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IDAHO PUBLIC
UTILITIES COMMISSION

Attorneys for the Snake River Alliance and NW Energy Coalition

**BEFORE THE
IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE
APPLICATION OF IDAHO POWER
COMPANY FOR AUTHORITY TO
ESTABLISH NEW SCHEDULES
FOR RESIDENTIAL AND SMALL
GENERAL SERVICE CUSTOMERS
WITH ON-SITE GENERATION

CASE NO. IPC-E-I7-13

PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF

AMANDA M. LEVIN

December 22, 2017

ORIGINAL

**PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF
AMANDA M. LEVIN**

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EXHIBIT LIST

- 1001. Professional Qualifications of Amanda M. Levin**
- 1002. IPC's Response to Vote Solar's Second Set of Data Requests to
IPC, Response to Request No. 42**
- 1003. IPC's Response to Vote Solar's First Set of Data Requests to
IPC, Response to Request No. 3**
- 1004. IPC's Response to the First Production Request from
Commission Staff, Response to Request No. 3**

1 **PREFILED DIRECT TESTIMONY (NONCONFIDENTIAL) OF**
2 **AMANDA M. LEVIN**

3 **I. INTRODUCTION**

4 **Q. Please state your name and business address.**

5 A. My name is Amanda Levin. I am an Energy and Climate Analyst for the Natural
6 Resources Defense Council ("NRDC"), 1152 15th Street NW, Suite 300,
7 Washington, DC, 20005.

8 **Q. In what capacity are you submitting this testimony?**

9 A. I am a witness for the Snake River Alliance and NW Energy Coalition.

10 **Q. Have you previously testified before the Idaho Public Utilities Commission**
11 **("Commission")?**

12 A. No.

13 **Q. Have you prepared an exhibit describing your education, relevant**
14 **employment experience and other professional qualifications?**

15 A. Yes, I have. My professional and educational background is provided in detail in
16 the attached Exhibit No. 1001 that is incorporated herein by reference.

17 Briefly though, in my current position at the NRDC I focus on analysis
18 and advocacy around carbon and energy polices, decarbonization strategies,
19 energy efficiency, renewables integration, and wholesale market reform. I also

1 serve as an expert for NRDC and partner organizations in front of state utility
2 commissions, legislatures, and federal agencies.

3 My research on electric restructuring, alternative utility business model
4 design, and industrial energy efficiency program design has been published in a
5 variety of academic press and journals. I also have served as a witness in front of
6 the Washington Utilities and Transportation Commission and participated in
7 utility proceedings in the states of Virginia, New Mexico, North Carolina, and
8 Wisconsin.

9 II. SUMMARY OF TESTIMONY

10 **Q. Please explain the purpose of your testimony.**

11 A. My testimony focuses on the implications of Idaho Power Company's ("Idaho
12 Power" or the "Company") Application on regulatory processes, policy
13 objectives, and ratemaking outcomes in the State of Idaho. I will first discuss why
14 the Company's reasoning and support for its proposal is insufficient and, at times,
15 not correct. I will then discuss why the Company's current approach is wholly
16 backwards and how this improper process could have a detrimental impact on the
17 Commission's other policy objectives. Such an unorthodox application and
18 process is also unnecessary given the status of net metering in the Company's
19 service territory.

20 **Q. Briefly summarize the key recommendations of your testimony.**

1 **A.** The Commission should reject Idaho Power's proposal to create new customer
2 classes for residential and small general service customers with customer-sided
3 generation. Idaho Power has not provided sufficient evidence or data in its
4 Application for such a measure.

5 Creating new customer classes is a significant and substantial change, and
6 should only be taken after robust, transparent evaluation of the costs and benefits
7 these customers contribute to the system and meaningful stakeholder engagement.
8 The process proposed in the Company's Application is wholly backwards; such
9 an extraordinary request is also unwarranted at this time given the status of net
10 metering in the Company's service territory. Moving forward with the creation of
11 separate rate classes at this time runs counter to the state energy policy and other
12 public policy objectives. Furthermore, it could result in new administrative
13 inefficiencies, increased rate volatility for net metered customers, and discourage
14 customers from investing in clean energy technologies.

15 The Commission should instead first open a comprehensive, general
16 investigation into the costs and benefits of distributed energy resources, the
17 profile and costs of serving self-generating customers, and rate design approaches.
18 The process should be transparent and open to all interested stakeholders.

19 To inform this process and any future rate or cost-of-service changes, the
20 Commission should order Idaho Power to begin collecting and compiling data on
21 the load and energy profiles of its net metering customers and the associated costs
22 and benefits of customer-sided generation in the Company's territory. Any future

1 rate, rate schedule or cost-of-service changes for these customers should be based
2 on and supported by robust, verifiable analysis of this collected data.

3 **III. IDAHO POWER'S REASONING IS FLAWED**

4 **Q. What topics will you address in this section of your direct testimony?**

5 A. I will address one of the Company's main claims that creating a separate class for
6 net-metered or distributed generating ("DG") customers is warranted given their
7 "two-way" relationship with the grid.¹

8 **Q. Do you agree with the Company's distinction between "one-way" and "two-
9 way" relationships?**

10 A. No. Idaho Power's classification of differences between DG and non-DG
11 customers is inaccurate and misleading.

12 **Q. Please explain.**

13 A. With advanced metering infrastructure ("AMI"), any customer can have a two-
14 way relationship with the grid. AMI allows all customers, and any of their
15 "smart" (grid-enabled) devices, to follow and track customer usage, system
16 conditions, and energy prices *and respond* to this information, changing their

¹ See Prefiled Direct Testimony of Idaho Power Witness Connie G. Aschenbrenner, pg. 26.

