OFFICIAL
EXHIBITS

INDIANAPOLIS POWER AND LIGHT COMPANY

IURC CAUSE NOS. 44576 / 44602

IURC
PETITIONER'S
EXHIBIT NO. 24-R
9-24-15 AT
DATE REPORTER

VERIFIED REBUTTAL TESTIMONY

OF

J. STEPHEN GASKE
SENIOR VICE PRESIDENT
CONCENTRIC ENERGY ADVISORS, INC.

September 4, 2015

SPONSORING PETITIONER'S WITNESS JSG ATTACHMENTS 1-R THROUGH 14-R

004634

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VERIFIED DIRECT TESTIMONY OF J. STEPHEN GASKE

I. INTRODUCTION

Q1. Please state your name, business address, and job title.

A1. My name is J. Stephen Gaske and I am a Senior Vice President of Concentric Energy Advisors, Inc., 1130 Connecticut Avenue, Suite 850, Washington, DC 20036.

Q2. Are you the same J. Stephen Gaske who provided direct and revised direct testimony in this Cause?

A2. Yes, I am.

Q3. Have you also adopted the filed Direct Testimony of Petitioners' Witness John D. Taylor as your own in this proceeding?

A3. Yes.

Q4. What is the purpose of your rebuttal testimony?

A4. I am responding to issues raised in the direct testimonies of several parties in this Cause including:

- Dr. Robert Kramer, Theodore Sommer and Melody Park on behalf of the City of Indianapolis ("City");
- Nicholas Phillips and James Dauphinais on behalf of the IPL Industrial Group ("Industrial Group");
- Glen Watkins and Edward Rutter on behalf of the Indiana Office of Utility Consumer Counselor ("OUCC");
- John Howat on behalf of the Joint Intervenors, and;
- Kevin Higgins on behalf of the Kroger Company ("Kroger").

In addition I am updating the Allocated Cost of Service Study, rate design and bill impacts for changes in the Company's revenue requirement,

Q5. Does your rebuttal testimony include attachments?

A5. I am sponsoring the following Petitioner's Witness JSG Attachments:

Table 1

Attachment	Name
1-R	Electric Utility Cost Allocation Manual, National Association of Regulatory Utility Commissioners, 1992 Edition, pages 90-92
2-R	Survey of Customer Charges & Monthly Basic Service Charge
3-R	IURC 1982 Lifeline Rate Order
4-R	Summary of Backup & Maintenance Power Tariffs
5-Ra	REDACTED – LED Lighting Rate Comparisons
5-Rb	CONFIDENTIAL - LED Lighting Rate Comparisons
6-R	Summary of Class Cost Allocation and Unit Costs (Updated Direct JDT Attachment 3)
7-R	Proposed Mitigated Revenue (Updated Direct JSG Attachment-2)
8-R	Class Revenue Summary (Updated Direct JSG Attachment-3)
9-R	Test Year Revenue Proofs at Current and Proposed Rates (Updated Direct JSG Attachment-4)
10-R	Summary of Proposed Rate Design (Updated Direct Attachment-5)
11-R	Residential Bill Impacts (Updated Direct Attachment-6)
12-R	Copies of Data Responses discussed herein
13-R	Tariff Rate Sheets – CLEAN (Updated IPL Witness EKC Attachments 1-R (c), (d), (e) and (f))
14-R	Tariff Rate Sheets – REDLINE (Updated IPL Witness EKC Attachments 2-R (c), (d), (e) and (f))

Rebuttal Attachments 6-R to 11-R, 13-R and 14-R were part of the direct filing in this proceeding and, as discussed in Section VI., have been updated to reflect IPL rebuttal positions. In addition, Excel files provided as responses to Data Requests are provided electronically with this filing.

Q6. Were the attachments or portions thereof you are sponsoring prepared or assembled by you or under your direction or supervision?

A6. Yes.

Q7. Are you also submitting updated workpapers to reflect the changes in revenue requirement, corrections, and positions on which you agree with intervenor proposals?

A7. Yes. I have submitted the following workpapers:

Table 2

Updated Workpapers	Name
JDT WP-1.0-R*	Cost of Service Model – CONFIDENTIAL (Updated Direct Attachment JDT WP-1.0)
JDT WP-2.0-R	Cost Functionalization and Classification (Updated Direct Attachment JDT WP-2.0)
JDT WP-3.0-R	Functional Allocation Factors (Updated Direct Attachment JDT WP-3.0)
JDT WP-4.0-R	Allocation to Rate Classes (Updated Direct Attachment JDT WP-4.0)
JSG WP-1.0-R*	New Lighting Rate Design Calculation (Updated Direct Attachment JSG WP-1.0)
JSG WP-2.0-R*	Rate Design and Revenue Proof Calculations (Updated Direct Attachment JSG WP-2.0)
JSG WP-3.0-R*	Residential Bill Impact Calculations (Updated Direct Attachment JSG WP-3.0)
JSG WP-4.0a-R*	Power Factor Adjustment Calculations -Rate SL, PL, HL1, HL2, and HL3 (Updated Direct Attachment JSG WP-4.0)
JSG WP-4.0b-R*	Power Factor Adjustment and Minimum Charge Calculations - Rate PH (Updated Direct Attachment JSG WP-4.0)
JSG WP-5.0-R*	Employee Discount Calculations (Updated Direct Attachment JSG WP-5.0)

* These workpapers are provided electronically as Excel files.

