

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD

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

DIRECT TESTIMONY OF
DAVID OSTERBERG

1 Q. What is your name and business address?

2 A. My name is David Osterberg. My business address is Iowa Policy Project, 20
3 East Market, Iowa City, Iowa 52245.

4 Q. Please describe your background and experience in the field of gas and
5 electric utility regulation.

6 A. I pursued my graduate work at the University of Wisconsin-Madison, where I
7 earned a Masters' Degree in economics, a second in water resources management,
8 and a third in agricultural economics. I was an instructor of economics at the
9 University of Wisconsin-Green Bay, an assistant professor of economics and
10 business at Cornell College, and most recently Emeritus Professor in
11 Occupational and Environmental Health at the University of Iowa. I was a state
12 legislator in Iowa and was one of the principal authors of the 1990 energy
13 efficiency law which has led directly to Iowa's investor-owned utility energy
14 efficiency program. Following my legislative service, I served as special assistant
15 to the Director of the Iowa Department of Natural Resources on climate change
16 and electric utility restructuring. I began the Iowa Policy Project ("*IPP*"), a state-

1 based policy research organization in 2001, the same year I took a position as
2 Clinical Associate Professor in the University of Iowa, College of Public Health. I
3 have reduced my time commitment in both those most recent positions but
4 continue to research and write on energy efficiency and renewable energy matters.
5 A major emphasis at IPP has been public policy affecting low income Iowans.

6 **Q. Have you previously testified before the Iowa Utilities Board (“Board”) or**
7 **any other public service commission?**

8 A. My experience includes testimony in the states of South Dakota, New York,
9 South Carolina, Illinois, Indiana, Florida and Iowa. I have testified before the
10 Iowa State Commerce Commission, the name previously given to this body, on
11 issues relating to rate design, capacity planning and small power production. My
12 previous testimony addressed renewable energy and the needs of low-income
13 ratepayers, among other topics. I presented testimony on the energy efficiency
14 plan for Interstate Power and Light Company (“*IPL*” or “*Company*”) in 2012,
15 Docket No. EEP-2012-0001 and on rate design in that Company’s rate case in
16 2017, Docket No. RPU-2017-0001.

17 **Q. What is the purpose of your Direct Testimony?**

18 A. The purpose of my Direct Testimony is to address IPL’s application for a rate
19 increase for its Iowa retail customers. My testimony will be limited to: IPL’s
20 request to increase its Basic Service Charge for residential and general service
21 customers, the Company’s proposal to return to declining block rates during the
22 summer peak period and other rate design issues.

1 **Q. How does Company witness David Vognsen describe the rationale underlying**
2 **the concept of a basic customer charge for residential customers?**

3 A. Witness Vognsen, at page 19 of his Direct Testimony (“*Vognsen Direct*”), states:
4 “Customer charges reflect the costs to provide service regardless of whether the
5 customer consumes any electricity. These are the costs IPL incurs simply to have
6 the customer connected to the electric distribution system; therefore, the customer
7 should pay for these costs regardless of the amount of energy the customer uses.”¹

8 **Q. Do you agree that IPL should charge a fixed customer charge to each**
9 **residential customer?**

10 A. Yes. Some costs can reasonably be allocated on the basis of the number of
11 customers rather than on the energy consumed by customers, so some level of
12 fixed customer charge is reasonable to include in a utility company’s rate design.
13 Witness Vognsen’s statement could have been taken from Professor Bonbright’s
14 text on utility economics theory.² However, further reading is beneficial. The
15 entry under customer costs in the well-respected Bonbright text states:

16 These are those operating and capital costs found to vary
17 with the number of customers regardless, or almost
18 regardless, of power consumption. Included as a minimum
19 are the costs of metering and billing along with whatever
20 other expenses the company must incur in taking on
21 another customer. These minimum costs may come to \$1
22 per month, more or less, for residential and small
23 commercial customers...³

¹ Vognsen Direct, page 19.

² Bonbright, James C. Principles of Public Utility Rates. Columbia University Press (1st ed. 1961), p. 347.

³ *Id.* at p. 347.

