

**STATE OF INDIANA**

**INDIANA UTILITY REGULATORY COMMISSION**

**PETITION OF INDIANAPOLIS POWER & LIGHT )  
COMPANY FOR APPROVAL OF ELECTRIC )  
DEMAND SIDE MANAGEMENT PROGRAMS TO BE )  
EFFECTIVE JANUARY 1, 2015 THROUGH )  
DECEMBER 31, 2016, AND FOR AUTHORITY TO )  
RECOVER ASSOCIATED START-UP, )  
IMPLEMENTATION AND ADMINISTRATIVE ) CAUSE NO. 44497  
COSTS ALONG WITH COSTS ASSOCIATED WITH )  
THE EVALUATION, MANAGEMENT AND )  
VERIFICATION OF THOSE PROGRAMS )  
("PROGRAM COSTS"), PERFORMANCE )  
INCENTIVES, AND LOST REVENUES, THROUGH )  
ITS DEMAND SIDE MANAGEMENT ADJUSTMENT )  
MECHANISM IN ACCORDANCE WITH IND. CODE )  
§§ 8-1-2-42(a) AND 8-1-8.5-9 AND PURSUANT TO 170 )  
IAC 4-8-5 AND 170 IAC 4-8-6. )**

**Submittal of Petitioner's Case-in-Chief Testimony and Exhibits**

Petitioner Indianapolis Power & Light Company ("IPL"), by counsel, respectfully submits to the Indiana Utility Regulatory Commission ("Commission") its case-in-chief testimony and exhibits (IPL Witnesses Lester H. Allen, Zac Elliot, James L. Cutshaw, Kimberly Berry, and John E. Haselden).

Dated this 30th day of May, 2014.

Respectfully submitted,



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Kelly S. Earls, Atty. No. 29653-49  
Kay Pashos, Atty. No. 11644-49  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2208 (telephone)  
317-592-4676 (facsimile)

[kay.pashos@icemiller.com](mailto:kay.pashos@icemiller.com)  
[kelly.earls@icemiller.com](mailto:kelly.earls@icemiller.com)

*Counsel for Indianapolis Power & Light Company*

## CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served by email transmission upon the following:

A. David Stippler  
Jeffrey M. Reed  
Karol Krohn  
Office of Utility Consumer Counselor  
115 W. Washington Street,  
Suite 1500 South  
Indianapolis, Indiana 46204  
[dstippler@oucc.in.gov](mailto:dstippler@oucc.in.gov)  
[jreed@oucc.in.gov](mailto:jreed@oucc.in.gov)  
[kkrohn@oucc.in.gov](mailto:kkrohn@oucc.in.gov)  
[infomgt@oucc.in.gov](mailto:infomgt@oucc.in.gov)

With a courtesy copy to:

Joseph Rompala Lewis & Kappes, P.C. One American Square, Ste. 2500 Indianapolis, IN 46282-0003 <a href="mailto:jrompala@lewis-kappes.com">jrompala@lewis-kappes.com</a>	Jennifer Washburn Citizens Action Coalition of Indiana, Inc. 603 E. Washington Street, Suite 502 Indianapolis, Indiana 46204 <a href="mailto:jwasburn@citact.org">jwasburn@citact.org</a>
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Dated this 30<sup>th</sup> of May, 2014.



Kelly Earls

Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2271 (telephone)  
317-592-4684 (facsimile)  
[Kelly.Earls@icemiller.com](mailto:Kelly.Earls@icemiller.com)

**VERIFIED DIRECT TESTIMONY**  
**OF**  
**LESTER H. ALLEN**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**

**SPONSORING PETITIONER'S EXHIBITS LHA-2 THROUGH LHA-4**

**VERIFIED DIRECT TESTIMONY OF LESTER H. ALLEN**

1 **Q1. Please state your name, employer and business address.**

2 A1. My name is Lester H. Allen. I am employed by Indianapolis Power & Light Company  
3 ("IPL" or "Company"), One Monument Circle, Indianapolis, Indiana 46204.

4 **Q2. What is your position with IPL?**

5 A2. I am DSM Program and Development Manager.

6 **Q3. What are your duties and responsibilities regarding Demand Side Management  
7 ("DSM")?**

8 A3. In this position, I am responsible for the research, development and planning aspects of  
9 IPL's Demand Side Management programs. I am also responsible for IPL's interaction  
10 with customers on small scale renewable energy projects. Consistent with my  
11 responsibilities for DSM, I participate on IPL's DSM Oversight Board. I have also been  
12 actively engaged in the Demand Side Management Coordination Committee  
13 ("DSMCC"), and both of the DSMCC subcommittees on behalf of IPL since its  
14 formation by the Indiana Utility Regulatory Commission's ("Commission") December 9,  
15 2009, Phase II Order in Cause No. 42693 (the "Generic DSM Order"). Prior to the  
16 formation of the DSMCC, I was also a participant in the Commission's investigation,  
17 including the technical conferences that preceded the eventual issuance of the Generic  
18 DSM Order by the Commission.

19 **Q4. What is your previous work experience with IPL?**

20 A4. I have been a full-time employee of IPL since 1980. Prior to that time, I worked at IPL  
21 as an engineering co-op student. During my tenure with the Company, I have worked in

1 various staff and management positions, including Engineer, Administrator of Rates,  
2 Director of Rates, Manager, Energy Project Development and Team Leader, Marketing  
3 and Program Management.

4 **Q5. Please summarize your education and professional qualifications.**

5 A5. I hold a Bachelor of Science Degree in Construction Engineering and Management from  
6 Purdue University and a Master's Degree in Business Administration from Indiana  
7 University. I am a registered Professional Engineer in the State of Indiana.

8 **Q6. Have you previously testified before this Commission?**

9 A6. Yes, I have been a witness in several previous proceedings seeking approval of various  
10 IPL DSM programs. I was also a witness in numerous IPL quarterly filings for the  
11 tracking of DSM-related costs (Cause No. 40292-DSM-X). In addition, I have been a  
12 witness in IPL proceedings requesting the initial approval of, and subsequent changes to,  
13 Standard Contract Rider No. 21 (Green Power Initiative), most recently in Cause No.  
14 44121 GPR-4. I am also a witness in numerous DSM cases regarding IPL's requests for  
15 approval of DSM programs, most recently in Cause No. 44328, as well as the semi-  
16 annual proceeding established for IPL's DSM cost recovery mechanism (Cause No.  
17 43623-DSM-X). I am a witness in the pending Self-Direct Proceeding (Cause No.  
18 44310), as well as the proceeding to propose procedures for Customers to Opt-Out of  
19 participation in utility sponsored Energy Efficiency programs (Cause No. 44441)

20 **Q7. Are you familiar with IPL's petition in this proceeding and the relief that it seeks?**

21 A7. Yes, I am.

22 **Q8. Have you reviewed the testimony and exhibits of the other witnesses in this Cause?**

1 A8. Yes.

2 **Q9. What is the purpose of your testimony in this proceeding?**

3 A9. The purpose of my testimony is to (1) provide an introduction of the other witnesses in  
4 this proceeding; (2) summarize the current status of IPL DSM programs, including a  
5 discussion of IPL's historical efforts to deliver DSM Programs; (3) summarize IPL's  
6 request for approval of a portfolio of 2015-2016 DSM programs (herein referred to as the  
7 "2015 - 2016 DSM Plan") and associated ratemaking and accounting treatment, including  
8 the recovery of lost revenues; (4) explain the impact of Senate Enrolled Act 340 ("SEA  
9 340"); (5) describe the continuing role of the existing IPL DSM Oversight Board  
10 ("OSB"); and (6) explain why the relief sought by the Company is consistent with  
11 regulatory policy, serves the public interest and should be approved.

12 **Q10. Are you sponsoring any exhibits in support of your testimony?**

13 A10. Yes, I am sponsoring the following exhibits:

<u>Petitioner's Exhibit LHA-2</u>	IPL's Verified Petition in this Cause
<u>Petitioner's Exhibit LHA-3</u>	Example of Opt-Out Communication to Customers
<u>Petitioner's Exhibit LHA-4</u>	IPL's Demand Side Management Program History

14

15 **Q11. Were Petitioner's Exhibits LHA-2 through 4 prepared or assembled by you or**  
16 **under your direction or supervision?**

17 A11. Yes.

INTRODUCTION OF WITNESSES

**Q12. Who will be testifying on behalf of the Company in this proceeding?**

A12. Below is a brief summary of the witnesses and the corresponding subject matter:

- Mr. Zac Elliot, DSM Program Administrator, is filing testimony to (1) describe IPL's planning approach which led to the development of the 2015-2017 Action Plan; (2) Provide an overview of the proposed 2015-2017 Action Plan (Petitioner's Exhibit ZE-2).
- Mr. John E. Haselden, Principal Engineer, is filing testimony to (1) support IPL's proposal for approval of DSM programs for calendar years 2015 and 2016 through a discussion of the cost-effectiveness of the programs and the methods and assumptions used to conduct this analysis; (2) describe IPL's proposal to continue performance incentives using a Shared Savings methodology; and (3) describe IPL's plan for conducting ongoing EM&V.
- Ms. Kimberly Berry, Research Analyst, is filing testimony to describe the impact of the IPL 2015-2016 DSM Plan on the approved cost recovery mechanism utilized in the Company's semi-annual filings (Cause No. 43623-DSM-X), including the allocation of cost recovery among the customer classes; and (2) discuss how the performance incentives should be accounted for in the Fuel Adjustment Clause ("FAC") earnings test.
- Mr. James L. Cutshaw, Revenue Requirements Manager, is filing testimony to (1) introduce requested revisions to Standard Contract Rider No. 22 to include lost



1 revenues resulting from IPL's proposed DSM Programs; (2) discuss the calculation of  
2 lost revenues; and (3) discuss how the proposed lost revenues recovery should be  
3 accounted for in the Fuel Adjustment Clause ("FAC") earnings test.

4 STATUS OF DSM IMPLEMENTATION

5 **Q13. Please summarize the energy savings goals established in the Commission's**  
6 **December 9, 2009 Phase II Order in Cause No. 42693 ("Generic DSM Order").**

7 A13. The Generic DSM Order established an annual electric energy savings goal for  
8 jurisdictional Indiana electric utilities to be achieved through delivery of both Core  
9 Programs and Core Plus Programs. Pursuant to its Order, the Commission mandated that  
10 participating utilities achieve energy savings targets established as a percentage of  
11 previous three year weather adjusted sales.

12 **Q14. Please describe IPL's efforts to meet the Commission established energy savings**  
13 **goals.**

14 A14. As of December 31, 2013, IPL had achieved energy efficiency savings of 331,000MWh<sup>1</sup>,  
15 on an ex-ante basis, or approximately 97% of the cumulative goal as of that date. When  
16 additional energy efficiency savings for 2014 are considered, IPL expects to be at or near  
17 the cumulative Commission savings goal through 2014.

18 **Q15. Have circumstances changed with regard to the energy savings goals established in**  
19 **the Generic DSM Order since IPL filed its 2014 DSM Plan in Cause No. 44328?**

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<sup>1</sup> Note that the total savings achievement reflects ex-ante savings for 2013, as the Evaluation, Measurement & Verification process has not yet been completed for the 2013 program year.

1 A15. Yes they have. The 2013-2014 Indiana General Assembly passed SEA 340, which,  
2 among other things, (1) provides that industrial customers with demand at a single site  
3 greater than one MW may opt-out of participating in and paying for utility sponsored  
4 energy efficiency programs, and (2) effectively terminates the Generic DSM Order's  
5 savings goals.

6 **Q16. Please give an overview of SEA 340 with respect to the opt-out provisions?**

7 A16. SEA 340 provides that an industrial customer that meets the definition of a "Qualifying  
8 Customer" may opt-out by providing notice to its electricity supplier. Once a Qualifying  
9 Customer has opted out, the electricity supplier may not charge the customer rates that  
10 include energy efficiency program costs that accrue or are incurred after the date of the  
11 opt-out. However, the customer remains responsible for rates that include energy  
12 efficiency program costs that accrued or were incurred, or are related to investments  
13 made, before the date of the opt-out, regardless of when such rates are actually charged to  
14 the customer. The statute defines "energy efficiency program costs" as including: "(1)  
15 program costs; (2) lost revenues; and (3) incentives approved by the commission."

16 SEA 340 also allows customers to opt back in to participation and payment for utility-  
17 sponsored energy efficiency programs. A customer who opts back in must participate in  
18 the energy efficiency program for at least 3 years (and must pay energy efficiency  
19 program rates for such 3-year period).

20 **Q17. Describe IPL's procedures granting industrial customers the ability to opt-out of**  
21 **DSM program participation.**

1 A17. IPL filed its proposed procedures to facilitate the opt-out of customers with the  
2 Commission on May 9, 2014 in Cause No. 44441. In its testimony, IPL defined the  
3 following three (3) distinct categories: (1) Process; (2) Costs; and (3) Timing.  
4 Regarding Process, IPL first identified which customers met the eligibility criteria  
5 (“Qualifying Customers”) to opt out of DSM participation. Beginning in early May  
6 2014, IPL has made a good faith effort to notify Qualifying Customers of their ability  
7 to opt-out of participating in DSM programs, and defined the date ranges by which the  
8 customer must provide notice to opt-out. An example of such customer notice is  
9 attached as IPL Petitioner’s Exhibit LHA-2. In order to opt-out, a Qualifying Customer  
10 is obligated to demonstrate that at least one demand meter on its site has received  
11 service of more than one (1) MW of electric capacity within the previous 12 month  
12 period. Qualifying Customers have the ability to opt back in to DSM program  
13 participation if they previously elected to opt-out.

14 Regarding Costs, Qualifying Customers remain liable for DSM Program Costs that  
15 accrued or were incurred or relate to investments made before the date on which the  
16 opt-out is effective. The statute defines “energy efficiency program costs” as including:  
17 “(1) program costs; (2) lost revenues; and (3) incentives approved by the commission.”  
18 Any over or under recovery of costs for the time period during which the Qualifying  
19 Customer was participating will be captured through a reconciliation process and will  
20 be recovered from, or refunded to, the Qualifying Customer, as appropriate through the  
21 DSM Adjustment Factor.

22 Regarding Timing, notice of the Qualifying Customer’s intention to opt-out of DSM  
23 participation must be received by IPL on or before June 1, 2014 in order to opt-out for

1 the remainder of 2014. Such opt-out will be applied to bills no later than July 1, 2014.  
2 Any Qualifying Customer providing notice after June 1, 2014, but before November 15,  
3 2014, will be eligible for the opt-out effective January 1, 2015. After January 1, 2015,  
4 Qualifying Customers will only be able to opt-out on a calendar year basis with an  
5 effective date of January 1<sup>st</sup> of each year. The table below provides the Qualifying  
6 Customer opt-out schedule as proposed by the utilities.

<b><u>Notice Must be Received On or Before:</u></b>	<b><u>Effective Date of Opt Out:</u></b>
<b><u>June 1, 2014</u></b>	<b><u>July 1, 2014</u></b>
<b><u>November 15, 2014</u></b>	<b><u>January 1, 2015</u></b>
<b><u>November 15, 2015</u></b>	<b><u>January 1, 2016</u></b>
<b><u>November 15, 2016</u></b>	<b><u>January 1, 2017</u></b>
<b><u>November 15, 2017</u></b>	<b><u>January 1, 2018</u></b>
<b><u>November 15, 2018</u></b>	<b><u>January 1, 2019</u></b>

7

8 **Q18. Do IPL's opt-out procedures generally align with those of other utilities?**

9 A18. Yes. IPL's intention was to develop similar, if not identical, processes and procedures  
10 related to industrial customers' ability to opt-out of DSM participation with other  
11 utilities. Due to their size and nature, many Qualifying Customers have separate  
12 locations that reside in multiple utility service territories. General consistency of opt-  
13 out procedures among the utilities will serve the Qualifying Customer's interest and  
14 mitigate confusion.

15 **Q19. Have any IPL Qualifying Customers provided notice to opt-out of DSM**  
16 **participation?**

17 A19. Yes. As of May 29, 2014, a total of 28 customers with approximately 680,000 MWh of  
18 sales, have provided notice to opt-out of DSM program participation. IPL has

1 approximately 150 customers that are served at over 200 sites eligible to opt-out of  
2 participation in its DSM programs. Eligible customers, in aggregate, represent about  
3 25% of IPL's total sales.

4 **Q20. Does IPL intend to continue offering DSM programs after 2014 despite the**  
5 **provisions of SEA 340?**

6 A20. Yes we do. IPL has a long standing history of implementing DSM programs, predating  
7 any requirements set forth in the Generic DSM Order, and will continue to offer cost-  
8 effective programs for customers in the future. IPL believes that cost-effective DSM  
9 programs are in the public interest, because they can defer capacity needs, reduce  
10 energy costs, and give customers more control over their energy usage and their energy  
11 bills. The assessment of the cost-effectiveness of DSM Programs requires analysis of  
12 multiple perspectives. To that end, IPL utilized four cost-effectiveness tests to evaluate  
13 its DSM program offerings. In order to select the most cost-effective portfolio, IPL has  
14 modeled and screened programs in an attempt to balance the benefits and costs for both  
15 participants and non-participants. A full description of the methodology and results is  
16 described more fully in IPL Witness Haselden's testimony.

17 **Q21. Please describe IPL's historical DSM offerings.**

18 A21. A full history of prior IPL efforts is shown in Petitioner's Exhibit LHA-4. IPL has  
19 offered DSM programs to its customers since 1993. In *Indianapolis Power & Light*  
20 *Co.*, Cause No. 43623, p. 56 (IURC 2/10/2010) ("Phase I"), the Commission  
21 recognized, "IPL, in contrast to other Indiana utilities, has been engaged in DSM  
22 programs for a number of years. Thus, we assign considerable credibility to its motives  
23 and performance." IPL's prior experience and achievement demonstrates its success at

1 implementing DSM programs. In accordance with 170 IAC 4-8-4(b) and pursuant to  
2 settlement agreements approved in Cause Nos. 42639, 43018, 43252, 43960 (approving  
3 IPL's prior DSM programs), IPL has periodically reported the impacts of its DSM  
4 programs approved in Cause Nos. 42639, 43018, 43252, 43623, 43911, 43960, and  
5 44328 since 2002.

6 **Q22. Under what approvals is IPL currently offering DSM Programs?**

7 A22. IPL is currently delivering DSM programs under its 2014 DSM Plan ("Current DSM  
8 Plan") pursuant to the Commission's Order in Cause No. 44328. These approvals will  
9 expire on December 31, 2014 without further action by the Commission. The Current  
10 DSM Plan was designed to achieve the energy impacts from DSM programs necessary  
11 to meet the energy savings goals established by the Generic DSM Order for calendar  
12 year 2014, including closing the potential gap in cumulative energy savings from  
13 previous years.

14 **IPL'S 2015-2017 DSM Action Plan**

15 **Q23. Please describe IPL's 2015-2017 Action Plan.**

16 A23. In 2012, IPL completed a joint Market Potential Study with Citizens Energy that  
17 included an Action Plan for the period 2014-2017. In the second quarter of 2014, IPL  
18 worked with our consultant EnerNOC to update the Action Plan for the period 2015-  
19 2017. While IPL has updated the remaining three years of the DSM Action Plan and is  
20 presenting results for the all three years, as discussed below, IPL is only seeking  
21 approval to implement DSM programs during calendar years 2015 and 2016 in this  
22 proceeding (the "2015-2016 DSM Plan"). As is described in considerably more detail

1 by IPL Witness Elliot, the IPL 2015-2017 Action Plan represents a cost-effective  
2 portfolio of programs designed to target all customer segments. The Plan is comprised  
3 of 13 programs that will be offered by IPL to its customers. To the extent possible, IPL  
4 will continue to offer DSM programs jointly with Citizens Energy. Also, while the  
5 Commission Phase II goals were primarily focused on the achievement of energy  
6 savings, IPL has continued to emphasize the Air Conditioning Load Management  
7 programs availability to customers to achieve incremental demand savings.

8 As discussed in more detail by IPL Witness Elliot, IPL leveraged the results of the MPS  
9 and the updated Action Plan, along with knowledge IPL has gained through DSM  
10 program delivery, to develop the current proposal.

11 The proposed programs for delivery in 2015 and 2016 are as follows:

Program
Residential Lighting
Residential Income Qualified Weatherization
Residential Air Conditioning Load Management
Residential Multi Family Direct Install
Residential Home Energy Assessment
Residential School Kit
Residential Online Energy Assessment
Residential Appliance Recycling
Residential Peer Comparison Reports
Business Energy Incentives - Prescriptive
Business Energy Incentives – Custom
Small Business Direct Install
Business Air Conditioning Load Management

12

1 **Q24. Why is IPL seeking authority to deliver DSM programs for only 2 years if there is**  
2 **an Action Plan that covers 3 years?**

3 A24. SEA 340 suggests the possibility that the General Assembly may take additional action  
4 on the topic of utility-sponsored DSM in the next legislative session. Regardless, IPL  
5 believes that filing a two-year DSM Plan demonstrates its recognition and commitment  
6 to offering DSM programs in the future. IPL also believes that development and filing  
7 of a two-year plan versus a one-year plan provides increased regulatory efficiency. It is  
8 also our expectation that a two-year plan will allow for more certainty and program  
9 stability among our customers, vendors and trade allies.

10 **Q25. Does the 2015-2016 DSM Plan demonstrate sufficient flexibility if new DSM**  
11 **legislation ensues?**

12 A25. Yes, I believe so. In developing the 2015-2016 DSM Plan, it was IPL's intention to  
13 incorporate flexibility to deal with the possibility of additional DSM legislation.  
14 Nonetheless, it is difficult to plan on a foundation of uncertainty. If necessary, the  
15 Company will make a request of the Commission next year to address any program  
16 changes that could be required by new legislation or subsequent direction that might be  
17 provided by the Commission.

18 **Q26. Please describe the flexibility built into the 2015-2016 DSM Plan.**

19 A26. First and foremost, in the 2015-2016 DSM Plan, IPL has included a portfolio of DSM  
20 programs similar in scope and scale to the programs being offered in 2014. Secondly,  
21 Witness Elliot describes IPL's request for 10% spending flexibility that is consistent  
22 with the Commission's Order in Cause No. 44328, approving an allowance for  
23 spending flexibility equivalent to 10% of the Direct Program Costs included in the



1 planned budget. IPL's OSB has the ability to approve allocation of any expenditures  
2 using this flexibility. Thirdly, IPL is requesting that funds proposed in the 2015-2016  
3 DSM Plan that are not utilized in 2015 will be carried forward into 2016. Finally, as  
4 described in more detail by IPL Witness Elliot, IPL has proposed Indirect Program  
5 Costs and costs associated with Emerging Technologies, that will provide additional  
6 resources to develop, add, and/or modify programs in future years in response to future  
7 legislative or administrative direction.

8 **RELIEF BEING SOUGHT**

9 **Q27. Is IPL seeking approval to recognize for ratemaking purposes costs associated**  
10 **with the 2015-2016 DSM Plan?**

11 A27. Yes. IPL is requesting approval of associated ratemaking and accounting treatment,  
12 including timely recovery through Standard Contract Rider No. 22 of all costs incurred,  
13 including lost revenues and performance incentives, relating to the 2015-2016 DSM  
14 Plan. This request is discussed in greater detail by IPL Witness Berry. IPL Witness  
15 Cutshaw describes in additional detail the request for recovery of lost revenues  
16 associated with the 2015-2016 DSM Plan, and IPL Witness Haselden describes the  
17 proposed performance incentives in additional detail.

18 **Q28. What is the proposed budget for the IPL 2015 - 2016 DSM Plan?**

19 A28. The total estimated cost of the IPL 2015-2016 DSM Plan, prior to recovery of any  
20 Company performance incentives or lost revenues, is \$51.2M. As described by IPL  
21 Witness Elliot, included in this budget is spending flexibility up to an additional 10% of  
22 Direct Program Costs. While IPL cannot plan for every possible scenario, should the

1 Commission grant IPL spending flexibility, IPL's OSB would have the opportunity to  
2 either increase the scale of programs or identify new programs to produce EE savings if  
3 appropriate. In addition, IPL requests authority to increase the 2016 plan budget by any  
4 unspent funds from the 2015 plan year, which will also support plan flexibility.

5 **Q29. How do the annual budgets in the IPL 2015-2016 DSM Plan compare to IPL's**  
6 **2014 DSM budget?**

7 A29. The annual budgets included in this proposal are approximately \$25.5M per year which  
8 is comparable to the budget approved for IPL's 2014 DSM Plan.

9 **Q30. Please elaborate on the proposed modifications to IPL's request for cost recovery**  
10 **in this proceeding from prior approvals.**

11 A30. In its 44328 Order approving IPL's Current DSM Plan, the Commission (1) approved  
12 the recovery of costs for all approved DSM initiatives on the Core and Core Plus  
13 Programs and (2) authorized IPL to receive performance incentives on selected Core  
14 Plus Programs based on achieving targeted demand and energy savings. As discussed  
15 by IPL Witness Haselden, IPL is proposing to modify the performance incentive  
16 approach as was approved in Cause No. 44328. IPL Witness Haselden describes in  
17 detail the Shared Savings incentive IPL is proposing in this proceeding and the  
18 programs to which Shared Savings incentives will apply. Performance incentives  
19 approved in Cause No. 44328 applied only to select Core Plus programs. Given the  
20 elimination of the Commission established DSM goals, IPL requests that it be awarded  
21 performance incentives on all DSM program offered excluding Income Qualified  
22 Weatherization.

1 **Q31. IPL has sought recovery of lost revenues in two prior proceedings. Please discuss**  
2 **IPL's request to recover lost revenues in this proceeding?**

3 A31. Between 1995 and 2004, IPL offered a comprehensive portfolio of DSM programs for  
4 customers, and recovered the costs of such programs, along with lost revenues. (See  
5 Cause No. 39672, and Cause No. 40292-DSM1-2). In 2010, the Commission approved  
6 IPL's proposed Core and Core Plus programs, and approved program cost recovery for  
7 such programs, along with a performance incentive applicable to the Core Plus  
8 programs, but denied IPL recovery of lost revenues associated with the Core and Core  
9 Plus programs (Cause No. 43623 Phase I). This request was also denied in Cause No.  
10 43911. As IPL Witness Cutshaw explains, IPL believes that it can demonstrate that  
11 revenues will continue to be lost through customer adoption of our Energy Efficiency  
12 programs in the absence of a lost revenue recovery mechanism. Circumstances have  
13 changed legislatively and at the Commission relative to prior positions regarding DSM  
14 and what a Company is statutorily allowed to recover under its DSM and Energy  
15 Efficiency programs.

16 **Q32. Please describe these changes in circumstances.**

17 A32. The Indiana Legislature passed SEA 340 that included lost revenues in the definition of  
18 energy efficiency costs, and at the same time, eliminated the Statewide targets for  
19 energy efficiency savings. Despite the absence of Energy Efficiency targets, IPL  
20 continues to pursue energy efficiency savings, as proposed in this filing, at a significant  
21 level and impact to the Company. Moreover, IPL has demonstrated a commitment to  
22 achieving the IURC goals as demonstrated by its forecast of likely achieving the  
23 Energy Efficiency savings targets on a cumulative basis by the end of 2014. IPL

1 respectfully requests the Commission consider this new information and grant IPL  
2 recovery of lost revenues. Also, it is important to note that IPL has absorbed lost  
3 revenues resulting from its DSM programs since 2004.

4 **Q33. Is IPL proposing to recover its 2015-2016 DSM Plan costs in the same manner as**  
5 **in previous years?**

6 A33. Yes. As in previous years, IPL is proposing to recover its 2015-2016 DSM Plan costs  
7 via a DSM rate adjustment mechanism, using allocations on a class basis.

8 **Q34. How is IPL requesting to pay trailing costs for programs delivered pursuant to**  
9 **Cause No. 44328 after December 31, 2014?**

10 A34. IPL seeks authority to continue to pay the program delivery costs related to energy  
11 services provided through the end of 2014 but not known until 2015 from previous  
12 approvals received in Cause No. 44328.

13 **Q35. What oversight is IPL proposing for the 2015-2016 DSM Plan?**

14 A35. Consistent with current practice, as approved in the 43960 Order, IPL requests approval  
15 to continue to utilize the existing IPL OSB to administer the 2015-2016 DSM Plan. As  
16 proposed, the OSB will be able to shift dollars within a program budget as needed as  
17 well as shift dollars among programs as long as the programs are found to be cost-  
18 effective and the overall 2015-2016 DSM Plan approved budget is not exceeded. In  
19 addition, the OSB will have the same authority to increase funding in the aggregate,  
20 without shifting dollars from other programs, by up to 10%, and to modify programs  
21 based on a review of initial program results as reported by an independent third-party  
22 evaluator.

REGULATORY POLICY AND PUBLIC INTEREST

1  
2 **Q36. Is Commission approval of the relief sought by IPL in this proceeding consistent**  
3 **with regulatory policy and the public interest?**

4 A36. Yes. IPL's proposed 2015-2016 DSM Plan is consistent with the Commission's DSM  
5 Rules (170 IAC 4-8-1 *et seq.*) and Commission practice. It is also consistent with  
6 regulatory policy and serves the public interest.

7 The Commission's conclusion in the Generic DSM Order that saving energy can be a  
8 cost-effective way of meeting future energy supply needs while reducing the need to  
9 build additional generation capacity remains relevant. IPL recognizes that the electric  
10 utility industry is subject to changes stemming from more stringent environmental  
11 rules, evolving technology and other factors. DSM has, for some time, been a viable  
12 element of resource planning and, as previously discussed, IPL has a long history of  
13 providing DSM programs.

14 The Guidelines for Integrated Resource Planning contained in 170 IAC 4-7 outline  
15 many requirements for a utility to consider when analyzing future resources of energy  
16 supply. Specifically, according to 170 IAC 4-7-6(a) and (b), an electric utility must  
17 consider demand-side programs and demand-side resources as a source of new supply.  
18 This includes innovative rate design and a comprehensive array of demand-side  
19 measures that provide an opportunity for all ratepayers to participate in DSM.  
20 Furthermore, as part of the selection of new energy resources like DSM, 170 IAC 4-7-7  
21 requires the utility to conduct cost-benefit analyses utilizing several tests to make sure  
22 the proposed sources are cost-effective. All of the analyses contained in the 2015-2017

1 Action Plan, as well as subsequent work performed by the Company, were performed  
2 in the context of these DSM rules.

3 IPL's 2015-2016 DSM Plan is designed to reduce load and benefit customers by  
4 providing opportunities for them to manage current energy costs and reducing or  
5 deferring future generation needs. There are several diverse offerings in which all  
6 customer classes may participate.

7 **Q37. Is it important for the Commission to provide timely cost recovery of DSM-related**  
8 **costs, including recovery of lost revenues and performance incentives, to support**  
9 **robust and cost-effective DSM programs in Indiana?**

10 A37. Yes. Timely recovery of program costs, lost revenues, and performance incentives are  
11 critical ingredients to maintaining robust and cost-effective DSM programs. The  
12 importance of incorporating all three – program costs, lost revenues, and performance  
13 incentives – into rates has been repeatedly recognized by policymakers and state and  
14 federal governments. For example, the Commission's DSM Rules recognize the need  
15 to provide supportive regulation to place DSM on a more level playing field with  
16 utilities' supply-side resource options, through the recovery of program costs, lost  
17 revenues and incentives. SEA 340 similarly recognizes that program costs, lost  
18 revenues, and incentives are appropriately included in rates. The Environmental  
19 Protection Agency's National Action Plan for Energy Efficiency and the National  
20 Energy Policy Act of 1992 both support the creation of incentives and the removal of  
21 financial or regulatory barriers in order to promote the use of DSM, as does the federal

1 Energy Independence and Security Act of 2007.<sup>2</sup> A lack of timely cost recovery in any  
2 of these three areas creates a financial disincentive for a utility to aggressively pursue  
3 DSM.

4 **Q38. Why is it important for IPL to be allowed timely cost recovery of DSM-related**  
5 **costs, including lost revenues now?**

6 A38. There are several reasons why IPL is requesting recovery of lost revenues in this case.  
7 As mentioned above, lack of recovery creates a financial disincentive to aggressively  
8 pursue DSM – or serves as a financial penalty for a utility that does aggressively pursue  
9 DSM. Almost by definition, without recovery of lost revenues, IPL would be better off  
10 financially by not aggressively pursuing DSM. IPL has a long history of offering a  
11 comprehensive portfolio of DSM programs, but the level of DSM proposed in the  
12 2015-2016 DSM Plan is significantly greater than most of IPL's preceding DSM plans  
13 prior to 2012. We strongly believe that IPL should not be penalized for its commitment  
14 to DSM. Moreover, lost revenues are a real and calculable cost. Regardless of the  
15 vintage of IPL's base rates, those rates are the base rates that continue to be used (and  
16 no party has filed a rate complaint claiming they are unreasonable, and no Commission  
17 order has found them unreasonable). As a result, the revenues that are lost as a result of  
18 IPL's successful implementation of DSM are ascertainable by reference to those rates.  
19 Furthermore, as mentioned above, state and federal policy supports recovery of lost  
20 revenues (indeed, IPL is the only jurisdictional electric generating utility that is not

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<sup>2</sup> National Action Plan for Energy Efficiency. 15 U.S.C. §2621(d)(8): see also 15 U.S.C. §3203(b)(4) ("The rates allowed to be charged by a State regulated electric utility shall be such that the utility's investment in and expenditures for energy conservation, energy efficiency resources, and other demand side management measures are at least as profitable, giving appropriate consideration to income lost from reduced sales due to investments in and expenditures for conservation and efficiency, as its investments in and expenditures for construction of new generation, transmission, and distribution equipment.") See also section 532 of the Energy Independence and Security Act of 2007.

1 authorized to recover lost revenues). For all of these reasons, IPL should be authorized  
2 to recover lost revenues beginning in 2015.