Rebuttal Workpapers listed above were part of the direct filing in this proceeding and, as discussed in Section VI., have been updated to reflect IPL rebuttal positions.

II. ALLOCATED COST OF SERVICE STUDY

Q8. Would you briefly summarize the recommendations of other parties concerning the methods used to allocate costs to the various classes to which you wish to respond?

A8. OUCC witness Mr. Watkins opines[1] that the Probability of Dispatch ("PoD"), Base-Intermediate-Peak ("BIP") and Peak & Average ("P&A") methods better reflect the capacity/energy tradeoffs that exist within generation-related costs. Mr. Watkins recommends that the Company's distribution plant be classified as 100% demand related compared to the demand/customer methodology used by the Company.[2] However, Mr. Watkins ultimately agrees that IPL's proposed allocation of revenue to rate classes is reasonable.

Industrial Group's witness Mr. Phillips recommends the use of either the four summer coincident peak (4CP) method or six coincident peak (6CP) method for the allocation of production and transmission costs.[3] Mr. Phillips and Mr. Dauphinais, also on behalf of the Industrial Group, make a recommendation regarding the allocation of the cost of providing interruptible credits with which I agree.

I will divide my discussion of these recommendations into Demand-related Production and Distribution system costs.

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1 Direct Testimony of Glenn A. Watkins, Public's Exhibit No. 14, page 15, lines 13 – 14.
2 *Ibid,* page 37, lines 9 – 10.
3 Direct Testimony of Nicholas Phillips, Jr., page 3, lines 20 – 26.

A. Demand-Related Production Costs

Q9. What is Mr. Watkins specific recommendation for classification and allocation of production costs?

A9. Mr. Watkins makes no specific recommendation for the classification and allocation of production costs. Mr. Watkins discusses several methods; notes that there is no single, or absolute, correct method for the allocation of production cost and concludes that three methods, PoD, BIP and P&A better reflect the capacity/energy tradeoffs that exist within a utility's production-related costs.

Q10. Did Mr. Watkins conduct any alternative cost studies using other methods of classification and allocation?

A10. Yes. Mr. Watkins conducted cost studies using the PoD, BIP, and P&A methodologies, and he presents the results compared to the 12CP method I used. He opines that the PoD and BIP are theoretically correct and are the most accurate from a cost-causation standpoint, notes that the P&A does not produce results materially different from the 12CP and concludes that all should be considered in evaluating class profitability (pp. 22-23).

Q11. Does Mr. Watkins express any specific concerns of the use of the 12CP method?

A11. Mr. Watkins' specific concern related to the use of the 12CP method is that it does not recognize the investment or operational characteristics of IPL's generation portfolio as it allocates the total generation plant investment based on the twelve peak hours of the year. Mr. Watkins claims that since IPL's generation portfolio is primarily base load facilities that are more expensive than intermediate or peaking facilities, the 12CP method under-

assigns generation costs to the high load factor classes and over-assigns generation costs to the low load factor classes compared to the PoD or BIP methods.[4]

Q12. Do you agree with this criticism of the 12CP method?

A12. No. Once installed and part of the utility's portfolio, any generation asset is available for dispatch at any time. The 12CP method recognizes the classes call on the assets throughout the year, and it considers that the utility will call on all resources during the highest peak and only use the more efficient plants at times of lower demands.

Q13. What is the Industrial Groups' witness Mr. Phillips recommendation for the allocation of production and transmission costs?

A13. Mr. Phillips recommends that a 4CP or 6CP method be used for the allocation of production costs. Mr. Phillips states that a 12CP method is only appropriate for a utility system with a flat load pattern in which each of the monthly coincident peaks is relatively equal. Mr. Phillips argues that IPL has a dominant summer and winter peak on a historical basis and dominant summer peaks based on the forecast of peak loads used to determine the amount of generation capacity required to serve load and maintain adequate reserves. He concludes that these "dominant" peaks indicate that a 4CP or 6CP method is more appropriate.[5]

Q14. Does IPL have dominant summer and winter peaks?

A14. The IPL system certainly exhibits summer and winter peaks but the phrase "dominant" is highly subjective and is not one that I would use to describe IPL's situation. Instead, the

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4 *Ibid,* page 18, lines 2 – 7.
5 *Ibid*, page 9, line 21 – page 10, line 5.

FERC has three tests that it uses as a guide to determine the level of diversity in the monthly peaks and whether a 12-CP demand allocator is appropriate. As shown in the table below, I conducted those tests on the IPL system for the test year and found that all three criteria were met.