1 consumption and load patterns in response to grid signals.² While these
2 customers may not have on-site generation, this type of customer-grid interaction
3 is just as much of a “two-way” relationship and can look similar to net-metering
4 from a grid perspective, especially at lower levels of DG penetration.

5 For example, consider customers that have “smart” (grid-enabled)
6 appliances and thermostats. The customer could set their smart thermostat system
7 into “energy-saving” mode and enroll in an A/C Cool Credit cycling program.
8 The customer could also monitor the usage and cost of running their smart
9 dishwasher, clothes washer and dryer remotely. If prices fall in the middle of the
10 day (e.g., solar power ramps up, load is low), these “smart” devices and customer
11 loads can rise automatically to take advantage of this low-cost, excess power;
12 when prices rise (e.g. renewable power resources ramp down), loads will fall
13 automatically.

14 With AMI, smart devices in the customer’s house can dynamically
15 respond to and communicate with the grid and the utility. The utility isn’t just
16 sending power; the utility is sending power and information, and the customer (or
17 their devices) are acknowledging that information, altering behavior and grid

² For example, see the Department of Energy’s “Grid Modernization and Smart Grid” landing page, available at <https://energy.gov/oe/activities/technology-development/grid-modernization-and-smart-grid>.

1 energy demand, and even sending information back.³ Not only is this a “two-
2 way” flow of information between the utility and end-user, but the load and
3 consumption profile of this customer would look different than the typical
4 residential customer: they would likely have peaks at different times than the total
5 system or class peak and grid consumption would be more spread out over the
6 day.

7 **Q. Does Idaho Power currently encourage “two-way” relationships with**
8 **customers?**

9 **A.** Yes. With “smart” devices and advanced meters, customers have a much greater
10 ability to adjust the way they operate and change their energy demand in response
11 to signals from the grid, markets, or utilities. This is a “two-way” relationship and
12 just as potent of an energy resource as distributed generation. In other words,
13 better optimizing energy use with smart devices has the same impact as
14 distributed generation from a grid perspective - when these devices turn down or
15 off it reduces the customer’s grid energy consumption and stress on the grid
16 system like a net metering, rooftop solar unit would.

17 In fact, Idaho Power pays its customers to “cycle” their home’s air

³ See Edison Electric Institute’s “Smart Meters at a Glance”, available at
[http://www.eei.org/issuesandpolicy/grid-
enhancements/Documents/Smart%20Meters%20IEI%20Infographic%20Sept2016.pdf](http://www.eei.org/issuesandpolicy/grid-enhancements/Documents/Smart%20Meters%20IEI%20Infographic%20Sept2016.pdf).

1 conditioning to reduce the customer's grid energy demand during peak periods.⁴

2 The utility recognizes that this demand-reducing, load-changing behavior (spurred
3 by new technologies) has measurable grid benefits for customers and the utility.⁵

4 As such, these customers remain part of the same residential class as all other
5 residential customers and no proposal has been made to separate them out.

6 **IV. IDAHO POWER HAS NOT SUBMITTED SUFFICIENT**
7 **EVIDENCE**

8 **Q. What topics will you address in this section of your direct testimony?**

9 A. In this portion of my testimony, I discuss where the Company is lacking sufficient
10 data for its proposal. I provide recommendations on what data Idaho Power
11 should collect, compile, and provide on DG customers to inform and support
12 future proceedings on the value of distributed generation and ratemaking and/or
13 rate design.

14 **Q. Has the Company provided adequate analytical support and evidence for its**
15 **proposal in your opinion?**

16 A. No. In fact, in response to Vote Solar's Discovery Request, Idaho Power
17 acknowledges they have not engaged in any such process to evaluate the benefits

⁴ See Idaho Power's "AC Cool Credit" Offering, <https://www.idahopower.com/ways-to-save/savings-for-your-home/rebates-and-offers/ac-cool-credit/>.

⁵ For example, see Idaho Power's 2016 DSM Report on the cost-effectiveness and performance of this program, https://docs.idahopower.com/pdfs/AboutUs/PlanningForFuture/irp/AppendixB_DSM.pdf.

1 of net-metering (Exhibit No. 1002).⁶ The Company should collect and provide
2 data not only showing that these customers have different load or usage patterns
3 and profiles, but that these differences *have a material impact on the cost to serve*
4 *these customers* compared to other residential customers. Cost causation – the
5 concept that each group of customers pays the cost they impose on the utility
6 system - is a fundamental principle of ratemaking.⁷ It ensures that rates are fair to
7 both customers and the utility, and are neither unjust nor discriminatory.

8 Before receiving approval for the creation of a separate rate class, even if
9 no change to the rates are proposed, the Company should complete the load
10 research necessary to provide analytical support that these customers cause
11 different costs on the system, what costs should be allocated to these customers,
12 and how they should be allocated.

13 **Q. What data and analysis does the Company provide in its Application?**

14 A. The Company's witness, Connie G. Aschenbrenner, provides a few pieces of
15 evidence on the load characteristics and scale of net metering in the Company's
16 territory. This includes a summary of the Company's 2017 Annual Net Metering
17 Status Report, which details cumulative demand-side capacity, customers, and

⁶ See IPC's Response to Vote Solar's Second Set of Data Requests to IPC, Response to Request No. 42.