3 **Q39. Does this conclude your prepared direct testimony?**

4 **A39. Yes, at this time.**



**FILED**

MAY 30 2014

INDIANA UTILITY  
REGULATORY COMMISSION

STATE OF INDIANA  
INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT )  
COMPANY FOR APPROVAL OF ELECTRIC )  
DEMAND SIDE MANAGEMENT PROGRAMS TO BE )  
EFFECTIVE JANUARY 1, 2015 THROUGH )  
DECEMBER 31, 2016, AND FOR AUTHORITY TO )  
RECOVER ASSOCIATED START-UP, )  
IMPLEMENTATION AND ADMINISTRATIVE )  
COSTS ALONG WITH COSTS ASSOCIATED WITH )  
THE EVALUATION, MANAGEMENT AND )  
VERIFICATION OF THOSE PROGRAMS )  
("PROGRAM COSTS"), PERFORMANCE )  
INCENTIVES, AND LOST REVENUES, THROUGH )  
ITS DEMAND SIDE MANAGEMENT ADJUSTMENT )  
MECHANISM IN ACCORDANCE WITH IND. CODE )  
§§ 8-1-2-42(a) AND 8-1-8.5-9 AND PURSUANT TO 170 )  
IAC 4-8-5 AND 170 IAC 4-8-6. )

CAUSE NO. 44497

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**VERIFIED PETITION**

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Indianapolis Power & Light Company ("IPL" or "Petitioner") petitions the Indiana Utility Regulatory Commission ("Commission") for approval of electric demand side management ("DSM") programs and authority to recover: associated start-up, implementation and administrative costs (both direct and indirect) along with costs associated with the evaluation, management and verification of those programs ("Program Costs"); performance incentives; and lost revenues, through its Demand Side Management Standard Contract Rider No. 22 ("Rider 22"), in accordance with Ind. Code §§ 8-1-2-42(a), 8-1-8.5-9 and 170 IAC 4-8-5 and 4-8-6. In accordance with 170 IAC 1-1.1-8 and 1-1.1-9 of

the Commission's Rules of Practice and Procedure, Petitioner respectfully submits the following information in support of this petition.

**Petitioner's Corporate Status**

1. Petitioner is a public utility corporation organized and existing under the laws of the State of Indiana with its principal office and place of business at One Monument Circle, Indianapolis, Indiana. Petitioner is engaged in rendering electric utility service in the State of Indiana and owns, operates, manages and controls, among other things, plant and equipment within the State of Indiana used for the generation, transmission, distribution and furnishing of such service to the public.

**Petitioner's Regulated Status**

2. Petitioner is a "public utility" within the meaning of Ind. Code S 8-1-2-1 and is an "electricity supplier" within the meaning of Ind. Code SS 8-1-2.3-2(b) and 8-1-8.5-9, and is subject to the jurisdiction of the Commission in the manner and to the extent provided by the Public Service Commission Act, as amended, and other pertinent laws of the State of Indiana.

**Petitioner's Operations**

3. Petitioner renders retail electric utility service to approximately 470,000 retail customers located principally in and near the City of Indianapolis, Indiana, and in portions of the following Indiana counties: Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, Owen, Putnam and Shelby Counties. IPL owns, operates, manages and controls electric generating, transmission and distribution plant, property and equipment and related

facilities, which are used and useful for the convenience of the public in the production, transmission, delivery and furnishing of electric energy, heat, light and power.

**Petitioner's Historical DSM Program Offerings**

4. Since 1993, Petitioner has been offering to its retail electric customers a comprehensive portfolio of DSM programs. *See, e.g., In re Petition of Indianapolis Power & Light Company for Approval of and Authority to Implement Demand Side Management Programs, and for Accounting and Ratemaking Treatment of Costs Incurred and Lost Revenues as a Result of Implementation of Demand Side Management Programs Approved by the Commission, Cause No. 39672, 1993 Ind. PUC LEXIS 370 (IURC; Sept. 8, 1993).*

5. Between 1995 and 2004, Petitioner continued implementation of a comprehensive portfolio of DSM programs for customers, and recovered the costs of such programs, along with lost revenues. *See, e.g., In re Petition of Indianapolis Power & Light Company for Approval of a Demand Side Management Lost Revenue Adjustment Factor for Electric Service in Accordance with the Order of the Commission in Cause No. 39672 Effective September 8, 1993, Cause No. 40292-DSM1, 1995 Ind. PUC LEXIS 415 (IURC; Nov. 2, 1995) and In re Petition Of Indianapolis Power & Light Company For Approval Of A Demand Side Management Lost Revenue And Cost Adjustment Factor For Electric Service In Accordance With The Order Of The Commission In Cause No. 40714 Effective July 30, 1997, Cause No. 40292-DSM9, 1997 Ind. PUC LEXIS 404 (IURC; Oct. 22, 1997).*

6. Beginning in 2004, pursuant to a settlement agreement approved by the Commission, Petitioner continued to offer a comprehensive portfolio of DSM programs for customers, but without recovery of lost revenues. *See, e.g., In re Joint Petition Of*

*Indianapolis Power & Light Company, Indiana Office Of Utility Consumer Counselor, And Citizens Action Coalition Of Indiana, Inc. For Approval Of A Residential Demand Side Management Program And Related Regulatory Treatment, Cause No. 42639, 2004 Ind. PUC LEXIS 217 (IURC; July 21, 2004).*

7. On December 9, 2009, the Commission issued its Phase II Order in Cause No. 42693, *In the Matter of the Commission's Investigation into the Effectiveness of Demand Side Management Programs* ("Phase II Order"). In this Order, the Commission established mandatory energy savings goals and other requirements applicable to jurisdictional Indiana retail electric utilities. The Commission found that jurisdictional electric utilities, of which IPL is one, were required to offer certain core DSM programs ("Core Programs") to all customer classes and market segments. To implement these programs, electric utilities were required to pursue coordinated marketing, outreach and consumer education strategies on a statewide basis. The Commission also determined that an Independent Third Party Administrator ("TPA") should be utilized by the electric utilities to oversee the administration and implementation of the Core Programs. In addition, a DSM Coordination Committee was to be formed to address DSM program oversight generally within the State of Indiana. The Commission also found that a single statewide evaluation protocol was necessary in order to track achievement with DSM goals. Consequently, jurisdictional electric utilities were required to contract with an independent entity to conduct the EM&V with respect to the Core Programs. The Phase II Order also contemplated the implementation of non-Core utility-specific DSM programs ("Core Plus Programs"), as necessary to meet the energy savings goals established by the Commission, and those Core

Plus Programs were to be evaluated by a statewide evaluation, measurement and valuation ("EM&V") administrator, as well. Finally, the Commission found that the associated ratemaking and cost recovery issues associated with an electric utility's DSM programs, as well as smart grid technologies and advanced rate design, should be addressed on a case by case basis in individual utility proceedings.

8. In 2010, the Commission approved IPL's proposed Core and Core Plus programs, and approved ratemaking to provide cost recovery for its Core and Core Plus Programs through Standard Contract Rider No. 22 (Core and Core Plus Demand-Side Management Adjustment), along with a performance incentive applicable to certain of the Core Plus programs, but denied IPL recovery of lost revenues associated with the Core and Core Plus programs. *See Verified Petition Of Indianapolis Power & Light Company Requesting The Indiana Utility Regulatory Commission To Approve An Alternative Regulatory Plan Pursuant To Ind. Code 8-1-2.5-1, et seq., For The Offering Of Energy Efficiency Conservation, Demand Response And Demand-Side Management Programs And Associated Rate Treatment Including Incentives In Accordance With Ind. Code 8-1-2.5-1 et seq. and 8-1-2-42(a); Authority To Defer Program Costs Associated With Its Energy Efficiency Portfolio Programs; Authority To Implement New And Enhanced Energy Programs And Approval Of Modification Of The Fuel Adjustment Clause Earnings And Expense Tests*, Cause No. 43623, 2010 Ind. PUC LEXIS 53 (IURC; Feb. 10, 2010). *See also, In re Verified Petition Of Indianapolis Power & Light Company Requesting The Indiana Utility Regulatory Commission To Approve An Energy Efficiency Schools Program - Audits ("School Audits") As A Core DSM Offering And Related Regulatory Treatment*,

*Including Timely Cost Recovery, In Accordance With Indiana Code 8-1-2-42(a) and 170 IAC 4-8-1 et seq. and For Authority To Timely Recover Lost Revenue On Core and Core Plus Programs Pursuant to 170 IAC 4-8-6, Cause No. 43911, 2010 Ind. PUC LEXIS 391 (IURC; Nov. 4, 2010).*

9. The Commission's November 22, 2011 Order in Cause No. 43960 ("43960 Order") approved a settlement agreement (with certain modifications) and authorized IPL to implement a portfolio of DSM programs and recover associated costs through Standard Contract Rider No. 22 (Core and Core Plus Demand-Side Management Adjustment), along with a performance incentive. IPL was implementing the majority of the Core Programs and a number of Core Plus Programs on January 1, 2011. IPL transitioned delivery and administration of the Core Programs to the selected TPA, GoodCents Solutions, on January 1, 2012. *See In re Verified Petition Of Indianapolis Power & Light Company Requesting The Indiana Utility Regulatory Commission To Approve (1) New And Enhanced Demand Side Management And Energy Efficiency Programs; (2) Ratemaking Recognition Of Such Costs, Including Timely Recovery Of Associated Costs; Including Performance Incentives Pursuant To Standard Contract Rider No. 22 In Accordance With Indiana Code 8-1-2-42(a) To Defer Costs, Including Carrying Charges Incurred To Implement Core DSM Programs And Otherwise Comply With The Phase II Order In Cause No. 42693; (4) Revisions To Rate REP. And (5) Ratemaking Recognition Of Costs Incurred To Deploy Electric Vehicle Supply Equipment Pursuant To Standard Contract Rider No. 22 In Accordance With Indiana Code 8-1-2-42(a), Cause No. 43960, 2011 Ind. PUC LEXIS 344 (IURC; Nov. 22, 2011).*

10. On November 25, 2013, the Commission approved IPL's proposed costs to

deliver the 2014 DSM Plan to comply with the Commission's Phase II Order, as reasonable and necessary and recognizable for ratemaking purposes. The Commission in that Order also approved IPL's request for timely recovery of costs associated with the Core and Core Plus Programs, including costs incurred under the contracts for the TPA and EM&V Administrator through IPL's Standard Contract Rider No. 22. IPL was also authorized to recover a performance incentive associated with certain of the Core Plus Programs. *See Verified Petition Of Utility Regulatory Commission To Approve (1) Demand Side Management And Energy Efficiency Programs; (2) Ratemaking Recognition Of Such Costs, Including Timely Recovery Of Associated Costs, Including Performance Incentives Pursuant To Standard Contract Rider No. 22 In Accordance With Indiana Code 8-1-2-42(a) And 170 IAC 4-8-1 Et Seq.; And (3) Revisions To Standard Contract Rider No. 13's Participant Credits And Performance Incentives, Cause No. 44328, 2013 Ind. PUC LEXIS 359 (IURC; Nov. 25, 2013).*

11. On March 27, 2014, Senate Enrolled Act 340 ("SEA 340") became law.

Among other things, SEA 340 states as follows:

The commission may not: (1) extend, renew, or require the establishment of an energy efficiency program under; or (2) after December 31, 2014, require an electricity supplier to meet a goal or target established in the DSM order issued by the commission on December 9, 2009. An electricity supplier may not renew or extend an existing contract or enter into a new contract with a statewide third party administrator for an energy efficiency program established or approved by the DSM order issued by the commission on December 9, 2009.

After December 31, 2014, an electricity supplier may continue to timely recover energy efficiency program costs that: (1) accrued or were incurred under or relate to an energy efficiency program implemented under the DSM order issued by the commission on December 9, 2009; and (2) are approved by the commission for recovery.

After December 31, 2014, an electricity supplier may offer a cost effective portfolio of energy efficiency programs to customers. An electricity supplier may submit a proposed energy efficiency program to the commission for review. If an electricity supplier submits a proposed energy efficiency program for review and the commission determines that the portfolio included in the proposed energy efficiency program is reasonable and cost effective, the electricity supplier may recover energy efficiency program costs in the same manner as energy efficiency program costs were recoverable under the DSM order issued by the commission on December 9, 2009. The commission may not: (1) require an energy efficiency program to be implemented by a third party administrator; or (2) in making its determination, consider whether a third party administrator implements the energy efficiency program.

#### **Petitioner's Current DSM Plan**

12. IPL currently provides DSM programs under two categories: Core Programs and Core Plus Programs. Core Programs are those outlined and approved by the Commission's Phase II Order that are currently being implemented through GoodCents. These programs consist of the five (5) separate programs listed below:

#### **Core Programs**

- Residential Lighting Program
- Residential Home Energy Assessment Program
- Residential Income Qualified Weatherization Program
- Energy Efficient Schools (School Education Kits and School Audit) Program
- Commercial & Industrial Prescriptive Rebates Program

IPL's Core Plus Programs were most recently approved by the 44328 Order for the period January 1, 2014 through December 31, 2014. These programs consist of the ten (10) separate programs listed below:



Core Plus Programs

- Residential New Construction
- Online Energy Assessment with Kit
- Multifamily Direct Install
- Business Energy Incentive Program – Prescriptive/Custom
- Appliance Recycling
- Peer Comparison Report
- CoolCents® Residential ACLM
- CoolCents® C&I ACLM
- Residential Renewables
- C&I Renewables

**Petitioner's Request for Approval of its 2015-2016 Electric DSM Program Portfolio**

13. In 2012 IPL completed a joint Market Potential Study with Citizens Energy that included an Action Plan for the period 2014-2017. In the second quarter of 2014 IPL worked with its consultant EnerNOC to update the Action Plan for the period 2015-2017 (“2015-2017 Action Plan”). While IPL has updated the remaining three (3) years of the DSM Action Plan and is presenting results for all three (3) years, as discussed below IPL is only seeking authority in this proceeding to implement the DSM programs during calendar years 2015 and 2016.

14. In this proceeding, IPL requests Commission approval of its proposed portfolio of DSM programs to be effective from January 1, 2015 through December 31, 2016 (“2015 – 2016 DSM Plan”), as follows:

<b>Program</b>
Residential Lighting
Residential Income Qualified Weatherization (“IQW”)
Residential Air Conditioning Load Management (“ACLM”)
Residential Multi Family Direct Install
Residential Home Energy Assessment (“HEA”)
Residential School Kit
Residential Online Energy Assessment
Residential Appliance Recycling
Residential Peer Comparison Reports
Business Energy Incentives - Prescriptive
Business Energy Incentives – Custom
Small Business Direct Install
Business Air Conditioning Load Management (“ACLM”)

**Petitioner’s Changes from 2014 Programs**

15. Petitioner is requesting to modify its DSM program offerings to remove certain programs that are not projected to achieve cost-effective savings. Namely, Petitioner proposes to eliminate the Energy Efficient Schools-Audit and Direct Install Program. However, schools will continue to have the opportunity to participate in IPL’s proposed Small Business Direct Install Program, Business Energy Incentives Prescriptive Program, Business Energy Incentives Custom Program, and Business ACLM Program. Petitioner is also proposing to discontinue its Residential New Construction Program, as well as the Residential Renewable Incentives Program and the C&I Renewable Incentives Program, due to a projected failure to achieve cost-effectiveness.

**Petitioner's Request for Authority to Recover Program Costs**

16. IPL requests authority to recover Program Costs associated with its 2015-2016 DSM Program through its Standard Contract Rider No. 22 consistent with the provisions of 170 IAC 4-8-5 as authorized in the 44328 Order, the 43960 Order and 43623-DSM-X Orders. As addressed in other DSM proceedings (Cause Nos. 44441 and 43623-DSM-9) trailing costs and prior period reconciliations for large industrial customers who have been permitted to opt-out of Energy Efficiency Programs will be included in the requested costs for recovery in a future DSM filing, as will the 2014 DSM Core or Core Plus program costs that are associated with 2014 but not incurred until 2015.

**Petitioner's Request for Authority to Recover Performance Incentives**

17. IPL requests authority to recover performance incentives associated with 2015-2016 DSM Plan (excluding the Income Qualified Weatherization program), through its Standard Contract Rider No. 22 as authorized in Cause No. 43623 and again in Cause No. 43960, and as modified in the 44328 Order. .

**Petitioner's Request for Authority to Recover Lost Revenues**

18. IPL also requests authority to recover lost revenues associated with its 2015–2016 DSM Plan through its Standard Contract Rider No. 22, consistent with the provisions of 170 IAC 4-8-6. As will be explained in greater detail in its case-in-chief testimony, IPL believes that recovery of lost revenues resulting from its 2015-2016 Plan is just and reasonable for a number of reasons, including: (1) lost revenues are a real and calculable cost of implementing DSM programs; (2) lost revenue recovery is necessary (but not sufficient) to eliminate a financial penalty for implementing energy efficiency programs; (3)

both the Commission and the General Assembly have recognized that lost revenue recovery is appropriate; and (4) IPL has absorbed lost revenues resulting from its DSM programs since 2004.

**Petitioner's Request for Continued Approval of IPL's Oversight Board**

19. Consistent with current practice, as approved in the 43960 Order, IPL requests approval to continue to utilize its existing IPL Oversight Board ("OSB") to administer the 2015-2016 DSM Plan. As proposed, the OSB would be able to shift dollars within a program budget as needed as well as shift dollars among programs as long as the programs are found to be cost-effective and the overall 2015-2016 DSM Plan budget is not exceeded. In addition, IPL proposes that the OSB have the same authority to increase funding by program, without shifting dollars from other programs, by up to 10%, and to modify programs based on a review of initial program results as reported by an independent third-party evaluator.

**Petitioner's Request for Approval of Evaluation, Measurement and Verification Plans**

20. Consistent with current practice, IPL requests to continue the same or very similar evaluation, measurement and verification program for its 2015-2016 DSM Plan, consistent with the provisions of 170 IAC 4-8-1 *et seq*, as authorized in the 44328 Order.

**Petitioner's Request for Approval of Tariff Modifications**

21. IPL requests approval of necessary changes to its Rider 22 tariff to effectuate approval of the 2015-2016 DSM Plan and other relief requested herein. Tariff changes are being included using the currently pending tariff modifications as filed in Cause No. 44441.

**Applicable Law**

22. Petitioner considers the provisions of the Public Service Commission Act, as amended, including Ind. Code §§ 8-1-2-4, 8-1-2-12, 8-1-2-42, 8-1-2-46, 8-1-2-61 and 8-1-8.5-9 to be applicable to the subject matter of this Petition and believes that such statutes provide the Commission authority to approve the requested relief. The Commission's administrative rule on demand side management, 170 IAC 4-8-1 *et seq.*, is also applicable.

**Petitioner's Counsel**

23. The names and addresses of persons authorized to accept service of papers in this proceeding on behalf of Petitioner are:

**Counsel of Record:**

Kay Pashos, Atty. No. 11644-49  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2208 (telephone)  
317-592-4676 (facsimile)  
[Kay.Pashos@icemiller.com](mailto:Kay.Pashos@icemiller.com)

Kelly Earls Atty. No: 29653-49  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2271 (telephone)  
317-592-4684 (facsimile)  
[Kelly.Earls@icemiller.com](mailto:Kelly.Earls@icemiller.com)

**Request for Prehearing Conference and Preliminary Hearing**

24. In accordance with 170 IAC 1-1.1-15(b) of the Commission's Rules of Practice and Procedure, Petitioner requests that the Commission schedule a prehearing conference and preliminary hearing for the purpose of fixing a procedural schedule in this proceeding and considering other procedural matters as soon as possible. Petitioner requests that an evidentiary hearing on this matter be set and noticed as required by law.

WHEREFORE, Petitioner respectfully requests that the Commission promptly publish notice, make such other investigation and hold such hearings as are necessary or advisable and thereafter, make and enter appropriate orders in this Cause:

- (a) Approving Petitioner's proposed 2015-2016 DSM Plan, as described above, to be effective from January 1, 2015 through December 31, 2016;
- (b) Granting to Petitioner authority to recover Program Costs associated with the 2015-2016 DSM Plan through Petitioner's Rider 22;
- (c) Granting to Petitioner authority to recover performance incentives associated with its 2015-2016 DSM Plan, through its Rider 22;
- (d) Granting Petitioner authority to recover lost revenues resulting from implementation of the 2015-2016 DSM Plan through Petitioner's Rider 22;
- (e) Granting to Petitioner approval to continue to utilize its existing IPL Oversight Board to administer the 2015-2016 DSM Plan;
- (f) Granting to Petitioner authority to continue the same or a very similar evaluation, measurement and verification program for its 2015-2016 DSM Plan;
- (g) Approving necessary tariff changes to effectuate approval of the 2015-2016 DSM Plan and associated ratemaking treatment; and
- (h) Granting to IPL such additional and further relief as the Commission may be deemed necessary or appropriate.

Dated this 29<sup>th</sup> day of May, 2014.

Indianapolis Power & Light

A handwritten signature in cursive script, appearing to read "Lester H. Allen", written over a horizontal line.

Lester H. Allen  
DSM Program Development Manager

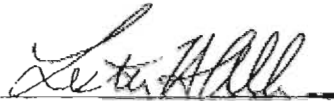
A handwritten signature in cursive script, appearing to read "K S Earls", written over a horizontal line.

Kelly S. Earls  
Petitioner's Counsel

**Verification**

I affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.

Dated: May 29, 2014.



Lester H. Allen  
DSM Program Development Manager

Kelly Earls Atty. No: 29653-49  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2271 (telephone)  
317-592-4684 (facsimile)  
[Kelly.Earls@icemiller.com](mailto:Kelly.Earls@icemiller.com)

Kay Pashos, Atty. No. 11644-49  
Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2208 (telephone)  
317-592-4676 (facsimile)  
[Kay.Pashos@icemiller.com](mailto:Kay.Pashos@icemiller.com)

Attorneys for Petitioner  
Indianapolis Power & Light Company



## CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served by email transmission upon the following:


A. David Stippler  
Jeffrey M. Reed  
Karol Krohn  
Office of Utility Consumer Counselor  
115 W. Washington Street,  
Suite 1500 South  
Indianapolis, Indiana 46204  
[dstippler@oucc.in.gov](mailto:dstippler@oucc.in.gov)  
[jreed@oucc.in.gov](mailto:jreed@oucc.in.gov)  
[kkrohn@oucc.in.gov](mailto:kkrohn@oucc.in.gov)  
[infomgt@oucc.in.gov](mailto:infomgt@oucc.in.gov)

With a courtesy copy to:

Joseph Rompala  
Lewis & Kappes, P.C.  
One American Square, Ste. 2500  
Indianapolis, IN 46282-0003  
[jrompala@lewis-kappes.com](mailto:jrompala@lewis-kappes.com)

Jennifer Washburn  
Citizens Action Coalition of Indiana, Inc.  
603 E. Washington Street, Suite 502  
Indianapolis, Indiana 46204  
[jwasburn@citact.org](mailto:jwasburn@citact.org)

Dated this 30<sup>th</sup> of May, 2014.



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Kelly Earls

Ice Miller LLP  
One American Square, Suite 2900  
Indianapolis, IN 46282-0200  
317 -236-2271 (telephone)  
317-592-4684 (facsimile)  
[Kelly.Earls@icemiller.com](mailto:Kelly.Earls@icemiller.com)

May 7, 2014

Effective March 27, 2014, Senate Enrolled Act (SEA) 340 became law, allowing large Commercial and Industrial customers who meet specific criteria the opportunity to opt-out of further participation in electric utility sponsored Energy Efficiency (EE) programs (also referred to as Demand Side Management programs).

Customers with at least 1 MW of actual demand on an individual IPL Service in the preceding twelve months are eligible for this opt-out provision with respect to the site with that 1 MW of demand. You are receiving this communication because you have at least one electric Service that meets this criterion. If you choose to opt-out, all other IPL Services at the same site will also be opted-out.

**The initial deadline for becoming eligible for the opt-out provision is June 1, 2014.** If you wish to no longer participate in IPL's EE programs for those Services eligible to opt-out, please indicate your intent by completing the attached **IPL Energy Efficiency Program Opt-Out Form** and returning it to IPL **on or before June 1, 2014** using one of the following:

Email: ipl.strategiccustomeraccts@aes.com  
US Mail: Indianapolis Power & Light Company  
One Monument Circle, Room 265  
Indianapolis, IN 46204  
Fax: 317-630-0782

We will reply with a confirmation document upon receipt of your request. If you do not notify IPL of your intent to opt-out on or before June 1, 2014, the next opportunity to opt-out will not be effective until January 1, 2015, with notification required to be made to IPL on or before November 15, 2014.

If you have questions or need additional information, please contact your IPL Account Manager or call (317) 261-8125. If you are interested in learning more about IPL's Energy Efficiency Programs, please visit [IPLpower.com/Business/Business\\_Energy\\_Savings/](http://IPLpower.com/Business/Business_Energy_Savings/).

Thank you in advance for your immediate attention.

Regards,

IPL Strategic Customer Accounts Team



## IPL Energy Efficiency Program Opt-Out Form

### Definitions

DSM Rate Adjustment Factor: Mechanism utilized by utilities to collect Energy Efficiency Program Costs.

Energy Efficiency (EE) Program: A program sponsored by an electricity supplier or a third party implementer designed to implement energy efficiency improvements (as defined in 170 IAC 4-8-1(j)) for customers.

Energy Efficiency (EE) Program Costs: Program costs approved by the Indiana Utility Regulatory Commission, including reconciliation of such costs.

Qualifying Customer: Receives service at a Single Site constituting more than one megawatt of electric demand from an electric supplier.

Qualifying Load: A Single Site with at least one Service constituting more than one megawatt of electric demand from an electric supplier for any month within the previous 12 months prior to the Qualifying Customer's opt-out notification to IPL. This shall be measured with a demand meter.

Single Site: A Single Site shall be defined as contiguous property.

### Instructions

Please complete this form to notify Indianapolis Power & Light Company (IPL) if your eligible IPL Services will not participate in IPL's Energy Efficiency (EE) Program. Please return this form via one of the following **on or before** June 1, 2014 in order to opt out effective for bills rendered with the first billing cycle for July 2014.

Email: [ipl.strategiccustomeraccts@aes.com](mailto:ipl.strategiccustomeraccts@aes.com)

Fax: 317-630-0782

US Mail: Indianapolis Power & Light Company  
One Monument Circle, Room 265  
Indianapolis, IN 46204

**THIS COMPLETED FORM MUST BE RETURNED TO IPL ON OR BEFORE JUNE 1, 2014 TO OPT OUT OF THE EE PROGRAMS EFFECTIVE WITH THE JULY 2014 BILLING CYCLE.**

**A QUALIFYING CUSTOMER WHO NOTIFIES IPL AFTER JUNE 1, 2014 BUT ON OR BEFORE NOVEMBER 15, 2014 OF ITS INTENTION TO OPT OUT WILL HAVE AN OPT OUT EFFECTIVE DATE OF JANUARY 1, 2015.**

**FOR MORE INFORMATION ABOUT THESE EE PROGRAMS, VISIT OUR WEBSITE AT IPLPOWER.COM.**

By opting out, the applicable DSM Rate Adjustment Factor(s) contained in Standard Contract Rider No. 22 will not be charged for each IPL Service located at a Single Site with Qualifying Load. Note that customers who opt-out will remain responsible for EE Program administrative and delivery costs that accrued, were incurred, or relate to EE investments made before July 1, 2014 and will be billed for those costs in accordance with Standard Contract Rider No. 22.



These services/sites will not be eligible to participate in IPL's Energy Efficiency Program during the period of opt-out.

- For each qualifying Single Site, list all IPL Services. Specifically identify the Service(s) using 1 MW or more of electric demand for any month within the previous 12 months.
- IPL may be required to provide the Indiana Utility Regulatory Commission with a list of those industrial or large commercial customers that have opted out of participation.
- **You may opt back into the Energy Efficiency Program effective January 1 of any year by providing notice by November 15 of the previous year. Once you opt back in to the Energy Efficiency Program, you must participate for at least three (3) years after the date on which you opt back in and may only opt out effective January 1 of the year following the third year of participation. If you opt out again before the end of the three year period, you remain liable for and must continue to pay rates that include the Energy Efficiency Program Costs.**

*If needed, use a separate document for each qualifying Single Site and include it when you submit this form to IPL. If an Energy Efficiency Incentive is pending or was received for projects at the site since 2010, please simply check the box for any Service at that site.*

Provide account information <i>exactly</i> as it appears on your IPL bill. Check all boxes that apply.		1 MW Demand in Previous 12 Months?	Pending or Previously Received Incentive? (since 2010) (if known)
Company Name (as it appears on your bill): _____			
IPL Service ID	Service Address (Street, City)	✓	✓



*Please check the box to acknowledge the statement.*

- We hereby notify IPL of our election, pursuant to Ind. Code 8-1-8.5-9(f), not to participate in any IPL EE programs at our eligible site(s). We understand that to be eligible to opt-out of EE programs, we must have 1 MW of electric demand on a single IPL Service at a Single Site, and that all IPL Services to that Single Site will also be opted out. We also understand that this opt-out will be effective for bills rendered with the first billing cycle for July 2014. We further understand that we will remain responsible for EE Rider costs that accrued, were incurred, or relate to EE investments made before July 1, 2014.**

Complete this section with information about the person at your company who is authorized to make decisions concerning this form and your IPL account. In addition, provide your company information, as it appears on your IPL bill.

\_\_\_\_\_  
*First and Last Name (please print)*

\_\_\_\_\_  
*Title*

\_\_\_\_\_  
*Company Name (as it appears on your bill)*

\_\_\_\_\_  
*Phone No.*

\_\_\_\_\_  
*Mailing Address 1*

\_\_\_\_\_  
*Fax No.*

\_\_\_\_\_  
*Mailing Address 2*

\_\_\_\_\_  
*Email Address*

\_\_\_\_\_  
*City, State, Zip*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Demand Side Management Program History**

Cause No.	Date Approved	Expiration Date	Programs	Authorized Program Expenditures
39672	9/08/1993	12/31/1998 (actual termination date 7/30/1997 and replaced with more cost effective programs)	<ul style="list-style-type: none"> <li>• Residential Multi-Family High Efficiency Lighting</li> <li>• Residential High Efficiency Air Conditioner &amp; Heat Pump</li> <li>• Residential Electric Heat Comprehensive Program</li> <li>• Residential Electric Hot Water Comprehensive Program</li> <li>• Commercial/Industrial New Construction</li> <li>• Commercial/Industrial Cool Storage</li> <li>• Commercial/Industrial Comprehensive Program</li> <li>• Commercial/Industrial High Efficiency Lighting</li> <li>• Lost revenue recovery for reduced sales</li> </ul>	Up to \$16.877 M
40714	7/30/1997	7/30/1999	<ul style="list-style-type: none"> <li>• Residential Energy Efficiency Comprehensive Program</li> <li>• Residential Duct Installation Program</li> <li>• Small Commercial and Industrial Program</li> <li>• Lost revenues recovery for reduced sales</li> </ul>	Up to \$8.4 M
41490	8/18/1999	8/18/2000	<ul style="list-style-type: none"> <li>• Continuation of Single Family Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program (for up to 50 customers)</li> <li>• Lost revenues recovery for reduced sales</li> </ul>	\$118 K
41650	3/09/2000	3/09/2001	<ul style="list-style-type: none"> <li>• Continuation of Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program (for up to 150 single-family homes and 1 multi-family complex (100 units))</li> <li>• No lost revenue recovery for reduced sales</li> </ul>	\$475 K
42076	10/17/2001	10/17/2003	<ul style="list-style-type: none"> <li>• Continuation of Single Family Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program (for up to 300 single-family homes and 1 multi-family complex (200 units))</li> </ul>	\$950 K

Cause No.	Date Approved	Expiration Date	Programs	Authorized Program Expenditures
42639	7/21/2004	7/21/2007	<ul style="list-style-type: none"> <li>• Continuation of Single Family Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program (for up to 300 single-family homes and 3 multi-family complexes (100 units each))</li> <li>• Renewable Energy Education Program</li> <li>• Energy Efficiency Education Program</li> <li>• HVAC Program</li> <li>• Extension of IPL's ACLM Program</li> <li>• CPP Pilot Program</li> </ul>	Total Budget: \$5.25M
43018	6/14/2006	7/21/2007	<p>Revisions to Programs Approved in Cause No. 42639:</p> <ul style="list-style-type: none"> <li>• Continuation of Single Family Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program (for up to 300 single-family homes and 3 multi-family complexes (100 units each))—extended to allow additional implementation providers, 50 additional homes, and one additional multi-family complex</li> <li>• Renewable Energy Education Program</li> <li>• Energy Efficiency Education Program</li> <li>• HVAC Program—lower participation expected</li> <li>• Extension of IPL's ACLM Program</li> <li>• CPP Pilot Program—IPL did not proceed based on Study</li> </ul>	<p>[Expenditures re-allocated—No change to total budget] No change</p> <p>No change No change Reduce to \$860 K Increase to \$2.4M Reduce to \$40 K</p>
43252	7/11/2007	6/30/2009 extended on a month to month basis until approvals received in Cause No. 43623	<ul style="list-style-type: none"> <li>• Continuation of Single Family Income-Qualified Component of the Residential Energy Efficiency Comprehensive Program</li> <li>• Renewable Energy Education Program—extension</li> <li>• Energy Efficiency Education Program—extension</li> <li>• HVAC Program—extension (any funds not spent may be redirected to IPL's ACLM program)</li> <li>• Extension of IPL's ACLM Program—extension</li> <li>• IPL to conduct a Market Potential Study at its cost of \$125 K (to be completed NLT 1/15/09)</li> <li>• Any remaining funds from Cause No. 43018 are available for inclusion</li> </ul>	Total 2 yr budget: \$4.3M



Cause No.	Date Approved	Expiration Date	Programs	Authorized Program Expenditures
43623 Phase I	2/10/2010	2/9/2013	<ul style="list-style-type: none"> <li>• Residential On-site Audit with Direct Install (Core)</li> <li>• Residential Prescriptive Lighting (Core)</li> <li>• Energy Efficiency Schools – Kits Program (Core) – extension<sup>1</sup></li> <li>• Income-Qualified Weatherization (Core) - extension</li> <li>• Residential ACLM Program (Core Plus) – extension</li> <li>• Residential Energy Assessment Program (Core Plus)</li> <li>• Residential New Construction ES Plus (Core Plus)</li> <li>• Residential 2<sup>nd</sup> Refrigerator Pick-Up (Core Plus)</li> <li>• Res &amp; C&amp;I Renewable Energy Incentives (Core Plus)</li> <li>• Commercial and Industrial (“C&amp;I”) Prescriptive (Core)</li> <li>• C&amp;I ACLM (Core Plus)</li> <li>• C&amp;I Custom (Core Plus)</li> <li>• C&amp;I Retro-Commissioning (Core Plus)</li> <li>• C&amp;I New Construction (Core Plus)</li> </ul>	Total 3 yr budget: \$26.0M
43911	11/4/2010	2/9/2013	<ul style="list-style-type: none"> <li>• Energy Efficiency Schools Program – Audits (Core)</li> </ul>	\$560,000

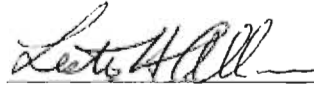
<sup>1</sup> While not a named program in IPL’s request and approval, the Energy Efficiency Schools – Kits Program was included in the budget for Indirect Costs as requested and approved by the Commission in Cause No. 43623.