Table 3

	[1]	[2]	[3]
	FERC 12-CP Tests[6]		
	Peak – Off-Peak % Difference	Lowest Monthly Peak/Annual Peak Ratio	Avg. Monthly Peak/Annual Peak Ratio
Use 12 CP if:	≤ 19.0%	≥ 66.0%	≥ 81.0%
Test Year	12.3%	68.2%	88.1%
2013	15.4%	68.9%	87.6%

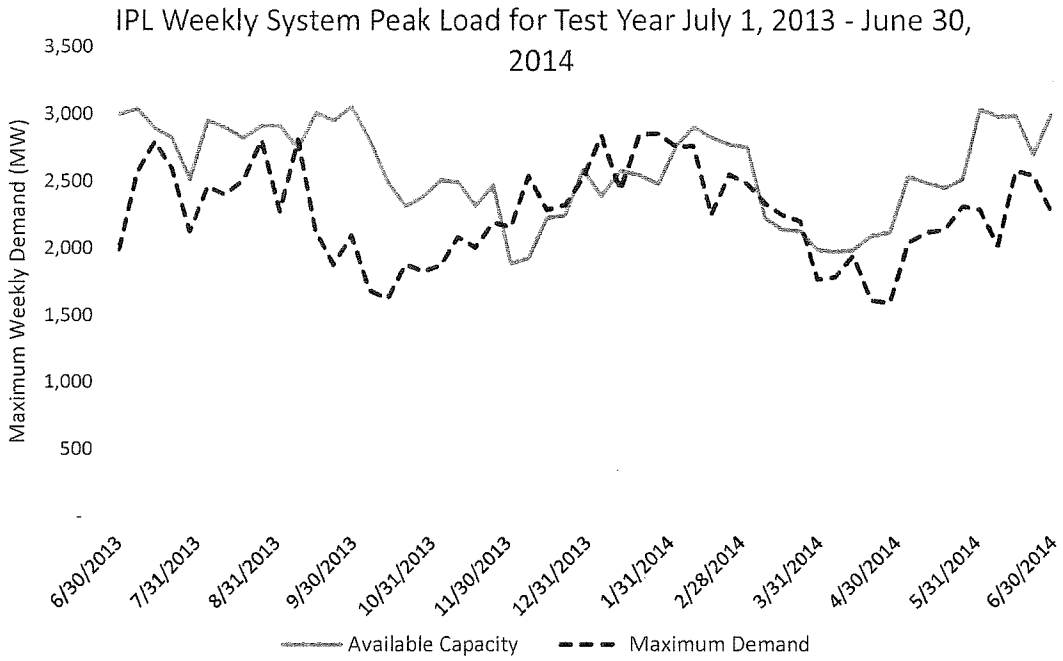
For example, the difference in load between peak months and off-peak months was only 12 percent; the lowest monthly peak was 68 percent of the highest monthly peak; and the average of the 12 monthly peaks was 88 percent of the annual peak. All of these measures indicate that the IPL system had a relatively flat annual load and that a 12-CP demand allocator is appropriate.

Q15. Are there other reasons to include the non-peaking months in the demand allocation factor?

A15. Yes. IPL schedules its maintenance during the off-peak and shoulder months. This scheduled maintenance can result in higher loss of load probability as the capacity reserve is reduced during these periods. In fact, the system capacity reserve often is not much different in the off-peak and shoulder months than it is in the peak months.

[6] Per 123 FERC ¶ 61,047 at 61,249.

Figure 1



The 12CP method captures the classes' demands on available capacity during all month during the year and is a more appropriate method for IPL's circumstances.

Q16. Are the class revenue requirements and rates of return significantly different between the 12CP, 6CP and 4CP methods?

A16. No. Comparing the results from Mr. Phillips Exhibits NP-5 (4CP) and NP-6 (6CP) to those from the 12CP method show that there is a difference of less than 2% for most classes.

Table 4: Percent Changes from 12 CP

PROPOSED MITIGATED REVENUE ($000)					Percent change from 12CP	
Rate Class		12CP	6CP	4CP	6CP	4CP
Residential	RS	$502,135	$506,837	$506,523	0.9%	0.9%
Secondary Small	SS	137,769	137,204	137,123	-0.4%	-0.5%
Space Conditioning	SH	48,530	48,534	47,432	0.0%	-2.3%
Space Conditioning - Schools	SE	1,714	1,700	1,690	-0.8%	-1.4%
Water Heating - Controlled	CB	48	47	47	-0.6%	-1.3%
Water Heating - Uncontrolled	UW	122	120	118	-1.6%	-3.5%
Secondary Large	SL	301,190	299,157	300,379	-0.7%	-0.3%
Primary	PL	95,532	94,803	95,255	-0.8%	-0.3%
Process Heating	PH	5,873	5,814	5,643	-1.0%	-3.9%
HLF - Primary	HL1	95,256	94,431	94,570	-0.9%	-0.7%
HLF - Sub-Tran	HL2	15,924	15,781	15,891	-0.9%	-0.2%
HLF -Tran	HL3	23,032	22,683	22,785	-1.5%	-1.1%
Automatic Protective Lighting	APL	6,450	6,464	6,120	0.2%	-5.1%
Municipal Lighting	MU1	10,748	10,748	10,748	0.0%	0.0%
System Total		**$1,244,324**	**$1,244,324**	**$1,244,324**	**0.0%**	**0.0%**

The primary effect of using a 4CP or a 6CP demand allocator instead of a 12CP allocator would be to provide lower rates to nearly every class by increasing residential rates by approximately an additional one percent.

Q17. Do you agree with Mr. Phillips' claim that the test year load pattern is abnormal due to the polar vortex event that occurred during January and February of the test year?

A17. No. In conducting my analysis of IPL's load patterns to select the appropriate demand allocation factor, I reviewed several years of data and this analysis was provided to the Industrial Group in response to data request IG-IPL 5.13. Mr. Phillips produced a graphical representation of this data as his Exhibit NP-2. This review of historical data

showed that the overall test year load pattern was not abnormal from a monthly demand basis.

