

STATE OF IOWA
BEFORE THE IOWA UTILITIES BOARD

IN RE:)
)
) DOCKET NO. RPU-2019-0001
INTERSTATE POWER AND LIGHT)
COMPANY)

REBUTTAL TESTIMONY
OF
UDAY VARADARAJAN

On Behalf of

Environmental Law & Policy Center and
Iowa Environmental Council

August 15, 2019

1 **Q. Please state your name and business address for the record.**

2 A. My name is Uday Varadarajan. My business address is 1111 Broadway, Oakland, CA
3 94607.

4 **Q. What is the purpose of your testimony?**

5 A. My testimony responds to findings and recommendations made in the Direct Testimony
6 of Sierra Club Witness Chernick, Office of Consumer Advocate (“OCA”) Witness Bents,
7 and OCA Witness Schultz relevant to the costs and benefits of retiring IPL’s generation
8 assets, the need for improved information and processes around resource planning to
9 inform such decisions, the potential costs and benefits of replacing the services provided
10 by its current fleet through solar generation, and IPL’s proposed inclusion of production
11 tax credit (“PTC”) carryforwards in ratebase.

12 **Q. Please summarize the key findings and recommendations from Mr. Chernick’s**
13 **testimony.**

14 A. Mr. Chernick’s testimony provides economic analysis that suggests that all of IPL’s
15 wholly or jointly-owned coal generating assets are uneconomic and that continued
16 operation of the assets is not beneficial to ratepayers. Mr. Chernick further notes that
17 customers could save roughly \$44 million annually by replacing IPL’s 4,400 GWh of
18 coal generation from their share of Neal, Lansing, Louisa, and Ottumwa with wind
19 (noting that actual savings would differ due to changes in market dispatch associated with
20 such a resource shift). Further, Mr. Chernick notes that IPL did not provide the results of
21 any internal analysis regarding the continuing economic value of these assets in their
22 submission or through subsequent responses to discovery. On the basis of those findings,
23 Mr. Chernick recommends that IPL should: 1) plan on retiring all its coal resources, 2)

1 begin identifying and analyzing ways to mitigate any transmission constraints, reliability
2 challenges, or cost recovery-related challenges associated with early retirement, and 3)
3 plan to procure a diverse set of low-cost replacement supply and demand side resources –
4 including market purchases, wind, solar and storage, as well as responsive demand that
5 can help IPL shift load to hours when regional wind and solar are producing – that can
6 minimize future ratepayer costs and risks. He further recommends that the Board should:
7 1) find IPL would be imprudent to continue to incur any discretionary future operating or
8 capital costs associated with those coal assets and that those costs would not be in the
9 public interest, and 2) support IPL’s efforts to prepare for the retirement of uneconomic
10 units.

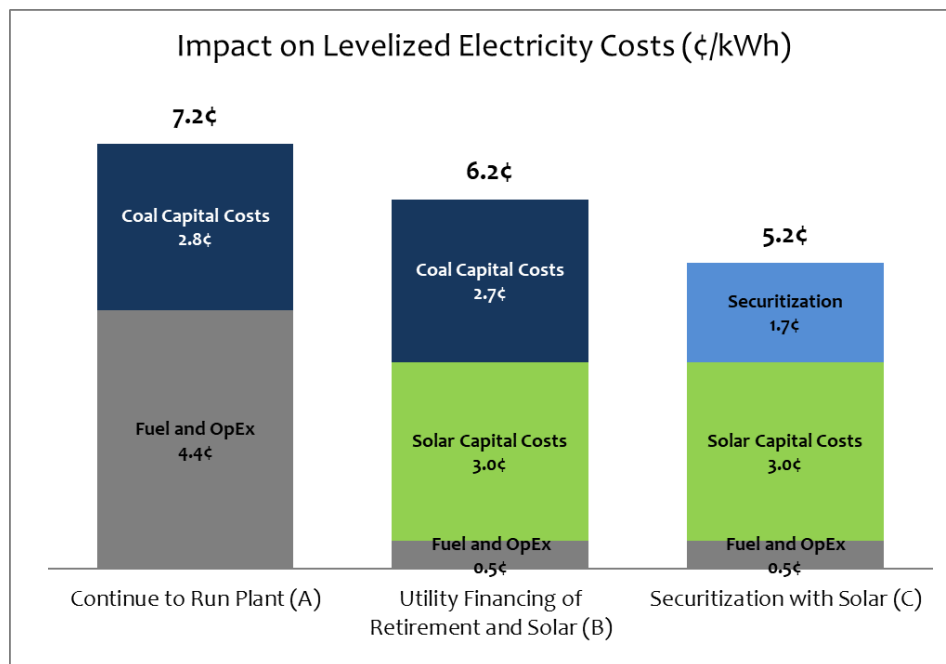
11 **Q. Do you agree with Mr. Chernick’s findings and recommendations?**

12 A. Yes. The results of my analysis of the average annual total cost to ratepayers and value of
13 generation over the last five years from IPL’s share of its large coal generating assets
14 presented in my direct testimony is consistent with Mr. Chernick’s key finding that IPL’s
15 large coal generators are uneconomic. Further, my analysis of the total cost to ratepayers
16 of retiring and replacing each of the assets with sufficient wind with 100% or 80% PTC
17 to provide grid services of comparable market value to the services provided by IPL’s
18 existing resources provide support to Mr. Chernick’s recommendation that IPL consider
19 the potential economic benefits of replacing their generation with wind
20 sufficiently rapidly to take advantage of federal tax credits.¹ In Figure 1 below, I show
21 that there could also be long-term benefits from replacing some of the generation with
22 solar as well, using the example of Lansing Unit 4. As I also found that the operating

¹ See Varadarajan Direct Testimony at 16: 3-14.