Cause No.	Date Approved	Expiration Date	Programs	Authorized Program Expenditures
43960	<p>Initial Approval date 11/22/2011</p> <p>Amended by the First Amendment to the Settlement Agreement as approved in 43623-DSM 5 on June 20, 2012</p>	<p>12/31/2013</p> <p>While this was initially filed and approved as a 3 year plan – it was compressed to a 2 year plan by agreement of the IPL and the Settling Parties.</p>	<p><u>CORE PROGRAMS</u></p> <ul style="list-style-type: none"> <li>• Residential Home Energy Assessment</li> <li>• Residential Lighting</li> <li>• Income-Qualified Weatherization</li> <li>• Energy Efficiency Schools               <ul style="list-style-type: none"> <li>– Education Component</li> <li>- Audit Component</li> </ul> </li> <li>• Commercial and Industrial (“C&amp;I”) Prescriptive</li> </ul> <p><u>CORE PLUS PROGRAMS</u></p> <ul style="list-style-type: none"> <li>• Residential New Construction</li> <li>• Residential On-Line Energy Assessment with Kit</li> <li>• Residential Multifamily Direct Install</li> <li>• Residential 2<sup>nd</sup> Refrigerator Pick-Up</li> <li>• Residential Peer Comparison Report</li> <li>• Residential ACLM Program</li> <li>• Residential High Efficiency HVAC</li> <li>• Residential Renewable Energy Incentives</li> <li>• C&amp;I Business Energy Incentives               <ul style="list-style-type: none"> <li>Custom Prescriptive</li> </ul> </li> <li>• C&amp;I ACLM</li> <li>• C&amp;I Renewable Energy Incentives</li> </ul>	<p>\$63.1 Million – Initial Authority</p> <p>\$54.5 Million – First Amendment to the Settlement Agreement</p>
<p>In addition to the identified DSM programs, IPL has various load curtailment and interruptible products for commercial and industrial customers.</p>				

Cause No.	Date Approved	Expiration Date	Programs	Authorized Program Expenditures
44328	11/25/13	12/31/2014	<p><u>CORE PROGRAMS</u></p> <ul style="list-style-type: none"> <li>• Residential Home Energy Assessment</li> <li>• Residential Lighting</li> <li>• Income-Qualified Weatherization</li> <li>• Energy Efficiency Schools                             <ul style="list-style-type: none"> <li>- Education Component</li> <li>- Audit Component</li> </ul> </li> <li>• Commercial and Industrial (“C&amp;I”) Prescriptive</li> </ul> <p><u>CORE PLUS PROGRAMS</u></p> <ul style="list-style-type: none"> <li>• Residential New Construction</li> <li>• Residential On-Line Energy Assessment with Kit</li> <li>• Residential Multifamily Direct Install</li> <li>• Residential 2<sup>nd</sup> Refrigerator Pick-Up</li> <li>• Residential Peer Comparison Report</li> <li>• Residential ACLM Program</li> <li>• Residential Renewable Energy Incentives</li> <li>• C&amp;I Business Energy Incentives                             <ul style="list-style-type: none"> <li>Custom</li> <li>Prescriptive</li> </ul> </li> <li>• C&amp;I ACLM</li> </ul> <p>C&amp;I Renewable Energy Incentives</p>	<p>\$23,739,645</p>
<p>IPL was given authority to roll unspent funds from the 43960 approvals over to 2014</p>				

**VERIFICATION**

I, Lester H. Allen, DSM Program Development Manager of Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

A handwritten signature in cursive script, appearing to read "Lester H. Allen", written over a horizontal line.

Lester H. Allen

Dated: May 30, 2014

**VERIFIED DIRECT TESTIMONY**  
**OF**  
**ZAC ELLIOT**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**

**SPONSORING PETITIONER'S EXHIBITS ZE-2 THROUGH ZE-3**

**VERIFIED DIRECT TESTIMONY OF ZAC ELLIOT**

1 **Q1. Please state your name, employer and business address.**

2 A1. My name is Zac Elliot. I am employed by Indianapolis Power & Light Company  
3 ("IPL" or "Company"), One Monument Circle, Indianapolis, Indiana 46204.

4 **Q2. What is your position with IPL?**

5 A2. My title is DSM Program Administrator.

6 **Q3. What are your duties and responsibilities regarding Demand Side Management**  
7 **("DSM")?**

8 A3. My duties and responsibilities for IPL's DSM programs include development, research,  
9 implementation, planning, monitoring and evaluation of DSM programs. I am a  
10 representative member of IPL's DSM Oversight Board, and have also been actively  
11 involved in the Demand Side Management Coordination Committee ("DSMCC")  
12 established to address DSM program oversight in the State of Indiana.

13 **Q4. Please summarize your education and professional qualifications.**

14 A4. I hold a Bachelor's Degree from Indiana University's College of Arts and Science. I  
15 have attended numerous workshops, seminars, and conferences pertaining to planning,  
16 implementation, and evaluation of DSM program, and have been a member of the  
17 DSMCC since its formation.

18 **Q5. Have you previously testified before this Commission?**

19 A5. Yes. I testified in a similar capacity in Cause No. 44328, IPL's request for approval of  
20 its 2014 DSM Plan.

1       **Q6. Are you familiar with IPL's petition in this proceeding and the relief that it seeks?**

2       A6. Yes, I am.

3       **Q7. Have you reviewed the testimony and exhibits of the other witnesses in this Cause?**

4       A7. Yes, I have.

5       **Q8. What is the purpose of your testimony in this proceeding?**

6       A8. The purpose of my testimony is to (1) describe IPL's planning approach which led to  
7       the development of the 2015-2017 Demand Side Management Plan (herein referred to  
8       as the "2015-2017 Action Plan"); and (2) provide an overview of the proposed 2015-  
9       2017 Action Plan (Exhibit ZE-2). Note that while IPL projects savings and costs  
10       associated with a three-year action plan (2015-2017), the Company is only seeking  
11       Commission authorization to recover costs associated with two years of DSM programs  
12       in this proceeding (2015 and 2016).

13       **Q9. What exhibits are you sponsoring in this proceeding?**

14       A9. I am sponsoring the following exhibits which were prepared by me or under my  
15       supervision:

16 <u>Petitioner's Exhibit ZE-2</u> 17	IPL's 2015-2017 Action Plan, which was prepared by EnerNOC Utility Solutions Consulting ("EnerNOC").
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18 <u>Petitioner's Exhibit ZE-3</u> 19 20	Summary of the measures and associated per unit assumptions that IPL identified for planning purposes in the 2015-2017 Action Plan.
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21

22

DSM PLANNING APPROACH

1  
2 **Q10. Please describe the planning approach that led to the development of the 2015-**  
3 **2017 Action Plan.**

4 A10. In 2012, IPL in collaboration with Citizens Energy and each respective Oversight  
5 Board retained the consulting firm EnerNOC to complete a Market Potential Study  
6 ("MPS") and Action Plan for the period 2014-2017. Since the completion of the 2012  
7 MPS and Action Plan, Senate Enrolled Act 340 ("SEA 340") was passed into law,  
8 significantly changing the structure of DSM in Indiana. A more detailed description of  
9 the background and impact of SEA 340 is described in IPL Witness Allen's testimony.  
10 In order to account for these structural changes, and to identify cost-effective  
11 achievable DSM potential in the 2015-2017 timeframe given more recent information,  
12 IPL re-engaged EnerNOC to update its 2015-2017 Action Plan.

13 **Q11. What specifically was updated from the previous DSM Action Plan completed by**  
14 **EnerNOC in 2012?**

15 A11. The most significant changes to the original Action Plan developed by EnerNOC relate  
16 to measure level details. In the updated 2015-2017 Action Plan, EnerNOC adjusted  
17 measure level participation forecasts, per unit costs, per unit savings, and measure life  
18 assumptions. These measure level assumptions have changed primarily as a result of:  
19 (1) Evaluation, Measurement & Verification ("EM&V") of IPL's Core and Core Plus  
20 DSM programs; and (2) Adoption of the Indiana Technical Resource Manual ("IN  
21 TRM"). In addition to adjusting the measure level assumptions, EnerNOC refreshed the  
22 program cost-effectiveness results to account for the revised costs and savings to be



1 reflected in the 2015-2017 Action Plan. As part of refreshing the economics, IPL  
2 provided more recent avoided cost information to EnerNOC. A more thorough  
3 explanation of the cost-effectiveness methodology and avoided cost assumptions used  
4 for planning are described in IPL Witness Haselden's testimony.

5 **Q12. How did IPL account for an estimated level of large C&I customer opt-out in the**  
6 **2015-2017 Action Plan?**

7 A12. The 2015-2017 Action Plan reflects decreased savings projections for the Business  
8 Energy Incentive Prescriptive and Business Energy Incentive Custom programs to  
9 account for the reduction in savings potential due to opt-out. In other words, as  
10 customers begin to opt out of participating in IPL's DSM programs, the pool of  
11 potential participants decreases. The average annual savings projections in 2015-2017  
12 for the Business Prescriptive and Business Custom programs were reduced by  
13 approximately 20% compared to savings projections in IPL's 2014 DSM Plan.

Program	2014 Annual Savings Projection (MWh)	Average 2015-2017 Annual Savings Projection (MWh)	% Reduction
Prescriptive + Custom	98,636	78,813	(20%)

14

15 For purposes of program implementation and fulfillment, IPL through its Oversight  
16 Board will work to redirect authorized funds if customer interest in the programs  
17 exceeds savings projections as reflected in the 2015-2017 Action Plan.

18

1       **Q13. How were the Savings Projections developed for the 2015-2017 Action Plan?**

2       A13. The savings projections for the 2015-2017 Action Plan are presented in Petitioner's  
3       Exhibit ZE-2, and were developed utilizing a bottom-up approach. IPL relied on  
4       EnerNOC's industry expertise to forecast participation rates for each eligible measure  
5       included in the portfolio. Where appropriate, deemed energy and demand savings were  
6       applied utilizing EM&V of previously delivered IPL DSM programs or the IN TRM.  
7       For those measures neither included in the scope of previous IPL specific EM&V nor  
8       contemplated in the IN TRM, EnerNOC employed savings values representative of the  
9       characteristics of IPL's service territory. IPL will continue to update measure level  
10      assumptions on a prospective basis as programs are evaluated in the future. A full  
11      accounting of the detailed measure list included in the 2015-2017 Action Plan,  
12      including source citations, can be found in Petitioner's Exhibit ZE-3.

13      **Q14. How were the Direct Program Costs projected for the 2015-2017 Action Plan?**

14      A14. Direct Program Cost projections can be found in the 2015-2017 Action Plan  
15      (Petitioner's Exhibit ZE-2). EnerNOC utilized a bottom-up approach to forecast Direct  
16      Program Costs. Direct Program Costs are comprised of five (5) distinct cost categories:  
17      1.) IPL Labor; 2.) Education & Outreach; 3.) Implementation; 4.) EM&V; and 5.)  
18      Customer Incentives. First, EnerNOC forecasted Customer Incentive costs by program.  
19      Once program level Customer Incentive projections were established, Education &  
20      Outreach, EM&V, and Implementation costs were calculated as a percentage of the  
21      projected Customer Incentive amount by program. For purposes of projecting IPL  
22      Labor, EnerNOC determined the number of Full Time Equivalent ("FTE") positions  
23      necessary to fulfill administrative requirements on a program by program basis.

1 **Q15. Is IPL seeking to recover Indirect Program Costs in addition to the Direct**  
2 **Program Costs as outlined above?**

3 A15. Yes. In addition to the five (5) Direct Program Cost categories described above,  
4 successful administration of the 2015-2017 Action Plan will require Indirect Program  
5 Costs including: 1.) Umbrella Outreach & Education; 2.) Consulting; 3.) Memberships;  
6 4.) Staff Development; 5.) Statewide Initiatives; and 6.) Indirect IPL Labor.

7 **Q16. Please list the Indirect Program Costs necessary to achieve the 2015-2017 Action**  
8 **Plan.**

9 A16. Estimated Indirect Program Costs are listed in the table below.

Indirect Program Costs	2015	2016	2017
Umbrella Outreach & Education	\$750,000	\$750,000	\$750,000
Consulting	\$100,000	\$50,000	\$50,000
Memberships	\$50,000	\$50,000	\$50,000
Staff Development	\$25,000	\$25,000	\$25,000
Statewide Initiatives	\$25,000	\$25,000	\$25,000
Indirect IPL Labor	\$150,000	\$150,000	\$150,000
<b>Total</b>	<b>\$1,100,000</b>	<b>\$1,050,000</b>	<b>\$1,050,000</b>

10  
11 **Q17. Please describe Umbrella Outreach & Education.**

12 A17. Umbrella Outreach and Education is comprised of general messaging activities not tied  
13 to specific program offerings, but nonetheless required to successfully achieve energy  
14 and demand savings. Ultimately, IPL must be able to make its customers aware of the  
15 information and programs available to assist them in taking advantage of these  
16 opportunities. In order to implement successful programs, IPL must understand what  
17 messages will cause customers to consider their energy consumption and then motivate

1           them to change their behavior. Outreach efforts will incorporate key messages into a  
2           general awareness campaign that will be delivered through a variety of channels.

3           **Q18. Please describe Consulting expenses IPL expects to incur.**

4           A18. In 2015, IPL expects to engage a consultant to complete a scoping study intended to  
5           identify solutions for IPL's future DSM tracking and reporting needs. The consultant  
6           will develop functional and technical specifications for a DSM tracking system based  
7           on specific programs, processes, and business requirements as defined by IPL.  
8           Ultimately, the consultant's final deliverable will provide a work plan to develop a fully  
9           integrated DSM tracking system for IPL.

10          In the interim, IPL will continue to monitor and provide a uniform reporting of program  
11          results to include:

- 12          • Participants by program;
- 13          • Number of units installed by measure;
- 14          • Program expenditures;
- 15          • Ex-ante estimates of energy and demand impacts by program; and
- 16          • Footnotes of program changes.

17          In large part these metrics have been tracked and reported by third party implementers  
18          that are delivering the individual programs on IPL's behalf. Ultimately, IPL is  
19          responsible to compile reports from our Third Party Vendors to prepare monthly  
20          summary reports for the IPL Oversight Board, and to file status updates at the  
21          Commission.

1 IPL has also included in its Consulting budget funds associated with ongoing DSM  
2 program planning and development. Similar to re-engaging EnerNOC to update the  
3 2015-2017 Action Plan, unforeseen future administrative and/or legislative actions may  
4 require plan modifications.

5 **Q19. Please describe the value of Memberships.**

6 A19. Membership organizations act as an extension of IPL DSM program staff, and provide  
7 vast resources that emphasize industry best practices. Membership organizations also  
8 present the opportunity for DSM staff members to attend ongoing education, training,  
9 and development events such as seminars, conferences, and workshops.

10 **Q20. Please describe Staff Development.**

11 A20. Staff Development is comprised of expenses associated with attendance to DSM related  
12 seminars, conferences, and workshops that provide opportunities for ongoing  
13 professional development and continuous learning of DSM industry best practices.

14 **Q21. Please describe Statewide Initiatives.**

15 A21. The DSMCC and its subcommittees have worked diligently with third parties to  
16 develop valuable statewide resources that will continue to benefit DSM planning,  
17 implementation, and evaluation activities in the future. These resources include, but are  
18 not limited to, the Indiana Evaluation Framework, the Indiana Baseline Reports, and the  
19 IN TRM. There may exist ongoing opportunities for participating utilities and  
20 stakeholders to update and/or revise these documents as better information becomes  
21 available through ongoing EM&V. IPL requests Indirect funds associated with  
22 ongoing maintenance of these statewide resources.

1 **Q22. Please describe why Indirect IPL Labor is necessary.**

2 A22. IPL has threshold obligations to successfully administer its proposed 2015-2017 Action  
3 Plan that are not tied to specific programs. These obligations include but are not  
4 limited to:

- 5 • Attendance to, or participation in IPL Oversight Board meetings;
- 6 • Participation in external seminars, conferences, and/or workshops;
- 7 • Preparation of memoranda and/or reporting materials to be presented to the IPL  
8 Oversight Board;
- 9 • Attendance to, preparation for, or participation in industry association events  
10 and/or community events to promote IPL's DSM portfolio.

11 **Q23. Are there any other costs associated with delivery of the 2015-2017 Action Plan?**

12 A23. Yes. In addition to the Direct Program Costs and Indirect Program Costs, IPL requests  
13 the ability to recover costs associated with Emerging Technology initiatives, Spending  
14 Flexibility, Shared Savings incentives and Lost Revenues associated with  
15 implementation of the 2015-2017 Action Plan. For a full description of forecast Shared  
16 Savings incentives and Lost Revenues, please see IPL Witness Berry's and IPL Witness  
17 Cutshaw's testimony respectively.

18 **Q24. Please describe IPL's request for Indirect funds associated with Emerging  
19 Technology.**

20 A24. The market for new and emerging energy and demand saving technologies is constantly  
21 evolving. IPL believes that it is important to consider cost-effective, emerging  
22 technologies that provide the potential to contribute towards IPL's future energy and  
23 demand savings achievement. These funds available to the IPL Oversight Board will

1 provide a means to assess promising energy and demand saving technologies, which  
2 will allow IPL flexibility as the DSM market changes in the future.

3 **Q25. Can you provide an example of an Emerging Technology being considered by**  
4 **IPL?**

5 A25. It is difficult to predict which Emerging Technologies will provide the most promising  
6 potential given their unique and evolving characteristics. However, one such Emerging  
7 Technology which demonstrates potential is Conservation Voltage Reduction (“CVR”).  
8 CVR technologies provide the ability to control voltage levels on distribution circuits  
9 on an automated basis, effectively reducing energy and demand consumption behind  
10 the meter. Such technologies have been deployed across the country, and there is  
11 increasing information and data that demonstrate cost-effective savings potential. IPL  
12 will continue to analyze CVR’s potential as an energy and demand saving resource.

13 **Q26. Please describe Spending Flexibility proposed by IPL.**

14 A26. IPL has successfully worked with the Oversight Board to modify budgets as necessary  
15 throughout the course of previous program years. Spending Flexibility provides IPL  
16 through its Oversight Board the ability to pursue cost-effective energy and demand  
17 savings opportunities if interest in the market exceeds expectations. Increasing the  
18 level of participation or inclusion of additional measures may increase Direct Program  
19 Costs. Additionally, SEA 340 presents the possibility that the General Assembly may  
20 take additional public policy actions on the subject of utility sponsored DSM in the  
21 future. While IPL cannot plan for every possible scenario, should the Commission  
22 grant IPL’s request, Spending Flexibility would provide an opportunity to expeditiously

1 modify the plan within the authority of the IPL Oversight Board. Consistent with the  
2 Commission's Order in Cause No. 44328<sup>1</sup>, IPL requests Spending Flexibility of 10% at  
3 the portfolio level during the years 2015 and 2016. In the event that utilization of  
4 Spending Flexibility is necessary, program expenditures in excess of those  
5 contemplated in the 2015-2016 DSM Plan would be allocated per the direction of the  
6 IPL Oversight Board.

7 **Q27. What is the total cost projection for the 2015-2016 DSM Plan?**

8 A27. IPL projects the costs shown below will be necessary to successfully administer and  
9 implement programs as outlined in the 2015-2016 DSM Plan. IPL Witness Allen and  
10 IPL Witness Berry describe IPL's proposal to seek recovery for costs associated with  
11 only the first two years of the 2015-2017 Action Plan given the uncertainty surrounding  
12 future public policy actions.

Cost Categories (000)	2015	2016	Total 2 Year
Direct Program Costs	\$21,757	\$22,416	\$44,173
Indirect Program Costs	\$1,100	\$1,050	\$2,150
Shared Savings	\$3,470	\$3,584	\$7,055
Lost Revenues	\$1,382	\$3,919	\$5,301
<b>Sub total</b>	<b>\$27,710</b>	<b>\$30,969</b>	<b>\$58,679</b>
Emerging Technology	\$250	\$250	\$500
Spending Flexibility (10% of Direct Program Costs)	\$2,176	\$2,242	\$4,417
<b>Sub total</b>	<b>\$2,426</b>	<b>\$2,492</b>	<b>\$4,917</b>
<b>Total</b>	<b>\$30,136</b>	<b>\$33,460</b>	<b>\$63,596</b>

13  
14  
<sup>1</sup> The Commission issued its Order in Cause No. 44328 on November 25, 2013.



1 **Q28. Are the program offerings proposed in the 2015-2017 Action Plan cost-effective?**

2 A28. Yes. EnerNOC analyzed the program economics of the 2015-2017 Action Plan  
3 utilizing their proprietary LoadMAP program analysis model. To determine the  
4 program offerings included in the 2015-2017 Action Plan, a program screening  
5 approach was utilized to target the most economic DSM options for IPL's customers.  
6 The approach combined multiple benefit-to-cost ratio tests, which are described in IPL  
7 Witness Haselden's testimony.

8 **Q29. Does IPL believe that rate impacts are important to consider when planning DSM**  
9 **programs?**

10 A29. Yes. IPL considered all stakeholder perspectives when analyzing the cost-effectiveness  
11 of the 2015-2017 Action Plan including those of participating customers and non-  
12 participating customers.

13 **Q30. Was there stakeholder involvement in the development of the 2015-2017 Action**  
14 **Plan?**

15 A30. Yes. IPL sought stakeholder input to the extent allowed by the aggressive timeframe to  
16 develop and submit a plan. To begin planning for the period 2015-2017, IPL had  
17 already worked collaboratively with Citizens Energy, the Indiana Office of Utility  
18 Consumer Counselor ("OUCC"), and Citizens Action Coalition ("CAC") to complete  
19 the 2012 Market Potential Study and Action Plan. In addition to joint development of  
20 the 2012 MPS, IPL provided a summary of the updated 2015-2017 Action Plan to the  
21 OUCC, CAC, the Indiana Industrial Group and solicited feedback prior to submission  
22 of this filing. IPL met at the offices of the OUCC on May 1, 2014 with representatives

1 of IPL and OUCC present. IPL met separately with representatives of the CAC on May  
2 6, 2014, with members of the CAC and IPL present.

3 **OVERVIEW OF THE 2015-2017 ACTION PLAN**

4 **Q31. What programs are included in the 2015-2017 Action Plan?**

5 A31. The 2015-2017 Action Plan includes the following named programs:

Program
Residential Lighting
Residential Income Qualified Weatherization ("IQW")
Residential Air Conditioning Load Management ("ACLM")
Residential Multi Family Direct Install
Residential Home Energy Assessment ("HEA")
Residential School Kit
Residential Online Energy Assessment
Residential Appliance Recycling
Residential Peer Comparison Reports
Business Energy Incentives - Prescriptive
Business Energy Incentives – Custom
Small Business Direct Install
Business Air Conditioning Load Management ("ACLM")

6

7 **Q32. Please summarize IPL's 2015-2017 Action Plan.**

8 A32. IPL's proposed 2015-2017 Action Plan includes and extends many of the same  
9 programs approved in Cause Nos. 43960 and 44328. The bottom-up planning approach  
10 undertaken to develop the 2015-2017 Action Plan resulted in a cost-effective portfolio  
11 of programs that resemble savings projections and program costs similar to those  
12 delivered in calendar years 2013 and 2014. The 2015-2017 Action Plan is designed to

1 target all customer classes in IPL's service territory, and includes nine (9) programs  
 2 targeting IPL's residential customers, and four (4) programs designed to target IPL's  
 3 business customers. The gross annual energy savings projections reflected in the 2015-  
 4 2017 Action Plan represent 1.12 percent, 1.13 percent, and 1.15 percent of IPL's  
 5 forecast annual sales for the years 2015, 2016, and 2017 respectively, and were not  
 6 adjusted to reflect opt-out. In other words, the above percentages are based on IPL's  
 7 total forecast sales during this period. The below summary table reflects gross energy  
 8 savings projections and Direct Program Cost projections for all years contemplated in  
 9 the 2015-2017 Action Plan.

Program	Total Utility Costs (000\$)			Total Gross Energy Savings (MWh)		
	2015	2016	2017	2015	2016	2017
Res Lighting	1,963	1,967	1,943	32,521	32,472	32,422
Res IQW	1,307	1,307	1,307	2,088	2,088	2,088
Res ACLM	2,021	2,082	2,144	425	437	448
Res Multi Family Direct Install	1,170	1,170	1,170	5,714	5,714	5,714
Res HEA	1,610	1,610	1,610	6,791	6,791	6,791
Res School Kit	631	631	631	4,138	4,138	4,138
Res Online Energy Assessment	201	218	227	1,391	1,530	1,606
Res Appliance Recycling	746	746	746	3,281	3,281	3,281
Res Peer Comparison	1,438	1,438	1,438	23,000	23,000	23,000
Bus Prescriptive	5,590	5,851	6,128	53,910	56,605	59,435
Bus Custom Incentives	3,385	3,549	3,721	21,091	22,145	23,252
Small Business Direct Install	1,469	1,608	1,685	4,877	5,364	5,633
Bus AC Load Management	227	238	250	23	24	26

Residential Total:	11,087	11,169	11,216	79,349	79,451	79,489
Business Total:	10,670	11,247	11,784	79,900	84,139	88,346
Portfolio Total:	21,757	22,416	23,000	159,248	163,590	167,834

1 **Q33. What programs does IPL propose to add to its 2015-2017 Action Plan?**

2 A33. IPL proposes the addition of the Small Business Direct Install program to its 2015-2017  
3 DSM offerings. The Small Business Direct Install program aims to target an often  
4 difficult to reach segment of IPL's customer base, and will provide them energy  
5 savings opportunities via the direct installation of low cost energy efficient measures,  
6 audit recommendations, and promotion of IPL's other rebate offerings.

7 **Q34. What programs does IPL propose to discontinue in 2015-2017?**

8 A34. IPL proposes to discontinue delivery of the following current programs pursuant to the  
9 cost-effectiveness analysis results: Residential New Construction, Residential  
10 Renewable Energy Incentives, C&I Renewable Energy Incentives, and the School  
11 Audit and Direct Install program. Pursuant to the benefit cost analysis results, all four  
12 programs had Total Resource Cost ("TRC") and Ratepayer Impact Measure ("RIM")  
13 results of less than one (1). Of the four programs, only the Residential New  
14 Construction program passed the Utility Cost Test ("UCT") with a score greater than  
15 one (1). While all programs were cost-effective from the participant's perspective  
16 ("PCT"), delivery of these programs would lead to an increase in both average rates and  
17 average bills. IPL Witness Haselden describes in detail the cost-effectiveness results to  
18 support discontinuance of these program offerings.

19

20

1 **Q35. Which of the programs listed in the 2015-2017 Action Plan were formerly labeled**  
2 **as Core Programs?**

3 A35. IPL intends to administer four (4) programs that were previously labeled as Core  
4 Programs.<sup>2</sup> These include: 1.) Residential Lighting; 2.) Home Energy Assessment; 3.)  
5 Income Qualified Weatherization; and 4.) Business Prescriptive.

6 **Q36. What is the administration and implementation strategy for the 2015-2017 Action**  
7 **Plan?**

8 A36. IPL intends to act as administrator of the 2015-2017 Action Plan, and will largely rely  
9 on third parties to manage the implementation and fulfillment of programs. Given the  
10 timing of this filing, and given the public policy changes resulting from SEA 340's  
11 passage, IPL is working with the DSMCC and its subcommittees to address any  
12 transition issues necessary to provide seamless delivery of programs currently  
13 categorized as Core. For Core Plus programs, IPL will continue to work with its  
14 Oversight Board to oversee program implementation, and will transition programs as  
15 necessary. It is IPL's intention to transition programs on or before January 1, 2015 to  
16 mitigate customer confusion and provide program continuity.

17 **Q37. Will IPL and Citizens Energy continue to deliver programs jointly?**

18 A37. It is IPL's intention to continue joint delivery of DSM programs in future years.  
19 Historically, IPL and Citizens have jointly delivered Core and Core Plus programs that  
20 result in both electric and gas savings. For programs previously labeled as Core  
21 Programs, the Statewide TPA administered a system of banking therm savings ("Therm

---

<sup>2</sup> In December 2009, the Commission issued its Generic DSM Order requiring that all jurisdictional utilities offer 5 Core Programs to be administered through the common statewide third party administrator.

1 Bank”), whereby Citizens Energy had the option to purchase therm savings resulting  
2 from Core Program implementation. For programs previously labeled as Core Plus  
3 Programs, IPL and Citizens Energy paid Direct Program Costs associated with impacts  
4 tied to specific fuel types - electricity and natural gas savings respectively. Given the  
5 expedited planning horizon and uncertainty surrounding joint delivery, the 2015-2017  
6 Action Plan reflects IPL programs on a stand-alone basis to ensure a cost-effective  
7 portfolio in absence of joint delivery. If Citizens Energy receives Commission  
8 approval to jointly participate in, and recover costs for, DSM programs in 2015-2017,  
9 IPL will work through the Oversight Board to coordinate joint electric and gas program  
10 delivery. Furthermore, to offer and implement programs jointly, both IPL and Citizens  
11 Energy are required to work through a common third party implementer.

12 **Q38. Will approval of this plan give an unfair competitive advantage to IPL in**  
13 **provision of energy efficiency programs as contemplated in 170 IAC 4-8-8?**

14 A38. No. Ultimately, IPL and its energy service providers will work with a number of trade  
15 allies and small businesses to support outreach and delivery of the programs as  
16 proposed in the 2015-2017 Action Plan.

17 **Q39. Does this conclude your testimony as this time?**

18 A39. Yes, it does.

**Petitioner's Exhibit ZE-2**  
**2015-2017 Action Plan**





This report was prepared by  
EnerNOC Utility Solutions Consulting  
500 Ygnacio Valley Blvd., Suite 450  
Walnut Creek, CA 94596

I. Rohmund, Project Director  
D. Costenaro, Project Manager  
C. Carrera



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## RESIDENTIAL LIGHTING PROGRAM

<p><b>Program Description</b></p>	<p>The Residential Lighting program will encourage residential customers in improving the energy efficiency of their homes through lighting measures. The program will primarily focus on CFL lighting, but begin to phase in LED technologies as their market readiness increases.</p> <p>The program will provide upstream “buydowns” for certain products such as compact fluorescent lamps so that customers pay a lower price at the point of purchase without needing to apply for a rebate. The upstream buydown activity is a component of the program’s focus on market transformation that will increase the demand for high efficiency products.</p>																															
<p><b>Objectives</b></p>	<p>The purpose of the Residential Lighting program is to increase the penetration of high-efficiency measures in the homes of IPL’s residential customers. The program enables the adoption of these energy efficiency measures by offering point of purchase rebates for the purchase and installation of qualifying home equipment for lighting.</p> <p>The program has several objectives:</p> <ul style="list-style-type: none"> <li>• Increase consumers’ awareness of the breadth of energy efficiency opportunities in their homes.</li> <li>• Make a significant contribution to IPL’s energy savings achievements.</li> <li>• Demonstrate IPL’s commitment to and confidence in the measures’ performance and their ability to reduce home energy use.</li> <li>• Strengthen customer trust in IPL as their partner in saving energy.</li> </ul> <p>The Residential Lighting program is well-suited for accomplishing these objectives because the rebate-eligible measures are proven technologies about which customers can readily find supporting information.</p>																															
<p><b>Projected Savings</b></p>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of measures rebated under the program each year. The savings noted in each year reflect the savings from measures installed by customers through the program in that year. This does <i>not</i> include the impact of measures still in operation from previous years.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>ENERGY STAR CFL</td> <td>9,084,827</td> <td>8,963,187</td> <td>8,840,071</td> </tr> <tr> <td>ENERGY STAR LED</td> <td>746,254</td> <td>937,060</td> <td>1,129,565</td> </tr> <tr> <td>ENERGY STAR Reflector CFL</td> <td>1,297,832</td> <td>1,140,769</td> <td>982,230</td> </tr> <tr> <td>ENERGY STAR Reflector LED</td> <td>373,127</td> <td>562,236</td> <td>753,043</td> </tr> <tr> <td>ENERGY STAR Specialty CFL</td> <td>4,866,871</td> <td>4,889,011</td> <td>4,911,150</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>16,368,911</b></td> <td><b>16,492,264</b></td> <td><b>16,616,059</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	ENERGY STAR CFL	9,084,827	8,963,187	8,840,071	ENERGY STAR LED	746,254	937,060	1,129,565	ENERGY STAR Reflector CFL	1,297,832	1,140,769	982,230	ENERGY STAR Reflector LED	373,127	562,236	753,043	ENERGY STAR Specialty CFL	4,866,871	4,889,011	4,911,150	<b>TOTAL</b>	<b>16,368,911</b>	<b>16,492,264</b>	<b>16,616,059</b>
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	Total Net Incremental Demand Savings (kW)				
		Total Net Incremental Demand Savings (kW)			
	Measure	2015	2016	2017	
	ENERGY STAR CFL	1,078.8	1,064.4	1,049.8	
	ENERGY STAR LED	89.2	112.0	135.1	
	ENERGY STAR Reflector CFL	154.1	135.5	116.6	
	ENERGY STAR Reflector LED	44.6	67.2	90.0	
	ENERGY STAR Specialty CFL	577.9	580.6	583.2	
	<b>TOTAL</b>	<b>1,945</b>	<b>1,960</b>	<b>1,975</b>	
Administrative Requirements	IPL will administer the Residential Lighting program through an implementation contractor. IPL's role will be to ensure that:				
	<ul style="list-style-type: none"> <li>The implementation contractor performs all the activities associated with delivery of all components of the program, and</li> <li>IPL's educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.</li> </ul>				
	The program is expected to operate according to the following administrative and total utility budget:				
		Total Utility Budget			
	Total Admin Costs	\$480,021	\$480,918	\$475,420	
	Total Incentive Costs	\$1,483,403	\$1,486,392	\$1,468,066	
	<b>Total Utility Budget</b>	<b>\$1,963,423</b>	<b>\$1,967,310</b>	<b>\$1,943,486</b>	
Cost-Effectiveness	The cost-effectiveness metrics of the Residential Prescriptive program are as follows:				
		Cost Effectiveness Tests			
	Program	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
	Res Lighting	1.05	2.25	3.05	1.00