For example, the test year peak occurred in January 2014, but in 2009 the IPL system peak also occurred in January, and nearly occurred in January in 2008. So a January peak was not particularly abnormal. In addition, although the February 2014 peak was 97 percent as high as the January 2014 test year peak, the February 2014 peak was only the fifth highest month during the test year. During the years 2008-2013 plus the 2013/14 test year, the February peak was more than 90 percent of the annual peak in four of the seven years. This suggests that the February 2014 peak was not particularly abnormal either. Moreover, in the prior year, the January 2013 peak and the February 2013 peak were both within more than 90 percent of the highest 2013 peak. Thus, relatively high demand on the IPL system in January and February is not simply a result of the 2014 polar vortex. In comparison with prior years, IPL's overall load pattern during the test year is not abnormal.

Q18. You mentioned that Mr. Phillips made a recommendation regarding the interruptible credit with which you agreed. Do you agree with concerns raised by Mr. Phillips at pages 17 to 18 of his testimony regarding the collection of costs associated with the interruptible credit from HL-3 customers only?

A18. Yes. I agree that availability of interruptible load benefits the entire system and not just the rate class to which the interruptible customer belongs. Therefore, it is appropriate to allocate the costs associated with the interruptible credit to all rate classes and not just the

HL-3 class. Table 5 below compares the proposed revenue requirement when the cost of the interruptible credit is allocated to all rate classes.

Table 5: Proposed Un-Mitigated Revenue Requirement after Reallocation of Interruptible Credit

Proposed Un-Mitigated Revenue Requirement after Reallocation of Interruptible Credit ($000)

Rate Codes		As Filed	Re-Allocation of Interruptible Credit	Change ($)	Change (%)
Residential	**RS**	$ 530,117	$ 530,376	$ 259	0.05%
Secondary Small	**SS**	$ 117,065	$ 117,120	$ 55	0.05%
Space Conditioning	**SH**	$ 50,738	$ 50,764	$ 26	0.05%
Space Conditioning - Schools	**SE**	$ 1,748	$ 1,749	$ 1	0.06%
Water Heating - Controlled	**CB**	$ 67	$ 67	$ 0	0.03%
Water Heating - Uncontrolled	**UW**	$ 127	$ 127	$ 0	0.04%
Secondary Large	**SL**	$ 287,669	$ 287,817	$ 148	0.05%
Primary	**PL**	$ 96,603	$ 96,653	$ 50	0.05%
Process Heating	**PH**	$ 6,102	$ 6,105	$ 3	0.05%
HLF - Primary	**HL1**	$ 97,018	$ 97,065	$ 47	0.05%
HLF - Sub-Tran	**HL2**	$ 16,358	$ 16,366	$ 8	0.05%
HLF -Tran	**HL3**	$ 23,735	$ 23,135	$ (600)	-2.53%
Automatic Protective Lighting	**APL**	$ 9,222	$ 9,222	$ 1	0.01%
Municipal Lighting	**MU1**	$ 7,756	$ 7,757	$ 1	0.01%
System Total		$ 1,244,324	$ 1,244,324	$ 0	0.00%

B. Distribution System Costs

Q19. OUCC witness Mr. Watkins claims that all distribution system plant and expenses (e.g. costs of poles and conductors) should be allocated to classes based on relative peak demand, and that none of the costs should be allocated based on the number of customers.[7] Do you agree with his assessment?

A19. No. Distribution system costs are incurred to move electricity from generation and transmission facilities to individual customers that are distributed geographically throughout the IPL service territory. A significant portion of those costs are incurred regardless of the peak demand of the customers. Increases or decreases in demand do not result in proportionate increases or decreases in the number of poles and miles of conductors required to distribute electricity geographically. The reason we classify a portion of the distribution system costs as customer-related is that the distribution system exists to deliver electricity to hundreds of thousands of customers who are widely spread throughout the service territory. Most of those costs are totally unrelated to the peak demand allocator that Mr. Watkins recommends using.

To provide an example of a "distribution" system whose costs are nearly totally related to demand we would need a single, very large customer *adjacent* to the generating plant. Conceivably, the entire population and economy of Indianapolis could be concentrated in a massive building adjacent to a generating plant. In this circumstance, no poles would be required and a minimal length of wire would be required to attach the building to the generation source. But numerous strands of very short wire would be required to meet

[7] *Ibid*, page 37, lines 4 – 10.

the peak demand of the single, concentrated Indianapolis building. In this unrealistic example, one could say that nearly all of the "distribution" system costs are demand related because all of the customers are located in the same place.

However, in reality, the population and economy of Indianapolis is spread out geographically and thousands of poles and thousands of miles of wire are required to bring electricity to all of the houses and businesses distributed throughout the service territory. If new housing developments are built, more poles and miles of wire are required to serve the new streets, *regardless of the amount of peak demand.* Thus, it is appropriate to classify a portion of the distribution system costs as being customer-related and to allocate those costs based on the number of customers.

Q20. At page 33, lines 9-12 of his testimony, Mr. Watkins claims that "the only reason why it may be appropriate to allocate a portion of distribution plant expenses based on number of customers, rather than peak demand, is due to the possibility that the mix of customers *varies significantly across the customer density levels* within IPL's service territory." [Emphasis added]. Do you agree with this claim?

