIR) program loan.

II. A ROBUST PLANNING PROCESS WILL ENSURE RELIABILITY AND LOWER COSTS FOR IPL RATEPAYERS

Q What does Brent Kitchen say about the Company's current resource planning process and procedures?

A Mr. Kitchen appears to be skeptical of the value of a formal resource planning process. On page 2 of his rebuttal testimony, Mr. Kitchen states that a more formal Integrated Resource Plan (IRP) is not necessary and that the coal plants should not be considered for replacement. He classifies the 2020 Clean Energy Blueprint and current 2024 Resource Evaluation Study as confined, constrained, and rigid. He implies that a formalized IRP process is not nimble or flexible enough. And he classifies the intervenors' requests for a formal IRP as burdensome, amounting to an ever-raising performance bar, and equates it to a gatekeeping function. He also expresses concern that a contested IRP will draw out the process in a way that threatens reliability while not ensuring consensus.

Q How do you respond to Mr. Kitchen's statements that a formal IRP process is not necessary?

A I disagree. An IRP process at its core provides a formal process and a record for the Board to decide issues and resolve disagreements. It is essential for justifying rate case cost

recovery and new resource additions. Without an IRP process, the Board only has the limited analysis that the Company has chosen to conduct and make public. The Board also has a very limited record on the economics of the co-owned plants at Neal 3, Neal 4, and Louisa, and how IPL is coordinating operation and management of the plants with MidAmerican. The Board can explicitly require IPL to provide more clarity on its coordination with MidAmerican at these plants as part of a robust IRP process.

IRP processes are extremely common in the United States, and in fact are required of utilities in most states. While the specific design of the IRP process varies, common elements include stakeholder engagement, capacity expansion and production cost modeling, evaluation of multiple scenarios and sensitivities, optimization around least cost subject to reliability requirements, consideration of known and potential state and federal regulations, and evaluation of uncertainty and risk. Because resource planning should already be part of a utility's normal course of business, designing an IRP process should not require the utility to design an entirely new resource planning process. Rather, the utility should just implement a process to share the existing planning work that it already creates and incorporate public feedback back into its process.

Q How do you respond to Mr. Kitchen's statements on page 2 that the coal plants do not need to be considered for retirement?

A I disagree. And statements by IPL's own witness Metin Celebi (a Principal at The Brattle Group) on page 9 of his rebuttal testimony, where he emphasizes the importance of utilities regularly evaluating their operations and generation assets to find way to save ratepayers money, also seems to contradict this. Specifically, Mr. Celebi said:

> The utilities are supposed to evaluate their operations and generation assets and come up with ways to produce more savings while serving customers reliably. Regulators should be indifferent to whether these goals are achieved by retiring an asset that is no longer economic compared to its alternatives, acquiring a new generation asset, joining a regional market, or any other cost-saving actions.

The only way regulators can evaluate the different options and ways to achieve cost minimization is if IPL is performing robust analysis, including retirement analysis. Mr. Celebi's statement would seem to support the proposition

that the Company should be evaluating unit retirements to determine if retirement provides the lowest-cost option as a normal course of business.

Q How do you respond to Mr. Kitchen's concerns about the possibility for intervenors not to come to a consensus and the claim that this will extend the process in a way that threatens reliability?

A I disagree. Consensus is not the goal of an IRP process. Stakeholder engagement is about increasing transparency of, and participation in, the planning process with the goal of improving the overall results. Stakeholders don't dictate outcomes; they contribute technical knowledge, provide on-the-ground insights, and expand the scope of the questions answered by the IRP process. Implying that a resource planning process is a failure if it doesn't achieve consensus, and that stakeholder engagement will drag out the process in a manner that somehow threatens reliability, is misleading and wrong.

Reliability can be best ensured through a robust and proactive planning process. Making rushed decisions based on a narrow set of information, focused on the short-term, is likely to lead to an overly reactive planning process. This type of decision-making—not full resource planning—is what is likely to result in higher costs and lower reliability. It is precisely because of the resource adequacy and reliability challenges facing the grid that a full, robust resource planning process is so important.