## RESIDENTIAL INCOME QUALIFIED WEATHERIZATION PROGRAM

<b>Program Description</b>	<p>The Residential Income Qualified Weatherization program will provide energy efficiency services and energy education to IPL’s low-income customers; helping them to reduce their energy usage and increase the affordability of their energy bills. This program will focus on education and the installation of measures in homes that meet the low income criteria.</p> <p>Participating households will receive the following types of assistance:</p> <ul style="list-style-type: none"> <li>• In-Home Audits and Education—These are on-site inspections and tests used to identify the applicability of energy-savings measures the program offers and to educate residents about ways to reduce their energy usage.</li> <li>• Direct Installation of Measures—Install measures to reduce energy use in the home at no charge to residents.</li> </ul>																																											
<b>Objectives</b>	<p>The purpose of the Residential Income Qualified Weatherization program is to educate and assist eligible residential customers with making their homes more energy efficient. Unlike other programs, a principle objective is to provide repairs necessary to install energy savings improvements in a part of the housing stock that is often old and substandard in comparison to middle and upper income housing.</p>																																											
<b>Projected Savings</b>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of households participating in the program each year. The savings noted in each year reflect incremental or annual savings from measures installed by customers through the program in that year. This does <u>not</u> include the impact of measures still in operation from previous years.</p> <p><b>Total Net Incremental Energy Savings (kWh)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Attic Insulation</td> <td>93,565</td> <td>93,565</td> <td>93,565</td> </tr> <tr> <td>Audit Recommendations</td> <td>77,340</td> <td>77,340</td> <td>77,340</td> </tr> <tr> <td>CFLs</td> <td>1,197,600</td> <td>1,197,600</td> <td>1,197,600</td> </tr> <tr> <td>Faucet Aerator</td> <td>221,240</td> <td>221,240</td> <td>221,240</td> </tr> <tr> <td>Infiltration Reduction</td> <td>101,478</td> <td>101,478</td> <td>101,478</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>311,048</td> <td>311,048</td> <td>311,048</td> </tr> <tr> <td>Pipe Wrap</td> <td>17,478</td> <td>17,478</td> <td>17,478</td> </tr> <tr> <td>Tank Wrap (EF 0.88)</td> <td>37,205</td> <td>37,205</td> <td>37,205</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>2,056,953</b></td> <td><b>2,056,953</b></td> <td><b>2,056,953</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	Attic Insulation	93,565	93,565	93,565	Audit Recommendations	77,340	77,340	77,340	CFLs	1,197,600	1,197,600	1,197,600	Faucet Aerator	221,240	221,240	221,240	Infiltration Reduction	101,478	101,478	101,478	Low Flow Showerhead	311,048	311,048	311,048	Pipe Wrap	17,478	17,478	17,478	Tank Wrap (EF 0.88)	37,205	37,205	37,205	<b>TOTAL</b>	<b>2,056,953</b>	<b>2,056,953</b>	<b>2,056,953</b>
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**Total Net Incremental Demand Savings (kW)**

Measure	Total Net Incremental Demand Savings (kW)		
	2015	2016	2017
Attic Insulation	72.5	72.5	72.5
Audit Recommendations	5.0	5.0	5.0
CFLs	300.0	300.0	300.0
Faucet Aerator	30.0	30.0	30.0
Infiltration Reduction	17.5	17.5	17.5
Low Flow Showerhead	-	-	-
Pipe Wrap	2.5	2.5	2.5
Tank Wrap (EF 0.88)	5.0	5.0	5.0
<b>TOTAL</b>	<b>433</b>	<b>433</b>	<b>433</b>

**Administrative Requirements**

IPL will mainly administer the Residential Income Qualified Weatherization program with a program implementation contractor and through partnerships with weatherization program providers. The program is expected to operate according to the following administrative and total utility budget:

Total Program Budget

	Total Utility Budget		
Total Admin Costs	\$993,729	\$993,729	\$993,729
Total Incentive Costs	\$313,128	\$313,128	\$313,128
<b>Total Utility Budget</b>	<b>\$1,306,858</b>	<b>\$1,306,858</b>	<b>\$1,306,858</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Residential Income Qualified Weatherization program are as follows:

Program	Cost Effectiveness Tests			
	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
Res IQW	0.61	0.61	-	0.48



## RESIDENTIAL AC LOAD MANAGEMENT PROGRAM

<p><b>Program Description</b></p>	<p>The Residential AC Load Management program typically occurs during times of high peak demand or supply-side constraints. During an event, participants' equipment is controlled by a one-way remote switch</p> <ul style="list-style-type: none"> <li>The one-way remote switch is connected to the condensing unit of the AC. When activated by a control signal, the switch will not allow the equipment to operate for the duration of the event. The compressor is shut down up to 50% of the time in discrete cycles during an event while the fan continues to operate. This allows cool air to be circulated throughout the home while the compressor is disabled. The operation of the switch is usually controlled through a digital paging network.</li> </ul> <p>The program has the following components:</p> <ul style="list-style-type: none"> <li>Switch Installation – A small device is installed on the outside of the home near the air conditioner. The switch is connected to the condensing unit of the AC and activated by a control signal.</li> <li>Bill Credit – Participants receive a \$5 credit on their monthly bill from June to September.</li> </ul>																																						
<p><b>Objectives</b></p>	<p>The purpose of the Residential AC Load Management program is to lower the peak demand usage in the IPL service territory to provide system and grid relief. The program provides financial incentives for customers as a means to not only promote energy efficient behavior, but also lower the cost of peak energy.</p>																																						
<p><b>Projected Savings</b></p>	<p>The estimated energy and demand savings are given in terms of annual per-unit values, split out here for single family and multifamily customers. These values were applied to the estimated number of participating customers under the program each year. The savings noted in each year reflect the savings of the entire participant population.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Res SF ACLM switch (50% True Cycle)</td> <td>404,965</td> <td>414,645</td> <td>424,325</td> </tr> <tr> <td>Res MF ACLM switch (50% True Cycle)</td> <td>19,712</td> <td>21,863</td> <td>24,014</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>424,677</b></td> <td><b>436,508</b></td> <td><b>448,339</b></td> </tr> </tbody> </table> <p><u>Total Net Incremental Demand Savings (kW)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Res SF ACLM switch (50% True Cycle)</td> <td>33,133.5</td> <td>33,925.5</td> <td>34,717.5</td> </tr> <tr> <td>Res MF ACLM switch (50% True Cycle)</td> <td>1,612.8</td> <td>1,788.8</td> <td>1,964.8</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>34,746</b></td> <td><b>35,714</b></td> <td><b>36,682</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	Res SF ACLM switch (50% True Cycle)	404,965	414,645	424,325	Res MF ACLM switch (50% True Cycle)	19,712	21,863	24,014	<b>TOTAL</b>	<b>424,677</b>	<b>436,508</b>	<b>448,339</b>	Measure	Total Net Incremental Demand Savings (kW)			2015	2016	2017	Res SF ACLM switch (50% True Cycle)	33,133.5	33,925.5	34,717.5	Res MF ACLM switch (50% True Cycle)	1,612.8	1,788.8	1,964.8	<b>TOTAL</b>	<b>34,746</b>	<b>35,714</b>	<b>36,682</b>
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## RESIDENTIAL MULTI-FAMILY DIRECT INSTALL PROGRAM

### Program Description

The Residential Multi-Family Direct Install program provides targeted, highly cost-effective measures to multifamily households in a quickly deployable program delivery mechanism. This will provide energy savings to the multifamily segment, which is typically an underserved market with respect to energy efficiency programs. This is largely because of the preponderance of rental units with the so-called split owner-renter barrier. In other words, since the landlord or owner does not pay the utility bill, there is very little incentive to install higher efficiency equipment.

The program targets multifamily complexes with units that are both individually metered (residential ratepayers) and master metered (commercial ratepayers). The program is designed to go beyond providing financial incentives to multi-family households and aims to make them well-educated energy consumers. The services the program will provide, including in-home audits and referrals to contractors and financial resources, aim to help them gain a better understanding of their home energy use and achieve savings while also improving the comfort of their homes.

As a program mainly designed to educate and empower multi-family customers to make energy-efficient home improvements, the program contains a set of direct install measures.

The Residential Multi-Family Direct Install program has several components:

- **Walk-Through Audits**—These are on-site inspections and tests used to identify energy efficiency opportunities; audit reports contain specific recommendations, including expected costs, energy savings, and resource referrals.
- **Direct Installation of Low-Cost Measures**—During the audit visit, the auditor will install a package of low-cost energy-saving measures, at no additional charge to the customer, to immediately improve the energy performance of the house.
- **Assistance with Additional Measure Adoptions**—the program will provide cash rebates to audit participants who install weatherization measures recommended from the audit, as well as assistance on how to access rebates offered as follow-on measures or under other programs.

## Objectives

The purpose of the Residential Multi-Family Direct Install program is to help residential customers view the energy performance of their homes as more than the sum of independent decisions about individual components. It reflects the view that reducing residential energy use is more than a series of actions; it is an attitude and plan borne of knowledge. This is a “big picture” approach. The services are designed to bring customers to a more holistic view of home energy performance.

The program is part of a long-term strategy to raise awareness of home energy savings opportunities among residential customers and to help them take action using incentives offered by IPL’s energy efficiency programs. The program will achieve several objectives:

- Improve customer understanding of how their homes use energy and how they can use it more effectively for less money
- Procure immediate energy savings through installation of low-cost energy-saving measures
- Encourage installation of additional energy-saving measures recommendations with additional incentives
- Aid residential customers’ perception of IPL as their partner in reducing home energy use

## Projected Savings

The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of measures installed under the program each year. This does not include the impact of measures still in operation from previous years.

### Total Net Incremental Energy Savings (kWh)

Measure	Total Net Incremental Energy Savings (kWh)		
	2015	2016	2017
Bath Faucet Aerator	312,420	312,420	312,420
Candelabra	165,100	165,100	165,100
CFL - 18W	1,613,400	1,613,400	1,613,400
CFL - Globe	806,700	806,700	806,700
Kitchen Faucet Aerator	620,400	620,400	620,400
LED Nightlight	136,000	136,000	136,000
Low Flow Showerhead	2,059,800	2,059,800	2,059,800
<b>TOTAL</b>	<b>5,713,820</b>	<b>5,713,820</b>	<b>5,713,820</b>

### Total Net Incremental Demand Savings (kW)

Measure	Total Net Incremental Demand Savings (kW)		
	2015	2016	2017
Bath Faucet Aerator	48	48	48
Candelabra	60	60	60
CFL - 18W	360	360	360
CFL - Globe	180	180	180
Kitchen Faucet Aerator	48	48	48
LED Nightlight	-	-	-
Low Flow Showerhead	138	138	138
<b>TOTAL</b>	<b>834</b>	<b>834</b>	<b>834</b>

**Administrative Requirements**

IPL will administer the Residential Multi-Family Direct Install program through an implementation contractor. IPL' role will be to ensure that:

- The implementation contractor performs all the activities associated with delivery of all components of the program, and
- Educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.

The program is expected to operate according to the following administrative and total utility budget:

Total Program Budget

	Total Utility Budget		
Total Admin Costs	\$784,100	\$784,100	\$784,100
Total Incentive Costs	\$386,000	\$386,000	\$386,000
<b>Total Utility Budget</b>	<b>\$1,170,100</b>	<b>\$1,170,100</b>	<b>\$1,170,100</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Residential Multi-Family Direct Install program are as follows:

	Cost Effectiveness Tests			
Program	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
<b>Res MF Direct Install</b>	<b>1.39</b>	<b>1.39</b>	<b>-</b>	<b>0.80</b>

## RESIDENTIAL HOME ENERGY ASSESSMENT PROGRAM

<p><b>Program Description</b></p>	<p>The Residential Home Energy Assessment program provides education, an on-site audit, and a suite of energy efficiency measures to help single family customers reduce their energy bills.</p> <p>The program is designed to go beyond providing financial incentives to residential customers and aims to make them well-educated energy consumers. The services the program will provide include in-home audits and direct-install measures like CFL light bulbs and low-flow water fixtures.</p> <p>The Residential Home Energy Assessment program has several components:</p> <ul style="list-style-type: none"> <li>• <b>Walk-Through Audits</b>—These are on-site inspections and tests used to identify energy efficiency opportunities; audit reports contain specific recommendations, including expected costs, energy savings, and resource referrals.</li> <li>• <b>Direct Installation of Low-Cost Measures</b>—During the audit visit, the auditor will install a package of low-cost energy-saving measures, at no additional charge to the customer, to immediately improve the energy performance of the house.</li> </ul>
<p><b>Objectives</b></p>	<p>The purpose of the Residential Home Energy Assessment program is to help residential customers view the energy performance of their homes as more than the sum of independent decisions about individual components. It reflects the view that reducing residential energy use is more than a series of actions; it is an attitude and plan borne of knowledge. This is a “big picture” approach. The services are designed to bring customers to a more holistic view of home energy performance.</p> <p>The program is part of a long-term strategy to raise awareness of home energy savings opportunities among residential customers and to help them take action using incentives offered by the utilities and State programs. The program will achieve several objectives:</p> <ul style="list-style-type: none"> <li>• Improve customer understanding of how their homes use energy and how they can use it more effectively for less money</li> <li>• Procure immediate energy savings through installation of low-cost energy-saving measures</li> <li>• Aid residential customers’ perception of IPL as their partner in reducing home energy use</li> </ul>

Projected Savings	<p>The estimated energy savings are based on annual per-unit values. These values were applied to the estimated number of measures installed under the program each year. This does <u>not</u> include the impact of measures still in operation from previous years.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Audit Recommendations</td> <td>1,051,680</td> <td>1,051,680</td> <td>1,051,680</td> </tr> <tr> <td>CFLs</td> <td>1,915,760</td> <td>1,915,760</td> <td>1,915,760</td> </tr> <tr> <td>Faucet Aerator</td> <td>833,376</td> <td>833,376</td> <td>833,376</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>1,729,248</td> <td>1,729,248</td> <td>1,729,248</td> </tr> <tr> <td>Pipe Wrap</td> <td>110,700</td> <td>110,700</td> <td>110,700</td> </tr> <tr> <td>Tank Wrap (EF 0.88)</td> <td>209,232</td> <td>209,232</td> <td>209,232</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>5,849,996</b></td> <td><b>5,849,996</b></td> <td><b>5,849,996</b></td> </tr> </tbody> </table> <p><u>Total Net Incremental Demand Savings (kW)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Audit Recommendations</td> <td>160</td> <td>160</td> <td>160</td> </tr> <tr> <td>CFLs</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Faucet Aerator</td> <td>144</td> <td>144</td> <td>144</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Pipe Wrap</td> <td>12</td> <td>12</td> <td>12</td> </tr> <tr> <td>Tank Wrap (EF 0.88)</td> <td>36</td> <td>36</td> <td>36</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>352</b></td> <td><b>352</b></td> <td><b>352</b></td> </tr> </tbody> </table>				Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	Audit Recommendations	1,051,680	1,051,680	1,051,680	CFLs	1,915,760	1,915,760	1,915,760	Faucet Aerator	833,376	833,376	833,376	Low Flow Showerhead	1,729,248	1,729,248	1,729,248	Pipe Wrap	110,700	110,700	110,700	Tank Wrap (EF 0.88)	209,232	209,232	209,232	<b>TOTAL</b>	<b>5,849,996</b>	<b>5,849,996</b>	<b>5,849,996</b>	Measure	Total Net Incremental Demand Savings (kW)			2015	2016	2017	Audit Recommendations	160	160	160	CFLs	-	-	-	Faucet Aerator	144	144	144	Low Flow Showerhead	-	-	-	Pipe Wrap	12	12	12	Tank Wrap (EF 0.88)	36	36	36	<b>TOTAL</b>	<b>352</b>	<b>352</b>	<b>352</b>
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## RESIDENTIAL SCHOOL KIT

<b>Program Description</b>	<p>The Residential School Kit program incorporates an educational module provided to grade school students, along with a take-home kit of energy efficiency measures. Measures include CFLs and low-flow fixtures. It targets students to help them learn about energy efficiency and how they can apply it at school and at home. Participating schools will receive education in the classroom and take-home kits filled with energy efficiency saving devices. The program is designed to educate both the students and their parents about simple energy efficiency and conservation practices, driving grassroots market transformation throughout the service territory.</p>																																																																										
<b>Objectives</b>	<p>The program has several objectives:</p> <ul style="list-style-type: none"> <li>• Increase consumers’ awareness of the breadth of energy efficiency opportunities in their homes.</li> <li>• Lay the foundation for future energy stewardship by educating young students.</li> <li>• Make significant contribution to portfolio energy savings goals.</li> <li>• Strengthen customer trust in IPL as their partner in saving energy.</li> </ul>																																																																										
<b>Projected Savings</b>	<p>The estimated energy savings are based on annual per-unit values. These values were applied to the estimated number of measures provided under the program each year. This does <i>not</i> include the impact of measures still in operation from previous years.</p> <p><b>Total Net Incremental Energy Savings (kWh)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #2c5e8c; color: white;"> <th colspan="4">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr style="background-color: #2c5e8c; color: white;"> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>CFL - 13W</td> <td>578,700</td> <td>578,700</td> <td>578,700</td> </tr> <tr> <td>CFL - 23W</td> <td>479,655</td> <td>479,655</td> <td>479,655</td> </tr> <tr> <td>Faucet Aerator</td> <td>1,533,216</td> <td>1,533,216</td> <td>1,533,216</td> </tr> <tr> <td>FilterTone Alarm</td> <td>110,614</td> <td>110,614</td> <td>110,614</td> </tr> <tr> <td>LED Nightlight</td> <td>61,462</td> <td>61,462</td> <td>61,462</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>1,317,820</td> <td>1,317,820</td> <td>1,317,820</td> </tr> <tr style="background-color: #2c5e8c; color: white;"> <td><b>TOTAL</b></td> <td><b>4,081,469</b></td> <td><b>4,081,469</b></td> <td><b>4,081,469</b></td> </tr> </tbody> </table> <p><b>Total Net Incremental Demand Savings (kW)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #2c5e8c; color: white;"> <th colspan="4">Total Net Incremental Demand Savings (kW)</th> </tr> <tr style="background-color: #2c5e8c; color: white;"> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>CFL - 13W</td> <td>75.6</td> <td>75.6</td> <td>75.6</td> </tr> <tr> <td>CFL - 23W</td> <td>63.3</td> <td>63.3</td> <td>63.3</td> </tr> <tr> <td>Faucet Aerator</td> <td>30.2</td> <td>30.2</td> <td>30.2</td> </tr> <tr> <td>FilterTone Alarm</td> <td>171.4</td> <td>171.4</td> <td>171.4</td> </tr> <tr> <td>LED Nightlight</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>62.4</td> <td>62.4</td> <td>62.4</td> </tr> <tr style="background-color: #2c5e8c; color: white;"> <td><b>TOTAL</b></td> <td><b>403</b></td> <td><b>403</b></td> <td><b>403</b></td> </tr> </tbody> </table>			Total Net Incremental Energy Savings (kWh)				Measure	2015	2016	2017	CFL - 13W	578,700	578,700	578,700	CFL - 23W	479,655	479,655	479,655	Faucet Aerator	1,533,216	1,533,216	1,533,216	FilterTone Alarm	110,614	110,614	110,614	LED Nightlight	61,462	61,462	61,462	Low Flow Showerhead	1,317,820	1,317,820	1,317,820	<b>TOTAL</b>	<b>4,081,469</b>	<b>4,081,469</b>	<b>4,081,469</b>	Total Net Incremental Demand Savings (kW)				Measure	2015	2016	2017	CFL - 13W	75.6	75.6	75.6	CFL - 23W	63.3	63.3	63.3	Faucet Aerator	30.2	30.2	30.2	FilterTone Alarm	171.4	171.4	171.4	LED Nightlight	-	-	-	Low Flow Showerhead	62.4	62.4	62.4	<b>TOTAL</b>	<b>403</b>	<b>403</b>	<b>403</b>
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**Administrative Requirements**

The program administration role will be to ensure that:

- The implementation contractor performs all the activities associated with delivery of all components of the program, and
- IPL’ educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.

The program is expected to operate according to the following administrative and total utility budget:

Total Program Budget

	Total Utility Budget		
Total Admin Costs	\$401,628	\$401,628	\$401,628
Total Incentive Costs	\$229,143	\$229,143	\$229,143
<b>Total Utility Budget</b>	<b>\$630,771</b>	<b>\$630,771</b>	<b>\$630,771</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Residential Schools program are as follows:

	Cost Effectiveness Tests			
Program	TRC R	UCT Ratio	PCT Ratio	RIM Ratio
Res School Kit	1.90	1.90	-	0.90

## RESIDENTIAL ONLINE ENERGY ASSESSMENT PROGRAM

<b>Program Description</b>	The Residential Online Energy Assessment program is an online engagement activity that provides customers with education and information regarding their home energy use. Customer who visit IPL’s website and complete the engagement activity will receive a kit of low cost energy efficiency measures.																																																																														
<b>Objectives</b>	The purpose of this program is to increase the penetration of high-efficiency measures in the homes of residential customers and increase consumers’ awareness of the breadth of energy efficiency opportunities available. It will also strengthen customer trust in IPL as their partner in saving energy.																																																																														
<b>Projected Savings</b>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of measures provided under the program each year. This does <i>not</i> include the impact of measures still in operation from previous years.</p> <p><b>Total Net Incremental Energy Savings (kWh)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #2c5e8c; color: white;"> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr style="background-color: #2c5e8c; color: white;"> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Bath Aerator</td> <td>40,090</td> <td>44,099</td> <td>46,304</td> </tr> <tr> <td>CFL - 13W</td> <td>112,242</td> <td>123,466</td> <td>129,639</td> </tr> <tr> <td>CFL - 19W</td> <td>133,738</td> <td>147,112</td> <td>154,468</td> </tr> <tr> <td>Hot Water Thermometer</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Kitchen Aerator</td> <td>186,703</td> <td>205,374</td> <td>215,642</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>486,057</td> <td>534,662</td> <td>561,395</td> </tr> <tr> <td>Refrigerator Thermometer</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr style="background-color: #2c5e8c; color: white;"> <td><b>TOTAL</b></td> <td><b>958,830</b></td> <td><b>1,054,713</b></td> <td><b>1,107,449</b></td> </tr> </tbody> </table> <p><b>Total Net Incremental Demand Savings (kW)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #2c5e8c; color: white;"> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Demand Savings (kW)</th> </tr> <tr style="background-color: #2c5e8c; color: white;"> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Bath Aerator</td> <td>9.2</td> <td>10.1</td> <td>10.6</td> </tr> <tr> <td>CFL - 13W</td> <td>25.0</td> <td>27.5</td> <td>28.9</td> </tr> <tr> <td>CFL - 19W</td> <td>29.2</td> <td>32.1</td> <td>33.7</td> </tr> <tr> <td>Hot Water Thermometer</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Kitchen Aerator</td> <td>10.7</td> <td>11.8</td> <td>12.4</td> </tr> <tr> <td>Low Flow Showerhead</td> <td>29.1</td> <td>32.0</td> <td>33.6</td> </tr> <tr> <td>Refrigerator Thermometer</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr style="background-color: #2c5e8c; color: white;"> <td><b>TOTAL</b></td> <td><b>103</b></td> <td><b>114</b></td> <td><b>119</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	Bath Aerator	40,090	44,099	46,304	CFL - 13W	112,242	123,466	129,639	CFL - 19W	133,738	147,112	154,468	Hot Water Thermometer	-	-	-	Kitchen Aerator	186,703	205,374	215,642	Low Flow Showerhead	486,057	534,662	561,395	Refrigerator Thermometer	-	-	-	<b>TOTAL</b>	<b>958,830</b>	<b>1,054,713</b>	<b>1,107,449</b>	Measure	Total Net Incremental Demand Savings (kW)			2015	2016	2017	Bath Aerator	9.2	10.1	10.6	CFL - 13W	25.0	27.5	28.9	CFL - 19W	29.2	32.1	33.7	Hot Water Thermometer	-	-	-	Kitchen Aerator	10.7	11.8	12.4	Low Flow Showerhead	29.1	32.0	33.6	Refrigerator Thermometer	-	-	-	<b>TOTAL</b>	<b>103</b>	<b>114</b>	<b>119</b>
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**Administrative Requirements**

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- The implementation contractor performs all the activities associated with delivery of all components of the program, and
- IPL educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.

The program is expected to operate according to the following administrative and total utility budget:

Total Program Budget

	Total Utility Budget		
Total Admin Costs	\$113,809	\$121,690	\$126,024
Total Incentive Costs	\$87,565	\$96,322	\$101,138
<b>Total Utility Budget</b>	<b>\$201,374</b>	<b>\$218,012</b>	<b>\$227,162</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Residential Online Energy Assessment are as follows:

	Cost Effectiveness Tests			
Program	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
<b>Res Online Energy Assessment</b>	<b>1.33</b>	<b>1.33</b>	<b>-</b>	<b>0.76</b>

## RESIDENTIAL APPLIANCE RECYCLING PROGRAM

<p><b>Program Description</b></p>	<p>The Residential Appliance Recycling program achieves energy savings by offering a bounty payment to customers to remove their old, inefficient appliances and recycle them. It includes refrigerators, freezers and room AC units. The program offers free pickup of units from residences plus customer incentives and education about the benefits of secondary unit disposal, to encourage their participation. There are no costs to participating customers. The contractor will pick-up, disable, and recycle the units. Once IPL receives verification that the units have been recycled. The customer will receive a \$40 incentive per refrigerator recycled and a \$20 incentive per Room AC recycled.</p> <p>In addition to educating residential customers about the benefits of secondary unit disposal, the program provides services to enable disposal of the units. The two program components are:</p> <p><u>Customer Incentives</u></p> <ul style="list-style-type: none"> <li>• Pickup of units from homes will be by appointment directly with the program implementation contractor.</li> <li>• The program implementation contractor mails incentive checks to customers after units have been removed.</li> <li>• To qualify, refrigerator, freezer, or room air conditioning units must be in working condition, meet minimum size requirements, and be readily accessible for removal.</li> </ul> <p><u>Environmental Disposal of Units</u></p> <ul style="list-style-type: none"> <li>• Units will be removed to a collection facility and disassembled for environmentally responsible disposal of CFCs and recycling of remaining components.</li> </ul>
<p><b>Objectives</b></p>	<p>The purpose of the Residential Appliance Recycling program is to eliminate a very inefficient usage of electricity in homes: the retention of refrigerators, freezers, and room air conditioners for use as secondary units. This is a two-pronged goal: to remove existing secondary units from operation and to prevent existing primary refrigerators, freezers, and room air conditioners from being retained and used as secondary units when customers purchase new units.</p> <p>The program has several objectives:</p> <ul style="list-style-type: none"> <li>• Transform attitudes about retaining older, less efficient refrigerators, freezers, and room air conditioners as secondary units.</li> <li>• Accrue electricity consumption and demand savings toward IPL’s savings achievements.</li> <li>• Demonstrate IPL’s commitment to good stewardship of the environment by sponsoring proper disposal of units.</li> </ul> <p>Appliance Recycling is well-suited for accomplishing these objectives because: consumers are more willing than ever to help safeguard the environment and adopt behaviors that save energy without compromising their lifestyles. The program makes it</p>

	convenient and cost-effective for customers to dispose of these older units, overcoming a past barrier to getting rid of them.																																																
Projected Savings	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of appliances removed under the program each year. This does <u>not</u> include the impact of measures still in operation from previous years.</p> <p><b>Total Net Incremental Energy Savings (kWh)</b></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Freezer Recycling</td> <td>389,760</td> <td>389,760</td> <td>389,760</td> </tr> <tr> <td>Refrigerator Recycling</td> <td>1,879,360</td> <td>1,879,360</td> <td>1,879,360</td> </tr> <tr> <td>Window AC unit Recycling</td> <td>13,050</td> <td>13,050</td> <td>13,050</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>2,282,170</b></td> <td><b>2,282,170</b></td> <td><b>2,282,170</b></td> </tr> </tbody> </table> <p><b>Total Net Incremental Demand Savings (kW)</b></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Freezer Recycling</td> <td>68.9</td> <td>68.9</td> <td>68.9</td> </tr> <tr> <td>Refrigerator Recycling</td> <td>327.0</td> <td>327.0</td> <td>327.0</td> </tr> <tr> <td>Window AC unit Recycling</td> <td>11.8</td> <td>11.8</td> <td>11.8</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>408</b></td> <td><b>408</b></td> <td><b>408</b></td> </tr> </tbody> </table>	Total Net Incremental Energy Savings (kWh)				Measure	2015	2016	2017	Freezer Recycling	389,760	389,760	389,760	Refrigerator Recycling	1,879,360	1,879,360	1,879,360	Window AC unit Recycling	13,050	13,050	13,050	<b>TOTAL</b>	<b>2,282,170</b>	<b>2,282,170</b>	<b>2,282,170</b>	Total Net Incremental Demand Savings (kW)				Measure	2015	2016	2017	Freezer Recycling	68.9	68.9	68.9	Refrigerator Recycling	327.0	327.0	327.0	Window AC unit Recycling	11.8	11.8	11.8	<b>TOTAL</b>	<b>408</b>	<b>408</b>	<b>408</b>
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Administrative Requirements	<p>IPL will administer the Residential Appliance Recycling program through an implementation contractor. IPL's role will be to ensure that:</p> <ul style="list-style-type: none"> <li>• The implementation contractor performs all the activities associated with delivery of all components of the program, and</li> <li>• IPL's educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.</li> </ul> <p>The program is expected to operate according to the following administrative and total utility budget:</p> <table border="1"> <thead> <tr> <th colspan="4">Total Utility Budget</th> </tr> </thead> <tbody> <tr> <td>Total Admin Costs</td> <td>\$153,479</td> <td>\$153,479</td> <td>\$153,479</td> </tr> <tr> <td>Total Incentive Costs</td> <td>\$592,396</td> <td>\$592,396</td> <td>\$592,396</td> </tr> <tr> <td><b>Total Utility Budget</b></td> <td><b>\$745,875</b></td> <td><b>\$745,875</b></td> <td><b>\$745,875</b></td> </tr> </tbody> </table>	Total Utility Budget				Total Admin Costs	\$153,479	\$153,479	\$153,479	Total Incentive Costs	\$592,396	\$592,396	\$592,396	<b>Total Utility Budget</b>	<b>\$745,875</b>	<b>\$745,875</b>	<b>\$745,875</b>																																
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## RESIDENTIAL PEER COMPARISON PROGRAM

<b>Program Description</b>	The Residential Peer Comparison program provides individualized Energy Reports that analyze their energy usage and offer recommendations on how to save energy and money by making small changes to their energy consumption. Reports are sent monthly or quarterly to customers throughout the year. A key component is a peer comparison, where they are shown energy usage relative to similar, nearby households. Peoples' intrinsic social competitiveness thereby increases the energy reductions and effectiveness of this program.																														
<b>Objectives</b>	The purpose of the Residential Peer Comparison program is to reduce energy consumption through socially-driven and information-driven behavioral change. Another very important objective of the program is to raise general awareness regarding energy efficiency and to cross-sell and market other programs within the portfolio.																														
<b>Projected Savings</b>	<p>The estimated energy savings are given in terms of annual per-unit values. . This does <u>not</u> include the impact of measures still in operation from previous years.</p> <p><b>Total Net Incremental Energy Savings (kWh)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Peer Comparison Reports</td> <td>23,000,000</td> <td>23,000,000</td> <td>23,000,000</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>23,000,000</b></td> <td><b>23,000,000</b></td> <td><b>23,000,000</b></td> </tr> </tbody> </table> <p><b>Total Net Incremental Demand Savings (kW)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Peer Comparison Reports</td> <td>6,762</td> <td>6,762</td> <td>6,762</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>6,762</b></td> <td><b>6,762</b></td> <td><b>6,762</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	Peer Comparison Reports	23,000,000	23,000,000	23,000,000	<b>TOTAL</b>	<b>23,000,000</b>	<b>23,000,000</b>	<b>23,000,000</b>	Measure	Total Net Incremental Demand Savings (kW)			2015	2016	2017	Peer Comparison Reports	6,762	6,762	6,762	<b>TOTAL</b>	<b>6,762</b>	<b>6,762</b>	<b>6,762</b>
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<b>Administrative Requirements</b>	<p>IPL will administer the Residential Peer Comparison program through an implementation contractor. IPL's role will be to ensure that:</p> <ul style="list-style-type: none"> <li>• The implementation contractor performs all the activities associated with delivery of all components of the program, and</li> <li>• IPL's educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.</li> </ul> <p>The program is expected to operate according to the following administrative and total utility budget:</p> <p><b>Total Program Budget</b></p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">Total Utility Budget</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Total Admin Costs</td> <td>\$101,800</td> <td>\$101,800</td> <td>\$101,800</td> </tr> <tr> <td>Total Incentive Costs</td> <td>\$1,336,000</td> <td>\$1,336,000</td> <td>\$1,336,000</td> </tr> <tr> <td><b>Total Utility Budget</b></td> <td><b>\$1,437,800</b></td> <td><b>\$1,437,800</b></td> <td><b>\$1,437,800</b></td> </tr> </tbody> </table>		Total Utility Budget			2015	2016	2017	Total Admin Costs	\$101,800	\$101,800	\$101,800	Total Incentive Costs	\$1,336,000	\$1,336,000	\$1,336,000	<b>Total Utility Budget</b>	<b>\$1,437,800</b>	<b>\$1,437,800</b>	<b>\$1,437,800</b>											
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**Cost-  
Effectiveness**

The cost-effectiveness metrics of the Residential Behavioral Feedback Tools program are as follows:

Program	Cost Effectiveness Tests			
	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
Res Peer Comparison	1.04	1.04	-	0.71

## BUSINESS PRESCRIPTIVE PROGRAM

### Program Description

The Business Prescriptive program is designed to encourage and assist non-residential customers in improving the energy efficiency of their existing facilities through a broad range of energy efficiency options that address all major end uses and processes. This program offers incentives to customers who install high-efficiency electric equipment and engages equipment suppliers and contractors to promote the incentive-eligible equipment. This program, along with the Business Custom program, is likely to provide the bulk of the energy savings from business customers. It should be noted that since business energy efficiency efforts are very project-centric, there are many projects that may fit partially under both the Prescriptive and Custom programs. Therefore, a flexible delivery approach should be employed, with a method to share or allocate projects between the two programs.

The program has the following components to accommodate the variety of customer needs and facilities in this sector:

- Prescriptive Incentives—deemed per-unit savings for itemized measures; easy and appropriate for relatively low-cost or simple measures.
- Specialized outreach to promote and enable prescriptive measures best suited to smaller facilities.
- Customer referrals to qualified energy audit providers who can help customers identify appropriate and cost-effective retrofit opportunities.

#### Prescriptive Measure Incentives

- Quick and easy incentive application for measures with known and reliable energy savings. No pre-approval required.
- Customers purchase and install qualified products from retailers and/or contractors.
- Customers or their contractors submit incentive form to IPL's energy service provider with information that documents the qualifying sale/installation. The form allows customers to see the exact incentive they can receive. IPL mails rebate checks to customers or their contractors.
- The prescriptive incentives are cash-back rebates that generally cover a portion of the incremental cost of the qualifying models; that is, the cost premium of qualifying models over less-efficient models available.

In addition to prescriptive rebates for customers, the program will engage in upstream "buydowns" of certain products such as compact fluorescent lamps so that customers pay a lower price at the point of purchase without needing to apply for a rebate. The upstream buydown activity is a component of the program's focus on market transformation that will increase the demand for high efficiency products, and eventually decrease the availability of lower-efficiency products in the marketplace.