A20. No. Differences in customer density are irrelevant for the determination that a portion of IPL's distribution system costs should be classified as being customer-related. Instead, my cost analysis allocates the customer-related costs to customers equally, regardless of the density of customers in any particular part of the city. Mr. Watkins conducts a lengthy and detailed analysis of customer densities, and customer mixes throughout IPL's service territory that is irrelevant to his argument that all costs should be classified as if they only vary with the amount of peak demand. Instead, Mr. Watkins' analysis of

customer densities is the type of analysis that one would conduct in deciding whether to have separate rates for rural customers and urban customers. But no one is recommending that rural and urban customers in IPL's service territory pay different rates that reflect the differences in customer densities. Therefore, Mr. Watkins' lengthy and detailed analysis of customer densities addresses an issue that does not exist in this proceeding.

Q21. If you are not recommending different rates for rural and urban customers, why is it appropriate to classify a portion of distribution system costs as being customer-related?

A21. As discussed above, a very large portion of the distribution system costs is unrelated to peak demand and, instead, is related to achieving geographic coverage to serve the numerous customers distributed throughout the service territory. Thus, allocating all distribution system costs based on peak demand would overstate the importance of demand and ignore an important factor that drives distribution system costs on the IPL system.

Q22. At page 31, lines 19-20, Mr. Watkins cites *Bonbright* to the effect that there is a "very weak correlation between the area (or the mileage) of a distribution system and the number of customers served by the system." Does this suggest that all costs should be allocated based on peak demand?

A22. No. That quote simply means that some utilities have greater customer density than others, but it does not mean that all distribution system costs simply vary by the amount of demand. For example, if we compare two systems that have the same number of

customers and the same total peak demands, by definition, the utility with lower customer density should have more miles of distribution system than a high-density system. In this case, we would expect of course that total peak demand also has a very weak correlation with the miles of distribution system served by the different utilities. As a result, Mr. Watkins' quote does not lead to the conclusion that all distribution costs are related to peak demand. Instead, because geographical coverage is unrelated to peak demand it is appropriate for the customers to share equally in the minimum system costs of providing distribution system geographic coverage.

It also should be noted that Mr. Watkins' quotation from *Bonbright* is based on comparisons of the customer density of one utility with that of other utilities. However, we are not basing the rates in this proceeding on the customer density, costs or economic characteristics of other utilities. Instead, the proposed rates in this proceeding are based on the customer density, costs and economic characteristics of IPL. Thus, the fact that other utilities have different customer densities is not particularly relevant for IPL's circumstances.

Although the minimum system costs per customer should be lower for a utility that serves a densely-populated territory, it is still reasonable for the customers to share those costs equally because a large portion of distribution system costs are related to reaching the numerous, geographically-dispersed customers, and those minimum system costs are unrelated to peak demand.

Q23. Do you agree with Mr. Watkins' criticism at page 41, line 8 of the Minimum System Study for Account 364 (poles) that you have conducted?

A23. No. As noted by Mr. Watkins, for distribution poles I used a 30-foot pole as the minimum-sized secondary voltage pole and a 35-foot pole as a minimum-sized primary voltage pole. Mr. Watkins' claims that the minimum-sizes that I have utilized are inaccurate are based on the following two reasons: a) he claims the poles are longer than they would otherwise be because they also accommodate telecommunications cables, and b) he claims there are poles smaller in size than the minimum-size that I have used.

Mr. Watkins' claim, that the minimum-sized poles are longer than it would otherwise be because they also accommodate telecommunications cables, implies that the height of the pole is not related to the demand at all. In other words, he implies that the only reason for a larger pole is to accommodate other uses besides the distribution of electricity. Even if his point were correct, that would not mean that the marginal costs of the taller pole bear any relationship to demand. In fact, his argument is that the need for the larger pole is wholly unrelated to demand. Using his logic, one may even argue that none of the pole-related costs should be classified as demand-related and that these costs should be classified as being 100 percent customer related.

In addition, when we talked with the engineers that are directly responsible for installing new poles, they indicated that the size of the pole is dependent on the structural and clearance requirements established under the National Electrical Safety Code (NESC) and various equipment and facilities attached to the poles. The height of a pole can increase due to other factors and not just demand. As a result, some portion of the pole

account that we have functionalized as being demand-related might not even be truly demand-related.

Mr. Watkins' second claim, that there are smaller sized poles in the inventory than the minimum size I have used, fails to recognize that the replacement cost of poles associated with these heights (*i.e.* poles shorter than 30-foot poles) are the same as for 30-foot poles. Accordingly the minimum replacement costs are the costs of 30-foot poles. I have used a 30-foot pole as the minimum size because it is the minimum height pole currently being installed by the Company.

Q24. Mr. Watkins also presents disagreements with your Minimum Size Analysis based upon citations to the NARUC Manual as it relates to the minimum size of conductors. Is he citing this source appropriately?

A24. No. Mr. Watkins' citation to the NARUC Manual omits crucial information pertaining to the determination of the minimum size of conductors. At page 42, lines 13-25, Mr. Watkins quotes from the NARUC Manual regarding the minimum size studies as it relates to overhead and underground conductors. His quotation excludes the following as it relates to the determination of minimum size of overhead conductors: "Determine minimum size conductors *currently being installed*".[8] Similarly, for underground conductors, he has omitted "Determine minimum size cable *currently being installed*".[9] A copy of the relevant pages is included herein as Petitioner's Witness JSG Attachment 1-R. When this omitted language is included, the text indicates that I have appropriately

[8] Electric Utility Cost Allocation Manual, National Association of Regulatory Utility Commissioners, 1992 Edition, page 91, emphasis added.