Q Can you provide an example of the type of engagement from stakeholders that provides value to the resource planning process and contributes to reliability?

A In the current Renewable Energy Study (RES) process, the Environmental Intervenors (EI) have retained reliability expert Michael Milligan to help understand the reliability impacts of the Company's resource plans. Mr. Milligan has decades of experience with grid integration and transmission, including over 25 years at the highly regarded National Renewable Energy Laboratory (NREL). Concurrently with the RES process, the Board has opened its annual seasonal preparedness docket to evaluate grid resilience for the summer. Findings from this proceeding should naturally tie into the RES process. As part of this

seasonal preparedness docket, the EI, with the help of Mr. Milligan, submitted comments.[1] One of the key points the comments highlight is the challenge with the conventional approach to rating thermal plant performance with the equivalent forced outage rates (EFORd) metric. This is the measure of availability IPL has traditionally used for its resource planning processes.

The discussion in the seasonal preparedness comments highlights how the EFORd approach overestimates thermal plant availability by failing to capture the correlation between outages at multiple units that is known to occur if a water supply freezes, or a natural gas supply is compromised, for example. It discusses how current models rarely capture this risk for thermal resources, while modeling of wind and solar, which is instead based on weather data, does capture this risk of correlated outages in renewable resources. The EI recommend that the Company collect and study the correlation between temperature and outages to inform its resource planning process and ensure it is accurately reflecting resource availability.

This type of discussion and recommendation provides valuable insights and information on a highly technical issue that will have a substantial impact on IPL's modeling results and planning decisions. It should improve the resource planning process and make it more robust—not slow it down. This is an example of the value of stakeholder engagement and participation in a resource planning process.

Q How do you respond to his comments about the need for coal to address reliability and resource adequacy?

A Mr. Kitchen states on page 4 that my testimony ignores the efforts and challenges that Midcontinent Independent System Operator (MISO) is currently undertaking to address resource adequacy and reliability challenges. This is not true. I agree with Mr. Kitchen that maintaining reliability is essential, and I would never suggest that IPL should retire its resources regardless of reliability impacts. Resource planning fundamentally is about minimizing costs subject to reliability requirements.

[1] Docket No. INU-2024-0001, Comments of Environmental Law and Policy Center, Iowa Environmental Council, and Sierra Club, (filed May 22, 2024).

But Mr. Kitchen makes broad statements about MISO, the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC) and Midwest Reliability Organization (MRO). Specifically, he expresses concern about the ability for current markets to cover reliability needs of the future as the penetration of non-dispatchable resources increases on the grid. He uses these concerns as a way to justify maintaining operation of an aging and uneconomic asset. I understand that the electricity grid is in a period of transition and that maintaining firm dispatchable resources is necessary—especially as load continues to grow from electrification and economic development. But:

- Thermal resources, especially aging legacy resources, experience high outage rates, especially at extreme high and low temperatures when peak is likely to be highest.[2]
- Battery storage is a firm and dispatchable resource that can pair well with intermittent resources, as well as provide essential grid services.
- Ensuring reliability is about much more than just maintaining fossil baseload capacity. It's about managing supply-side resources with load management and flexibility, especially as new loads come online.
- New load, especially new types of load (EV and electrification, for example), should be viewed as an opportunity to change how load is managed and served. This could include through dynamic time-of-use rates.

Q How do you respond to his discussion about the findings of the Clean Energy Blueprint?

A On page 5 Mr. Kitchen discusses the findings of the Clean Energy Blueprint, stating that the Company evaluated a shorter operating life for Ottumwa and the results showed higher costs in nearly all scenarios. As I discuss in my direct testimony, the Blueprint analysis was fairly limited in scope: it only evaluated limited retirement dates for Ottumwa and no retirement dates for its other coal-fired power plants, the Company constrained

[2] *Id.*

replacement resource options, and it is relatively outdated at this point and therefore the results would likely differ substantially if re-done in the present.[3] The blueprint analysis also predates the recently finalized greenhouse gas rules under Section 111 of the Clean Air Act, the updated effluent limitation guidelines (ELG), and mercury air toxics standards (MATS). Compliance with all of these may require substantial changes in operational practices or investment in technology upgrades, at a cost to ratepayers.