### Objectives

The purpose of the Business Prescriptive program is to increase awareness of energy savings opportunities and assist customers in acting on those opportunities to decrease energy usage in commercial and industrial facilities and in master-metered multifamily residential buildings. This program is designed for retrofit and replacement projects.



	<p>The program has several objectives:</p> <ul style="list-style-type: none"> <li>• Increase consumers' awareness and understanding of the breadth of energy efficiency opportunities in their facilities.</li> <li>• Make it easier for customers to adopt more energy-efficient equipment and equipment maintenance.</li> <li>• Make a significant contribution to attainment of IPL's energy savings achievements.</li> <li>• Demonstrate IPL's commitment to and confidence in the measures' performance and their ability to reduce business customer energy use.</li> <li>• Strengthen customer trust in IPL as their partners in saving energy.</li> </ul>																																
<p><b>Projected Savings</b></p>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of measures rebated under the program each year. The savings noted in each year reflect incremental or annual savings from measures installed by customers through the program in that year. This does <u>not</u> include the impact of measures still in operation from previous years.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Bus Prescriptive Measures</td> <td>40,140,145</td> <td>42,147,152</td> <td>44,254,510</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>40,140,145</b></td> <td><b>42,147,152</b></td> <td><b>44,254,510</b></td> </tr> </tbody> </table> <p><u>Total Net Incremental Demand Savings (kW)</u></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Bus Prescriptive Measures</td> <td>7,326</td> <td>7,692</td> <td>8,077</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>7,326</b></td> <td><b>7,692</b></td> <td><b>8,077</b></td> </tr> </tbody> </table>	Total Net Incremental Energy Savings (kWh)				Measure	2015	2016	2017	Bus Prescriptive Measures	40,140,145	42,147,152	44,254,510	<b>TOTAL</b>	<b>40,140,145</b>	<b>42,147,152</b>	<b>44,254,510</b>	Total Net Incremental Demand Savings (kW)				Measure	2015	2016	2017	Bus Prescriptive Measures	7,326	7,692	8,077	<b>TOTAL</b>	<b>7,326</b>	<b>7,692</b>	<b>8,077</b>
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## BUSINESS CUSTOM INCENTIVES PROGRAM

### Program Description

The Business Custom Incentives program is designed to encourage and assist nonresidential customers to save energy through customizable projects that are too complex to fit in the standard rebate offering. The program will promote the purchase and installation of efficient technologies and/or implementation of process improvements by working directly with key end-use customers and market providers. This program, along with the Business Prescriptive program, is likely to provide the bulk of the energy savings from business customers. It should be noted that since business energy efficiency efforts are very project-centric, there are many projects that may fit partially under both the Prescriptive and Custom programs. Therefore, a flexible delivery approach should be employed, with a method to share or allocate projects between the two programs.

The program has the following components, to accommodate the variety of customer needs and facilities in this sector:

- Custom Incentives—paid on fixed dollar per first-year-kWh-saved basis; appropriate for large and complex projects, often with multiple measures.
- Emphasis on flexibility of custom projects to address variety of business and industrial process energy improvements.
- Customer referrals to qualified energy audit providers who can help customers identify appropriate and cost-effective retrofit opportunities.

#### Custom Project Incentives

- Provides financial incentives on projects not suitable for prescriptive incentives because of size or multiple types of equipment involved.
- More complex offering, with the following services and requirements:
  - Review design/specification and savings estimates for completeness and applicability of incentives
  - Pre- and post-project inspections to estimate and verify savings
  - Incentives paid on a fixed \$/kWh basis
- Examples of custom projects include energy management systems, air compressor system optimization, building envelope improvements, and experimental technologies.

### Objectives

The purpose of the Business Custom Incentives program is to increase awareness of energy savings opportunities and assist customers in acting on those opportunities to decrease energy usage in commercial and industrial facilities and in master-metered multifamily residential buildings. This program is designed for retrofit and replacement projects.

The program has several objectives:

- Increase consumers' awareness and understanding of the breadth of energy efficiency opportunities in their facilities.

	<ul style="list-style-type: none"> <li>• Make it easier for customers to adopt more energy-efficient equipment and equipment maintenance.</li> <li>• Make a significant contribution to attainment of IPL’s energy savings achievements.</li> <li>• Strengthen customer trust in IPL as their partner in saving energy.</li> </ul>																																								
<b>Projected Savings</b>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of projects rebated under the program each year. This does <i>not</i> include the impact of measures still in operation from previous years.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Large Projects &gt;\$5K</td> <td>15,000,000</td> <td>15,750,000</td> <td>16,537,500</td> </tr> <tr> <td>Small Projects - \$1-5K</td> <td>2,083,333</td> <td>2,187,500</td> <td>2,296,875</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>17,083,333</b></td> <td><b>17,937,500</b></td> <td><b>18,834,375</b></td> </tr> </tbody> </table> <p><u>Total Net Incremental Demand Savings (kW)</u></p> <table border="1"> <thead> <tr> <th colspan="4">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>Measure</th> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>Large Projects &gt;\$5K</td> <td>3,000</td> <td>3,150</td> <td>3,308</td> </tr> <tr> <td>Small Projects - \$1-5K</td> <td>417</td> <td>438</td> <td>459</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>3,417</b></td> <td><b>3,588</b></td> <td><b>3,767</b></td> </tr> </tbody> </table>	Total Net Incremental Energy Savings (kWh)				Measure	2015	2016	2017	Large Projects >\$5K	15,000,000	15,750,000	16,537,500	Small Projects - \$1-5K	2,083,333	2,187,500	2,296,875	<b>TOTAL</b>	<b>17,083,333</b>	<b>17,937,500</b>	<b>18,834,375</b>	Total Net Incremental Demand Savings (kW)				Measure	2015	2016	2017	Large Projects >\$5K	3,000	3,150	3,308	Small Projects - \$1-5K	417	438	459	<b>TOTAL</b>	<b>3,417</b>	<b>3,588</b>	<b>3,767</b>
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## SMALL BUSINESS DIRECT INSTALL PROGRAM

<p><b>Program Description</b></p>	<p>The Business Direct Install program provides a suite of targeted, highly cost-effective measures to small businesses in a quickly deployable program delivery mechanism, along with education and program support to help business customers reduce their energy bills.</p> <p>The program will provide several direct-install measures at no additional cost to participants, such as lighting replacements, programmable thermostats, occupancy sensors, vending machine controls, and low-flow water fixtures. The program also connects customers with other programs in the portfolio and a network of qualified trade allies/contractors that can install follow-on measures to provide deeper energy savings.</p> <p>The Business Direct Install program has several components:</p> <ul style="list-style-type: none"> <li>• Walk-Through Audits—These are on-site assessments used to identify energy efficiency opportunities; audit reports contain specific recommendations, including expected costs, energy savings, and resource referrals.</li> <li>• Direct Installation of Measures—During the audit visit, the auditor will install a package of low-cost energy-saving measures, at no additional charge to the customer, to immediately improve the energy performance of the building.</li> <li>• Assistance with Additional Measure Adoption—IPL will usher participants into other business efficiency program offerings to provide cash rebates to participants who install additional measures recommended from the audit.</li> </ul>
<p><b>Objectives</b></p>	<p>The program is part of a long-term strategy to raise awareness of energy savings opportunities among business customers and to help them take action using incentives offered by IPL's energy efficiency programs. The program will achieve several objectives:</p> <ul style="list-style-type: none"> <li>• Improve customer understanding of how their buildings use energy and how they can use it more effectively for less money</li> <li>• Procure immediate energy savings through installation of energy-saving measures</li> <li>• Encourage installation of additional energy-saving measures recommendations with additional incentives</li> <li>• Aid business customers' perception of IPL as their partner in reducing energy use</li> </ul>
<p><b>Projected Savings</b></p>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of measures rebated under the program each year. This does <i>not</i> include the impact of measures still in operation from previous years.</p>

**Total Net Incremental Electricity Savings (kWh)**

Measure	Total Net Incremental Energy Savings (kWh)		
	2015	2016	2017
CFL - 18W	1,400,140	1,540,154	1,617,162
LED Exit Sign	41,500	45,650	47,933
Occupancy Sensors	634,100	697,510	732,386
Programmable Thermostat	226,333	248,966	261,414
Vending Machine Timer	708,390	779,229	818,190
T8 lamps	463,083	509,391	534,860
RTU - Maintenance	7,150	7,865	8,258
Water Heater - Faucet Aerator Low Flow Nozzle	1,396,000	1,535,600	1,612,380
<b>TOTAL</b>	<b>4,876,695</b>	<b>5,364,365</b>	<b>5,632,583</b>

**Total Net Incremental Demand Savings (kW)**

Measure	Total Net Incremental Demand Savings (kW)		
	2015	2016	2017
CFL - 18W	435.4	478.9	502.9
LED Exit Sign	5.0	5.5	5.8
Occupancy Sensors	11.5	12.7	13.3
Programmable Thermostat	-	-	-
Vending Machine Timer	-	-	-
T8 lamps	119.6	131.5	138.1
RTU - Maintenance	-	-	-
Water Heater - Faucet Aerator Low Flow Nozzle	116.0	127.6	134.0
<b>TOTAL</b>	<b>687</b>	<b>756</b>	<b>794</b>

**Administrative Requirements**

Program administrative staff's role will be to ensure that:

- The implementation contractor performs all the activities associated with delivery of all components of the program, and
- Educational and program messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.

The program is expected to operate according to the following administrative and total utility budget:

**Total Program Budget**

	Total Utility Budget		
Total Admin Costs	\$1,024,600	\$1,120,060	\$1,172,563
Total Incentive Costs	\$444,000	\$488,400	\$512,820
<b>Total Utility Budget</b>	<b>\$1,468,600</b>	<b>\$1,608,460</b>	<b>\$1,685,383</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Business Custom Incentives program are as follows:

Program	Cost Effectiveness Tests			
	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
<b>Bus Small Business Direct Install</b>	<b>1.04</b>	<b>1.04</b>	<b>-</b>	<b>0.49</b>

## BUSINESS AC LOAD MANAGEMENT PROGRAM

<p><b>Program Description</b></p>	<p>The Business AC Load Management program typically occurs during times of high peak demand or supply-side constraints. During an event, participants' equipment is controlled by a one-way remote switch</p> <ul style="list-style-type: none"> <li>The one-way remote switch is connected to the condensing unit of an AC. When activated by a control signal, the switch will not allow the equipment to operate for the duration of the event. The compressor is shut down up to 50% of the time in discrete cycles during an event while the fan continues to operate. This allows cool air to be circulated throughout the building while the compressor is disabled. The operation of the switch is usually controlled through a digital paging network.</li> </ul> <p>The program has the following components:</p> <ul style="list-style-type: none"> <li>Switch Installation – A small device is installed on the outside of the building near the air conditioner. The switch is connected to the condensing unit of the AC and activated by a control signal.</li> <li>Bill Credit – Participants receive a credit on their monthly bill from June to September.</li> </ul>																														
<p><b>Objectives</b></p>	<p>The purpose of the Business AC Load Management program is to lower the peak demand usage in the IPL service territory to provide system and grid relief. The program provides financial incentives for customers as a means to not only promote energy efficient behavior, but also lower the cost of peak energy.</p>																														
<p><b>Projected Savings</b></p>	<p>The estimated energy savings are given in terms of annual per-unit values. These values were applied to the estimated number of participating customers under the program each year. The savings noted in each year reflect incremental or annual savings for the entire participant population.</p> <p><u>Total Net Incremental Energy Savings (kWh)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Energy Savings (kWh)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>C&amp;I ACLM switch (50% True Cycle)</td> <td>22,820</td> <td>24,214</td> <td>25,608</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>22,820</b></td> <td><b>24,214</b></td> <td><b>25,608</b></td> </tr> </tbody> </table> <p><u>Total Net Incremental Demand Savings (kW)</u></p> <table border="1"> <thead> <tr> <th rowspan="2">Measure</th> <th colspan="3">Total Net Incremental Demand Savings (kW)</th> </tr> <tr> <th>2015</th> <th>2016</th> <th>2017</th> </tr> </thead> <tbody> <tr> <td>C&amp;I ACLM switch (50% True Cycle)</td> <td>1,781</td> <td>1,889</td> <td>1,998</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>1,781</b></td> <td><b>1,889</b></td> <td><b>1,998</b></td> </tr> </tbody> </table>	Measure	Total Net Incremental Energy Savings (kWh)			2015	2016	2017	C&I ACLM switch (50% True Cycle)	22,820	24,214	25,608	<b>TOTAL</b>	<b>22,820</b>	<b>24,214</b>	<b>25,608</b>	Measure	Total Net Incremental Demand Savings (kW)			2015	2016	2017	C&I ACLM switch (50% True Cycle)	1,781	1,889	1,998	<b>TOTAL</b>	<b>1,781</b>	<b>1,889</b>	<b>1,998</b>
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**Administrative Requirements**

This program will be administered through an implementation contractor. The Utility's role will be to ensure that:

- The implementation contractor performs all the activities associated with delivery of all components of the program, and
- IPL's educational and programmatic messages are delivered accurately and clearly to ensure the effectiveness of program delivery and maximize customer satisfaction with the program.

The program is expected to operate according to the following administrative and total utility budget:

Total Program Budget

	Total Utility Budget		
Total Admin Costs	\$103,032	\$107,187	\$111,343
Total Incentive Costs	\$123,694	\$131,250	\$138,806
<b>Total Utility Budget</b>	<b>\$226,726</b>	<b>\$238,437</b>	<b>\$250,149</b>

**Cost-Effectiveness**

The cost-effectiveness metrics of the Business AC Load Management program are as follows:

Program	Cost Effectiveness Tests			
	TRC Ratio	UCT Ratio	PCT Ratio	RIM Ratio
<b>Bus AC Load Management</b>	<b>1.40</b>	<b>0.73</b>	<b>-</b>	<b>0.72</b>

## **About EnerNOC Utility Solutions Consulting**

EnerNOC Utility Solutions Consulting is part of EnerNOC Utility Solutions group, which provides a comprehensive suite of demand-side management (DSM) services to utilities and grid operators worldwide. Hundreds of utilities have leveraged our technology, our people, and our proven processes to make their energy efficiency (EE) and demand response (DR) initiatives a success. Utilities trust EnerNOC to work with them at every stage of the DSM program lifecycle – assessing market potential, designing effective programs, implementing those programs, and measuring program results.

EnerNOC Utility Solutions delivers value to our utility clients through two separate practice areas – Program Implementation and EnerNOC Utility Solutions Consulting.

- Our Program Implementation team leverages EnerNOC’s deep “behind-the-meter expertise” and world-class technology platform to help utilities create and manage DR and EE programs that deliver reliable and cost-effective energy savings. We focus exclusively on the commercial and industrial (C&I) customer segments, with a track record of successful partnerships that spans more than a decade. Through a focus on high quality, measurable savings, EnerNOC has successfully delivered hundreds of thousands of MWh of energy efficiency for our utility clients, and we have thousands of MW of demand response capacity under management.
- The EnerNOC Utility Solutions Consulting team provides expertise and analysis to support a broad range of utility DSM activities, including: potential assessments; end-use forecasts; integrated resource planning; EE, DR, and smart grid pilot and program design and administration; load research; technology assessments and demonstrations; evaluation, measurement and verification; and regulatory support.

The EnerNOC Utility Solutions Consulting team has decades of combined experience in the utility DSM industry. The staff is comprised of professional electrical, mechanical, chemical, civil, industrial, and environmental engineers as well as economists, business planners, project managers, market researchers, load research professionals, and statisticians. Utilities view our experts as trusted advisors, and we work together collaboratively to make any DSM initiative a success.



**Petitioner's Exhibit ZE-3**

**2015-2017 Measures**

Sector	Program	Measure	Baseline	Deemed kW	Deemed kWh	Units	Measure Life	Measure Cost	ISR	NTG	Savings Source	NTG Source
Residential	ACLM	Residential ACLM switch (50% True Cycle)	NA	0.9000	11.00	LCR (kWh based on 40 Hours of Operation)	10	120	0.88	1.00	iPL Load Research Analysis	2011 EM&V
Residential	Appliance Recycling	Freezer Recycling	NA	0.1230	696.00	unit	8	116	NA	0.72	2012 EM&V	2012 EM&V
Residential	Appliance Recycling	Refrigerator Recycling	NA	0.1460	839.00	unit	8	116	NA	0.69	2012 EM&V	2012 EM&V
Residential	Appliance Recycling	Window AC unit Recycling	NA	0.1570	174.00	unit	3	129	NA	0.80	2012 EM&V	2012 EM&V
Residential	HEA	Audit Recommendations	NA	0.0400	262.92	HH	14.1	NA	NA	1.00	2013 EM&V	2013 EM&V
Residential	HEA	CFLs	Incandescent	0.0000	34.21	lamp	5	3.00	NA	0.82	2013 EM&V	2013 EM&V
Residential	HEA	Faucet Aerator	Faucet 2.4 GPM	0.0300	173.62	unit	10	1.40	NA	0.85	2013 EM&V	2013 EM&V
Residential	HEA	Low Flow Showerhead	Showerhead 2.8 GPM	0.0000	360.26	unit	5	4.25	NA	0.84	2013 EM&V	2013 EM&V
Residential	HEA	Pipe Wrap	NA	0.0100	92.25	5 ft.	15	6.95	NA	0.85	2013 EM&V	2013 EM&V
Residential	HEA	Tank Wrap (EF 0.88)	EF 0.86	0.0300	174.36	unit	5	17.85	NA	1.00	2013 EM&V	2013 EM&V
Residential	IQW	Attic Insulation	R-Value Actual	0.2900	374.26	HH	25	763.85	NA	1.00	2013 EM&V	2013 EM&V
Residential	IQW	Audit Recommendations	NA	0.0100	154.68	HH	14.1	NA	NA	1.00	2013 EM&V	2013 EM&V
Residential	IQW	CFLs	Incandescent	0.0100	39.92	lamp	5	3.00	NA	0.99	2013 EM&V	2013 EM&V
Residential	IQW	Faucet Aerator	Faucet 2.4 GPM	0.0300	221.24	unit	10	1.40	NA	0.99	2013 EM&V	2013 EM&V
Residential	IQW	Infiltration Reduction	CFM50 Actual	0.0700	405.91	HH	15	81.15	NA	1.00	2013 EM&V	2013 EM&V
Residential	IQW	Low Flow Showerhead	Showerhead 2.8 GPM	0.0000	414.73	unit	5	4.25	NA	0.95	2013 EM&V	2013 EM&V
Residential	IQW	Pipe Wrap	NA	0.0100	69.91	5 ft.	15	6.95	NA	1.00	2013 EM&V	2013 EM&V
Residential	IQW	Tank Wrap (EF 0.88)	EF 0.86	0.0200	148.82	unit	5	17.85	NA	1.00	2013 EM&V	2013 EM&V
Residential	Lighting	ENERGY STAR CFL	Incandescent	0.0038	32.00	lamp	5	3.00	0.91	0.49	IN TRM	2013 EM&V
Residential	Lighting	ENERGY STAR LED	Incandescent	0.0044	36.80	lamp	15	45	NA	0.49	IN TRM	2013 EM&V
Residential	Lighting	ENERGY STAR Reflector CFL	Incandescent	0.0038	32.00	lamp	5	3.00	NA	0.49	IN TRM	2013 EM&V
Residential	Lighting	ENERGY STAR Reflector LED	Incandescent	0.0044	36.80	lamp	15	45	NA	0.49	IN TRM	2013 EM&V
Residential	Lighting	ENERGY STAR Specialty CFL	Incandescent	0.0038	32.00	lamp	5	3.00	NA	0.49	IN TRM	2013 EM&V
Residential	Multifamily	Bath Aerator	Faucet 2.4 GPM	0.0080	52.07	unit	10	1	NA	1.00	2011 EM&V	2013 EM&V
Residential	Multifamily	Candelabra	Incandescent	0.0060	16.51	lamp	5	2.60	NA	1.00	IN TRM	2013 EM&V
Residential	Multifamily	CFL - 18W	Incandescent	0.0060	26.89	lamp	5	3.00	NA	1.00	2013 EM&V	2013 EM&V

Residential	Multifamily	CFL - Globe	Incandescent	0.0060	26.89	lamp	5	3.00	NA	1.00	2013 EM&V	2013 EM&V
Residential	Multifamily	Kitchen Aerators	Faucet 2.4 GPM	0.0080	103.40	unit	10	2	NA	1.00	2011 EM&V	2013 EM&V
Residential	Multifamily	LED Nightlight	Incandescent	0.0000	13.60	unit	15	3.00	NA	1.00	IN TRM	2013 EM&V
Residential	Multifamily	Low Flow Showerhead	Showerhead 2.8 GPM	0.0230	343.30	unit	5	7	NA	1.00	2011 EM&V	2013 EM&V
Residential	New Construction	Level I (Electric) 10 - 19.9% better than code	IPL Reference Home - 2009 IECC	0.6700	3,300.00	HH	25	6325	NA	1.00	REMRate (Building Simulation Modeling)	2012 EM&V
Residential	New Construction	Level II (Electric) 20 - 29.9% better than code	IPL Reference Home - 2009 IECC	1.0000	4,000.00	HH	25	7136	NA	1.00	REMRate (Building Simulation Modeling)	2012 EM&V
Residential	New Construction	Level III (Electric) 30 - 39.9% better than code	IPL Reference Home - 2009 IECC	1.5000	5,000.00	HH	25	8160	NA	1.00	REMRate (Building Simulation Modeling)	2012 EM&V
Residential	New Construction	Level IV (Electric) 40 - 100% better than code	IPL Reference Home - 2009 IECC	2.2500	6,000.00	HH	25	9286	NA	1.00	REMRate (Building Simulation Modeling)	2012 EM&V
Residential	Online Energy Assessment	Bath Aerator	Faucet 2.4 GPM	0.0039	17.10	unit	10	1	0.49	0.84	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	CFL - 13W	Incandescent	0.0053	23.93	lamp	5	3.00	0.89	0.54	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	CFL - 19W	Incandescent	0.0062	28.52	lamp	5	3.00	0.89	0.54	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	Hot Water Thermometer	NA	0.0000	0.00	unit	NA	1	1.00	0.00	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	Kitchen Aerator	Faucet 2.4 GPM	0.0046	79.62	unit	10	2	0.57	0.81	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	Low Flow Showerhead	Showerhead 2.8 GPM	0.0124	207.27	unit	5	7	0.54	0.74	2011 EM&V	2012 EM&V
Residential	Online Energy Assessment	Refrigerator Thermometer	NA	0.0000	0.00	unit	NA	1	1.00	0.00	2011 EM&V	2012 EM&V
Residential	Peer Comparison	Peer Comparison Reports	NA	NA	NA	HH	1	NA	1.00	1.00	Analysis of test group and control	2012 EM&V

Category	Sub-Category	Item Description	Technology	Efficiency	Cost	Unit	Quantity	Power	PF	THD	Notes	Year
Residential	Renewables	Solar PV	NA	0.2410	1,418.00	Nameplate kW installed	25	4000	NA	1.00	2011 EM&V	2011 EM&V
Residential	School Kits	CFL - 13W	Incandescent	0.0042	32.15	lamp	5	3.00	0.69	0.78	2013 EM&V	2013 EM&V
Residential	School Kits	CFL - 23W	Incandescent	0.0035	26.65	lamp	5	3.00	0.62	0.78	2013 EM&V	2013 EM&V
Residential	School Kits	Faucet Aerator	Faucet 2.4 GPM	0.0028	141.96	unit	10	1.40	0.47	1.10	2013 EM&V	2013 EM&V
Residential	School Kits	FilterTone Alarm	NA	0.0317	20.48	unit	5	2.50	0.44	1.17	2013 EM&V	2013 EM&V
Residential	School Kits	LED Nightlight	Incandescent	0.0000	6.83	unit	15	2.50	0.84	1.00	2013 EM&V	2013 EM&V
Residential	School Kits	Low Flow Showerhead	Showerhead 2.8 GPM	0.0058	122.02	unit	5	4.25	0.55	1.07	2013 EM&V	2013 EM&V
Business	ACLM	C&I ACLM switch (50% True Cycle)	NA	0.4120	5.28	LCR (kWh based on 40 Hours of Operation)	10	195	1.00	1.00	PL Load Research Analysis	2011 EM&V
Business	Custom	Large Project >\$5K	Actual	NA	NA	project	12	NA	NA	0.81	Project specifications - engineering review	2012 EM&V
Business	Custom	Small Project - \$1-5K	Actual	NA	NA	project	12	NA	NA	0.81	Project specifications - engineering review	2012 EM&V
Business	Multifamily	CFL (Common Area)	Incandescent	0.0311	100.01	lamp	3.2	3.00	NA	1.00	2013 EM&V	2013 EM&V
Business	Multifamily	CFL Globes (Common Area)	Incandescent	0.0311	100.01	lamp	3.2	3.00	NA	1.00	2013 EM&V	2013 EM&V
Business	Prescriptive	100W Ceramic Metal Halide fixture	Incandescent or Halogens for a total of 270W	0.2000	748.00	fixture	15	90	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	150W Ceramic Metal Halide fixture	Incandescent or Halogens for a total of 360W	0.2500	920.00	fixture	15	90	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	20W Ceramic Metal Halide fixture	Incandescent or Halogen of at least 100W	0.0900	346.00	fixture	15	130	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	25W or less Ceramic Metal Halide with integral ballast	70W or greater incandescent flood light	0.0600	210.00	fixture	15	130	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	320 W Pulse Start Metal Halide	400W HID	0.0900	332.00	fixture	8	150	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	39W Ceramic Metal Halide fixture	Incandescent or Halogen of at least 150W	0.1300	491.00	fixture	15	130	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	42W 8 lamp HB CFL	400W HB HID	0.0800	277.00	fixture	7	395	NA	0.67	IN TRM	2012 EM&V

Business	Prescriptive	50W Ceramic Metal Halide fixture	Incandescent or Halogens for a total of 195W	0.1800	654.00	fixture	15	95	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	70W Ceramic Metal Halide fixture	Incandescent or Halogens for a total of 225W	0.1900	682.00	fixture	15	95	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	AC <65,000 BTUH (5.4 tons)	Actual	0.0600	61.70	tons	15	100	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	AC ≥ 65,000 BTUH (5.4 tons) and < 135,000 BTUH (11.25 tons)	Actual	0.0560	57.50	tons	15	100	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	AC 136,000 - 240,000 BTUH	Actual	0.0500	53.80	tons	15	100	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	AC 241,000 - 760,000 BTUH	Actual	0.0440	47.30	tons	15	100	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	AC greater than 760,000 BTUH	Actual	0.0193	20.70	tons	15	100	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Air Cooled Chiller - Maintenance	NA	0.0740	164.00	tons	5	35	NA	0.80	IL TRM	NA
Business	Prescriptive	Air Source Heat Pump Ductless Minisplit	Actual	0.1320	246.00	tons	20	106	NA	0.80	MEMD	NA
Business	Prescriptive	Air Source Heat Pump EER 11.7, COP 3.4	Actual	0.0351	73.22	tons	15	100	NA	0.80	IN TRM	NA
Business	Prescriptive	Air-Cooled Chiller 0.97 kw/ton, COP 3.6	Actual	0.2060	341.00	tons	20	106	NA	0.80	IN TRM	NA
Business	Prescriptive	Auto-Closer for Walk-In Cooler Doors	NA	0.0000	467.00	unit	16	433	NA	0.80	Ohio TRM	NA
Business	Prescriptive	CFL - Screw In (bulb only) - <30W	Incandescent	0.0311	100.01	lamp	3.2	3	NA	0.80	2013 EM&V	2013 EM&V
Business	Prescriptive	CFL - Screw In (bulb only) - 30W or greater	Incandescent	0.0311	100.01	lamp	3.2	3	NA	0.80	2013 EM&V	2013 EM&V
Business	Prescriptive	CFL Fixture	Incandescent Fixture	0.0500	186.00	fixture	12	35	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	CFL Screw-In Dimmable or 3-way bulb	Incandescent	0.0500	186.00	lamp	3.2	3	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Compressed Air - Compressor Replacement	NA	0.0820	845.00	hp	15	250	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Compressed Air - Engineered Nozzle	NA	0.1640	860.00	unit	15	14	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Compressed Air - System Maintenance	NA	0.0160	162.00	hp	5	35	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Cool Roof	Standard	0.1040	197.00	1000 sf	15	8545.67	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ECM - Reach-In Refrigerated Cases (TRM 3.10)	NA	0.0940	824.00	unit	15	78	NA	0.80	MEMD	2013 EM&V
Business	Prescriptive	ECM - Walk-In Freezer or Cooler (TRM 3.11)	NA	0.1560	1,365.00	unit	15	78	NA	0.80	MEMD	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Freezers <15ft3 (8.8)	Standard	0.1930	1,693.00	case	12	142	NA	0.80	IN TRM	2013 EM&V

Business	Prescriptive	ENERGY STAR Com. Glass Door Freezers 15-30ft3 (25.4)	Standard	0.2290	2,004.00	case	12	166	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Freezers 30-50ft3 (46)	Standard	0.4420	3,869.00	case	12	166	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Freezers 50ft3 (72)	Standard	0.8130	7,118.00	case	12	407	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Refrigerators <15ft3 (8.4)	Standard	0.0820	722.00	case	12	143	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Refrigerators 15-30ft3 (22.1)	Standard	0.0760	668.00	case	12	164	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Refrigerators 30-50ft3 (43.05)	Standard	0.0830	728.00	case	12	164	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Glass Door Refrigerators 50ft3 (66.9)	Standard	0.1030	898.00	case	12	249	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Freezers <15ft3 (7.2)	Standard	0.0680	595.00	case	12	142	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Freezers 15-30ft3 (20.5)	Standard	0.0990	869.00	case	12	166	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Freezers 30-50ft3 (44.7)	Standard	0.1970	1,728.00	case	12	166	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Freezers 50ft3 (63.5)	Standard	0.4290	3,757.00	case	12	407	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Refrigerators <15ft3 (10.1)	Standard	0.0310	270.00	case	12	143	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Refrigerators 15-30ft3 (20.5)	Standard	0.0540	470.00	case	12	164	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Refrigerators 30-50ft3 (43.11)	Standard	0.0900	790.00	case	12	164	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Com. Solid Door Refrigerators 50ft3 (69.1)	Standard	0.1290	1,133.00	case	12	249	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Combo Oven	Standard	3.5300	18,432.00	unit	12	2125	NA	0.80	IN TRM	NA
Business	Prescriptive	ENERGY STAR Commercial Clothes Washer	Standard	0.0000	542.00	unit	10	347	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Convection Oven	Standard	0.6200	3,235.00	unit	12	1113	NA	0.80	IN TRM	NA
Business	Prescriptive	ENERGY STAR Desktop Computer	Standard	0.0237	77.00	unit	4	550	NA	0.80	MEMD	NA
Business	Prescriptive	ENERGY STAR Dishwasher	Standard	0.0520	150.00	unit	11	211	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Fryers	Standard	0.2200	983.00	unit	12	500	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Griddle	Standard	1.3420	6,996.00	unit	12	2090	NA	0.80	IN TRM	NA

Business	Prescriptive	ENERGY STAR Ice Machine < 500 lbs	Standard	0.0680	599.00	unit	9	389	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Ice Machine > 1000 lbs.	Standard	0.1460	1,286.00	unit	9	2007	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Ice Machine 500 - 1000 lbs.	Standard	0.1020	892.00	unit	9	1485	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	Energy Star LED bulbs	Incandescent	0.0400	154.00	lamp	8	45	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Energy Star LED Downlighting	Incandescent Downlighting	0.0800	284.00	fixture	15	95	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Energy Star LED MR16 Lamp	Incandescent	0.0600	224.00	lamp	8	30	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Energy Star LED PAR Lamp	Incandescent	0.0700	257.00	lamp	8	45	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	ENERGY STAR Monitor	Standard	0.0072	14.20	unit	4	150	NA	0.80	MEMD	NA
Business	Prescriptive	ENERGY STAR Server	Standard	0.1370	1,200.00	unit	4	30	NA	0.80	FOE	NA
Business	Prescriptive	ENERGY STAR Steam Cookers 3 Pan	Standard	2.5540	11,188.00	unit	12	3500	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Steam Cookers 4 Pan	Standard	2.8450	12,459.00	unit	12	3500	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Steam Cookers 5 Pan	Standard	3.1580	13,831.00	unit	12	3500	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	ENERGY STAR Steam Cookers 6 Pan	Standard	3.4630	15,170.00	unit	12	3500	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	Evaporative Fan Controller for Walk-In Cooler	NA	0.0980	858.00	unit	16	182	NA	0.80	Ohio TRM	NA
Business	Prescriptive	Exterior LED or Induction Lighting	≤175W HID fixture	0.1000	418.00	fixture	15	300	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Exterior LED or Induction Lighting	176-250W HID fixture	0.1000	418.00	fixture	15	400	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Exterior LED or Induction Lighting	251-400W HID fixture	0.1600	718.00	fixture	15	600	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Exterior LED or Induction Lighting	>400W HID fixture	0.2900	1,289.00	fixture	15	600	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Exterior Lighting - Daylighting Controls	NA	0.0000	1,322.00	kw controlled	8	65	NA	0.80	IN TRM	NA
Business	Prescriptive	F32 T8 HB 4 ft 4 lamp	250 - 399W HB HID	0.2200	813.00	fixture	7	65	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	F32 T8 HB 4 ft 6 lamp	400 - 999W HB HID	0.6100	2,215.00	fixture	7	160	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	F32 T8 HB 4 ft 8 lamp	400 - 999W HB HID	0.5300	1,925.00	fixture	7	200	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	F32 T8 HB 4ft 8 lamp (2 for 1 replacement)	1000W HB HID	0.5400	1,981.00	fixture	7	400	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Geothermal Heat Pump EER 18, COP 3.8	Actual	0.2820	3,088.00	tons	15	630	NA	0.80	MEMD	NA
Business	Prescriptive	Geothermal Heat Pump EER 30, COP 5.0	Actual	0.3840	3,358.00	tons	15	630	NA	0.80	MEMD	NA