⁷ For example, see the Michigan Public Service Commission's presentation "Tariff Development II: Developing a Cost of Service Study", available at pubs.naruc.org/pub/53B193C0-2354-D714-5142-FE55D2D063F9, see slides 3-4.

1 applications by customer class, as well as near-term forecasts of growth in the
2 program. Witness Aschenbrenner also includes two figures to illustrate load
3 differences. The first shows the average load shape for residential non-net energy
4 metering and net energy metering (“NEM”) customers on the single peak day of
5 2016. The second shows the average load shape of the residential class segmented
6 by monthly consumption and then the profile of net-zero customers on the same
7 peak day. Ms. Aschenbrenner also provides an annual bill comparison of a net-
8 zero customer and a nearby non-NEM residential customer.

9 **Q. Is this sufficient for showing that the creation of a separate class is warranted**
10 **in your opinion?**

11 **A.** No. Just showing different usage patterns is not sufficient for creating a new class.
12 Idaho Power needs to prove that the demand and usage profile of these customers
13 *has a material impact on the cost to serve them.* This is essential to determine that
14 costs are allocated appropriately and fairly between customers.⁸ New classes
15 should only be created when there is sufficient proof that a distinct group of
16 customers’ energy activity is driving costs that these customers are not covering
17 under current rate tariffs. Even then, there may be other public policy reasons to
18 continue to allow some inter- or intra-class subsidization (e.g. promotion of clean

⁸ For example, see Brattle’s “Retail Costing and Pricing for Electricity”, presented at the Institute of Public Utilities’ Annual Regulatory Studies Program, http://www.brattle.com/system/publications/pdfs/000/005/348/original/Retail_Costing_and_Pricing_of_Electricity.pdf?1471279927.

1 energy resources, energy affordability for low-income households). In addition,
2 the creation of new rate classes may breed other, perverse impacts; allocating
3 costs among many smaller rate classes can result in increased administrative
4 inefficiency and more volatile rates stemming from the additional complexities of
5 modeling, allocating, and recovering the costs of service across many narrower
6 groups of customers.

7 It is important to remember that diversity in load within a class is not
8 necessarily problematic. It is an inherent part of average ratemaking, especially
9 for large classes. There is substantial load and usage variation among the
10 residential class, even when excluding customers who can self-generate. For
11 example, certain households may have night workers, where occupants work
12 outside of the home from 11 pm to 7 am, and then are home during the day and
13 evening. These households will have usage patterns that look much different than
14 households where the occupant(s) hold a more typical 9 to 5 job. Some
15 households may have retired or elderly occupants, stay-at-home parents, or
16 occupants with telework/work-from-home schedules. Again, these households
17 will have usage patterns different from a household where all occupants are at
18 work or school during the day. A young single student in an apartment building
19 does not have the same net energy or load profile of a family of four outside of
20 city districts – but both are classified as residential class.

21 This individual diversity of load within a class is not a detraction. In fact,
22 this intra-class diversity can improve the load factor of the system – reducing each

1 individual's cost of service. If individual peaks are slightly different from each
2 other, but around the same size, the utility can use the same-sized system to meet
3 all these peaks and customers without having to duplicate infrastructure
4 investments. In other words, if there are two customers each with a max demand
5 of 5 KW, but one has a peak demand at 11 am and the other at 3 pm, the utility
6 doesn't need to build a 10 KW system to serve them, it may only need a 6-7 KW
7 system. This lowers the total system cost and each customer's cost on the system,
8 since some of the investments can be used by both customers. Especially if these
9 customers – whether night workers, customers with smart-thermostats or other
10 devices, or DG owners – are distributed widely and rather equally throughout the
11 utility's geographic footprint, it is much more likely that this variation in load and
12 usage profiles creates valuable and beneficial load diversity rather than separate
13 or incremental system costs.

14 **Q. What problems could be created if classes are created based solely on shown,**
15 **different usage patterns?**

16 **A.** Just because individual usage patterns are not perfectly similar does not mean that
17 one should separate out each of these distinct usage patterns into separate classes.
18 This can create administrative inefficiency, requiring more complex and resource-
19 intensive processes and procedures. It can also produce less stable rates for each
20 class: due to the increased complexity of a cost of service study over many
21 smaller classes, this may result in greater variation in allocated cost to each class
22 from rate case to rate case that are then spread across a much smaller number of

1 end-users, resulting in more drastic per-customer cost impacts.

2 To promote administrative efficiency and rate stability, the Commission
3 should move forward cautiously when deciding whether to create new, additional
4 rate classes. A utility must prove more than a separate usage or load pattern to
5 justify the creation of a new rate class. Distinct usage patterns within a single
6 class are not necessarily a problem; they may actually reduce the per-customer
7 system costs due to improved class load factors. A utility must show that these
8 variations in usage and load result in measurable, statistically significant
9 differences in the cost of service for this sub-group compared to others in the
10 class. And, even then, the Commission should ensure that any rate changes are as
11 fair and as stable as they can be and do not infringe upon other public policy
12 objectives, such as advancing the adoption of emerging ad/or state-promoted
13 technologies.