1 costs of Lansing, Ottumwa, and the Neal units have been above the average value of the
 2 power they generated over the last five years, my analysis supports Mr. Chernick’s
 3 recommendation that further capital expenditures in these assets would not be in the
 4 public interest. Finally, IPL has not provided any evidence or documentation of resource
 5 planning or analysis that would argue for the continued operation of these assets. My
 6 analysis that IPL could accelerate retirement of uneconomic fossil generating assets and
 7 add low-cost renewables while reducing rates further supports Mr. Chernick’s
 8 recommendation that the Board find that IPL would be imprudent to continue to incur
 9 any discretionary future operating or capital costs associated with their coal assets – and
 10 that the Board should support IPL’s efforts to prepare for the retirement of those assets.

11 **Figure 1: The potential benefits from replacing generation from Lansing with IPL-**
 12 **owned solar in ratebase with ITC.²**



13

² RMI analysis based on 2018 EIA 923, 2018 EIA 860, IPL 2013-2018 FERC Form 1, MISO Market Reports from 2013-2018.

1 **Q. Please summarize any key findings from Mr. Bents' testimony that you wish to**
2 **highlight.**

3 A. Mr. Bents noted, in particular, that the conversion to natural gas and rapid subsequent
4 retirement of ML Kapp was done in the absence of a systematic process around and
5 submission of documentation from a detailed, comprehensive resource planning exercise.

6 **Q. Do you agree with Mr. Bents' finding?**

7 A. Yes. My analysis suggests that a more comprehensive planning process should be
8 undertaken that includes an assessment of the continued economic viability of IPL's
9 existing generating assets relative to the opportunities to procure a diverse set of
10 alternative resources including additional wind with the PTC. In particular, this process
11 should be undertaken in order to avoid the same mistake with the decision around
12 whether to repower or retire Burlington Station. My analysis suggests that immediate
13 retirement of Burlington Station is likely in the best interest of ratepayers, and IPL should
14 undertake a transparent resource planning process that includes this option in order to
15 determine the least cost and least risk path forward for customers.

16 **Q. Please summarize any key findings or recommendations from Mr. Schwartz's**
17 **testimony you wish to highlight.**

18 A. Mr. Schwartz argued that the Board should not agree to IPL's proposal to include
19 accumulated production tax credits generated by its wind facilities that it has not yet used
20 to reduce its current taxes in ratebase. Specifically, he argues that the reason that these
21 tax credits have yet to be used is linked to the utility's decision to take advantage of
22 bonus depreciation as well as lack of proper management of its tax capacity – and that
23 ratepayers should not be required to compensate the utility for those decisions. He

1 recommends that if they are included in ratebase, IPL should not be allowed to earn a
2 return on equity.

3 **Q. Do you agree with Mr. Schwartz that IPL should not be allowed to earn a return on**
4 **equity on its accumulated, unused production tax credits?**

5 A. Yes, though I will provide alternative rationale for such a decision. The production tax
6 credit is a tax benefit that differs from accelerated and bonus depreciation as well as the
7 investment tax credit in that it is not subject to tax normalization. Further, unlike
8 accelerated and bonus depreciation, it is not effectively financing from the federal
9 government that must be repaid – it is rather a permanent reduction in future corporate
10 tax liability. As such, the tax benefits received by the company directly (after grossing up
11 to reflect the fact that a credit is a post-tax benefit) offset expenses in the year in which
12 the credits are generated, and are generally reflected immediately in a corresponding
13 reduction in revenues required. The reduction in revenue requirements, however, is
14 rectified on the company's income statement by an equivalent after-tax offset to tax
15 expense, leaving the company whole from an earnings perspective for the flow through of
16 the benefit to ratepayers. As a result, the company does not see a loss in earnings as a
17 result of the flow-through of the production tax credit. In particular, as the equity in
18 regulated utilities is commonly valued on the basis of multiples or ratios of its current and
19 future earnings, whether or not the production tax credit is used to reduce current taxes in
20 the year it is generated does not directly theoretically impact shareholder valuation based
21 on earnings multiples. This suggests that allowing the utility to further earn a return on
22 accumulated production tax credits is not warranted (and is certainly not required by tax
23 normalization) – those production tax credits have already been booked as earnings on

1 the utility's income statement once and would be reflected in the valuation of the
2 company's equity as they are earned, and shareholders should not earn a return on those
3 credits from ratepayers again. However, the company does see a reduction in cash flow if
4 it is unable to utilize the tax credit as it is generated. This reduction in cash flow can have
5 negative consequences for its credit metrics, which are dependent on cash flows. This can
6 in-turn negatively impact the company's shareholders. As a result, I would argue that it is
7 fair to compensate the company as Mr. Schwartz suggests by providing a return sufficient
8 to cover the cost of servicing the company's debt, which indeed is negatively impacted
9 by the lack of liquidity of its accumulated tax credits.

10 **Q. Does this conclude your testimony?**

11 A. Yes.

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AFFIDAVIT OF UDAY VARADARAJAN

STATE OF CALIFORNIA)
)
COUNTY OF ALMEDA)

I, Uday Varadarajan, being first duly sworn on oath, state that I am the same Uday Varadarajan identified in the testimony filed in this docket on August 15, 2019, that I have caused the testimony [and exhibits] to be prepared and am familiar with its contents, and that the testimony [and exhibits] is true and correct to the best of my knowledge and belief as of the date of this affidavit.

/s/ Uday Varadarajan
Uday Varadarajan
August 15, 2019

Subscribed and sworn to me this 15th day of August, 2019.

/s/ Robert Islas
Robert Islas
Notary Public in and for the
State of California