[9] *Ibid*, page 91, emphasis added.

utilized the minimum sized conductors based on the minimum size currently being installed by the company as specified in the NARUC Manual.

Q25. Do you agree with Mr. Watkins' criticism of the Minimum System Study specific to overhead and underground conductors?

A25. No. In his testimony Mr. Watkins is confusing two approaches used for classification of distribution systems, namely the minimum system approach and the zero-intercept approach. In his testimony he claims that:

> "The bias that results under the Minimum-Size approach is that even the smallest sized conductor actually installed has load carrying capability, and in fact, is installed to meet the collective loads of the customers on a particular distribution line segment. Therefore, there is a substantial level of demand-related costs within the "minimum-size" costs used within this method."[10]

The concept of Minimum System is based on the assumption that there is a minimum sized distribution system required to be capable of serving minimum requirements of customers. This minimum is dependent primarily on the number of customers and their geographic dispersion, not on the peak demand the customers place on the system. Mr. Watkins' testimony contains the following excerpt from the updated NARUC report:

> "The minimum size method operates, as its name implies, on the assumption that there is a minimum-size distribution system capable of serving customers minimum requirements. The costs of this hypothetical system are, so the argument goes, driven not by customer demand but rather by numbers of customers, and therefore they are considered customer costs."[11]

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10 *Ibid,* page 41, lines 1 – 6.
11 *Ibid,* page 38, lines 34 – 39.

Therefore, even though the minimum sized system is capable of carrying a very small amount of load, it is driven by the number of customers and not their demand. The zero-intercept approach, on the other hand, is premised on identifying the portion of the distribution system that is necessary to give customers access to the system, but that is incapable of carrying any load.

Q26. Do you agree with Mr. Watkins' claim that there is substantial level of demand-related costs within the minimum size costs?

A26. No. The minimum sized system has some load carrying capacity, but this capacity is small. Virtually all customers impose some lowest common denominator amount of minimum load on the system, and so the minimum system costs should be treated as providing equal benefit to all customers on the relevant system.

Q27. Mr. Watkins criticizes your minimum system analyses associated with overhead and underground conductors claiming that you did not utilize circuit miles in your analyses. Is this a valid criticism?

A27. No. Mr. Watkins references my responses to OUCC-18-20[12] and asserts that I have not utilized circuit miles while conducting the minimum system study and hence the results of the minimum system study is not valid. I conducted minimum system study for four categories of conductors- Overhead Primary conductors, Overhead Secondary conductors, Underground Primary conductors, and Underground Secondary conductors. For each category of conductor, I calculated the total footage and total replacement costs by aggregating all wires and conductors falling in each of the four categories. The

[12] This response is included in Attachment 12-R.

calculation then multiplies the cost of a minimum sized conductor times the total footage of all the conductors in each category to obtain the total cost of a hypothetical system comprised only of the minimum-sized conductors. The ratio of the total cost of this hypothetical system and the total cost of the actual system is the minimum-system customer-related component.

For example, using a minimum sized secondary underground conductor that costs $1.14 per foot I calculated the customer portion of Underground Secondary conductors to be about 26 percent. Using a similar approach and appropriate minimum sized conductors, I calculated the customer portion for Overhead Primary conductors, Overhead Secondary conductors, and Underground Primary conductors to be 35 percent, 21 percent, and 39 percent, respectively. These estimates of the customer-related portion of these conductor costs are reasonable and not unusually high.

Q28. Do you agree with Mr. Watkins' concern with the use of replacement costs in lieu of embedded costs for developing allocation factors?

A28. No. The use of embedded costs carries with it the reality that there are a variety of equipment purchases made at various times and reflecting different technologies, materials and real-dollar costs. The use of current costs, *i.e.* replacement costs, puts all costs on the same vintage basis and removes any historical inflation and technological differences from the cost calculations. For example, if we were to calculate the minimum system costs as being the historical embedded cost of the lowest cost equipment on the system, we might select the embedded cost of equipment installed in 1950 as the "minimum" system cost. All historical embedded costs in excess of the 1950 costs would

then be treated as being "demand-related" when, in fact, much of the equipment cost in excess of the 1950 "minimum" is merely the result of inflation and irrelevant for economic analysis of the real-dollar relative costs of customer-related and demand-related costs.

If there has been no inflation or technological change since the time that the existing equipment was installed, the replacement cost and the embedded cost method would produce the same results. But this hypothetical does not reflect reality. In my opinion, the current replacement cost approach is a more accurate approach because it accounts for changes in price levels and technologies, thereby better reflecting the relative costs of equipment required to continue serving various classes of customers in the future.

It is important to note that no customer class is being allocated an amount of dollars equal to replacement costs in this approach. Instead, replacement costs are used simply to derive appropriate percentage allocation factors that are used to classify and allocate the embedded, vintage costs of equipment among the various rate classes.

Q29. Does Mr. Watkins present the results of his cost of service recommendations?

A29. At page 44 of his testimony, Mr. Watkins presents a comparison of the cost of service results wherein he treats distribution costs as being 100% demand-related and with production costs allocated using the various alternatives (12CP, PoD, BIP and P&A) discussed earlier. He notes that while the absolute rate of return by class varies with each methodology there are relative consistencies across most classes.