14 **Q. What recommendations do you have on data process and procurement?**

15 **A.** Creating a new rate class is a significant and substantive change. If done
16 improperly, it can lead to increased inefficiency and rate volatility. Any rate
17 design changes should be data-driven, with supporting analysis based on the
18 monitoring and measurement of actual DG system performance and customer
19 profiles. There must also be enough data points (either from absolute number of
20 customers or length of time covered) to provide statistically valid outputs for a
21 cost-of-service analysis. Too few data points and/or insufficiently robust analysis
22 could result in negative regulatory and customer outcomes due to inappropriate

1 class or cost basis changes.

2 Therefore, the Commission should consider requiring the Company to
3 collect and compile data on:⁹

- 4 • The hourly usage and demand of DG customers;
- 5 • Geographic information of the spatial distribution and size of projects at a
6 sub-station level;
- 7 • Coincident and non-coincident peaks of DG and non-DG customers for
8 residential and small general service classes separately;
- 9 • Estimated average annual fixed cost recovery for DG and non-DG
10 residential and small general service customers;
- 11 • The average percentage of “full costs of service” recovered from DG and
12 non-DG customers, by class; and
- 13 • The proportion and absolute number of customers who net out their
14 monthly or annual usage with customer-sided systems.

15 The Commission should consider requiring any future proposal or change to rate
16 design from the Company to be based on at least several years of data.

17 The company, in coordination with interested stakeholders, should also
18 figure out the data necessary for evaluating the costs and benefits of DG. This

⁹ The Company has provided some limited, but not all, of this data during discovery. This list serves as a more holistic set of data necessary for sufficient analysis of these customers.

1 should include discussion of what costs and avoided costs should be considered
2 and what data is required to calculate these costs and avoided costs.

3 Without this more robust data gathering and analysis process, a proposal
4 like the one included in the Company's Application is technically and
5 substantively premature.

6 **Q. Do you have additional suggestions for possible analysis?**

7 **A.** Yes. The Company has stated, that despite its assertion that net metering service
8 is a regressive wealth transfer, it does not have or gather income information
9 (Exhibit No. 1003).¹⁰ Given customer protections and concerns, the Commission
10 and the Company may consider conducting representative surveys over this data
11 collection period. These surveys could anonymously record data on household
12 size, square footage, installation of smart appliances or thermostats, and/or
13 household income for both DG and non-DG customers. This could help provide
14 some additional context and insight into the demographic implications of net
15 metering, while respecting customer protections.

16 As will be discussed more below, any and all findings from this analysis
17 or a cost-benefit analysis of DG should be disclosed to the public, interested
18 stakeholders, and regulators prior to proposing any rate changes.

¹⁰ See IPC's Response to Vote Solar's First Set of Data Requests to IPC, Response to
Discovery Request No. 3

1 **V. IDAHO POWER'S PROCESS IS BACKWARDS**

2 **Q. What topics will you address in this section of your testimony?**

3 A. I will briefly discuss the common process of determining and implementing a rate
4 change like proposed in the Company's Application. From this, I will explain why
5 the Company's Application should be denied at this time and recommend a
6 revised schedule and process for the issues presented in this case.

7 **Q. Is Idaho Power's request in this case unusual?**

8 A. Yes. The Company's Application and approach is very unusual. While many
9 states across the country have been discussing how to properly value distributed
10 energy resources, how to allocate costs, and whether to explore alternative rate
11 designs or create new rate classes, this appears to be the only case that I am aware
12 of where a utility has filed for the creation of separate rate classes as a first step.

13 There have been similar discussions in recent months in Nevada, Kansas,
14 Iowa, and Arizona. These other instances were in the context of a rate case or
15 general proceeding. No utility filed for the creation of a separate rate class without
16 either completing a valuation of solar or cost of service study beforehand or as
17 part of the application. In the case of Kansas, the general proceeding only allows
18 the utility to file for the creation of a separate class in a future rate case.

19 **Q. Are you aware of any other jurisdiction that has created a new rate class for**
20 **net metered customers that has not undertaken a cost/benefit analysis?**

21 A. No. The only jurisdictions I am aware of that have approved separate rate classes

1 for investor-owned utilities are Nevada, Arizona, and Kansas. In each state, the
2 decision to create a separate rate class was undertaken in either the context of a
3 rate case or other proceeding designed to evaluate the costs and benefits of DG.
4 California and Hawaii have NEM successor tariffs in place. However, at least in
5 California, customers still take service under residential rates; the compensation
6 rates are a separate tariff that applies only to net excess generation.¹¹ In addition,
7 new laws in Montana and North Carolina do allow establishing a separate rate
8 class as part of a comprehensive DG proceeding.¹²

9 Nevada ended net metering and created new rate classes for those
10 customers at the end of 2015, after the utilities filed for the approval of eight net
11 metering schedules.¹³ Their Application included a Net Metering Cost of Service
12 Study and Narrative.¹⁴ While the Nevada PUC did approve the utilities' joint
13 Application in 2015, the legislature reinstated net metering in 2017. AB 405 raises
14 the compensation rate back up to 95 percent of retail rates initially, with the rate
15 declining by 7 percent for every 80 MW of additional distributed generation

¹¹ See Net Surplus Compensation Rate for California.

¹² See Utility Dive, "In new trend, utilities propose separate rate classes for solar customers without rate increase", November 2, 2017, <https://www.utilitydive.com/news/in-new-trend-utilities-propose-separate-rate-classes-for-solar-customers-w/508393/>.

¹³ See Application of Nevada Power Company d/b/a NV Energy for approval of a cost of service study and net metering tariffs, Docket No. 15-07041.