1 One dollar in 1960 when Professor Bonbright can be expected to have gathered
2 the data for his book would be equal to \$8.74 at present.⁴ That amount is similar
3 to the basic service charge for MidAmerican Energy of \$8.50.⁵

4 **Q. Do more current discussions of utility economics agree with Bonbright's**
5 **basic text?**

6 A. Yes. A recent monograph on rate design finds: "These costs are always quite
7 small, typically amounting to no more than \$5 to \$10 a month per residential
8 customer."⁶ There is no social reason for the customer charge to be increased.
9 There is certainly no benefit to IPL customers for this charge to be increased. This
10 charge has no effect on customer behavior, aside from a theoretical income effect
11 that comes from any increase in any cost to a household. Increasing this charge
12 has a detrimental effect because it reduces the amount of the rate request that
13 would fall on kilowatt-hour charges, changes that do lead to changes in customer
14 behavior. IPL should welcome rate changes that can lead to more customer
15 behavior to control costs. Recently, the Public Utility Commission for the State of
16 Missouri stated a desire for customers to "control costs" when rejecting an
17 increase in the customer charge for Union Electric Company:

18 The Commission must also consider the public policy
19 implications of changing the existing customer charges.
20 There are strong public policy considerations in favor of

⁴ Bureau of Labor Statistics, CPI Calculator, visited July 1, 2019, <https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=1&year1=196001&year2=201905>.

⁵ MidAmerican Energy Company publication "Understanding Your Bill-View Sample Bill", <https://www.midamericanenergy.com/understanding-your-bill>.

⁶ Lazar, J. and Gonzales, W., *Smart Rate Design for a Smart Future*. Montpelier, VT: Regulatory Assistance Project (2019), available at: <http://www.raponline.org/document/download/id/7680>.

1 not increasing the customer charges. Residential customers
2 should have as much control over the amount of their bills
3 as possible so that they can reduce their monthly expenses
4 by using less power, either for economic reasons or because
5 of a general desire to conserve energy. Leaving the monthly
6 charge where it is gives the customer more control.⁷

7 Witness Vognsen himself states in his Direct Testimony: “Providing customers
8 with more options to control their energy costs is an important consideration in
9 these proposed updates.”⁸

10 **Q. Do you assert that Basic Customer Charges are inconsistent with**
11 **conservation and energy efficiency based on economic theory?**

12 A. Yes. The following is from another recent paper on utility economics: “For any
13 given revenue requirement for residential customers, a higher customer charge
14 implies a lower per-unit usage charge, which favors large-usage customers and
15 leads to higher consumption levels.”⁹

16 **Q. What types of residential customers are discriminated against when**
17 **residential customers are presented with a charge that does not vary with use**
18 **rather than one that does?**

19 A. First, low and moderate-income (“*LMI*”) customers are discriminated against. As
20 a group, low-income residential customers use less electricity than more affluent
21 customers since they tend to live in smaller homes and apartments. A report by
22 my organization, the IPP, found that based upon use per square foot of living

⁷ *In the Matter of Union Electric Company, d/b/a Ameren Missouri’s Tariff to Increase Revenues for Electric Service*, File No. ER-2014-0258, “Report and Order” (Mo. P.S.C. April 29, 2015), pp. 76-77.

⁸ Vognsen Direct, p. 15.

⁹ The Regulatory Assistance Project, *Electricity Regulation in the US: A Guide*, p. 52 (March 2011), found at www.raponline.org.

1 space, LMI customers consume more than the average electricity since their
2 electric-using equipment is less efficient, but their total energy use is still less.¹⁰
3 The National Consumer Law Center has studied electricity usage by income level.
4 For the block of states in this region, (Iowa, Minnesota, North Dakota, South
5 Dakota) customers at or below 150% of the Poverty Level used 27.4% less
6 electricity than non-low-income customers.¹¹ A recent Lawrence Berkley Lab
7 publication states: “Higher fixed charges may disproportionately burden low-
8 income households, which also tend to be lower-usage customers.”¹² LMI
9 customers have a greater incentive to conserve since they must watch all their
10 costs to live, and since they pay a much higher percentage of their income on
11 energy costs than do those with higher incomes.¹³ IPL has made funds available to
12 the state’s Community Action Agencies to reduce the energy use of low-income
13 customers through weatherization programs. Increases in the Basic Customer
14 Charge work against existing utility-provided weatherization services.