III. REVENUE DISTRIBUTION - MITIGATION

Q30. Would you briefly summarize the recommendations of other parties concerning the distribution of revenue requirements to the various classes?

A30. Mr. Watkins reviewed the Company's proposed class revenue distribution and finds that it is reasonable. Mr. Phillips recommends that a mitigation methodology that is drawn from an earlier version of my testimony be used in lieu of the method currently proposed by the Company as set forth in its Fifth Revision of direct testimony, filed May 4, 2015.

Q31. What is Mr. Watkins' proposal for the class revenue increases?

A31. Notwithstanding Mr. Watkins objections related to my classification and allocation of production and distribution plant-related costs, at page 53, lines 1-11 of his testimony Mr. Watkins ultimately finds that my proposed class revenue distribution is reasonable. He recommends that if the Commission makes changes to the overall revenue requirement, the overall rate increase should be distributed to rate classes in proportion to the class increases I have proposed, with the proviso that there should be no rate reduction to the MU-1 class.

Q32. Do any intervenor witnesses comment on your proposal to mitigate the rate increases indicated by your class cost of service study?

A32. Yes. At pages 13-15 of his testimony, Mr. Phillips opines that a proposal to reduce subsidies by 20 percent to all classes would be consistent with the methods approved by the IURC in other rate cases. He claims that the constraint that no class receive more than a 10 percent rate increase is peripheral and mainly a function of other factors such as

the amount of the requested increase, time between rate cases and the impact of tracking mechanisms.[13]

Q33. Do you agree with Mr. Phillips on this issue?

A33. Yes. The Company is agreeable to a mitigation methodology that would reduce the subsidy for most classes by 20 percent, provide no rate decreases and apply the additional revenue from no rate decreases to further mitigate those classes that otherwise would receive rate increases greater than 10 percent. The effect of this approach is shown on Petitioner's Witness JSG Attachment 7-R. The purpose of this mitigation approach should be to ensure that the proposed rate increase would not overly impact any one rate class. Because the overall rate increase requested is less than six percent, I continue to believe that limiting the rate increases of all classes to no more than 10 percent is a reasonable and desirable goal in this proceeding.

IV. RATE DESIGN

Q34. Would you briefly summarize the recommendations related to rate design that were suggested in the testimonies of other parties to which you wish to respond?

A34. Yes. Mr. Watkins recommends:

a. Retention of the current customer charge levels for residential service and a gradual move from declining block energy rates to a flat rate structure;

b. That the ancillary water heating rate schedules CU and UW be eliminated in the Company's next rate case.

c. That the small volume Rate SS customer charge be increased only 9.8% and that there should be a move to a flat energy charge by pricing the tail block at 90% of the first usage block.

[13] *Ibid,* page 14, lines 12 – 16.

d. Supports the Company's proposed rate design for the large commercial/industrial classes but recommends that the increase in the demand charge be limited to 50%.

e. Supports the Company's proposed interruptible credit but recommends that if the Company does not begin using this tariff provision it should be eliminated. He recommends that the rate credit Rider be revised to include language allowing the Company to call for an interruption when the real-time LMP is reasonably forecasted to be in excess of IPL's purchased power benchmark.

f. Recommends that the Company's proposed migration adjustment be eliminated.

Mr. Howat on behalf of the Joint Intervenors ("JI") recommends that the Commission direct IPL to implement a comprehensive low-income bill payment assistance program. He also recommends that IPL's proposal to increase the monthly fixed customer charge and to continue declining block rate structures be rejected.

Mr. Phillips recommends that the increase in the demand charge for the large commercial/industrial class be limited to the percentage increase authorized for the class as a whole. The other rate elements should be increased by the same percentage. Mr. Phillips recommends that any tracking mechanisms approved by the Commission be allocated and recovered from the rate classes in the same manner as the approved base rates. Mr. Dauphinais also recommends that the amount of the Interruptible Credit be reviewed in future proceedings.

Kroger witness Mr. Higgins recommends that IPL's proposed Capacity Cost Recovery, Off-System Sales ("OSS") Margin and Regional Transmission Organization adjustments be designed as a demand charge or credit for the demand billed rates. Mr. Higgins also recommends that if the Commission reduces the revenue requirements for Rates SL or HL-Primary relative to IPL's proposal, then the demand charges and energy charges should be reduced pro rata.

OUCC witness Mr. Rutter recommends that any recovery of lost revenues attributable to DSM programs account for the fixed costs that are recovered through the customer charge and the first block usage.

IPL Industrial Group witness Mr. Dauphinais recommends several changes to Rider Nos. 10 (Backup Power), 11 (Maintenance Power), and 12 (Supplemental Power) for Rate SL, PL and HL customers including:

- Requiring customers to specify Backup and Maintenance Power and Supplemental Power contract demands;
- Requiring scheduling of Maintenance Power at least seven days in advance;
- Reducing the Rider No. 10 demand rate to be a daily rate equal to $1/30^{th}$ of the demand charge under the customer's applicable rate schedule and reducing the Rider No. 11 demand rate to be a daily rate equal to one-half of $1/30^{th}$ of the demand charge under the customer's applicable rate schedule, and;
- Supplemental Power demand taken under Rider No. 12 less than or equal to the customer's Supplemental Power contract demand or in excess of the sum of the customer's Supplement Power contract demand and the customer's Backup and Maintenance Power contract demand would be subject to the demand charge provisions of the customer's applicable rate, including the billing demand ratchet provisions.