Business	Prescriptive	Guest Room Energy Management (Electric Heat)	NA	0.0880	1,114.00	unit	8	250	NA	0.67	MEMD	2012 EM&V
Business	Prescriptive	Guest Room Energy Management (Gas Heat)	NA	0.0930	237.00	unit	8	250	NA	0.67	MEMD	2012 EM&V
Business	Prescriptive	Heat Pump - Maintenance	NA	0.0000	68.47	tons	5	35	NA	0.80	IL TRM	NA
Business	Prescriptive	High Efficiency Pump 1.5 HP	Standard Efficiency	0.1300	617.00	unit	15	350	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 10 HP	Standard Efficiency	1.2600	5,952.00	unit	15	332	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 15 HP	Standard Efficiency	1.6600	7,848.00	unit	15	585	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 2 HP	Standard Efficiency	0.1900	900.00	unit	15	350	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 20 HP	Standard Efficiency	1.5400	7,256.00	unit	15	850	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 3 HP	Standard Efficiency	0.3900	1,841.00	unit	15	351	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 5 HP	Standard Efficiency	0.7500	3,528.00	unit	15	341	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Pump 7.5 HP	Standard Efficiency	1.1500	5,438.00	unit	15	498	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	High Efficiency Water Heater > 0.93 EF	EF 0.86	0.0250	157.00	unit	15	49	NA	0.67	MEMD	2012 EM&V
Business	Prescriptive	HP 135,000 - 240,000 BTUH	Actual	0.0500	91.50	tons	15	100	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP greater than 240,000 BTUH	Actual	0.0269	66.65	tons	15	100	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 1 lamp	T12 4ft 1 lamp	0.0100	42.00	fixture	15	38	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 1 lamp	T8 4ft 1 lamp	0.0100	42.00	fixture	15	38	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 2 lamp	T8 4ft 2 lamp	0.0300	93.00	fixture	15	41	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 2 lamp	T12 4ft 2 lamp	0.0300	93.00	fixture	15	41	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 2 lamp	T12 8ft 1 lamp	0.0200	56.00	fixture	15	38	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 2 lamp	T12 HO 8ft 1 lamp	0.0300	93.00	fixture	15	62	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 3 lamp	T8 4ft 3 lamp	0.0400	136.00	fixture	15	62	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 3 lamp	T12 4ft 3 lamp	0.0400	136.00	fixture	15	62	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 4 lamp	T12 4ft 4 lamp	0.0500	187.00	fixture	15	66	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 4 lamp	T12 8ft 2 lamp	0.0500	187.00	fixture	15	41	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 4 lamp	T12 HO 8ft 2 lamp	0.0500	187.00	fixture	15	66	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	HP T8 4ft 4 lamp	T8 4ft 4 lamp	0.0500	187.00	fixture	15	66	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Interior Lighting - Clocks and Timers	NA	0.0000	467.00	kw controlled	8	103	NA	0.80	IN TRM	NA
Business	Prescriptive	Interior Lighting - Daylighting Controls	NA	0.2890	1,402.00	kw controlled	8	65	NA	0.80	IN TRM	NA



Business	Prescriptive	Interior Lighting - Skylights	NA	0.0970	310.00	unit	10	500	NA	0.80	IN TRM	NA
Business	Prescriptive	LD1 Induction Lamp and Fixture 55 - 100W	175 - 250W HID	0.0960	575.00	fixture	15	300	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LD2 Induction Lamp and Fixture > 100W	251 - 400 HID	0.1010	605.00	fixture	15	400	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED Auto Traffic Signals - 8 or 12 Green (w/CF = .43) "	Incandescent	0.0620	299.00	lamp	10	50	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	LED Auto Traffic Signals - 8 or 12 Red (w/CF = .55) "	Incandescent	0.0620	299.00	lamp	10	50	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	LED Auto Traffic Signals - 8 or 12 Yellow (w/CF = .02) "	Incandescent	0.0620	299.00	lamp	10	50	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	LED Case Lighting Sensor Controls	Flourescent Lighting	0.0500	195.00	door	8	125	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED Exit Sign	Incandescent or Flourescent	0.0100	83.00	unit	16	30	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED Lighting in Reach-in Freezer or Cooler case	Flourescent Lighting	0.0500	454.50	door	8.1	250	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED or Induction Parking Garage Lighting	≤175W HID fixture	0.1100	953.00	fixture	15	400	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED or Induction Parking Garage Lighting	176-250W HID fixture	0.1100	953.00	fixture	15	500	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED or Induction Parking Garage Lighting	>400W HID fixture	0.3400	2,948.00	fixture	15	800	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED or Induction Parking Garage Lighting	251-400W HID fixture	0.1900	1,638.00	fixture	15	800	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	LED Pedestrian Signal	Incandescent	0.1080	946.00	unit	10	100	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	Motors - Synchronous Belts	NA	0.0150	70.40	hp	14	30	NA	0.80	MEMD	NA
Business	Prescriptive	Occupancy Sensor > 500 W	NA	0.0230	1,268.20	kW controlled	8	66	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Occupancy Sensors - 500W and less connected load	NA	0.0230	1,268.20	kW controlled	8	66	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	Pool Pump High Efficiency	Standard Efficiency	0.2380	463.00	hp	10	567	NA	0.80	MEMD	NA
Business	Prescriptive	Pool Pump High Efficiency Multi Speed	Standard Efficiency	0.5310	721.00	hp	10	386	NA	0.80	MEMD	NA
Business	Prescriptive	Programmable Thermostat	Non-Programmable Thermostat	0.0000	905.33	Thermostat	12	150	NA	0.80	IN TRM	NA
Business	Prescriptive	Pumping System - Maintenance	NA	0.0169	70.30	hp	5	50	NA	0.80	IL TRM	NA
Business	Prescriptive	Refrigerator - Anti Sweat Heater	NA	0.0000	843.00	door	12	250	NA	0.80	IN TRM	NA
Business	Prescriptive	Refrigerator - Strip Curtain	NA	0.1950	1,698.00	door	6	184	NA	0.80	IN TRM	NA
Business	Prescriptive	RTU - Maintenance	NA	0.0000	28.60	tons	5	35	NA	0.80	IL TRM	NA

Business	Prescriptive	T12 Delamping	NA	0.0276	117.00	lamp	10	4	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 - 4ft 1 lamp - Same number of Lamp Replacement	T12	0.0055	30.00	fixture	15	25	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 - 4ft 2 lamp - Same number of Lamp Replacement	T12	0.0152	81.00	fixture	15	50	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 - 4ft 3 lamp - Same number of Lamp Replacement	T12	0.0131	70.00	fixture	15	75	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 - 4ft 4 lamp - Same number of Lamp Replacement	T12	0.0297	158.00	fixture	15	100	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 Garage - 1 lamp (Garage - an unconditioned and enclosed or partially enclosed space)	75W-100W HID	0.0345	438.00	fixture	15	150	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 Garage - 2 lamp (Garage - an unconditioned and enclosed or partially enclosed space)	101W-175W HID	0.0587	745.00	fixture	15	180	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 Garage - 3 lamp (Garage - an unconditioned and enclosed or partially enclosed space)	176W + HID	0.0925	1,174.00	fixture	15	180	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 2L - installed at 15' and above	150W-175W HID	0.0587	354.00	fixture	7	150	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 2L - installed below 15'	150W-175W HID	0.0587	354.00	fixture	7	180	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 3L - installed at 15' and above	250W HID	0.0925	557.00	fixture	7	180	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 3L - installed below 15'	250W HID	0.0925	557.00	fixture	7	180	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 4L - installed at 15' and above	400W HID	0.1766	1,065.00	fixture	7	192	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 4L - installed below 15'	400W HID	0.1766	1,065.00	fixture	7	192	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 6L - installed at 15' and above	400W HID	0.1063	641.00	fixture	7	350	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO - Highbay 4ft 6L - installed below 15'	400W HID	0.1063	641.00	fixture	7	350	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5 HO HB 8 lamp	750-999W HB HID	0.5200	1,902.00	fixture	7	350	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	T5HO - Highbay 4ft 5L (10L fixture or 2 - 5L fixtures) - installed at 15' and above	1000W HID	0.4416	2,662.00	fixture	7	192	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5HO - Highbay 4ft 5L (10L fixture or 2 - 5L fixtures) - installed below 15'	1000W HID	0.4416	2,662.00	fixture	7	192	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T5HO - Highbay 4ft 6L (12L	1000W HID	0.3712	2,238.00	fixture	7	350	NA	0.80	IN TRM	2013 EM&V

		fixture or 2 - 6L fixtures) - installed at 15' and above										
Business	Prescriptive	T5HO - Highbay 4ft 6L (12L fixture or 2 - 6L fixtures) - installed below 15'	1000W HID	0.3712	2,238.00	fixture	7	350	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 1 lamp - 25W	T8 - 32W	0.0043	26.30	fixture	15	2	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 1 lamp - 28W	T12	0.0025	15.03	fixture	15	2	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 2 lamp - 25W	T8 - 32W	0.0087	52.61	fixture	15	4	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 2 lamp - 28W	T12	0.0050	30.06	fixture	15	4	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 3 lamp - 25W	T8 - 32W	0.0130	78.91	fixture	15	6	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 3 lamp - 28W	T12	0.0075	45.09	fixture	15	6	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 4 lamp - 25W	T8 - 32W	0.0174	105.21	fixture	15	8	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 4ft 4 lamp - 28W	T12	0.0099	60.12	fixture	15	8	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	T8 Delamping	NA	0.0229	103.00	lamp	10	4	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	VFD - Compressor	1-50 hp	0.1582	694.50	HP	15	181.34	NA	0.80	IL TRM	2013 EM&V
Business	Prescriptive	VFD - HVAC Fans	1-50 hp	0.1384	1,292.85	HP	15	181.34	NA	0.80	IL TRM	2013 EM&V
Business	Prescriptive	Water Cooled Chiller	Actual	0.1090	209.00	tons	20	80	NA	0.80	IN TRM	2013 EM&V
Business	Prescriptive	Water Cooled Chiller - Maintenance	NA	0.0420	89.11	tons	5	35	NA	0.80	IL TRM	NA
Business	Prescriptive	Water Heater - Faucet Aerator/Low Flow Nozzle	NA	0.1160	1,396.00	unit	5	35	NA	0.80	MEMD	NA
Business	Prescriptive	Water Heater - Tank Blanket/Insulation	NA	0.0400	346.00	sf	15	3	NA	0.80	MEMD	NA
Business	Prescriptive	Water Heating EF 2.4	NA	1.4600	5,375.00	unit	15	1000	NA	0.80	MEMD	NA
Business	Prescriptive	Window Film	NA	0.0011	3.44	sf	10	2.67	NA	0.67	IN TRM	2012 EM&V
Business	Prescriptive	Windows - High Efficiency	Standard Efficiency	0.0012	3.26	sf	20	55	NA	0.80	IN TRM	NA
Business	Renewables	Solar PV	NA	0.2447	1,338.00	Nameplate kW installed	25	4000	NA	1.00	2011 EM&V	2011 EM&V
Business	SBDI	CFL - 18W	Incandescent	0.0311	100.01	lamp	5	3.00	NA	1.00	2013 EM&V	2013 EM&V
Business	SBDI	LED Exit Sign	Incandescent or Fluorescent	0.0100	83.00	unit	16	30	NA	0.67	IN TRM	2012 EM&V
Business	SBDI	Occupancy Sensors	NA	0.0230	1,268.20	kW controlled	8	66	NA	0.80	IN TRM	2013 EM&V
Business	SBDI	Programmable Thermostat	Non-Programmable Thermostat	0.0000	905.33	Thermostat	12	150	NA	0.80	IN TRM	NA
Business	SBDI	Vending Machine Timer	NA	0.0000	1,416.78	unit	5	215	NA	1.00	2013 EM&V	2013 EM&V

Business	School Audit & DI	CFL - 18W	Incandescent	0.0311	100.01	Lamp	3.2	3.00	NA	1.00	2013 EM&V	2013 EM&V
Business	School Audit & DI	Room Occupancy Sensor	NA	0.0230	1,268.20	kW controlled	8	66	NA	1.00	IN TRM	2013 EM&V
Business	School Audit & DI	Smart Strip with Occupancy Sensor	NA	0.0000	44.41	unit	8	70	NA	1.00	2013 EM&V	2013 EM&V
Business	School Audit & DI	Vending Machine Timer	NA	0.0000	1,416.78	unit	5	215	NA	1.00	2013 EM&V	2013 EM&V

**VERIFICATION**

I, Zac Elliot, of Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



Zac Elliot

Dated: May 30, 2014

**VERIFIED DIRECT TESTIMONY**  
**OF**  
**JAMES L. CUTSHAW**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**

**SPONSORING PETITIONER'S EXHIBITS JLC-2 THROUGH JLC-4**

**VERIFIED DIRECT TESTIMONY OF JAMES L. CUTSHAW**

1 **Q1. Please state your name, employer and business address.**

2 A1. My name is James L. Cutshaw. I am employed by Indianapolis Power & Light Company  
3 (“IPL” or “Company”), whose business address is One Monument Circle, Indianapolis,  
4 Indiana 46204.

5 **Q2. What is your position with IPL?**

6 A2. I am Revenue Requirements Manager.

7 **Q3. What are your duties and responsibilities as Revenue Requirements Manager?**

8 A3. I provide financial, technical and regulatory analysis and assimilate technical and  
9 economic information into rate design. In addition, I am responsible for directing the  
10 filings supporting changes in fuel cost adjustment factors and other rate recovery  
11 mechanisms.

12 **Q4. Please summarize your prior work experience.**

13 A4. I have been an employee of IPL since May 22, 2006, initially as a Senior Regulatory  
14 Analyst. From July, 2004 to May, 2006, I was employed by London Witte Group, LLC  
15 (“London Witte”) as a Manager. London Witte is a certified public accounting firm that  
16 provides an array of accounting and consulting services to public utility, private and  
17 governmental clients. I was part of its Municipal & Utility Services group which  
18 specializes in assisting state agencies, political subdivisions, school corporations and  
19 utilities in developing and implementing financing plans and establishing appropriate rate  
20 structures.

1 From January, 2002 to July, 2004, I was employed by American Water Works Service  
2 Company, Inc. as a Senior Financial Analyst. In that position I was responsible for  
3 maintaining the financial integrity of three affiliated utilities in Indiana, Ohio and  
4 Michigan through the filing of rate adjustment applications, and was also intimately  
5 involved in all regulatory activities and budgeting processes. I held the officer titles of  
6 Assistant Treasurer and Assistant Secretary for these companies.

7 From August, 1993 to December, 2001, I performed these same functions and held the  
8 same officer titles for Indiana-American Water Company, Inc. in the position of Director  
9 of Rates and Revenues. I worked closely with the personnel responsible for the  
10 accounting and financial statement preparation to ensure consistent and proper treatment  
11 among the financial, regulatory and budgeting functions.

12 From 1987 to 1993, I was employed by Consolidated Water Services, Inc. ("CWSI") in  
13 positions of increasing responsibility in which I was responsible for the regulatory  
14 activities of several water and wastewater utilities of CWSI, including Indiana Cities  
15 Water Corporation. I also had responsibilities for the customer billing, fixed asset  
16 accounting, systems development and accounting controls, and general accounting  
17 matters for these utilities.

18 From 1983 to 1987, I was employed by the public accounting firm of Ernst & Whinney  
19 (now called Ernst & Young). I was involved in audits, reviews, compilations, tax and  
20 basic bookkeeping services for that firm's clients.

21



1 **Q5. Please summarize your education and professional qualifications.**

2 A5. I graduated from Ball State University, located in Muncie, Indiana, with a Bachelor of  
3 Science Degree in Accounting. I received my Certified Public Accountant license for the  
4 State of Indiana and have fulfilled the necessary educational requirements to allow use of  
5 the CPA designation.

6 **Q6. Have you previously testified before this Commission or other regulatory agencies?**

7 A6. Yes. I have testified before the Indiana Utility Regulatory Commission ("Commission"),  
8 in IPL's semi-annual Environmental Compliance Cost Recovery Adjustment proceedings  
9 (Cause No. 42170-ECR-XX), and recent IPL Demand Side Management ("DSM")  
10 proceedings (Cause Nos. 43623 and 43911). In addition, I have provided testimony in  
11 both Phases I and II of Cause 43426 regarding the Midcontinent Independent  
12 Transmission System Operator, Inc. ("MISO") Ancillary Services Market, and in Cause  
13 No. 42693-S1 regarding the Commission's generic investigation in the effectiveness of  
14 DSM programs on a state-wide basis. I have provided testimony regarding accounting  
15 and ratemaking treatment of IPL's Compliance Projects in Cause Nos. 44242 and 44339.

16 Further, I have testified before the Michigan Public Service Commission, the Missouri  
17 Public Service Commission, and the Public Utilities Commission of Ohio. The scope of  
18 my testimony has included accounting adjustments necessary to determine annualized  
19 and pro-forma operating revenues and expenses, and rate base and capitalization for  
20 ratemaking purposes. In addition, I have testified concerning post-in-service allowance  
21 for funds used during construction ("AFUDC") and deferred depreciation related to  
22 major construction projects placed in service between rate cases, the accounting and

1 ratemaking treatment of the acquisition of water utility property, and financing programs  
2 consisting of the issuance and sale of General Mortgage Bonds and Common Stock.

3 **Q7. Are you familiar with IPL's petition in this proceeding and the relief that it seeks?**

4 A7. Yes, I am.

5 **Q8. Have you reviewed the testimony and exhibits of the other witnesses in this Cause?**

6 A8. Yes.

7 **Q9. What is the purpose of your testimony in this proceeding?**

8 A9. The purpose of my testimony is to (1) introduce revisions to Standard Contract Rider No.  
9 22 to reflect lost revenues resulting from the 2015-2016 DSM Plan, (2) discuss the  
10 calculation of lost revenues, and to (3) discuss how the lost revenues recovery should be  
11 accounted for in the Fuel Adjustment Clause ("FAC") earnings test.

12 **Q10. What exhibits are you sponsoring in this proceeding?**

13 A10. I am sponsoring the following exhibits:

14 Petitioner's Exhibit JLC-2 Modifications to IPL's existing Standard Contract Rider  
15 No. 22, Demand-Side Management Adjustment, to reflect  
16 lost revenues

17 Petitioner's Exhibit JLC-3 Determination of Projected DSM Lost Revenues for the  
18 2015-2016 DSM Plan

19 Petitioner's Exhibit JLC-4 Derivation of Lost Revenue Margin Rates

20 **Q11. Have you prepared an exhibit which reflects modifications to existing Standard**  
21 **Contract Rider No. 22 to reflect the proposed recovery of lost revenues on the 2015-**  
22 **2016 DSM Plan?**

1 A11. Yes. Petitioner's Exhibit JLC-2 reflects the addition of subparagraph A.3 which  
2 describes the process for determining the estimate of lost revenues. The language  
3 revisions have been made to the version of the tariff filed in pending Cause No. 44411 on  
4 May 27, 2014 and discussed in the testimony of IPL Witness Allen.

5 **Q12. Have you made any additional changes to Standard Contract Rider No. 22?**

6 A12. Yes. The references to "Core and Core Plus" and "CCP" have been removed in the title  
7 and subparagraphs. Each change has been struck through and is shown in red bold.

8 **Q13. Please describe the change to the cost recovery mechanism IPL is proposing in this**  
9 **proceeding regarding lost revenues?**

10 A13. IPL is proposing recovery of lost revenues due to decreased kilowatt-hour (kWh)  
11 consumption and kilowatt (kW) demand from the program measures which will continue  
12 for the weighted average life of the program measures. In IPL's semi-annual filings  
13 (Cause No. 43623-DSM-X), lost revenues will be forecasted for the same period as the  
14 2015-2016 DSM Plan costs based upon each program's estimated participation, and  
15 reconciled to actual participation in the same subsequent semi-annual filing as the  
16 expenditures are reconciled.

17 As also discussed by IPL Witness Allen, IPL is seeking lost revenues recovery because  
18 IPL believes that recovery of lost revenues resulting from its 2015-2016 DSM Plan is just  
19 and reasonable for a number of reasons, including: (1) lost revenues recovery is  
20 necessary (but not sufficient) to eliminate a financial penalty for implementing energy  
21 efficiency programs; (2) both the Commission and the General Assembly have

1 recognized that lost revenues recovery is appropriate; and (3) IPL has absorbed lost  
2 revenues resulting from its DSM programs since 2004.

3 **Q14. Have you prepared an exhibit which shows the calculation of lost revenues for each**  
4 **year of the 2015-2016 DSM Plan?**

5 A14. Yes. Petitioner's Exhibit JLC-3 reflects an estimate of the calculation for each year  
6 based upon the 2015-2016 DSM Plan. Schedule A-1 shows that the Year 1 (2015)  
7 estimate is \$1.382 million and Schedule B-1 shows that the Year 2 (2016) estimate is  
8 \$3.919 million.

9 **Q15. How were the projected lost revenues by rate class determined?**

10 A15. Estimates of the kWh consumption and kW demand reductions per participant and the  
11 number of participants for each program were determined from the analysis prepared by  
12 IPL Witnesses Elliot and Berry. Estimated participants for each program were allocated  
13 between the individual rates based upon the ratio of the annual historical kWh  
14 consumption within their rate class. Allocated participants by rate were then multiplied  
15 by the estimated kWh consumption and kW demand reductions by participant to  
16 determine the total kWh consumption and kW demand amounts by rate within each  
17 program and then totaled by rate. For all programs except ACLM and Peer Comparison,  
18 since the per participant reductions and the number of participants are annual amounts,  
19 the incremental total by rate was divided by two in order to reflect a pro-rata  
20 implementation of the measures during the year. For the ACLM and Peer Comparison  
21 Programs, the incremental reduction was utilized as the cumulative savings. These  
22 amounts for each individual rate were then multiplied by the lost revenue margin rates

1 per kWh and kW proposed in Cause No. 43911 by IPL Witness Kerry A. Heid and  
2 reflected on Petitioner's Exhibit JLC-4.

3 **Q16. Do the estimates of kWh consumption and kW demand reductions per participant**  
4 **utilized in the lost revenues calculation reflect an adjustment to account for free**  
5 **ridership?**

6 A16. Yes. The estimates of kWh consumption and kW demand reductions tie directly to the  
7 Net Incremental Energy Savings and Net Incremental Demand Savings in the 2015-2017  
8 Action Plan (Petitioner's Exhibit ZE-2), which have been adjusted to reflect the net to  
9 gross ratio for each program to account for free ridership.

10 **Q17. Are the lost revenue margin rates per kWh and kW utilized in determining lost**  
11 **revenues amounts reasonably reflective of IPL's present operating system?**

12 A17. Yes. In the 43623 Order, the Commission found that it could not reasonably approve lost  
13 revenues recovery for IPL's DSM programs at that time because it lacked sufficient  
14 evidence demonstrating the lost revenue margin rates per kWh and kW which IPL  
15 proposed to be used to determine lost revenues amounts were reasonably reflective of its  
16 present operating system. To address this concern, IPL filed updated lost revenue margin  
17 rates in Cause No. 43911 which the Commission agreed "reasonably reflects the amount  
18 of present net revenue lost as a result of the achievement of energy savings"<sup>1</sup>. I have  
19 reviewed a recent calculation of six-year average of variable O&M costs (to allow for  
20 outage frequency) and determined that the variable O&M costs in the lost revenue margin  
21 rates are still reflective of current conditions.

---

<sup>1</sup> Order in Cause No. 43911 p. 11

1 **Q18. Are lost revenues a real and calculable cost of implementing DSM programs?**

2 A18. Yes. The adoption of DSM programs by customers reduces kWh consumption and kW  
3 demand which results in reduced revenue collections for utilities (such as IPL) which are  
4 only partially offset by a reduction in base fuel and variable O&M costs. The lost  
5 revenue margin rates shown on Petitioner's Exhibit JLC-4 begin with IPL's approved rate  
6 block for each rate schedule at which customers' marginal energy consumption or  
7 demand occurs (determining the impact to IPL's revenues) and are adjusted to remove  
8 the base cost of fuel, variable O&M expenses, and applicable Indiana Utility Receipts  
9 Tax (determining the expenses IPL avoids by not generating the electricity that would  
10 have otherwise been consumed). The result in the decrease to operating margin (a  
11 financial penalty) that IPL experiences as a result of implementing energy efficiency  
12 programs.

13 **Q19. Do you have a clarification to make concerning the calculation of lost revenues in**  
14 **the semi-annual filings?**

15 A19. Yes. As previously mentioned, Petitioner's Exhibit JLC-3 reflects the calculation for  
16 each year based upon the 2015-2016 DSM Plan. In the semi-annual filings in Cause No.  
17 43623-DSM-X, the participants will be estimated on a monthly basis, and during the  
18 reconciliation process, actual participants by month will be utilized. Since the per  
19 participant kWh consumption and kW demand reductions are annual amounts, the total  
20 reductions calculated by rate will be divided by twelve in order to reflect a monthly  
21 amount and then totaled for the six months in the semi-annual period before being  
22 multiplied by the lost revenue margin rates.

1 **Q20. How should the “earnings test” within IPL’s FAC account for lost revenues**  
2 **recovery?**

3 A20. The DSM lost revenues billed, including any reconciled amount of over/under recovery,  
4 should be included in the FAC earnings test. It is appropriate to do so inasmuch as the  
5 lost revenues would have been otherwise reflected if the 2015-2016 DSM Plan were not  
6 implemented. This treatment is consistent with that currently approved for the  
7 performance incentive and proposed for the Shared Savings incentive as discussed by IPL  
8 Witness Berry.

9 **Q21. Does this conclude your prepared direct testimony?**

10 A21. Yes, at this time.

Indianapolis Power & Light Company  
One Monument Circle  
Indianapolis, Indiana

I.U.R.C. No. E-16

9<sup>th</sup> ~~10<sup>th</sup>~~ Revised No. 179.5  
Superseding  
8<sup>th</sup> ~~9<sup>th</sup>~~ Revised No. 179.5

STANDARD CONTRACT RIDER NO. 22  
~~CORE AND CORE PLUS~~ DEMAND-SIDE MANAGEMENT ADJUSTMENT  
(Applicable to Rates RS, UW, CW, SS, SH, OES, SL, PL, PH, HL and EVX)

In addition to the rates and charges set forth in the above mentioned Rates, a ~~Core and Core Plus~~ Demand-Side Management (~~CCP~~-DSM) Adjustment applicable for approximately six (6) months or until superseded by a subsequent factor shall be made in accordance with the following provisions:

- A. The ~~CCP~~-DSM adjustment per KWH shall be calculated by multiplying the KWH billed by an Adjustment Factor established according to the following formula:

$$\text{CCP-DSM} = \frac{P1 + P2 + LR}{S} \quad (\text{For each rate class})$$

where:

1. "~~P1~~" is the estimate of ~~Core~~-DSM program costs for the period from ~~January 2014~~ July 2014 through ~~June 2014~~ December 2014 for the ~~Core~~-DSM programs described and approved in the orders in Cause Nos. 43960 and ~~proposed in Cause No. 44328.~~
2. ~~"P2" is the estimate of Core Plus DSM program costs, including incentives as applicable, for the period from January 2014 July 2014 through June 2014 December 2014 for the non-Core DSM programs approved in the orders in Cause Nos. 43960 and proposed in Cause No. 44328.~~  
  

~~"LR" is the estimate of lost revenues for the period from \_\_\_\_\_ through \_\_\_\_\_ and calculated as follows:~~

  - (a) ~~The participants for each program eligible for lost revenues recovery estimated for each of the six months; times~~
  - (b) ~~The reduction in energy and demand for each program to obtain the total reduction in energy and demand for all DSM programs summed by rate. This total times~~
  - (c) ~~The lost contribution to fixed costs for each rate, that is, the average marginal price by rate less the base cost of fuel and variable Operation & Maintenance expenses and/or the demand rate, to obtain the lost revenues by rate summed by rate class.~~
3. "S" is the estimated kilowatt-hour sales for the period from ~~January 2014~~ July 2014 through ~~June 2014~~ December 2014 consisting of the net sum in kilowatt-hours of:
  - (a) Net generation,
  - (b) Purchases and
  - (c) Interchange-in, less
  - (d) Inter-system Sales,
  - (e) Energy Losses and Company Use

- B. The ~~CCP~~-DSM Adjustment Factor as computed above for each rate class shall be further modified to allow the recovery of utility receipts taxes and other similar revenue-based tax charges occasioned by the ~~CCP~~-DSM adjustment revenues.
- C. The ~~CCP~~-DSM Adjustment Factor may be further modified to reflect the difference between the actual and estimated program costs and Customer participation levels.



D. The ~~CCP~~ DSM Adjustment Factor to be effective for all bills rendered for electric service beginning with the first billing cycles for ~~January 2014~~ **July 2014** after approval will be:

\$0. **002614** per KWH for Rate RS, CW (with associated Rate RS service)

\$0. **003812** per KWH for Rates SS, SH, OES, UW, CW (with associated Rate SS service)

~~\$0.000642 per KWH for Rate SL~~

\$0. **002098** per KWH for Rates PL, PH, HL, SL customers who have elected to remain a participant in IPL's energy efficiency programs

**\$0.000000 per KWH for Rates PL, PH, HL, SL customers who have elected to opt out by June 1, 2014**

**2014 Opt Out Rate Adjustment: \$0.0 per KWH for all Rates** (to be subsequently reconciled to reflect energy efficiency program costs that accrued or were incurred, or relate to energy efficiency investments made, before the date on which the opt out is effective.

**E. Opt Out Procedures**

Pursuant to Senate Enrolled Act 340, a customer shall be allowed to opt out of both participating in the Company's energy efficiency programs and paying the Standard Contract Rider No. 22 rate adjustment (except for the Standard Contract Rider No. 22 Opt Out Rate Adjustment, shown above), provided each of the following conditions are met:

1. The customer must receive service(s) at a single site (contiguous property) and must have greater than one (1) megawatt of demand in the preceding twelve (12) months, as measured by a single demand meter (a single service), at such single site.
2. The opt out will only apply to a single site, and all (non-residential) services at such site will be subject to the opt out (with the Customer having the obligation to identify all such accounts and services to the Company). If a Customer has a Single Site with Qualifying Load, it shall opt out all non-residential accounts (services) receiving service at that Single Site. Such accounts will be opted out provided the Customer identifies the accounts in the Customer's notice to the Company of its election to opt out.
3. The customer must notify the Company of its decision to opt out prior to June 1, 2014 (for 2014 opt out), or prior to November 15 for opt out effective the following January, but no later than June 30, 2019.
4. 2014 opt outs shall be effective as of the first billing cycle following the customer's notice to the Company. 2015 and subsequent year opt outs shall be effective as of the January billing cycle following the customer's notice to the Company.
5. New customers of greater than one (1) megawatt via at least one (1) meter on a single (contiguous property) site may complete the form to opt out of the program immediately. New customers will need to have and demonstrate at least one (1) megawatt of demand as measured by a single demand meter, at a single (contiguous property) site before opt out will be approved and implemented.
6. The customer must provide written notice to the Company of its decision to opt out. Such notice must utilize a form provided by the Company. To the extent a Qualifying Customer notified Indianapolis Power & Light Company of its desire to opt out of EE Programs prior to June 1, 2014, Indianapolis Power & Light Company will still require the Qualifying Customer to complete the Opt Out form, with the date of initial notification preserved. All customer opt out notices are subject to Company verification of customer's eligibility to opt out.
7. The written notice must be received by Indianapolis Power & Light Company on or before the following dates for the opt out to take effect on the following effective dates:

Notice Must be Received On or Before:	Effective Date of Opt Out:
June 1, 2014	July 1, 2014

November 15, 2014	January 1, 2015
November 15, 2015	January 1, 2016
November 15, 2016	January 1, 2017
November 15, 2017	January 1, 2018
November 15, 2018	January 1, 2019

8. Customers that opt out will remain liable for energy efficiency program costs that accrued or were incurred, or relate to energy efficiency investments made, before the date on which the opt out is effective, regardless of the date on which rates reflecting such costs are actually charged. Such costs may include costs related to evaluation, measurement and verification ("EM&V") required to be conducted after a customer opts out on projects completed under an energy efficiency program while the customer was a participant. In addition, such costs may include costs required by contracts executed prior to April 1, 2014 but incurred after the date of the Qualifying Customer's opt out. However, these costs shall be limited to fixed, administrative costs, including costs related to EM&V. A Qualifying Customer shall not be responsible for any program costs such as the payment of energy efficiency rebates or incentives, incurred following the effective date of its opt out, with exception of incentives or rebates that are paid on applications that have not closed out at the effective date of its opt out. If the Company makes subsequent changes to the allocation of Energy Efficiency Program Costs, Qualifying Customers that opted out of participation will continue to pay those costs based on the allocation in effect at the time of the notice of opt out. Any reconciliation of Energy Efficiency Program Costs will likewise be allocated in the same manner in effect at the time of the Qualifying Customer's notice of opt out.
9. A Qualifying Customer may opt back in effective January 1 of any year by providing notice by November 15 of the previous year. In order to opt back in, the Qualifying Customer must complete a form provided by the Company, or provide written notice to the Company in substantially the same format as the form provided by the Company that: (1) unequivocally indicates its desire to opt back in to the Company's energy efficiency program, (2) lists all sites (and all services at such sites) which the customer intends to opt in, (3) contains a statement that the customer understands that by opting in, it is required to participate in the program for at least three (3) years and pay related costs including lost revenues and incentives, and (4) confirms that the signatory has authority to make that decision for the customer. Only the qualifying accounts/sites identified in the letter will be opted back into the energy efficiency program, and a customer opting back in must opt back in for all accounts at a single site.
10. Once a customer opts back in, that customer must participate for at least three (3) years, and may only opt out effective January 1 of the year following the third year of participation. If the customer elects to opt out again before the end of the three (3) year period, it may do so, but remains liable for and must continue to pay rates that include energy efficiency program costs for the remainder of the three (3) year period. If a customer elects to opt back out after the three (3) year period, that customer shall be responsible for energy efficiency program costs as outlined for other customers who have opted out of the energy efficiency program.
11. As of the effective date of the opt out in 2014 or January 1 of any subsequent year, the customer is no longer eligible to participate in any energy efficiency program for the qualified service(s), including receiving incentive payment for projects previously approved but not yet complete as of the effective date of the opt out.