¹⁴ The COSS and all technical appendices are Volume 2 of 2 in the original application in Nevada.

1 capacity until it hits a floor of 75 percent of the retail rate.¹⁵

2 Arizona ended net metering for new customers at the end of 2016 as part
3 of the Commission's Value-of-Solar Proceeding.¹⁶ The decision establishes
4 rooftop solar customers as a separate class and replaces the compensation rate
5 with a Value of Solar ("VOS") rate.

6 In Kansas, Westar was granted approval to create a "Residential Standard
7 Distributed Generation" Tariff for systems beginning operation after October
8 2015.¹⁷ This came out of a rate case settlement;¹⁸ as part of the settlement, the
9 Kansas Corporation Commission opened up a general docket to examine issues
10 surrounding rate design for DG customers.¹⁹ Following this general docket, the
11 Kansas Corporation Commission has ruled that other utilities can file for a

¹⁵ See Utility Dive, "Nevada governor signs net metering bill", June 16, 2017,
<https://www.utilitydive.com/news/nevada-governor-signs-net-metering-bill/445177/>.

¹⁶ Arizona Corporation Commission, Docket E-00000J-14-0023,
<http://edocket.azcc.gov/Docket/DocketDetailSearch?docketId=18350#docket-detail-container2>.

¹⁷ The distributed generation tariff for residential service is available on Westar's website
at
https://www.westarenergy.com/Portals/0/Resources/Documents/Tariffs/0617_Resident_Standard_Distributed_Generation.pdf.

¹⁸ Kansas Corporation Commission See Docket No. 15-WSEE-115-RTS.

¹⁹ Kansas Corporation Commission Docket No. 16-GIME-403-GIE, In the Matter of the
General Investigation to Examine Issues Surrounding Rate Design for Distributed Generation
Customers

1 separate DG rate class in future rate cases.²⁰

2 **Q. Are you aware of any other jurisdiction that has created a new rate class of**
3 **any sort while keeping the rates and/or tariffs identical to another rate class?**

4 **A.** No, not that has been approved. Interstate Power and Light (“IPL”) in Iowa
5 proposed the creation of a separate rate class but with the same rate tariffs as
6 residential in April of 2017.²¹ IPL also did this within the context of a general
7 rate case, which Idaho Power has not done. The proceeding is still open and no
8 ruling has been made.

9 **Q. Is anything being done on this issue by other jurisdictions in the Northwest**
10 **United States?**

11 **A.** Yes, both Oregon and Montana are currently attempting to gain clarity on the
12 costs and benefits of distributed generation prior to moving forward on potential
13 new rate classes and/or tariffs.

14 Initiated in January 2015 as a result of a legislative-mandated report
15 evaluating the effectiveness of solar programs in Oregon, the investigation to
16 determine the resource value of solar (“RVOS”), is split into two phases.²² Phase
17 one involved the Oregon Public Utilities Commission (“OPUC”) hiring an outside

²⁰ See Kansas Corporation Commission, Final Order in Docket No. 16-GIME-403-GIE, Filled September 21, 2017.

²¹ Iowa Utilities Board, Docket RPU-2017-0001, Application for Approval of Non-Standard Notices.

²² Oregon Public Utilities Commission, Docket No. UM 1716.

1 consultant, E3, to provide expert analysis in the development of a methodology
2 and related computational model that would produce an RVOS based on a variety
3 of inputs. Stakeholders, including utilities, environmental groups, ratepayer
4 advocates, and the solar industry spent considerable time in phase one developing
5 arguments and evidence to support the inclusion or exclusion of various value
6 streams, or “elements.” After multiple rounds of testimony, the Commission
7 concluded phase one in September 2017. The result was the adoption of E3’s
8 RVOS methodology, with some tweaks, that would produce a “25-year marginal,
9 leveled value for a generic, small-scale solar resource installed in 2017.”

10 Phase two commenced immediately after the conclusion of phase one,
11 requiring that the utilities calculate RVOS values for their respective systems.
12 This involves the utilities determining values for each of the 11 elements the
13 Commission adopted at the conclusion of phase one. These values are: 1) energy,
14 2) generation capacity, 3) transmission and distribution capacity, 4) line losses, 5)
15 integration costs, 6) administration costs, 7) hedge value, 8) market price
16 response, 9) grid services, 10) RPS compliance, and 11) environmental
17 compliance. The bulk of each utility’s RVOS will come from the first four
18 values, which will mostly derive from each utility’s existing avoided cost
19 calculation methodology. The remaining values either require additional work,
20 will use placeholder values, or will come from pertinent utility assessments. In
21 early December 2017, the utilities filed their initial RVOS calculations, which
22 will subsequently be reviewed by stakeholders who will file testimony in the

1 coming months.

2 In Montana where the debate over net metering has mostly occurred inside
3 the capitol, the state legislature recently approved legislation requiring
4 NorthWestern Energy to “conduct a study of the costs and benefits of customer-
5 generators” and “submit the study to the commission for the purpose of making
6 determinations in accordance with a public utility’s general rate case...”²³

7 Subsequently, and as allowed by the statute, the Montana Public Service
8 Commission (“MPSC”) opened a general docket and hired Plugged In Strategies
9 as a consultant to provide input on the methodology of the cost-benefit analysis
10 done by NorthWestern Energy (“NEW”). After taking comments from all
11 interested stakeholders, the MPSC issued a Notice of Commission Action
12 outlining the minimum information required for the cost-benefit analysis to be
13 informative. The NCA also laid out the well-known process to follow the cost-
14 benefit analysis: “NWE must submit the study to the Public Service Commission
15 (“Commission”) as part of a general rate application... . The Commission will
16 evaluate NWE's study and make findings regarding whether customer-generators
17 should be classified separately from other customers for rate design purposes.”²⁴
18 The statute requires the cost/benefit analysis to be completed by April 1, 2018 and

²³ Montana Legislature, HB 219 <http://leg.mt.gov/bills/2017/sesslaws/ch0248.pdf>.