15 **Q. Have you personally talked with low-income customers about their views on**
16 **fixed mandatory charges?**

¹⁰ Galluzzo, T and Pearson, B. *Making Residential Energy Efficiency Accessible to Low-Income Iowans* (May 2010) found at <http://www.iowapolicyproject.org/2010docs/100506-EEResAccessW.pdf>.

¹¹ Lazar, Jim. *The Specter of Straight Fixed/Variable Rate Design and the Exercise of Monopoly Power*. (also included as Appendix D of Smart Rate Design For a Smart Future), The Regulatory Assistance Project (July 2015) found at <http://www.raonline.org/wp-content/uploads/2016/05/appendix-d-smart-rate-design-2015-aug-31.pdf>.

¹² Wood, L, Hemphill, R, Howat, J, Cavanagh, R, and Borenstein, S. *Future Electric Utility Regulation/Report No.5*, Lawrence Berkeley National Laboratory (2016), p. 66.

¹³ Galluzzo, T and Pearson, B. *Making Residential Energy Efficiency Accessible to Low-Income Iowans*, May 2010) found at <http://www.iowapolicyproject.org/2010docs/100506-EEResAccessW.pdf>.

1 A. Yes. In September 2017 I attended two meetings with staff and clients of
2 Community Action Agencies in Ottumwa and Cedar Rapids. As a result of these
3 meetings, some of the clients, who were customers of IPL, wrote letters to the
4 Board about IPL's attempt to raise their customer charge during the rate increase
5 two years ago. These are excerpts from two of them:

6 I'm a low income person. I live in an apartment because I
7 don't have a lot of money and it is cheaper to live here
8 instead of a larger home. My landlord is helping me save
9 by putting in new light bulbs that don't use as much
10 electricity. I will try to use less but that won't affect the
11 mandatory fixed charge because that happens not matter
12 how much I conserve and I will pay the same for my small
13 apartment as someone living in a big house. This increase
14 is really frustrating. Why are they allowed to do that?¹⁴

15
16 I have conserved. I had my home weatherized to decrease
17 how much electricity I use but they are increasing the
18 mandatory fee that won't go down, no matter what I do.
19 That seems wrong to me. I can't afford ANY increase. I'm
20 sending this letter to the newspaper and I'm sending it to
21 the board in Des Moines that will decide if Alliant's rate
22 increase happens. I am against this increase and I hope they
23 are on my side.¹⁵

24 **Q. What other type of residential customer is disadvantaged by IPL's rate**
25 **scheme?**

26 A. Customers who produce some of their own electricity through distributed
27 generation, mainly roof top solar customers, will be disadvantaged by increases in
28 the IPL Basic Customer Charge. Such customers are similar to those who
29 embrace energy conservation.

¹⁴ Letters collected by Lana Shope, Executive Director of the Iowa Community Action Agency Association, and assumed submitted to the Board in Docket No. RPU-2017-0001.

¹⁵ *Id.*

1 **Q. Is IPL different from other utilities across the nation in attempting to**
2 **increase fixed mandatory charges?**

3 A. No. However, the number of proposed increases has fallen in recent years.
4 Information from the North Carolina Clean Energy Technology Center states that
5 the attempt to increase the customer charge has become less common. “Since
6 2016, the number of investor-owned and large public power utilities proposing
7 residential fixed charge increases of at least 10% has steadily declined. In 2016,
8 47 utilities filed such requests, while this number dropped to 41 in 2017 and 34 in
9 2018.”¹⁶

10 **Q. What do you conclude about IPL’s attempt to raise the Basic Customer**
11 **Charge in this proceeding?**

12 A. The fixed mandatory customer charge should not be increased. Rather, I
13 recommend that the IPL Basic Customer Charge be *reduced* by \$1.35 for
14 residential customers and by \$3.13 for general service customers, and the Board
15 should order IPL to put whatever rate increase is approved by the Board based on
16 the volume of electricity used by each residential customer. Customers should
17 have the option to reduce their consumption and reduce their total bill. Raising a
18 fixed mandatory customer charge specifically discriminates against the customers
19 in the residential class that I have identified.