INDIANAPOLIS POWER & LIGHT COMPANY  
 Determination of Projected DSM Lost Revenues  
 For Budget Year 1 (2015)

Schedule A-1

Line No.	Rate Class (A)	Projected Lost Usage (From Sch. A-2 & Sch. A-3)		Lost Revenue Margin Rates		Projected Lost Revenues (F)
		KWH (B)	KW (C)	Per KWH (D)	Per KW (E)	
<b>Residential</b>						
1	RS	14,155,947	10,718	0.029056		\$ 411,315
2	RC	2,426,084	1,837	0.016856		\$ 40,894
3	RH	13,690,090	10,365	0.016856		\$ 230,760
4	Employee					
	4a ES	33,267	25	0.024656		\$ 820
	4b EC	9,873	7	0.013676		\$ 135
	4c EH	53,152	40	0.013676		\$ 727
5	Sub-Total Residential	30,368,413	22,992			\$ 684,651
<b>Small C &amp; I</b>						
6	SS	6,544,779	1,242	0.058856		\$ 385,200
7	SH	1,902,866	416	0.030256		\$ 57,573
8	Sub-Total Small C & I	8,447,645	1,658			\$ 442,773
<b>Large C &amp; I</b>						
9	SL	11,648,938	2,548	0.011856	10.18	\$ 164,048
10	PL	4,453,910	974	0.005756	11.19	\$ 36,536
11	PH	233,973	51	0.021056		\$ 4,927
12	HL-1	4,389,294	960	0.005756	10.67	\$ 35,412
13	HL-2	754,459	165	0.004956	10.80	\$ 5,488
14	HL-3	1,133,278	248	0.004956	9.90	\$ 8,072
15	Sub-Total Large C & I	22,613,852	4,946			\$ 254,483
16	Sub-Total Small and Large C&I	31,061,497	6,604			\$ 697,256
17	Total	61,429,910	29,596			\$ 1,381,907

INDIANAPOLIS POWER & LIGHT COMPANY  
 Determination of Projected DSM Lost Usage  
 For Budget Year 1 (2015)

Schedule A-2

Line No.	DSM Program	Rate RS	Rate RC	Customer Rate Rate RH	Rate ES	Rate EG	Rate EH	Total	Line No.
RES Lighting									
1	No. of Units	236,317	40,501	228,540	555	165	887	506,966	1
2	KWH/Unit	32.288	32.288	32.288	32.288	32.288	32.288		2
3	KW/Unit	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038		3
4	KWH Amount	7,630,212	1,307,886	7,379,110	17,931	5,321	26,650	16,388,911	4
5	KW Amount	907	155	877	2	1	3	1,945	5
RES IQW									
6	No. of Units	1,165	200	1,127	3	1	4	2,500	6
7	KWH/Unit	822.8	822.8	822.8	822.8	822.8	822.8		7
8	KW/Unit	0.173	0.173	0.173	0.173	0.173	0.173		8
9	KWH Amount	958,829	164,327	927,275	2,253	669	3,600	2,058,953	9
10	KW Amount	202	35	195	0	0	1	433	10
RES ACLM									
11	No. of Units	19,040	3,263	18,414	45	13	71	40,847	11
12	KWH/Unit	10.4	10.4	10.4	10.4	10.4	10.4		12
13	KW/Unit	0.85	0.85	0.85	0.85	0.85	0.85		13
14	KWH Amount	197,959	33,927	191,445	465	138	743	424,877	14
15	KW Amount	16,197	2,776	15,664	38	11	61	34,746	15
RES MFDI									
16	No. of Units	4,661	799	4,508	11	3	18	10,000	16
17	KWH/Unit	571.4	571.4	571.4	571.4	571.4	571.4		17
18	KW/Unit	0.083	0.083	0.083	0.083	0.083	0.083		18
19	KWH Amount	2,663,443	456,468	2,575,792	6,259	1,858	10,001	5,713,620	19
20	KW Amount	389	67	376	1	0	1	834	20
RES HEA									
21	No. of Units	1,865	320	1,803	4	1	7	4,000	21
22	KWH/Unit	1462.5	1462.5	1462.5	1462.5	1462.5	1462.5		22
23	KW/Unit	0.088	0.088	0.088	0.088	0.088	0.088		23
24	KWH Amount	2,726,920	467,347	2,637,180	6,408	1,902	10,239	5,849,996	24
25	KW Amount	164	26	158	0	0	1	352	25
RES School Kit									
26	No. of Units	4,195	719	4,057	10	3	16	9,000	26
27	KWH/Unit	453.5	453.5	453.5	453.5	453.5	453.5		27
28	KW/Unit	0.045	0.045	0.045	0.045	0.045	0.045		28
29	KWH Amount	1,902,538	326,062	1,839,927	4,471	1,327	7,144	4,061,469	29
30	KW Amount	188	32	182	0	0	1	403	30
RES Online Kit									
31	No. of Units	1,093	187	1,057	3	1	4	2,345	31
32	KWH/Unit	408.9	408.9	408.9	408.9	408.9	408.9		32
33	KW/Unit	0.044	0.044	0.044	0.044	0.044	0.044		33
34	KWH Amount	446,949	76,599	432,241	1,050	312	1,678	958,830	34
35	KW Amount	48	8	47	0	0	0	103	35
RES Appliance Recycling									
36	No. of Units	1,340	230	1,296	3	1	5	2,875	36
37	KWH/Unit	793.8	793.8	793.8	793.8	793.8	793.8		37
38	KW/Unit	0.142	0.142	0.142	0.142	0.142	0.142		38
39	KWH Amount	1,063,812	182,319	1,028,803	2,500	742	3,994	2,282,170	39
40	KW Amount	190	33	184	0	0	1	406	40
RES Peer Comparison									
41	No. of Units	93,228	15,978	90,160	219	65	350	200,000	41
42	KWH/Unit	115.0	115.0	115.0	115.0	115.0	115.0		42
43	KW/Unit	0.034	0.034	0.034	0.034	0.034	0.034		43
44	KWH Amount	10,721,232	1,837,434	10,368,407	25,195	7,477	40,256	23,000,000	44
45	KW Amount	3,152	540	3,048	7	2	12	6,782	45
Total Residential - Annual									
46	KWH Amount	28,311,894	4,852,169	27,360,179	66,533	19,745	106,304	60,736,825	46
47	KW Amount	21,436	3,874	20,730	50	15	80	45,985	47
Total Residential - Annual (reflected pro-rata implementation by dividing lost usage by 2)									
48	KWH Amount	14,155,947	2,426,084	13,660,090	33,267	9,873	53,152	30,368,413	48
49	KW Amount	10,718	1,837	10,365	25	7	40	22,992	49

**INDIANAPOLIS POWER & LIGHT COMPANY**  
**Determination of Projected DSM Lost Usage**  
**For Budget Year 1 (2015)**

Schedule A-3

Line No.	DSM Program	Customer Rate								Total	Line No.
		Rate SS	Rate SH	Rate SL	Rate PL	Rate PH	Rate HL-1	Rate HL-2	Rate HL-3		
<b>BUS Prescriptive</b>											
1	No. of Units	26,471	12,266	75,091	28,711	1,508	28,294	4,863	7,305	184,510	1
2	KWH/Unit	217.5	217.5	217.5	217.5	217.5	217.5	217.5	217.5		2
3	KW/Unit	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040		3
4	KWH Amount	5,758,721	2,668,516	16,336,081	6,246,014	328,116	6,155,398	1,058,028	1,589,271	40,140,145	4
5	KW Amount	1,051	487	2,981	1,140	60	1,123	193	290	7,326	5
<b>BUS Custom</b>											
6	No. of Units	47	22	132	51	3	50	9	13	325	6
7	KWH/Unit	52,564.1	52,564.1	52,564.1	52,564.1	52,564.1	52,564.1	52,564.1	52,564.1		7
8	KW/Unit	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51		8
9	KWH Amount	2,450,867	1,135,700	6,952,509	2,658,255	139,644	2,618,690	450,289	676,381	17,083,333	9
10	KW Amount	490	227	1,391	532	28	524	90	135	3,417	10
<b>BUS SBD</b>											
11	No. of Units	22,000	0	0	0	0	0	0	0	22,000	11
12	KWH/Unit	221.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00		12
13	KW/Unit	0.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00		13
14	KWH Amount	4,876,695	0	0	0	0	0	0	0	4,876,695	14
15	KW Amount	687	0	0	0	0	0	0	0	687	15
<b>BUS ACLM</b>											
16	No. of Units	620	287	1,759	673	35	663	114	171	4,322	16
17	KWH/Unit	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3		17
18	KW/Unit	0.412	0.412	0.412	0.412	0.412	0.412	0.412	0.412		18
19	KWH Amount	3,274	1,517	9,287	3,551	187	3,499	602	904	22,820	19
20	KW Amount	255	118	725	277	15	273	47	71	1,781	20
<b>Total Business - Annual</b>											
21	KWH Amount	13,089,557	3,805,732	23,297,877	8,907,820	467,946	8,778,587	1,508,918	2,266,556	62,122,994	21
22	KW Amount	2,484	833	5,097	1,949	102	1,920	330	496	13,211	22
<b>Total Residential - Annual (reflected pro-rata implementation by dividing lost usage by 2)</b>											
23	KWH Amount	6,544,779	1,902,866	11,648,938	4,453,910	233,973	4,389,294	754,459	1,133,278	31,061,497	23
24	KW Amount	1,242	416	2,548	974	51	980	165	248	6,605	24

INDIANAPOLIS POWER & LIGHT COMPANY  
 Determination of Projected DSM Lost Revenues  
 For Budget Year 2 (2016)

Schedule B-1

Line No.	Rate Class (A)	Projected Lost Usage (From Sch. B-2A & Sch. B-3A)		Lost Revenue Margin Rates		Projected Lost Revenues (F)
		KWH (B)	KW (C)	Per KWH (D)	Per KW (E)	
<b>Residential</b>						
1	RS	37,062,101	22,711	0.029056		\$ 1,076,876
2	RC	6,351,803	3,892	0.016856		\$ 107,066
3	RH	35,842,426	21,963	0.016856		\$ 604,160
4	Employee					
	4a ES	87,098	53	0.024656		\$ 2,147
	4b EC	25,848	16	0.013676		\$ 353
	4c EH	139,159	85	0.013676		\$ 1,903
5	Sub-Total Residential	<u>79,508,433</u>	<u>48,721</u>			<u>\$ 1,792,505</u>
<b>Small C &amp; I</b>						
6	SS	20,081,873	3,679	0.058856		\$ 1,181,939
7	SH	5,802,992	1,211	0.030256		\$ 175,575
8	Sub-Total Small C & I	<u>25,884,865</u>	<u>4,890</u>			<u>\$ 1,357,514</u>
<b>Large C &amp; I</b>						
9	SL	35,524,670	7,414	0.011856	10.18	\$ 496,655
10	PL	13,582,670	2,835	0.005756	11.19	\$ 109,902
11	PH	713,526	149	0.021056		\$ 15,024
12	HL-1	13,385,615	2,794	0.005756	10.57	\$ 106,576
13	HL-2	2,300,803	480	0.004956	10.60	\$ 16,493
14	HL-3	3,456,051	721	0.004956	9.90	\$ 24,269
15	Sub-Total Large C & I	<u>68,963,334</u>	<u>14,393</u>			<u>\$ 768,919</u>
16	Sub-Total Small and Large C&I	<u>94,848,199</u>	<u>19,283</u>			<u>\$ 2,126,433</u>
17	Total	<u>174,356,632</u>	<u>68,004</u>			<u>\$ 3,918,938</u>

**INDIANAPOLIS POWER & LIGHT COMPANY**  
 Determination of Projected DSM Lost Usage - Incremental  
 For Budget Year 2 (2018)

Schedule B-2

Line No.	DSM Program	Rate RS	Rate RC	Customer Rate Rate RH	Rate FS	Rate FC	Rate EH	Total	Line No.
<b>RES Lighting</b>									
1	No. of Units	237,392	40,685	229,580	558	166	891	509,272	1
2	KWH/Unit	32.384	32.384	32.384	32.384	32.384	32.384		2
3	KW/Unit	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038		3
4	KWH Amount	7,687,713	1,317,541	7,434,718	18,066	5,362	28,865	16,492,264	4
5	KW Amount	913	157	883	2	1	3	1,960	5
<b>RES IQW</b>									
6	No. of Units	1,165	200	1,127	3	1	4	2,500	6
7	KWH/Unit	822.8	822.8	822.8	822.8	822.8	822.8		7
8	KW/Unit	0.173	0.173	0.173	0.173	0.173	0.173		8
9	KWH Amount	958,829	164,327	927,275	2,253	669	3,600	2,056,953	9
10	KW Amount	202	35	195	0	0	1	433	10
<b>RES ACLM</b>									
11	No. of Units	19,656	3,369	19,009	48	14	74	42,167	11
12	KWH/Unit	10.4	10.4	10.4	10.4	10.4	10.4		12
13	KW/Unit	0.85	0.85	0.85	0.85	0.85	0.85		13
14	KWH Amount	203,474	34,872	186,778	478	142	784	436,508	14
15	KW Amount	18,848	2,853	16,100	39	12	63	35,714	15
<b>RES MFDI</b>									
16	No. of Units	4,661	799	4,508	11	3	18	10,000	16
17	KWH/Unit	571.4	571.4	571.4	571.4	571.4	571.4		17
18	KW/Unit	0.083	0.083	0.083	0.083	0.083	0.083		18
19	KWH Amount	2,663,443	456,468	2,575,792	6,259	1,858	10,001	5,713,820	19
20	KW Amount	389	67	376	1	0	1	834	20
<b>RES HEA</b>									
21	No. of Units	1,865	320	1,803	4	1	7	4,000	21
22	KWH/Unit	1462.5	1462.5	1462.5	1462.5	1462.5	1462.5		22
23	KW/Unit	0.088	0.088	0.088	0.088	0.088	0.088		23
24	KWH Amount	2,728,820	467,347	2,837,180	6,408	1,902	10,239	5,849,998	24
25	KW Amount	164	28	159	0	0	1	352	25
<b>RES School Kit</b>									
26	No. of Units	4,195	719	4,057	10	3	16	9,000	26
27	KWH/Unit	453.5	453.5	453.5	453.5	453.5	453.5		27
28	KW/Unit	0.045	0.045	0.045	0.045	0.045	0.045		28
29	KWH Amount	1,902,638	328,062	1,839,927	4,471	1,327	7,144	4,081,469	29
30	KW Amount	188	32	182	0	0	1	403	30
<b>RES Online Kit</b>									
31	No. of Units	1,202	206	1,163	3	1	5	2,580	31
32	KWH/Unit	408.9	408.9	408.9	408.9	408.9	408.9		32
33	KW/Unit	0.044	0.044	0.044	0.044	0.044	0.044		33
34	KWH Amount	491,844	84,259	475,465	1,155	343	1,846	1,054,713	34
35	KW Amount	53	9	51	0	0	0	114	35
<b>RES Appliance Recycling</b>									
36	No. of Units	1,340	230	1,296	3	1	5	2,875	36
37	KWH/Unit	793.8	793.8	793.8	793.8	793.8	793.8		37
38	KW/Unit	0.142	0.142	0.142	0.142	0.142	0.142		38
39	KWH Amount	1,063,812	182,319	1,026,803	2,500	742	3,994	2,282,170	39
40	KW Amount	190	33	184	0	0	1	408	40
<b>RES Peer Comparison</b>									
41	No. of Units	93,228	15,978	90,160	219	65	350	200,000	41
42	KWH/Unit	115.0	115.0	115.0	115.0	115.0	115.0		42
43	KW/Unit	0.034	0.034	0.034	0.034	0.034	0.034		43
44	KWH Amount	10,721,232	1,837,434	10,368,407	25,195	7,477	40,258	23,000,000	44
45	KW Amount	3,152	540	3,048	7	2	12	6,762	45
<b>Total Residential - Annual</b>									
46	KWH Amount	28,419,604	4,670,826	27,484,345	66,786	19,820	108,708	60,967,893	46
47	KW Amount	21,889	3,753	21,178	51	15	82	48,979	47

INDIANAPOLIS POWER & LIGHT COMPANY  
 Determination of Projected DSM Lost Usage - Cumulative  
 For Budget Year 2 (2016)

Schedule B-2A

Line No.	DSM Program	Rate RS	Rate RC	Customer Rate Rate RH	Rate ES	Rate EC	Rate EH	Total	Line No.
<b>RES Lighting</b>									
1	No. of Units	473,710	81,186	458,120	1,113	330	1,779	1,016,238	1
2	KWH/Unit								2
3	KW/Unit								3
4	KWH Amount	15,317,925	2,625,227	14,813,826	35,997	10,663	57,515	32,861,175	4
5	KW Amount	1,820	312	1,760	4	1	7	3,904	5
<b>RES IQW</b>									
6	No. of Units	2,331	399	2,254	5	2	9	5,000	6
7	KWH/Unit								7
8	KW/Unit								8
9	KWH Amount	1,917,658	328,653	1,854,550	4,507	1,337	7,200	4,113,905	9
10	KW Amount	403	69	390	1	0	2	865	10
<b>RES ACLM ONE YEAR</b>									
11	No. of Units	19,656	3,369	19,009	46	14	74	42,167	11
12	KWH/Unit								12
13	KW/Unit								13
14	KWH Amount	203,474	34,672	196,778	478	142	764	436,508	14
15	KW Amount	16,648	2,853	16,100	39	12	63	35,714	15
<b>RES MFDI</b>									
16	No. of Units	9,323	1,598	9,016	22	7	35	20,000	16
17	KWH/Unit								17
18	KW/Unit								18
19	KWH Amount	5,326,886	912,936	5,151,584	12,518	3,715	20,001	11,427,640	19
20	KW Amount	778	133	752	2	1	3	1,668	20
<b>RES HEA</b>									
21	No. of Units	3,729	639	3,606	9	3	14	8,060	21
22	KWH/Unit								22
23	KW/Unit								23
24	KWH Amount	5,453,840	934,694	5,274,360	12,817	3,804	20,478	11,699,992	24
25	KW Amount	326	56	317	1	0	1	704	25
<b>RES School Kit</b>									
26	No. of Units	8,391	1,438	8,114	20	6	32	18,000	26
27	KWH/Unit								27
28	KW/Unit								28
29	KWH Amount	3,805,076	652,124	3,679,855	8,942	2,654	14,287	8,162,937	29
30	KW Amount	378	64	363	1	0	1	806	30
<b>RES Online Kit</b>									
31	No. of Units	2,296	393	2,220	5	2	9	4,925	31
32	KWH/Unit								32
33	KW/Unit								33
34	KWH Amount	938,594	180,859	807,706	2,206	655	3,524	2,013,543	34
35	KW Amount	101	17	96	0	0	0	217	35
<b>RES Appliance Recycling</b>									
36	No. of Units	2,680	459	2,592	6	2	10	5,750	36
37	KWH/Unit								37
38	KW/Unit								38
39	KWH Amount	2,127,624	364,638	2,057,606	5,000	1,484	7,988	4,564,340	39
40	KW Amount	380	65	389	1	0	1	815	40
<b>RES Peer Comparison ONE YEAR</b>									
41	No. of Units	93,228	15,978	80,160	219	65	350	200,000	41
42	KWH/Unit								42
43	KW/Unit								43
44	KWH Amount	10,721,232	1,837,434	10,388,407	25,195	7,477	40,256	23,000,000	44
45	KW Amount	3,152	540	3,048	7	2	12	6,762	45
<b>Total Residential - Annual</b>									
46	KWH Amount	45,812,308	7,851,437	44,304,873	107,659	31,950	172,014	98,280,041	46
47	KW Amount	23,986	4,111	23,196	56	17	90	51,458	47
<b>Total Residential - Annual (reflected pro-rata implementation by dividing incremental lost usage over Year 1 by 2 and adjusting for single year programs)</b>									
48	KWH Amount	37,062,101	6,351,503	35,842,426	87,098	25,648	139,159	79,508,433	48
49	KW Amount	22,711	3,892	21,963	53	16	65	48,721	49



**INDIANAPOLIS POWER & LIGHT COMPANY**  
 Determination of Projected DSM Lost Usage Incremental  
For Budget Year 2 (2016)

Petitioner's Exhibit JLC-3

Schedule B-3

Line No.	DSM Program	Customer Rate								Total	Line No.
		Rate SS	Rate SH	Rate SL	Rate PL	Rate PH	Rate HL-1	Rate HL-2	Rate HL-3		
<b>BUS Prescriptive</b>											
1	No. of Units	27,794	12,880	78,846	30,146	1,584	29,709	5,107	7,671	193,736	1
2	KWH/Unit	217.5	217.5	217.5	217.5	217.5	217.5	217.5	217.5		2
3	KWH/Unit	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040		3
4	KWH Amount	6,046,657	2,801,941	17,152,885	6,558,315	344,522	6,463,168	1,110,930	1,668,734	42,147,152	4
5	KW Amount	1,104	511	3,131	1,197	63	1,180	203	305	7,692	5
<b>BUS Custom</b>											
6	No. of Units	49	23	139	53	3	52	9	14	341	6
7	KWH/Unit	52564.1	52564.1	52564.1	52564.1	52564.1	52564.1	52564.1	52564.1		7
8	KWH/Unit	10.51	10.51	10.51	10.51	10.51	10.51	10.51	10.51		8
9	KWH Amount	2,573,410	1,192,484	7,300,134	2,791,168	146,626	2,750,674	472,803	710,200	17,937,500	9
10	KW Amount	515	238	1,460	558	29	550	95	142	3,588	10
<b>BUS SBP</b>											
11	No. of Units	24,200	0	0	0	0	0	0	0	24,200	11
12	KWH/Unit	221.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00		12
13	KWH/Unit	0.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00		13
14	KWH Amount	5,364,365	0	0	0	0	0	0	0	5,364,365	14
15	KW Amount	756	0	0	0	0	0	0	0	756	15
<b>BUS ACLM</b>											
16	No. of Units	658	305	1,866	714	37	703	121	182	4,586	16
17	KWH/Unit	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3		17
18	KWH/Unit	0.412	0.412	0.412	0.412	0.412	0.412	0.412	0.412		18
19	KWH Amount	3,474	1,610	9,855	3,768	198	3,713	638	969	24,214	19
20	KW Amount	271	126	769	294	15	290	50	75	1,889	20
<b>Total Business - Annual</b>											
21	KWH Amount	13,987,906	3,996,036	24,462,873	9,353,251	491,346	9,217,555	1,584,371	2,379,894	65,473,231	21
22	KW Amount	2,646	875	5,359	2,049	108	2,019	347	521	13,925	22

INDIANAPOLIS POWER & LIGHT COMPANY  
 Determination of Projected DSM Lost Usage - Cumulative  
 For Budget Year 2 (2016)

Schedule B-3A

Line No.	DSM Program	Customer Rate								Total	Line No.
		Rate SS	Rate SH	Rate SL	Rate PL	Rate PH	Rate HL-1	Rate HL-2	Rate HL-3		
<b>BUS Prescriptive</b>											
1	No. of Units	54,265	25,146	153,937	58,857	3,092	58,003	9,970	14,976	378,246	1
2	KWH/Unit										2
3	KW/Unit										3
4	KWH Amount	11,805,379	5,470,457	33,488,965	12,804,329	672,638	12,618,566	2,168,958	3,258,005	82,287,297	4
5	KW Amount	2,155	998	6,112	2,337	123	2,303	396	595	15,018	5
<b>BUS Custom</b>											
6	No. of Units	96	44	271	104	5	102	18	26	666	6
7	KWH/Unit										7
8	KW/Unit										8
9	KWH Amount	5,024,277	2,328,184	14,252,643	5,449,423	286,269	5,370,364	923,092	1,386,582	35,020,833	9
10	KW Amount	1,005	466	2,851	1,090	57	1,074	185	277	7,004	10
<b>BUS S&amp;M</b>											
11	No. of Units	46,200	-	-	-	-	-	-	-	46,200	11
12	KWH/Unit										12
13	KW/Unit										13
14	KWH Amount	10,241,060	-	-	-	-	-	-	-	10,241,060	14
15	KW Amount	1,444	-	-	-	-	-	-	-	1,444	15
<b>BUS ACIM ONE YEAR</b>											
16	No. of Units	658	305	1,866	714	37	703	121	182	4,586	16
17	KWH/Unit										17
18	KW/Unit										18
19	KWH Amount	3,474	1,610	9,855	3,768	198	3,713	638	959	24,214	19
20	KW Amount	271	126	769	294	15	290	50	75	1,889	20
<b>Total Business - Cumulative Yr 2</b>											
21	KWH Amount	27,074,189	7,800,251	47,751,463	18,257,520	959,105	17,992,643	3,092,688	4,645,546	127,573,404	21
22	KW Amount	4,874	1,590	9,731	3,721	195	3,667	630	947	25,355	22
<b>Total Business - Annual (reflected pro-rata implementation by dividing incremental lost usage over Year 1 by 2 and adjusting for single year programs)</b>											
23	KWH Amount	20,081,873	5,802,992	35,524,670	13,582,670	713,526	13,385,615	2,300,803	3,486,051	94,848,199	23
24	KW Amount	3,679	1,211	7,414	2,835	149	2,794	480	721	19,283	24

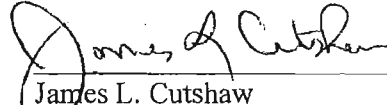
## INDIANAPOLIS POWER & LIGHT COMPANY DERIVATION OF LOST REVENUE MARGIN RATES

Rate Schedule	(1) Charge	(2) Units	(3) Applicable Block	(4) Base Rates	(5) Less Base Fuel Costs	(6) Margin Rate (4) + (5)	(7) Less Variable O&M	(8) Less Base Fuel and Variable O&M IURT (a)	(9) Lost Revenue Margin Rates (6)+(7)+(8)
<b>Residential</b>									
Rate RS: Residential Service (Non-space heating and water heating)	Energy	kWh	Tailblock	\$0.04400	(\$0.012456)	\$0.031544	(\$0.002259)	(\$0.000229)	\$0.029056
Rate RC: Residential w/ Electric Water Heating	Energy	kWh	Tailblock	\$0.03180	(\$0.012456)	\$0.019344	(\$0.002259)	(\$0.000229)	\$0.016856
Rate RH: Residential w/ Electric Space Heating	Energy	kWh	Tailblock	\$0.03180	(\$0.012456)	\$0.019344	(\$0.002259)	(\$0.000229)	\$0.016856
Rate ES: Residential Service (Non-space heating and water heating)	Energy	kWh	Tailblock	\$0.03960	(\$0.012456)	\$0.027144	(\$0.002259)	(\$0.000229)	\$0.024656
Rate EC: Residential w/ Electric Water Heating	Energy	kWh	Tailblock	\$0.02862	(\$0.012456)	\$0.016164	(\$0.002259)	(\$0.000229)	\$0.013676
Rate EH: Residential w/ Electric Space Heating	Energy	kWh	Tailblock	\$0.02862	(\$0.012456)	\$0.016164	(\$0.002259)	(\$0.000229)	\$0.013676
<b>Small Commercial &amp; Industrial</b>									
Rate SS: Secondary Service (Small)	Energy	kWh	First Block	\$0.07380	(\$0.012456)	\$0.061344	(\$0.002259)	(\$0.000229)	\$0.058856
Rate SH: Secondary Service - Electric Space Conditioning	Energy	kWh	Tailblock	\$0.04520	(\$0.012456)	\$0.032744	(\$0.002259)	(\$0.000229)	\$0.030256
<b>Large Commercial &amp; Industrial</b>									
Rate SL: Secondary Service (Large)	Energy	kWh	Uniform Rate	\$0.026800	(\$0.012456)	\$0.014344	(\$0.002259)	(\$0.000229)	\$0.011856
	Demand	kW	Tailblock	\$10.18		\$10.18			\$10.18
Rate PL: Primary Service (Large)	Energy	kWh	Uniform Rate	\$0.020700	(\$0.012456)	\$0.008244	(\$0.002259)	(\$0.000229)	\$0.005756
	Demand	kW	Tailblock	\$11.19		\$11.19			\$11.19
Rate PH: Process Heating	Energy	kWh	Tailblock	\$0.036000	(\$0.012456)	\$0.023544	(\$0.002259)	(\$0.000229)	\$0.021056
Rate HL-1: Primary Distribution Voltage	Energy	kWh	Uniform Rate	\$0.020700	(\$0.012456)	\$0.008244	(\$0.002259)	(\$0.000229)	\$0.005756
	Demand	kW	Tailblock	\$10.57		\$10.57			\$10.57
Rate HL-2: Subtransmission Voltage	Energy	kWh	Uniform Rate	\$0.019900	(\$0.012456)	\$0.007444	(\$0.002259)	(\$0.000229)	\$0.004956
	Demand	kW	Tailblock	\$10.60		\$10.60			\$10.60
Rate HL-3: Transmission Voltage	Energy	kWh	Uniform Rate	\$0.019900	(\$0.012456)	\$0.007444	(\$0.002259)	(\$0.000229)	\$0.004956
	Demand	kW	Tailblock	\$9.90		\$9.90			\$9.90

(a) [(Col. 5 + Col. 7) / 0.9847] - (Col. 5 + Col. 7)

**VERIFICATION**

I, James L. Cutshaw, Revenue Requirements Manager for Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



James L. Cutshaw

Dated: May 30, 2014

**Petitioner's Exhibit KB-1**  
**Cause No. 44497**

**VERIFIED DIRECT TESTIMONY**  
**OF**  
**KIMBERLY BERRY**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**

**SPONSORING PETITIONER'S EXHIBITS KB-2 THROUGH KB-4**

**VERIFIED DIRECT TESTIMONY OF KIM BERRY**

1       **Q1. Please state your name, employer and business address.**

2       A1. My name is Kimberly Berry. I am employed by Indianapolis Power & Light  
3       Company ("IPL" or "Company"), whose business address is One Monument Circle,  
4       Indianapolis, Indiana 46204.

5       **Q2. What is your position with IPL?**

6       A2. I am a Research Analyst in Regulatory Affairs.

7       **Q3. What are your duties and responsibilities as Research Analyst?**

8       A3. I am involved with the planning, development and analysis of Demand Side  
9       Management ("DSM") Programs, as well as tracking and reporting program results. I  
10      am a representative member of IPL's DSM Oversight Board. I am also responsible  
11      for directing the filings supporting changes in the DSM cost recovery factors and the  
12      fuel cost adjustment factors.

13      **Q4. What is your work experience with IPL?**

14      A4. I have been an employee of IPL since April 25, 2005. During my tenure with the  
15      Company, I have worked in various accounting staff roles as well as my current  
16      position of Research Analyst in Regulatory Affairs.

17      **Q5. Please summarize your education and professional qualifications.**

18      A5. I hold a Bachelor of Science Degree in Accounting and Computer Information  
19      Systems from Indiana University and a Master of Business Administration from the  
20      University of Indianapolis. I have also attended workshops, seminars, and

1 conferences pertaining to planning, implementation, and evaluation of DSM  
2 programs.

3 **Q6. Have you previously testified before this Commission?**

4 A6. Yes, I have previously testified before the Commission regarding accounting and  
5 ratemaking treatment for IPL's proposed Electric Vehicle Sharing Program proposed  
6 in Cause No. 44478. I have also testified regarding cost recovery and cost allocation  
7 for IPL's 2014 DSM Plan in Cause No. 44328.

8 **Q7. Are you familiar with IPL's petition in this proceeding and the relief that it  
9 seeks?**

10 A7. Yes, I am.

11 **Q8. Have you reviewed the testimony and exhibits of the other witnesses in this  
12 Cause?**

13 A8. Yes.

14 **Q9. What is the purpose of your testimony in this proceeding?**

15 A9. The purpose of my testimony is to (1) describe the impact of the 2015-2016 DSM  
16 Plan on the approved cost recovery mechanism utilized in the Company's semi-  
17 annual filings (Cause No. 43623-DSM-X), including the allocation of cost recovery  
18 among the customer classes; and (2) discuss how the performance incentives should  
19 be accounted for in the Fuel Adjustment Clause ("FAC") earnings test.

20 **Q10. What exhibits are you sponsoring in this proceeding?**

21 A10. I am sponsoring the following exhibits:

1 Petitioner's Exhibit KB-2 Cost Allocation Basis by Program to reflect the 2015-  
2 2016 DSM Plan.

3 Petitioner's Exhibit KB-3 Calculation of Shared Savings incentive.

4 Petitioner's Exhibit KB-4 Determination of Impact of DSM Adjustment – Rider 22  
5 for the 2015-2016 DSM Plan.

6 **Q11. Please summarize the Company's cost recovery proposal?**

7 A11. As further discussed by IPL Witness Allen, IPL is seeking authorization to recover  
8 costs for the 2015 and 2016 DSM program years included in the 2015-2017 Action  
9 Plan. Specifically, IPL is seeking a cost recovery mechanism similar to what has  
10 been previously authorized by the Commission in Cause Nos. 43623, 43960 and  
11 44328. IPL proposes to continue to prepare semi-annual filings under Standard  
12 Contract Rider No. 22 ("Rider 22") to recover the forecasted costs (including Shared  
13 Savings incentives and Lost Revenues as discussed below) of the IPL 2015-2016  
14 DSM Plan over six-month periods which match the billing periods of the tracker. The  
15 semi-annual periods of January to June and July to December will continue to be  
16 used. The 2015-2016 DSM Plan expenditures will continue to be forecasted semi-  
17 annually and reconciled to actual expenditures in a subsequent semi-annual filing. In  
18 addition, IPL will continue to reconcile the amounts actually recovered from  
19 customers with the amounts intended for recovery from customers for such period  
20 reflecting differences in estimated and actual kilowatt-hour (kWh) consumption.  
21 These reconciliation processes ensure a dollar-for-dollar recovery of the costs  
22 approved for recovery, no more and no less.

23

24



1 **Q12. Is IPL proposing any changes to what is being proposed for cost recovery?**

2 A12. Yes. As further described by IPL Witness Haselden, IPL proposes to use a Shared  
3 Savings incentive approach for the implementation of DSM programs. Shared  
4 Savings incentives would be calculated on forecasted net benefits and trued-up after  
5 completion of EM&V.

6 IPL is also proposing recovery of lost revenues due to decreased kWh consumption  
7 and kW demand as further described by IPL Witnesses Allen and Cutshaw.

8 **Q13. What are Shared Savings and how are they calculated?**

9 A13. Shared Savings can be used as an incentive for the implementation of cost effective  
10 DSM programs by sharing the measurable net benefits of DSM programs between  
11 customers and the utility. As shown in Exhibit KB-3, the proposed estimated Shared  
12 Savings incentive is calculated as 15% of the net present value of Utility Cost Test  
13 net benefits. The net benefits of the Utility Cost Test equates to the difference  
14 between the costs avoided by DSM programs and the costs incurred by the utility to  
15 deliver the programs. The net benefit of DSM programs included in the Shared  
16 Savings would be determined through the EM&V process and reflect the exclusion of  
17 free-riders.

18 **Q14. What process will IPL use to record and segregate the 2015-2016 DSM Plan**  
19 **costs for each component of the program?**

20 A14. Expenditures for each component of the proposed plan will continue to be recorded in  
21 the Company's accounting system using individual project numbers, in conjunction  
22 with account numbers, to separate costs for accounting and reporting purposes. The

1 Company's work management and timekeeping systems will facilitate this  
2 segregation for labor, materials, and other expenses incurred to implement the  
3 individual programs.