²⁴ Montana Public Service Commission, D2017.6.49,
<http://www.psc.mt.gov/Docs/ElectronicDocuments/pdfFiles/D2017649NCA.pdf>.

1 NWE has hired Navigant as its third-party consultant to conduct the study.

2 **Q. How would you suggest the Commission move forward?**

3 A. Creating a separate class should be the last step of the process. It should only
4 occur if and after the utility can prove that these customers not only have a
5 different load profile, but *different costs of service*. This requires extensive
6 gathering and submission of data on customer-sided DG. The process should start
7 with data collection and remain data-driven throughout.

8 The utility must first monitor, measure, and gain sufficient experience
9 with these customers and their behaviors. This can provide critical insights into
10 these customers, how they interact with the system, and potential opportunities to
11 improve the operations of these systems and the grid. Data collection and analysis
12 are also the key foundations for any comprehensive proceeding on the value of
13 solar and appropriate rate design for DG customers.

14 Next, before proposing changes to rates or classes, there should be a
15 general proceeding which provides all interested stakeholders an opportunity to
16 discuss how to properly value customer-sided technologies. In this more general
17 proceeding, stakeholders should determine what costs and benefits should be
18 included in a valuation of solar, develop clear and transparent methods to
19 calculate these costs and benefits, and discuss potential rate design approaches
20 and offerings for these customers that reflect the full value of distributed
21 generation and prevent unnecessary subsidization. Until there has been a

1 proceeding on the costs *and* benefits of these customers to the grid and utility,
2 there is not sufficient data or basis for cost causation or support for the creation of
3 separate classes.

4 Then, once the data, methods, and stakeholder engagement has been
5 conducted, the Company should model the impacts of any proposed separate rate
6 class, cost allocation method, or rates and allow other parties to evaluate the
7 modeling outcomes. This will ensure the proposed treatment of DERs within the
8 territory advances economic efficiency and public policy objectives, and does not
9 unduly discriminate against specific classes of customers.

10 Finally, only after a robust, honest evaluation of costs and benefits based
11 on actual system performance, the utility may file for a change to rate classes or
12 rates. Any change to rate classes should be done within a rate case.

13 **VI. PROPOSAL IS UNWARRANTED AT THIS TIME GIVEN**
14 **STATE OF NET METERING IN COMPANY TERRITORY**

15 **Q. The Company states that the creation of a separate rate class is necessary**
16 **given the fast growth in net metering service. Do you agree?**

17 **A.** No. Idaho Power points to similar discussions occurring in other states, such as
18 Nevada, Arizona, California, and Hawaii.²⁵ However, the status and pace of net
19 metering is very different in these locations than within Idaho Power's own
20 territory.

²⁵ See Prefiled Direct Testimony of Idaho Power Witness Timothy E. Tatum, pg. 17-18 and Exhibits 3 and 5.

1 While the Company focuses on the double-digit growth rate, this focus is
2 misleading. While net metering service has been growing within the Company's
3 territory at a rather fast pace in the last few years, the absolute number of NEM
4 customers and applicants is still incredibly small. At the time of the filing, Idaho
5 Power had 1,400 residential and small general service net metering customers.
6 This is just 0.25 percent of its customer base. In other words, the Company is
7 proposing to create two separate rate classes for just 0.3 percent of its residential
8 customers and 0.17 percent of its non-residential customers.²⁶ To put this in
9 perspective, Hawaii shifted away from net metering when penetration rates were
10 as high as 16 percent.²⁷

11 Creating new rate classes for such a small portion of customers and load
12 as is the case in Idaho is unjustified and statistically dubious. In fact, it is likely
13 many other sub-groups that meet similar "criteria", such as night workers (e.g.
14 different load profile) or customers who have installed smart devices (e.g. "two-
15 way" relationship) constitute a greater number of customers and load than current
16 net metered customers. Yet, despite this, the Company has only targeted net
17 metering service customers.

18 **Q. Is the creation of a separate rate class necessary to study these net metering**
19 **customers?**

²⁶ Reflects June 2017 NEM numbers. In the October 2017 update included in the Company's Answer to IECA's Motion to Dismiss, Idaho Power quoted total applications of 1,893, but not by class. This would reflect 0.36 percent of customers. Customer count taken from EIA Form 861, reflecting end-of-year 2016 values.

²⁷ See Greentech Media, "Hawaii Regulators Shut Down HECO's Net Metering Program", October 14, 2015, <https://www.greentechmedia.com/articles/read/hawaii-regulators-shutdown-hecos-net-metering-program#gs.XgGAnas>.