20 **Q. How did you calculate your proposed reduction in the Basic Customer**
21 **Charge?**

¹⁶ North Carolina Clean Energy Technology Center at North Carolina State University. 50 States of Solar/Q4 2018. Quarterly Report & 2018 Annual Review. Executive Summary. Page 10.
<https://nccleantech.ncsu.edu/wp-content/uploads/2019/01/Q4-18-Exec-Summary-Final.pdf>.

1 A. I propose reducing the basic customer charge by the amount IPL witness Vognsen
2 says will be saved through the implementation of AMI. Page 19 of Vognsen
3 Direct states that: “Utilizing the established customer charge methodology and
4 applying it to the 2020 forecasted costs resulted in a drop in the cost basis for the
5 customer charge due to the implementation of AMI meters.”¹⁷

6 Mr. Vognsen speaks of “the” established customer charge methodology, but in
7 fact it is only one methodology. As I have recommended above, a more
8 appropriate method for calculating the basic customer charge should include only
9 the line drop, meter, transformer and various billing expenses. It should not
10 include any portion of distribution expenses. Clearly, if Vognsen’s method
11 reduces the customer charge because of the saving from AMI implementation, so
12 would the Bonbright method of developing a customer charge.

13 **Q What is your proposed customer charge?**

14 A. I recommend setting the residential customer charge at \$9.95 per month and the
15 General Service customer charge at \$15.87 per month. This is the current
16 customer charge of \$11.50 per month for residential customers and \$19.00 per
17 month for general service customers, reduced by \$1.35 and \$3.13 respectively.

18 **Q Has the Board challenged IPL’s proposed customer charge increases in the**
19 **past?**

20 A. Yes, during IPL’s last rate case (RPU-2017-0001), IPL was unsuccessful at
21 increasing its basic customer charge to the degree it initially proposed. I believe

¹⁷ Vognsen Direct, p. 19.

1 the board was correct in approving the settlement that kept basic customer charges
2 low and in line with other Iowa utilities.

3 **Q. How would your proposed customer charge compare to Iowa' other investor-**
4 **owned utility?**

5 A. MidAmerican Energy's residential basic service charge is \$8.50 per month and
6 their General Energy class basic service charge is \$10.00 per month.¹⁸ Reducing
7 the customer charge as I have proposed more closely aligns IPL's customer
8 charges to MidAmerican Energy's.

9 **Q. How would a reduction in the IPL Basic Customer Charge affect low-income**
10 **customers of IPL?**

11 A. Customers who earn less than that \$25,000 per year can be considered low-
12 income. As a group they are a significant portion of IPL customers. Testimony by
13 IPL in its last rate case stated: "... approximately 25% of IPL's residential
14 customers have household incomes of less than \$25,000, while 50% have incomes
15 less than \$50,000."¹⁹ Under my proposal, these 100,000 customers would as a
16 group see a reduction in the annual Basic Customer Charge of \$\$1,620,000 (i.e.,
17 1.35 x 12 months x 100,000). This figure is comparable to the (\$1,498,240) loss
18 in weatherization funds going to approximately the same group of IPL customers
19 because of the changes initiated by the Company which resulted in legislation

¹⁸ MidAmerican Energy website. Visited July 1, 2019. <https://www.midamericanenergy.com/rates-tariffs>

¹⁹ *In re: Interstate Power & Light Co.*, Board Docket No. RPU-2017-0001, IPL Exhibit Iano Direct, p. 8, filed April 3, 2017.

1 proposed and adopted the 2018 session of the Iowa General Assembly.²⁰
2 Because the state's long-standing utility energy efficiency program was changed
3 by the Iowa General Assembly, IPL also eliminated another program, the Home
4 Energy Savers Program. According to the Company website:

5 The *Home Energy Savers*TM program can help put energy
6 efficiency upgrades within reach. If you qualify for the
7 program, you pay just 10% of the project cost and Alliant
8 Energy will pick up the rest. These upgrades can help bring
9 down monthly energy bills and make your home more
10 comfortable.²¹

11 This program had been funded at approximately \$1 million per year and was
12 available for customers above the level of income eligible for the normal
13 weatherization program but still with incomes below 300 percent of the poverty
14 level.²² Such customers would be included in the approximately 100,000
15 customers in the \$25,000 to \$50,000 per year income group. The \$1,640,000 in
16 reduced Basic Customer Charge that group would gain, would more than make up
17 for the loss of this energy efficiency program.