4 **Q15. Is IPL requesting carrying charges on the costs incurred for the IPL 2015-2016**  
5 **DSM Plan?**

6 A15. No. Since the costs will continue to be recovered on a forecasted basis coincident  
7 with their incurrence which matches billing to customers, carrying charges are not  
8 necessary on the costs incurred for the 2015-2016 DSM Plan. However, to the extent  
9 that the programs are altered such that certain costs are recovered after being  
10 incurred, carrying charges would be appropriate and IPL would propose to recover  
11 carrying charges on the unrecovered balance of these costs.

12 **Q16. Have you prepared an exhibit which shows the cost allocation basis of the 2015-**  
13 **2016 DSM Plan?**

14 A16. Yes. Petitioner's Exhibit KB-2 presents the cost allocation basis to the customer  
15 classes for each component of the 2015-2016 DSM Plan. Since the forecasted and  
16 actual costs of the Residential DSM programs will be maintained by program, no  
17 allocation is required and all costs will be recovered from the Residential rate class.

18 For the commercial and industrial ("C&I") DSM programs, the rate class allocation  
19 factors (between Small and Large C&I) are based on each class' share of the twelve  
20 monthly average system peaks from the Company's cost of service study as approved  
21 by the Commission in Cause No. 39938, IPL's last rate case. The use of this  
22 methodology was also approved by the Commission in the 43623, 43960 and 44328

1 DSM Orders, as well as the Orders in Cause Nos. 42170, 42700, 43403, and 44242  
2 for the Environmental Compliance Cost Recovery Adjustment. The allocation factors  
3 shown on Petitioner's Exhibit KB-2 are based upon the relationship of the Small C&I  
4 and Large C&I allocation factors in Cause No. 39938. DSM program costs, absent  
5 any fixed or trailing costs, will not be allocated to or recovered from those Large C&I  
6 customers who have chosen to opt-out of DSM programs. However, in a subsequent  
7 DSM filing, after the number and usage information of opt-out customers is known,  
8 the C&I allocation factors will be updated to account for the removal of those  
9 customers from the allocation pool.

10 **Q17. Please describe the fixed and trailing costs that IPL is allowed to recover from**  
11 **an IPL "Qualifying Customer" who has opted out of participation in IPL's DSM**  
12 **Programs?**

13 A17. Trailing costs will include direct program costs incurred prior to the opt-out date,  
14 "fixed" administrative costs associated with current third party implementers and  
15 EM&V contracts, and the true-up of estimated shareholder/performance incentives  
16 relating to program results achieved prior to the opt-out date. In addition, trailing  
17 costs will include recovery of any variances arising from the over/under recovery of  
18 program costs accrued or incurred prior to the opt-out date. Because IPL does not  
19 currently recover lost revenues, we believe this reconciliation amount will be  
20 relatively small.

21 **Q18. Please describe how IPL is planning to track and recover the fixed and trailing**  
22 **costs associated with Customers that opt-out of participation in the IPL DSM**  
23 **Programs?**

1 A18. IPL will establish a separate project number in the Company's accounting system to  
2 track the costs that are relevant to opt-out customers.

3 **Q19. Have you prepared examples to show the specific calculation to determine the**  
4 **impact of Standard Contract Rider No. 22 for calendar years 2015 and 2016?**

5 A19. Yes. Petitioner's Exhibit KB-4 provides examples that use forecasted annual costs  
6 (including Shared Savings incentives and lost revenues) and billing units in order to  
7 approximate an annual average DSM Adjustment Factor for each customer class (and  
8 for those customers who have chosen to opt-out) for the two year period. However,  
9 as noted above, the DSM Adjustment factor will be calculated and included in the  
10 Company's semi-annual filings using six months of projected costs and billing units.  
11 When customer data from the first round of opt-out (deadline June 1, 2014) is known,  
12 the factor applicable to opt-out customers will be calculated and included in the next  
13 semi-annual DSM filing. The estimated overall annual impacts reflect recovery of the  
14 projected expenditures, performance incentives and lost revenues related to the 2015-  
15 2016 DSM Plan as proposed in this proceeding without taking into account the effect  
16 of opt-out customers on the allocation factors.

17 **Q20. What affect will the proposed DSM Adjustment Factor have on an average**  
18 **residential customer using 1,000 kWh per month?**

19 A20. Based on the calculated factors on Petitioner's Exhibit KB-4, the overall annual  
20 impact, relative to basic rates and charges, is expected to be \$2.55 per month or 3.8%  
21 in 2015 and \$2.27 or 3.4% in 2016 for an average residential customer using 1,000  
22 kWh per month. In relation to the factor in effect for DSM-8, an average residential

1 customer using 1,000 kWh per month will experience an increase of \$0.81 or 1.2% of  
2 such monthly bills in 2015.

3 **Q21. How should the “earnings test” within IPL’s FAC account for the Shared**  
4 **Savings?**

5 A21. Similar to the performance incentives approved in the 43623, 43960 and 44328  
6 Orders, the Shared Savings incentives earned should be included in the FAC earnings  
7 test, consistent with the proposal for lost revenues discussed by IPL Witness  
8 Cutshaw.

9 **Q22. Does this conclude your prepared direct testimony?**

10 A22. Yes, at this time.

Indianapolis Power & Light Company  
 Cost Allocation Basis by Program  
 to reflect the 2015-2016 DSM Plan

Line	Cost Allocation Basis	RS, CW	SS, SH, OES UW, CW	SL, PL, PH, HL	Opt-Out
		Residential	Small C&I	Large C&I	C&I
1	<u>Residential DSM Programs</u>				
2	Residential Lighting	Direct for Each Program	100%		
3	Residential Income Qualified Weatherization	Direct for Each Program	100%		
4	Residential Air Conditioning Load Management	Direct for Each Program	100%		
5	Residential Multi-Family Direct Install	Direct for Each Program	100%		
6	Residential Home Energy Assessment	Direct for Each Program	100%		
7	Residential School Kits	Direct for Each Program	100%		
8	Residential Online Energy Assessment	Direct for Each Program	100%		
9	Residential Appliance Recycling	Direct for Each Program	100%		
10	Residential Peer Comparison Reports	Direct for Each Program	100%		
11	Indirect Costs	Direct for Each Program	100%		
12	Total Residential				
13	<u>Business DSM Programs</u>				
14	Business Energy Incentives - Prescriptive	Allocated between Small C&I and Large C&I based upon relationship in ECR Allocation Ratios	32.21%	67.79%	
15	Business Energy Incentives - Custom		32.21%	67.79%	
16	Small Business Direct Install		32.21%	67.79%	
17	Business Air Conditioning Load Management		32.21%	67.79%	
18	Indirect Costs		32.21%	67.79%	
19	Total Business				
20	Opt-out customer costs		TBD	TBD	TBD
21	Total DSM Programs				

Indianapolis Power & Light Company  
 2015-2016 DSM Plan  
 Calculation of Shared Savings Incentive

Petitioner's Exhibit KB-3


<u>Program</u>	<u>2015</u>		<u>2016</u>	
	<u>NPV Utility Cost Test Net Benefit</u>	<u>15% Shared Savings</u>	<u>NPV Utility Cost Test Net Benefit</u>	<u>15% Shared Savings</u>
<u>Residential</u>				
Residential Lighting	\$ 2,065,505		\$ 2,208,450	
Residential Income Qualified Weatherization	NA		NA	
Residential Air Conditioning Load Management	\$ 1,108,310		\$ 1,078,063	
Residential Multi-Family Direct Install	\$ 397,038		\$ 413,262	
Residential Home Energy Assessment	\$ 189,948		\$ 221,384	
Residential School Kits	\$ 513,322		\$ 515,532	
Residential Online Energy Assessment	\$ 53,004		\$ 65,315	
Residential Appliance Recycling	\$ 127,971		\$ 140,016	
Residential Peer Comparison Reports	\$ 22,846		\$ 66,543	
<b>Total Residential Segment</b>	<b>\$ 4,477,944</b>	<b>\$ 671,692</b>	<b>\$ 4,708,565</b>	<b>\$ 706,285</b>
<u>Business</u>				
Business Energy Incentives - Prescriptive	\$ 12,716,450		\$ 13,052,573	
Business Energy Incentives - Custom	\$ 5,920,847		\$ 6,068,735	
Small Business Direct Install	\$ 21,360		\$ 64,468	
Business Air Conditioning Load Management	\$ -		\$ -	
<b>Total Business Segment</b>	<b>\$ 18,658,657</b>	<b>\$ 2,798,799</b>	<b>\$ 19,185,776</b>	<b>\$ 2,877,866</b>
<b>Grand Totals</b>	<b>\$ 23,136,601</b>	<b>\$ 3,470,490</b>	<b>\$ 23,894,341</b>	<b>\$ 3,584,151</b>





**VERIFICATION**

I, Kimberly Berry, Research Analyst for Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

  
\_\_\_\_\_  
Kimberly Berry  
Dated: May 30, 2014

**VERIFIED DIRECT TESTIMONY**  
**OF**  
**JOHN E. HASELDEN**  
**ON BEHALF OF**  
**INDIANAPOLIS POWER & LIGHT COMPANY**

**SPONSORING PETITIONER'S EXHIBIT JEH-2**

**VERIFIED DIRECT TESTIMONY OF JOHN E. HASELDEN**

1 **Q1. Please state your name, employer and business address.**

2 A1. My name is John E. Haselden. I am employed by Indianapolis Power & Light Company  
3 ("IPL" or "Company"), One Monument Circle, Indianapolis, Indiana 46204.

4 **Q2. What is your position with IPL?**

5 A2. I am a Principal Engineer in the Regulatory Affairs Department.

6 **Q3. Please briefly describe your educational background and business experience.**

7 A3. I graduated from Purdue University with a Bachelor of Science in Civil Engineering. I  
8 also graduated from Indiana University with a Master of Business Administration. I am a  
9 registered Professional Engineer in the State of Indiana. I have attended numerous  
10 conferences and seminars on topics related to demand side management ("DSM") and  
11 renewable energy.

12 **Q4. Please state your prior work experience at IPL and that prior to rejoining IPL.**

13 A4. I began my employment with IPL on April 12, 1982, and worked as a Design Project  
14 Engineer in the Mechanical-Civil Design Engineering Department. I subsequently held  
15 the positions of Senior Engineer in the Power Production Planning Department Director,  
16 Fuel Supply and Director, Demand-Side Management

17 From 1997 until May 2006, I held the positions of Director of Marketing and Director of  
18 Industrial Development and Engineering Services at The Indiana Rail Road Company. I  
19 was responsible for the negotiation of coal transportation contracts with various electric

1 utilities, supervision of the Maintenance-of-Way and Communications and Signals  
2 Departments, and engineering and development of capital projects.

3 **Q5. What are your current duties and responsibilities at IPL?**

4 A5. I rejoined IPL in May, 2006 as Principal Engineer in the Regulatory Affairs Department.  
5 I am responsible for the evaluation and economic analysis of DSM programs and assist in  
6 the planning and evaluation of environmental compliance options and renewable  
7 resources. I have participated in the IPL DSM Oversight Board and the Demand Side  
8 Management Coordination Committee ("DSMCC"). I am the Company's technical  
9 representative on the DSMCC subcommittee that oversees the third-party Evaluation,  
10 Measurement and Evaluation ("EM&V") administrator required by the Indiana Utility  
11 Regulatory Commission ("Commission") in its December 9, 2009 Phase II Order in  
12 Cause No. 42693 ("Generic DSM Order").

13 **Q6. Have you testified previously before this Commission?**

14 A6. Yes. I have testified in several proceedings on behalf of IPL regarding the subjects of  
15 Fuel Supply, DSM and IPL's Rate REP (Cause No. 44018). I also provided testimony in  
16 Cause Nos. 43485 and 43740 in support of requests for approval of Wind Power  
17 Purchase Agreements and in Cause Nos. 43623, 43960 and 44328 regarding IPL's  
18 requests for approval of DSM programs.

19 **Q7. Are you familiar with IPL's petition in this proceeding and the relief that it seeks?**

20 A7. Yes, I am.

1 **Q8. Have you reviewed the testimony and exhibits of the other IPL witnesses in this**  
2 **Cause?**

3 A8. Yes.

4 **Q9. What exhibit are you sponsoring in this proceeding?**

5 A9. I am sponsoring the following exhibit:

6 Petitioner's Exhibit JEH-2, Comparison of Rankings by RIM and CBT Tests

7 **Q10. What is the purpose of your testimony in this proceeding?**

8 A10. The purpose of my testimony is to (1) support IPL's proposal for approval of DSM  
9 programs for calendar years 2015-2016 ("2015-2016 DSM Plan") through a discussion of  
10 the cost-effectiveness of the programs and the methods and assumptions used to conduct  
11 this analysis; (2) describe IPL's proposal for a Shared Savings incentive; and (3) describe  
12 IPL's plan for conducting ongoing EM&V.

13 **Q11. Are you familiar with the methodologies used to evaluate DSM?**

14 A11. Yes. I have overseen the evaluation of IPL's Programs that included evaluations of  
15 processes, impacts and verification of installed measures. As noted earlier, I also  
16 participate on the DSMCC's EM&V Subcommittee that oversees the evaluation of the  
17 Core Programs.

18

1

2 **Q12. Are you familiar with the goals and objectives of DSM?**

3 A12. Yes, I am. In general, DSM seeks to influence a customer's demand or consumption of  
4 energy supplied by IPL in a manner such that the cost of doing so is more economic than  
5 satisfying customer needs through supply-side resources.

6 **Q13. What DSM programs is IPL proposing?**

7 A13. IPL is proposing to deliver the DSM programs listed below. These proposed programs  
8 are described in greater detail in the testimony of IPL Witness Zac Elliot:

- 9 • Residential Lighting
- 10 • Income Qualified Weatherization
- 11 • Residential Air Conditioning Load Management
- 12 • Residential Multi-Family Direct Install
- 13 • Residential Home Energy Assessment
- 14 • Residential School Kits
- 15 • Residential Online Energy Assessment
- 16 • Residential Appliance Recycling
- 17 • Residential Peer Comparison Reports
- 18 • Business Energy Incentives - Prescriptive
- 19 • Business Energy Incentives - Custom
- 20 • Small Business Direct Install
- 21 • Business Air Conditioning Load Management

Cost-Effective DSM

1  
2 **Q14. Please describe the cost-effectiveness tests employed by IPL for DSM program**  
3 **planning and evaluation.**

4 A14. Our modeling approach included capturing the economics from various perspectives  
5 reflecting the California Standard Practice Methodology. These include the Participant  
6 Cost Test (“PCT”), Utility Cost Test (“UCT”), Rate Impact Measure (“RIM”) Test and  
7 the Total Resource Cost Test (“TRC”). IPL also used the outputs of the TRC test and the  
8 RIM test to calculate a hybrid benefit/cost ratio for ranking purposes. The purpose of this  
9 test is discussed below. For IPL’s analysis, the results of all tests were reviewed. IPL  
10 takes the approach of screening programs into the portfolio by ranking the programs with  
11 the best benefit/cost ratios. First, IPL looked for programs that passed the RIM Test. This  
12 is both a measure of efficiency and fairness. Any program passing this test benefits non-  
13 participating customers as well as participating customers and should be acceptable. The  
14 RIM test is also the most difficult test to pass. Next, IPL looked for programs that passed  
15 both the TRC and UCT tests. The TRC compares the total costs and benefits of a  
16 program for the whole population of customers. The costs include the total costs to the  
17 utility and participating customers and the benefits include tax incentives plus the  
18 avoided costs of energy supply. Participants in the program benefit through lower bills  
19 and non-participants may not benefit relative to the costs of the program for which they  
20 are assessed through higher rates. On average, the customer population as a whole  
21 benefits. The UCT assesses the benefits and costs from the utility’s perspective by  
22 comparing the utility benefits versus the utility costs (e.g., benefits of avoided fuel and  
23 operating capacity costs compared to rebates, incentives and administrative costs) –

1 similar to a Present Value Revenue Requirements Integrated Resource Plan ("IRP")  
2 analysis.

3 IPL also applied a hybrid test which I will call the Customer Balance Test ("CBT"). The  
4 CBT was used to assess the degree of subsidization between participants and non-  
5 participants. The calculations for this test are discussed below. The programs that were  
6 found to be cost-effective from the UCT and TRC test perspective were further ranked by  
7 the CBT ratio. The CBT was not used as a pass/fail test but it did serve as an indicator  
8 that programs that did pass the TRC or UCT tests but also had a low CBT ratio should be  
9 further examined to determine whether other factors warranted their inclusion in the  
10 EnerNOC 2015 – 2017 Action Plan. Including programs that passed the TRC or UCT is  
11 consistent with the Commission's DSM rules (170 IAC 4-7-7(b)) which require that at  
12 least one of the tests listed above be used to evaluate the cost-effectiveness of a DSM  
13 program. However, simply passing the TRC or UCT only means the program is cost-  
14 effective from a particular viewpoint and may not necessarily mean the program is  
15 equitable and in the interest of all customers. It should also be noted that certain proposed  
16 programs do not pass the traditional benefit-cost tests. However, those programs do have  
17 other societal benefits or the benefits are difficult to quantify and have been generally  
18 accepted subject to budget restrictions. Specifically, low-income weatherization programs  
19 typically do not pass these cost-effectiveness tests, but we believe it is important to offer  
20 low-income customers DSM program offerings in order to give such customers the  
21 opportunity to participate in programs that will help them control their energy usage and  
22 their energy bills.



1 **Q15. Please explain the CBT test and its purpose.**

2 A15. Certainly. As discussed earlier, not everyone in the customer population receives a net  
3 benefit for programs that pass the TRC test. There will be some cross-subsidization  
4 between participants and nonparticipants within a customer group but this needs to be  
5 minimized to a reasonable extent (see 170 IAC 4-8-5(f)(2)). For example, the TRC ratio  
6 can be greater than 1.0 if a small group of participants benefit a great deal at the expense  
7 of a large number of non-participants so long as the benefit averaged over all customers  
8 is sufficient. This can raise equity issues among customers. As an extreme example,  
9 consider a DSM program that incentivizes residential customers with large swimming  
10 pools to upgrade their pool heaters or pumps with high efficiency models. Clearly, the  
11 participant gains through a lower energy bill but at the expense of all other customers  
12 who subsidize the program and perhaps the participant's lifestyle. For all customers to  
13 benefit, the program would need to have a RIM ratio (sometimes called the "no-losers"  
14 test) greater than 1.0. This is a difficult standard for most programs. To provide an  
15 indication of some balance between these different perspectives, the CBT compares the  
16 adverse rate impacts with the aggregate cost savings such that the net benefits of the TRC  
17 test must equal or be greater than the net costs of the RIM test. Expressed as a formula:

18 
$$\text{CBT} = \frac{\text{NPV Net Benefits of TRC (Avoided Costs} - \text{Utility Costs} - \text{Participant Costs)}}{\text{NPV Net Costs of RIM (Utility Costs} + \text{Lost revenue} - \text{Avoided Costs)}}$$
  
19  
20

21 This ratio, while not eliminating all subsidization between participants and non-  
22 participants, does balance the benefits with the total costs which now include rate  
23 impacts. As stated earlier, IPL used the CBT as a ranking mechanism. Using the RIM

1 test to rank order the programs yields a similar result. See Petitioner’s Exhibit JEH-2 for  
 2 the rankings of the considered programs using the CBT and RIM tests.

3 **Q16. Are the proposed 2015-2016 DSM Programs cost-effective?**

4 A16. Yes. The cost-effectiveness of the proposed programs and the results for all four  
 5 conventional tests and the CBT are shown below in Table JEH-1. The results for other  
 6 current programs that were not selected to be included in the 2015 – 2017 Action Plan  
 7 are also shown in Petitioner’s Exhibit JEH-2.

8 **Table JEH-1 Benefit/Cost Ratios by Program and Market Segment**  
 9

Program	RIM	PCT	UCT	TRC	CBT
Residential Lighting	1.00	2.23	2.25	1.05	21.21
Income Qualified Weatherization	0.48		0.61	0.61	-0.59
Residential Air Conditioning Load Management	1.56		1.57	2.65	1.72
Multi-Family Direct Install	0.80		1.39	1.39	1.10
Home Energy Assessment	0.69		1.15	1.15	0.30
School Kits	0.90		1.90	1.90	4.24
Online Energy Assessment Kits	0.76		1.33	1.33	0.78
Appliance Recycling	0.75		1.21	1.42	0.91
Peer Comparison Reports	0.71		1.04	1.04	0.11
<b>Residential Segment</b>	<b>0.82</b>		<b>1.25</b>	<b>1.14</b>	<b>N/A</b>
Business Prescriptive	0.79	3.27	3.47	1.51	1.25
Business Custom	0.78	3.32	2.89	1.45	1.08
Small Business Direct Install	0.49		1.04	1.04	0.04
Business Air Conditioning Load Mgmt	0.72		0.73	1.40	0.75
<b>Business Segment</b>	<b>0.75</b>	<b>3.49</b>	<b>2.81</b>	<b>1.44</b>	<b>N/A</b>
Total Programs Only	0.80		2.16	1.39	N/A
Portfolio Level Including Indirect Costs + Shared Savings	0.77	3.88	1.99	1.32	N/A

10

1 **Q17. How did IPL determine the cost-effectiveness of the proposed programs within the**  
2 **2015 – 2017 Action Plan?**

3 **A17. IPL contracted with EnerNOC to create both an action plan and to calculate the cost-**  
4 **effectiveness ratios of the considered programs using their proprietary LoadMAP**  
5 **software. IPL provided system and rate inputs to EnerNOC.**

6 **Q18. Are you generally familiar with how the EnerNOC LoadMAP software works to**  
7 **assess cost-effectiveness?**

8 **A18. Yes, I am**

9 **Q19. IPL is not proposing to continue the Residential or C/I Renewable Incentives**  
10 **programs. Please explain.**

11  
12 **A19. Certainly. In the Commission's Order in IPL's previous DSM case (Cause 44328, page**  
13 **25), the Commission stated:**

14 'However, we do find merit in the OUCC's concerns regarding the cost-effectiveness of  
15 the programs and whether they are causing a market transformation. Therefore, should  
16 IPL seek to continue the Renewable Energy Incentive programs in the future and the  
17 TRC score for the programs remain less than 1.0, IPL shall be prepared to offer evidence  
18 demonstrating the programs are effecting a market transformation or are otherwise in the  
19 public interest to continue.'

20 The TRC scores calculated for these programs if they were to be offered are:  
21

Program	TRC	Participants		
		2012	2013	2014
Res Renewables	0.39	4	13	16
C/I Renewables	0.29	3	4	0

22

1  
2 IPL's experience has been that there is no evidence of market transformation as  
3 previously hoped. Residential customers participate only to the extent DSM incentives  
4 are available. C/I customers have had only minor participation. In addition, the CBT  
5 scores for these programs are negative indicating that program participants are heavily  
6 subsidized by non-participants and the total costs outweigh the total benefits. Therefore,  
7 IPL is not proposing to continue these programs at this time; however we continue to  
8 evaluate these types of programs as market conditions change.

9 **Q20. IPL is discontinuing the School Audit and Direct Install Program. Please explain.**

10 A20. This program was an energy audit program for schools that was never cost-effective as a  
11 stand-alone program because no measures were installed under its scope. Any actions  
12 taken were credited to other programs such as the Business Energy Incentives programs.  
13 In 2013, some direct install measures were added by the Third Party Administrator but  
14 the program was still not cost-effective because of the overriding cost of the audit. While  
15 the program is being discontinued as a stand-alone program, schools can still participate  
16 in the Business Energy Incentives programs and the Small Business Direct Install  
17 program.

18 **Q21. IPL is also discontinuing the Residential New Construction program. Please explain.**

19 A21. This program has struggled for a number of years to attract sufficient participation to  
20 have enough mass to be cost-effective. Primary reasons for this are the effects of the  
21 extended recession on the new home market and the recent implementation of higher  
22 energy efficiency requirements in the new building code. Because the baseline standards

1 have increased, it is more expensive to obtain cost-effective incremental energy  
2 efficiency improvements through this program. The program only marginally passes the  
3 UCT and fails the other tests. Similar to the Renewable Incentives programs, the CBT is  
4 negative which indicates indicating that program participants are heavily subsidized by  
5 non-participants and the total costs outweigh the total benefits. Therefore, IPL is not  
6 proposing to continue this program.

7 **Q22. What are the costs to IPL and its customers of implementing a DSM program?**

8 A22. Generally speaking, the costs to IPL and its customers include program implementation,  
9 administration, EM&V, outreach and education, lost revenues, indirect program costs and  
10 Shared Savings incentives.

11 **Q23. In your opinion, should the Shared Savings incentive being proposed by IPL be**  
12 **included as a cost of implementing DSM in determining the cost-effectiveness of**  
13 **DSM Programs?**

14 A23. Yes at the portfolio level (excluding Income Qualified Weatherization). As shown in  
15 Table JEH-1, IPL included Shared Savings and indirect costs in the benefit/cost tests at  
16 the portfolio level. The Commission's rules provide that "a shareholder incentive  
17 mechanism must reflect the value to the utility's customers of the supply-side resource  
18 cost avoided or deferred by the utility's DSM program minus incurred utility DSM  
19 program costs." *See* 170 IAC 4-8-7(f). IPL is proposing to apply a performance  
20 incentive mechanism that is based on Shared Savings (which, by definition, will reflect  
21 the net value to our customers of the costs avoided or deferred).

1 **Q24. Has the Commission previously addressed the concept of “avoided costs?”**

2 A24. Yes., For example, 170 IAC 4-7-1(b), which refers to the Commission’s “Guidelines for  
3 Integrated Resource Plans,” defines “avoided cost” as “the amount of fuel, operation,  
4 maintenance, purchased power, labor, capital, taxes, and other costs not incurred by a  
5 utility if an alternative supply or demand-side resource is included in the utility’s  
6 integrated resource plan.” The information required to be included in a utility’s IRP is  
7 listed in 170 IAC 4-7-4. Subsection (17) states:

8 An avoided cost must be calculated for each year in the forecast period.  
9 The avoided cost calculation must reflect timing factors specific to the  
10 resource under consideration such as project life and seasonal operation.  
11 Avoided cost shall include, but is not limited to, the following:  
12 (A) The avoided generating capacity cost adjusted for transmission and  
13 distribution losses and the reserve margin requirement.  
14 (B) The avoided transmission capacity cost.  
15 (C) The avoided distribution capacity cost.  
16 (D) The avoided operating cost, including fuel, plant operation and  
17 maintenance, spinning reserve, emission allowances, and transmission and  
18 distribution operation and maintenance.

19 **Q25. Have you used updated avoided cost information in your benefit-cost analysis of the**  
20 **2015 - 2017 Action Plan?**

21 A25. Yes. Both avoided capacity and avoided operating costs have been updated since the  
22 2011 IRP was submitted. These avoided costs are consistent with those included in IPL’s  
23 recent 2014 Rate CGS filing and further updated to be consistent with IPL’s Integrated  
24 Resource Plan methodology.

25 **Q26. Please describe IPL’s avoided cost calculation.**

26 A26. IPL includes the marginal cost of capacity (inclusive of generation capacity, and  
27 transmission and distribution capacity) and the marginal cost of production which include

1 fuel, emission costs and variable operating and maintenance costs. This methodology is  
2 consistent with that used in previous DSM filings. The marginal generation capacity cost  
3 is based on the deferral of a simple cycle combustion turbine with an installed cost of  
4 \$697/kW. The EnerNOC LoadMAP model uses costs in terms of real dollars. By using  
5 the other financial values used in IPL's most recent Rate CGS filing, the avoided capacity  
6 value was calculated to be \$87.00/kW/year which included avoided fixed O&M and,  
7 consistent with previous DSM work, the avoided transmission and distribution ("T&D")  
8 capacity costs were assumed at 10% of the avoided generation value. The DSM  
9 programs were also credited with avoided T&D line losses of 4.95%.

10 The avoided energy costs were derived by determining the marginal production costs  
11 through IPL's production cost modeling. A 4.95% credit was also applied to these values  
12 for the line losses that are avoided by the DSM measure being implemented at the point  
13 of use.

14 **Shared Savings Incentive Mechanism**

15 **Q27. Describe IPL's proposed Shared Savings Incentive approach.**

16 A27. As a component of its 2015-2016 DSM Plan, IPL is proposing modify the performance  
17 based incentive mechanism approved in Cause Nos. 43623, 43960, and 44328 to a Shared  
18 Savings incentive approach. Shared savings incentives are contemplated by the IURC's  
19 DSM rules; for example, 170 IAC 4-8-7(a) specifically refers to an incentive mechanism  
20 based on "a percentage share of the net benefit attributable to a demand-side management  
21 program." In recognition of the recent changes in direction of DSM in Indiana and the  
22 likelihood that further changes may result in the next legislative session, we believe a

1 different performance incentive mechanism is warranted. While currently IPL's  
2 performance incentive is based upon a combination of gross energy savings achieved and  
3 DSM expenditures (essentially volume), a shared savings approach focuses more on cost-  
4 effectiveness, which appears to be more consistent with SEA 340 and the termination of  
5 mandatory energy savings goals. The proposed incentive mechanism is based on actual  
6 (ex-post) net savings as evaluated by an independent third party evaluator. The Shared  
7 Savings incentive will be applied to all programs with the exception of the Income  
8 Qualified Weatherization Program.

9 The pre-tax performance incentive will be determined by multiplying the positive net  
10 savings as determined by the UCT associated with each program with a UCT greater than  
11 1.0 by 15%. The independent third party EM&V consultant will perform the calculations  
12 necessary to determine the net benefits under the UCT. This amount is consistent with the  
13 mechanism awarded to other utilities under the same circumstances and properly  
14 motivates the utility to control DSM program administrative costs while maximizing the  
15 benefits of the programs.

16  
17 **Q28. Will there be a true-up process of the Shared Savings incentives based upon actual**  
18 **program performance?**

19 A28. Yes. The performance incentive will be based on actual (ex-post) net savings and will be  
20 true-up after EM&V results are applied. Among other things, this will ensure that the  
21 impact of free riders is taken into account in the ultimate incentive calculation.



1 **Q29. Will the Shared Savings Incentive be based upon the results of ongoing EM&V?**

2 A29. Yes. The Shared Savings will be based on net savings subject to EM&V results for this  
3 period. This is a different approach than was previously used when performance was  
4 gauged on achievement of annual gross energy savings targets.

5 **Q30. Do Indiana electric utilities that recover lost-revenues on DSM energy savings  
6 account for EM&V in determining lost revenues?**

7 A30. Yes. The purpose of lost revenue recovery is to compensate a utility for offering DSM  
8 programs that reduce energy usage and therefore reduce their revenues (relating to fixed  
9 costs). If these revenues were not, in actuality, lost, no compensation should be paid.

10 **Q31. How does IPL propose to perform the ongoing EM&V activities necessary for the  
11 proposed DSM Plan?**

12 A31. It is the Company's intention that IPL's DSM Oversight Board will select an independent  
13 third party EM&V contractor to evaluate the 2015-2016 DSM Plan programs. The  
14 Evaluation Plan has not yet been finalized but will meet or exceed the requirements of  
15 170 IAC 4-8-4, Demand-side management program evaluation. IPL expects the  
16 evaluation will be similar in scope and thoroughness to the current work in progress.  
17 Where applicable, the scope of work will include:

18 a. Process evaluations so that program delivery can be improved to maximize cost-  
19 effectiveness and customer satisfaction;

1           b. Impact evaluations to measure the gross and net impacts of measures and  
2           programs;

3           c. Verification that measures have been installed and identify discrepancies in the  
4           reported quantities.

5           d. Calculation of the cost-effectiveness parameters

6           A considerable amount of valuable work was accomplished through the DSMCC EM&V  
7           Subcommittee over the past several years. Work products that include the Indiana  
8           Technical Reference Manual (“TRM”) and the Indiana Evaluation Framework are efforts  
9           worthy of continuing. IPL proposes to continue working with other utilities and interested  
10          parties to that end. The Indiana Evaluation Framework is under revision to make it  
11          applicable to all programs for those utilities that choose to adopt it. I am on the  
12          committee working on this task and it is IPL’s intention to utilize the document as a  
13          standard for future EM&V work.

14   **Q32. Does this conclude your prepared direct testimony?**

15   **A32.** Yes, at this time.

Comparison of Program Rankings by RIM and CBT Tests

Sort by CBT						Sort by RIM							
	Program	RIM	PCT	UCT	TRC	CBT		Program	RIM	PCT	UCT	TRC	CBT
1	Residential Lighting	1.00	2.23	2.25	1.05	21.21		Residential Air Conditioning Load Mgmt	1.56		1.57	2.65	1.72
2	School Kits	0.90		1.90	1.90	4.24		Residential Lighting	1.00	2.23	2.25	1.05	21.21
3	Residential Air Conditioning Load Mgmt	1.56		1.57	2.65	1.72		School Kits	0.90		1.90	1.90	4.24
4	Business Prescriptive	0.79	3.27	3.47	1.51	1.25		Multifamily Direct Install	0.80		1.39	1.39	1.10
5	Multifamily Direct Install	0.80		1.39	1.39	1.10		Business Prescriptive	0.79	3.27	3.47	1.51	1.25
6	Business Custom	0.78	3.32	2.89	1.45	1.08		Business Custom	0.78	3.32	2.89	1.45	1.08
7	Appliance Recycling	0.75		1.21	1.42	0.91		Online Kits	0.76		1.33	1.33	0.78
8	Online Kits	0.76		1.33	1.33	0.78		Appliance Recycling	0.75		1.21	1.42	0.91
9	Business Air Conditioning Load Mgmt	0.72		0.73	1.40	0.75		Res. New Construction	0.73	1.06	1.03	0.50	-2.63
10	Home Energy Assessment	0.69		1.15	1.15	0.30		Business Air Conditioning Load Mgmt	0.72		0.73	1.40	0.75
11	Peer Comparison Reports	0.71		1.04	1.04	0.11		Peer Comparison Reports	0.71		1.04	1.04	0.11
12	Small Business Direct Install	0.49		1.04	1.04	0.04		Home Energy Assessment	0.69		1.15	1.15	0.30
13	Business Schools	0.31		0.47	0.47	-0.52		Res Renewable Incentives	0.56	1.01	0.76	0.39	-2.00
14	Income Qualified Weatherization	0.48		0.61	0.61	-0.59		Small Business Direct Install	0.49		1.04	1.04	0.04
15	Bus. Renewable Incentives	0.33	1.13	0.47	0.29	-1.19		Income Qualified Weatherization	0.48		0.61	0.61	-0.59
16	Res Renewable Incentives	0.56	1.01	0.76	0.39	-2.00		Bus. Renewable Incentives	0.33	1.13	0.47	0.29	-1.19
17	Res. New Construction	0.73	1.06	1.03	0.50	-2.63		Business Schools	0.31		0.47	0.47	-0.52

**VERIFICATION**

I, John E. Haselden, Principal Engineer for Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



John E. Haselden  
Dated: May 30, 2014