1 A. No. While the Company has suggested that establishing separate classes now will
2 “position the Company to study this segment of customers”²⁸, Idaho Power
3 admitted in discovery that “the Company is currently able to gather the
4 information that is necessary to study various segments of customers” without
5 creating a separate class (Exhibit No. 1004).²⁹

6 **Q. Is the Company at risk of financial harm if the decision to create a separate**
7 **class is postponed until after a general proceeding on costs and benefits of**
8 **distributed generation?**

9 A. No. The Company has a Fixed Cost Adjustment³⁰ mechanism that would allow
10 Idaho Power to file a request to increase effective rates for residential and small
11 general service customers in the case the Company under-recovers its fixed costs
12 for serving these customers in a given year (e.g. actual grid energy sales are lower
13 than forecasted because of customer conservation or self-generation) .³¹ Thus,
14 there is no immediate concern or risk of the utility under-recovering its prudent
15 costs for the residential and small general service classes if the Company’s
16 Application is denied at this time.

²⁸ See Pg. 9 of the Company’s Application.

²⁹ See IPC’s Response to the First Production Request from Commission Staff, Response to Request No. 3.

³⁰ See Idaho Power’s Schedule 54.
<https://docs.idahopower.com/pdfs/aboutus/ratesregulatory/tariffs/286.pdf>.

³¹ From Idaho Power’s 2016 DSM Report, pg. 166: “Under the FCA, rates for Idaho residential and small general-service customers are adjusted annually up or down to recover or refund the difference between the fixed costs authorized by the IPUC in the most recent general rate case and the fixed costs Idaho Power received the previous year through actual energy sales... The FCA addresses, for residential and small general-service customers, the percentage of fixed costs that are recovered through their volumetric energy charges.”

1 **Q. Do you have any suggested principles the Commission and Company should**
2 **consider when determining future changes to net-metering or net-metered**
3 **customers?**

4 **A.** Yes. As penetration of demand-side technologies, including distributed
5 generation, increases, there may be reason to explore alternative rate and
6 compensation mechanisms. However, Idaho Power has not yet reached levels
7 where this is necessary. The Company and the Commission should use this time
8 to have robust, honest discussions with stakeholders to determine what
9 alternatives may work for the utility, customers, and solar providers in the state
10 when penetration levels are much higher.

11 Any future mechanism should:³²

- 12 • Not infringe on the ability for customers to install storage, distributed
13 generation, or energy efficiency technologies and reduce their consumption of
14 grid electricity.
- 15 • Be gradual. Rate changes should be implemented gradually and predictably
16 for existing NEM customers.
- 17 • Be sustainable, clear, and fair. Solar compensation rates should reflect the full
18 benefits.
 - 19 ○ This could include a value of solar compensation rate at higher
20 penetration levels, which includes both short and life of system
21 benefits of distributed generation.
- 22 • Promote synergistic behavior and technology adoption. Rate design options,
23 such as time-of-use, critical peak pricing, or other time-varying options, may

³² Principles drawn from “Principles for the Evolution of Net Energy Metering and Rate Design”, May 2017.

1 result in customer, renewable integration, and grid benefits. More optimal
2 timing of consumption to match a home's solar production can reduce
3 integration challenges and costs at higher levels of penetration.

- 4 • Allow for and incentivize the adoption of distributed generation coupled with
5 storage or electric vehicles; ensure that barriers to customer adoption of these
6 newer technologies are not created.

7 In addition, any revisions to compensation rates or assertions of cost shifting must
8 be demonstrated with valid, transparent data that reflects both the values of
9 distributed resources and the costs of providing service. Before approving a
10 substantial rate design change, the Commission should consider requiring an
11 independent cost-benefit analysis.

12 Consideration of a separate rate class must be based on material public
13 analysis demonstrating both significantly different load and cost characteristics.

14 VII. CONCLUSION

15 **Q. Briefly summarize your key recommendations.**

16 A. I recommend that the Commission reject Idaho Power's Application to create a
17 separate rate class for net metering customers. The Company has not provided
18 sufficient data to support such an extraordinary request, portions of the reasoning
19 provided are false, insufficient and incorrect, and there is no pressing need for
20 such a significant and substantive step at this time.

21 The Commission should instead first order and open a comprehensive
22 public proceeding on the valuation of DERs and the costs and benefits of these
23 customers to the grid and utility. As part of this general proceeding, the
24 Commission should also order that Idaho Power begin collecting and publicly

1 submitting data on the usage and profiles of these customers to inform both the
2 general proceeding and any future rate proceedings.

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

4 A. Yes.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 22nd day of December, 2017, I served a true and correct copy of the foregoing by delivering the same to each of the following individuals by electronic mail, addressed as follows:

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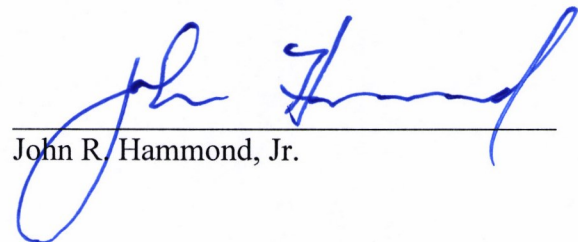
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John R. Hammond, Jr.

EXHIBIT 1001

Professional Qualifications of Amanda M. Levin

Q. Please state your name, business address, and occupation.

A. My name is Amanda Levin and my business address is 1152 15th Street NW, Suite 300, Washington, DC, 20005. I am an Energy and Climate Analyst for the Natural Resources Defense Council ("NRDC").

Q. What is your educational background?

A. I have a Bachelors in Public Policy from Stanford University and a Master's in Public Policy, with a concentration in Energy and Environmental Policy, from Stanford University.