18 **Q. What other aspects of IPL's rate design do you find objectionable?**

19 A. IPL's proposal to reinstitute declining block rates in the summer peak period is
20 objectionable.

²⁰ Interstate Power and Light Company, 2014-2018 Energy Efficiency Plan Application filed in Board Docket No. EEP-2012-0001, revised January 25, 2013.

²¹ IPL website visited July 2017. -
https://www.alliantenergy.com/WaysToSave/Rebates/HomeEnergySavers?utm_source=WS&utm_campaign=homeenergysavers.

²² Data provided by Iowa Community Action Association.

1 **Q. How does Company witness Vognsen justify the reintroduction of declining**
2 **block rates during the summer period?**

3 A. Vognsen Direct (at page 20) states: "... on average, customers with high usage
4 have higher load factors."²³

5 **Q. In your view, is this enough to justify imposing declining block rates during**
6 **the time the system will experience its peak demand?**

7 A. No. As stated in another well-regarded text on public utility economics:"...a high
8 diversity factor will compensate for low customer load factors. A customer who
9 used only one kilowatt for one hour a day would be an expensive customer. But
10 twenty-four such customers, each using electricity at a different hour, would give
11 the utility a load factor of 100 per cent."²⁴ Mr. Vognsen's rationale for
12 imposing declining block rates in the summer does not state when these higher
13 load factor, large electricity using customers, use their electricity. Thus,
14 Vognsen's finding may be irrelevant.

15 **Q. What do economists with expertise in public utility say about declining**
16 **summer block rates?**

17 A. A 2016 publication of Lawrence Berkeley National Laboratory states: "Declining
18 block rates have largely fallen out of favor because they do not reflect the
19 increased utility costs associated with greater energy usage."²⁵ Especially when

²³ Vognsen Direct, p. 20.

²⁴ Phillips, Charles F., The Regulation of Public Utilities: Theory and Practice. Public Utilities Reports, Inc. 1985. Page 405.

²⁵ Wood, L, Hemphill, R, Howat, J, Cavanagh, R, and Borenstein, S. (2016) Future Electric Utility Regulation/Report No.5. Lawrence Berkeley National Laboratory. Page 72.

1 air conditioning is a large share of use, this publication finds that inclining block
2 rates are preferable and goes on to state: Inclining block rates also lower costs for
3 low-usage customers, providing an allocation of low-cost electricity to meet basic
4 needs.²⁶

5 **Q. Does discounting the cost of usage during the time of peak energy use have**
6 **other detrimental effects for the IPL system?**

7 A. Yes. Previously I talked about the Basic Customer Charge not giving a price
8 signal to which customers can respond. IPL's attempt to return to a rate structure
9 that has gone out of favor actually gives a price signal, but the wrong one.
10 Encouraging use during a time when the Company will experience its highest
11 demand requires new investment in capacity that would not be necessary if
12 customers were given price signals that would discourage this use. In addition,
13 when most energy policy in the US and the world is directed to reducing carbon,
14 this rate proposal does the opposite.

15 **Q. How else does IPL's rate design encourage more production of carbon to the**
16 **atmosphere?**

17 A. IPL's Rider RTS-Regional Transmission Service clause tends to dissuade
18 customers from investing in solar power.

19 **Q. Please describe IPL's RTS-Regional Transmission Service rider.**

²⁶ *Id.*

1 A. In IPL's proposed tariff, the company is proposing to apply the RTS charge to all
2 "kWh consumed by the customer and delivered by the Company."²⁷ Previously
3 the RTS charge was only applied to the total (net) kWh delivered each month.
4 This change would only affect customers with distributed generation, forcing
5 them to pay transmission costs for a portion of the energy they produce.