The final Section 111(d) rule requires that plants that operate past 2032 achieve an emissions rate based on 20 percent co-firing with natural gas beginning in 2030. This means that if IPL wants to operate Ottumwa beyond 2032, it would have to meet the co-firing standard starting in 2030. As an alternative, it could retire the plant by 2032 and avoid all compliance requirements.

The 2023 ELG rule strengthens the discharge standards for three types of wastewaters produced by coal-fired units: flue gas desulfurization (FDG) wastewater, bottom ash transport water, and combustion residual leachate. According to the U.S. Environmental Protection Agency, compliance with the updated ELG requirements may cost IPL around $12.7 million at Ottumwa, and another $611,148 annually in operations and maintenance costs.[4]

III. THE LOAN PROGRAM OFFICE'S (LPO) EIR LOAN CAN PROVIDE SUBSTANTIAL VALUE TO RATEPAYERS IF IPL USES IT TO REFINANCE THE BALANCE OF LANSING 4 IN ADDITION TO USING THE DEBT TO FINANCE NEW CLEAN ENERGY RESOURCES

Q What does Mr. Boberg say about how IPL intends to use the EIR loan in his surrebuttal testimony?

A Mr. Boberg's surrebuttal testimony on page 2 indicates that the Company plans to use the EIR loans in place of traditional debt financing. IPL expects this will provide value to ratepayers because the EIR loans will have an interest rate below the estimated cost of traditional utility financing available to IPL.

[3] *See,* Direct testimony of Devi Glick at 14-15.
[4] U.S. EPA Memorandum, Steam Electric Rulemaking Record – EPA-HQ-OW-2009-0819. February 28, 2023.

Q On page 5 of his surrebuttal testimony, Mr. Boberg asserts that in IPL's Application the company maximized the EIR loan request in the manner that would be most beneficial to IPL customers. Do you agree that the Company's use of the EIR loan to replace company debt with LPO debt maximizes value to IPL's ratepayers?

A No. Assuming the utility does not use debt from the program to alter its capital structure (debt-to-equity ratio), since Mr. Boberg indicated the company anticipates using the loan similar to how it uses its existing debt,[5] IPL is not maximizing value from the EIR loans. There are two main ways that the EIR program can provide value to ratepayers: (1) by swapping LPO debt for utility debt, and (2) by providing capital utilities can use to refinance existing plant balances. IPL is only pursuing option (1), which provides the least value to ratepayers.

Q Explain the swapping of LPO debt for utility debt.

A LPO can provide debt to finance new clean energy resources. Here ratepayers benefit from the difference between the debt rate available from the LPO and the debt to which the Company would otherwise have access. The benefits of this option have to outweigh program transaction costs, which can be significant. RMI performed some calculations on the value this would provide and found that the benefits from trading LPO debt for utility debt are expected to be relatively small (discussed below).

Q Explain the value from refinancing undepreciated balances of legacy fossil assets.

A EIR loans provide capital that can be used to refinance the undepreciated balance of legacy fossil assets. While this is not explicitly provided for in the EIR program, and EIR applications cannot include funds for undepreciated plant balances, if the loan does not exceed the value of the clean energy replacement resources and the benefits are passed onto ratepayers, utilities can use the funds to pay down existing plant balances. This was confirmed by LPO (discussed below).

To achieve this, the plant balance would be transferred to a Special Purpose Vehicle, removed from IPL's rate base (and balance sheet), and refinanced at the LPO debt rate. The Commission would have to approve a separate surcharge to repay the plant

[5] Rebuttal testimony of Company Witness Boberg at 9.

balance, and they should because it would be a win-win for both the Company and ratepayers. Ratepayers would benefit by the lower rate they would pay on the balance, as the LPO loan rate is lower than the utility's normal cost of capital and the loan could potentially be repaid over a longer timeframe than the original depreciation schedule. The utility would benefit by removing an asset that is risky from its balance sheet. And the Board would benefit because it would allow them to focus on resources needed to serve ratepayers. There would be a cost to create the Special Purpose Vehicle and surcharge but that would be outweighed by the benefits.