Q. Briefly describe your role as an energy analyst at NRDC.

A. I have worked at NRDC as an energy and climate analyst since June 2014.

My current work focuses on analysis and advocacy around carbon and energy polices, decarbonization strategies, energy efficiency, renewables integration, and wholesale market issue reforms. I also serve as an expert for NRDC and partner organizations in front of state utility commissions, legislatures, and federal agencies.

I have written and published numerous reports on utility rate design, clean energy deployment, federal and state energy policies, and decarbonization strategies. My research on electric restructuring, alternative utility business model design, and industrial energy efficiency program design has been published in a variety of academic press and journals.

Q. Have you previously testified in front of the Idaho Public Utilities Commission?

A. No.

Q. Have you previously testified in front of Public Utilities Commissions in other jurisdictions?

A. Yes. I have previously testified in front of the Washington Utilities and Transportation Commission. I have also participated as an intervenor in utility proceedings in the states of Virginia, New Mexico, North Carolina, and Wisconsin.

EXHIBIT 1002

**IPC's Response to Vote Solar's Second Set of Data Requests to IPC,
Response to Request No. 42**

(attached)

REQUEST NO. 42: Reference the statement by Mr. Tatum on page 5, lines 17-20 of his direct testimony, that: "The existing R&SGS rate design does not reflect the costs and benefits of the transaction between Idaho Power and its customers with on-site generation."

a. Please provide all analyses that the Company has conducted that quantify the cost to serve customers with on-site generation and all data relied upon. If applicable, please provide supporting work papers in their native format with formulas and links intact.

b. Please provide all analyses that the Company has conducted that quantify the benefits associated with serving customers with on-site generation and all data relied upon. If applicable, please provide supporting work papers in their native format with formulas and links intact.

RESPONSE TO REQUEST NO. 42:

a. The Company performed two separate analyses to estimate the cost shift, and the cost to serve residential customers with on-site generation, as of the end of 2015 and 2016. Please see the response and Attachments to Request No. 17 for a description of the analysis and the workpapers for the analyses.

b. The Company has not conducted any analyses to quantify the benefits associated with serving customers with on-site generation. However, the Company has requested a new docket be opened at the conclusion of this case with the purpose of establishing a compensation structure for customer-owned DERs that reflects both the benefits and costs that DER interconnection brings to the electric system.

The response to this Request is sponsored by Connie Aschenbrenner, Rate Design Manager, Idaho Power Company.

EXHIBIT 1003

**IPC's Response to Vote Solar's First Set of Data Requests to IPC,
Response to Request No. 3**

(attached)

REQUEST NO. 3: Reference Application, page 5, paragraph 7. Please provide all analyses showing, confirming, or in any way supporting your assertion that net metering service acts as a regressive wealth transfer from lower-income to higher-income customers in your service territory, including your definitions of "lower-income" and "higher-income" as used in this paragraph, and all income data for the residential customers taking service under Schedule 84, Customer Energy Production Net Metering, that you relied on to make the assertion regarding the transfer of wealth from lower-income to higher-income customers.

RESPONSE TO REQUEST NO. 3: Idaho Power does not gather income information for its customers and has not performed an analysis according to income level. The discussion on page 5, paragraph 7, of the Application was a reference to Mr. Tatum's testimony. In his testimony, Mr. Tatum referenced an October 2016 Public Utilities Fortnightly article when he stated that others in the industry have concluded that the net metering policy is regressive in nature and that the subsidy from non-solar to solar customers constitutes a regressive wealth transfer from lower-income customers to higher-income customers. Mr. Tatum expressed that Idaho Power shares this concern.

The response to this Request is sponsored by Tim Tatum, Vice President of Regulatory Affairs, Idaho Power Company.

EXHIBIT 1004

**IPC's Response to the First Production Request from Commission Staff,
Response to Request No. 3**

(attached)

REQUEST NO. 3: On page 9 of its Application, the Company states that "Establishing separate customer classes now will position the Company to study this segment of customers, providing the data necessary to understand how this customer segment utilizes this system." What information will the Company be able to gather that is not currently available for these customers?

RESPONSE TO REQUEST NO. 3: To provide context, the full quote from page 19 of Mr. Timothy E. Tatum's testimony stated that:

The establishment of similarly situated customers or customer classes has been a long-standing and important first step in the ratemaking process. Taking this important first ratemaking step now will position the Company to study this segment of customers, providing the data necessary to understand how this customer segment utilizes the Company's system. The data quantifying the usage of the system will inform what costs (revenue requirement) are appropriately allocated to the newly established customer classes in a future rate proceeding (class cost-of-service process).

Tatum DI, p. 19, lines 14-24.

The Company is currently able to gather the information that is necessary to study various segments of customers; however, should the Commission decline to authorize the establishment of the requested new customer classes, the Company would have no reason to modify its class cost-of-service study or ratemaking processes. If the Idaho Public Utilities Commission ("Commission") determines there are differences that warrant the establishment of new customer classes, the Company will assign costs to the new customer classes in the class cost-of-service study and design rates specific to those classes as part of a future rate proceeding. If the Commission determines no differences exist that warrant the creation of a new customer class for

customers with on-site generation, the Company will continue to allocate costs to the residential and small general service customer classes that exist today.

The response to this Request is sponsored by Tim Tatum, Vice President of Regulatory Affairs, Idaho Power Company.