6 **Q. Why should the IPL Rider RTS-Regional Transmission Service rider not be**
7 **approved by the Board?**

8 A. The Board should not approve this rider because it proposes fundamental changes
9 to the net-metering agreement approved by the board in Docket TF-2016-0321.
10 Furthermore, approving this rider would allow IPL to charge customers for
11 services IPL did not provide.

12 **Q. How would the proposed changes to the RTS tariff charge customers for**
13 **service IPL did not provide?**

14 A. Let's assume a small 2-kilowatt solar system owned by an IPL customer
15 connected to the IPL system. The total production is 2,000 kilowatt-hours (kWhs)
16 per year and 200 kWhs are produced during sunny days when production exceeds
17 electric use at the customer's property. This self-generated electricity passes into
18 the neighborhood to serve other IPL customers. IPL continues to produce and
19 transport an additional 6,000 kilowatt-hours to the property. The 200 kWhs that
20 pass on to the distribution grid is netted against those the Company supplies. IPL
21 wants to charge also for transporting this electricity even though the Company did
22 not transport it at all and it will reduce the total electricity IPL supplies to the

²⁷ IPL tariff sheets, found at
<https://efs.iowa.gov/cs/groups/external/documents/docket/mdax/odqw/~edisp/1840226.pdf>

1 neighborhood. This is double counting and double charging and should not be
2 allowed.

3 **Q. Do you maintain that IPL wants to go even beyond this illegitimate charge?**

4 A. Yes. According to the response of Company witness Vognsen to Environmental
5 Intervenors Data Request No. 65, IPL wants to go further. When asked how much
6 IPL's proposal would cost a residential customer who also produces some
7 electricity, Vognsen explained the difference between what a full requirements
8 customer would use and what the average partial requirements customer would
9 use (i.e., 750 kWhs per month minus 353 kWhs). Vognsen maintains that the
10 difference, or 397 kWhs, would be subject to the new Rider RTS. While most of
11 the electricity generated at the home would move from inside the property where
12 it was produced to inside the property where it is used, IPL wants to charge the
13 customer as if the Company itself had transported all of the electricity. IPL's
14 plan, filed in Board Docket TF-2019-0018, is to go beyond charging only for that
15 portion of customer-produced electricity sent to the grid and to charge for *all*
16 *production* of a home system. The Board should reject IPL's proposal.

17 **Q. Do you have other concerns with IPL's rate design?**

18 A. Yes. At page 15 of Vognsen Direct, Mr. Vognsen discusses the advantages of
19 AMI in facilitating new rate design.²⁸ He states that AMI may enable IPL to
20 develop a "super" off-peak time period from midnight to 6:00 a.m., with a
21 significantly lower rate applicable during this period.

²⁸ Vognsen Direct, p. 15.

1 **Q. Might such rates help balance load and reduce the need for new capacity,**
2 **especially during the summer peak season?**

3 A. Yes. Witness Vognsen mentions that customers might respond to these low rates
4 to charge electric vehicles or manage water heating loads at night.²⁹

5 **Q. Then what is your concern?**

6 A. IPL could have proposed such rates as part of its rate design in this case. Not
7 proposing such a rate while praising AMI's ability to facilitate introduction of
8 such a rate illustrates a pattern at IPL.

9 **Q. Please explain.**

10 A. It is apparent to me that IPL's overriding desire is to sell more electricity at
11 exactly the wrong times. The Company proposes in this case to:

- 12 • **Raise the Basic Customer Charge**, which is already much higher than
13 that of the other investor-owned electric company in the state;
- 14 • **Reintroduce declining block rates** during the summer peak period,
15 which will likely cause IPL to add capacity for its system;
- 16 • **Discourage the production of solar power**, when encouraging
17 development of solar generation might help IPL to avoid adding
18 generation to accommodate the super peak days; and,
- 19 • **Refrain from introducing a "super" off-peak rate** that could redirect
20 demand away from peak periods.

21 These proposals, combined with IPL's actions to convince the Iowa General
22 Assembly to completely bypass the Board and greatly dismantle the state's energy

²⁹

Id.

1 efficiency programs, compels the conclusion that IPL wants to sell more power –
2 not less -- especially during the times of the day when IPL's system is more costly
3 to operate so that IPL will reap more profits.

4 **Q. Does this conclude your Direct Testimony?**

5 A. Yes.