Q How much is IPL expected to benefit from the two options discussed above?

A RMI independently evaluated the value that the EIR could provide to IPL.[6] I have had several conversations with the RMI team behind this analysis and reviewed their calculations and confirmed that I am comfortable with their methodology and assumptions. Overall, their findings support the use of EIR funding to re-finance remaining plant balances to maximize value to both ratepayers and utilities.

Specifically, RMI found the following:[7]

- Substituting utility debt for LPO debt will result in only around $12 million in savings out of a total $965 million (NPV $2024) clean energy project cost.
- Using an EIR loan to refinance only the remaining $265 million balance at Lansing will result in $94 million (NPV $2024) in savings relative to traditional utility financing.
- Benefits to ratepayers would increase if LPO debt was substituted for utility capital (both debt and equity) instead of just debt for clean energy projects. This option would decrease shareholder returns.

[6] Christian Fong, David Posner, and Uday Varadarajan. "Maximizing the value of the energy infrastructure reinvestment program for utility customers." *Rocky Mountain Institute*. Available at https://rmi.org/maximizing-the-value-of-the-energy-infrastructure-reinvestment-program-for-utility-customers/.

[7] *Id.*

Q Does Mr. Boberg acknowledge the possibility of using EIR loans to refinance the remaining plant balance at Lansing Unit 4 in his surrebuttal testimony?

A Yes. On pages 5–6 of his surrebuttal, Mr. Boberg discusses the Company's EIR application and acknowledges the suggestion from both my testimony and that of Clean Energy Districts of Iowa (CEDI) witness James Martin-Schramm to refinance the undepreciated plant balance at Lansing 4. But Mr. Boberg expresses doubt that the Company could use EIR funding to pay off the remaining plant balance in Iowa.

In Mr. Boberg's rebuttal testimony, page 6, he indicates that the Company has talked to the U.S. Department of Energy's (DOE) LPO staff about this option. He acknowledges that the LPO will consider a loan structure that includes a Special Purpose Vehicle structure as a portion of the loan request to fund unrecovered plant balances if the replacement clean energy resources equal or exceed the unrecovered plant balance. The loan would include a dedicated customer surcharge to pay off an amortizing LPO loan. But Kitchen dismisses the idea because there is no securitization in Iowa, and IPL is unclear how the surcharge would be paid off.

Q How do you respond to his concern about the surcharge?

A I understand that there may be steps involved in getting approval from the Board. But to be clear, a surcharge under the EIR is NOT the same thing as securitization. Securitization requires state legislation because it relies on rate-payment-backed bonds, and the Board doesn't have the authority to issue the bonds without state approval. EIR loans are backed by the DOE and not by the ratepayers; so, the Board doesn't need any authority to issue bonds or loans.

Additionally, given the benefits it will provide both ratepayers and the Company, IPL should make every effort to understand the steps involved and push for such a program to be implemented. It is not without precedent for the Board to approve a unique rate mechanism when the utility requests it. For example, MidAmerican has had in place a revenue-sharing mechanism for over a decade now. I understand that this mechanism was through Advanced Ratemaking, but my point is that the Board can and has enacted unique regulatory frameworks in the past. And the Board can do so if a utility requests it and

demonstrates that it can provide value to customers. IPL should be making all efforts to understand how it can capitalize on this potential and realize this additional value from the EIR program.

Q Does this conclude your testimony?

A Yes.

AFFIDAVIT OF DEVI GLICK

STATE OF Maine)
) ss.
COUNTY OF Cumberland)

I, Devi Glick, being duly sworn on oath, state that I am the same Devi Glick identified in the testimony being filed with this affidavit, that I have caused the testimony to be prepared and am familiar with its contents, and that the testimony is true and correct to the best of my knowledge and belief as of the date of this affidavit.

/s/ Devi Glick
Devi Glick

STATE OF Maine

COUNTY OF Cumberland

Subscribed and Sworn before me this 3 day of June, 2024.

/s/ Carrie M. Weeman
Notary Public