A. Impact of Customer Charges and Declining Block Rates on Efficiency

Q35. Do Mr. Watkins' recommendations to recover less fixed costs in the customer charge and more fixed costs in the energy charge represent efficient pricing?

A35. No. At page 56, lines 7-10 of his testimony, Mr. Watkins correctly observes that economic theory indicates that efficient pricing is achieved when prices are set equal to the marginal cost of production. Nevertheless, at page 58, lines 12-13 Mr. Watkins suggests that it is efficient for IPL to recover nearly all of its fixed costs through a large markup in the variable energy charge. This approach to pricing provides inefficient price signals that distort consumers' consumption decisions by setting the marginal price far above the marginal cost of either consuming, or foregoing consumption of, additional kilowatt-hours of electricity.

Indeed, there is an extensive literature in economics which demonstrates that two-part rate structures (*e.g.*, Customer Charge/Energy Charge or Demand Charge/Energy Charge) provide better price signals to promote economic efficiency when there are relatively large fixed costs and low marginal costs of production, as there are in the utility industry.[14] For example, if all of the fixed costs of electricity production are recovered in a fixed customer charge, the variable energy charge can be set at a level that reflects the marginal cost of production. This two-part rate structure then can allow the utility to recover its full revenue requirement, including fixed costs while also efficiently allowing

[14] Some of the seminal works in this literature include: Buchanon, J.M., "The Theory of Monopolistic Quantity Discounts," *Review of Economic Studies*, Vol. 20, (1953), pp. 199-208; Gabor, A., "A Note on Block Tariffs," *Review of Economic Studies*, Vol. 23 (1955), pp. 32-41; Oi, W.Y., "A Disneyland Dilemma: Two-Part Tariffs for a Mickey Mouse Monopoly," *Quarterly Journal of Economics*, Vol. 85 (February 1971), pp. 77-96; Ng and Weisser, "Optimal Pricing With a Budget Constraint: The Case of the Two-Part Tariff," *Review of Economic Studies*, Vol. 41 (July 1974), pp. 337-345; Willig, R.D., "Pareto-superior nonlinear outlay schedules," *Bell Journal of Economics*, Vol. 9 (Spring 1978), pp. 56-79.

the marginal price (energy charge) to equal the marginal cost of production. Thus, recovering fixed costs in a fixed customer charge, and variable costs in a variable energy charge, gives consumers appropriate price signals that allow them to efficiently determine whether the marginal cost justifies the marginal benefit of additional consumption.

Q36. At page 61, lines 7-10 of his testimony, Mr. Watkins asserts that "(c)onsumers and the market have a clear preference for volumetric pricing. ... The only reason utilities are able to achieve pricing structures with high fixed monthly charges is due to their monopoly status." Is this assertion correct?

A36. No. Numerous competitive industries including health clubs, many parking facilities, and most network industries charge fixed monthly fees. For example, in the early years of the internet, major service providers charged customers based on the number of minutes they used. However, the underlying economics, consumer preferences, and competitive pressures caused the major providers to switch to a pricing model that provided unlimited usage for a fixed monthly fee. Unlimited usage for a fixed fee, or tiered usage fixed fees, are now the predominant method of pricing for competitive telecommunications services such as internet and cellular telephone. For example, base rates for cellphone service, which many low-income customers have, are at least a minimum of $10 per month, regardless of usage. Minimum charges for Cable TV, internet access, and land-line telephone reception are roughly $30, $30, and $20 respectively in the Indianapolis area. Bundled packages are similarly priced. Altogether, the least expensive options for basic service charges are around $90, regardless of the amount of usage.

Table 6: Monthly Basic Service Charges in Indianapolis

Service	Lowest Rate (Bundled Services)	Lowest Rate (Individual Services)
Cellphone[15]	$ 10.00	$ 10.00
Cable TV		$ 29.99
Internet		$ 29.99
Land-line telephone	$ 79.00	$ 19.99
Total	**$ 89.00**	**$ 89.97**

~~Copies of the service offerings and prices available on the provider websites are shown on Petitioner's Witness JSG Attachment 2-R.~~ JSG Thus, Mr. Watkins is wrong in asserting that consumers always prefer volumetric pricing and that only monopolies charge fixed monthly fees.

Q37. Are there other benefits to recovering a greater share of fixed costs in the fixed monthly customer charge, and in the early blocks of the energy charge?

A37. Yes. An additional benefit is that this promotes margin stability for the benefit of both IPL and the customer classes who pay the increased customer charge. For IPL, a rate design that recovers a smaller proportion of fixed costs in a variable energy charge improves the ability of the company to recover its costs of service. At page 64, lines 4-7, Mr. Watkins suggests that margin stability is unimportant because IPL's rates are set using weather-normalized usage volumes. This suggestion misunderstands the purpose and nature of the weather-normalization adjustment, which merely sets the rates, particularly the energy charge component of the residential and small commercial customer rates, using normal test year volumes. Once the rates go into effect, IPL may sell either more or less than the test year kWh and, other things being equal, to the extent that a large amount of fixed costs are loaded into the variable energy charge, IPL will

[15] Includes unlimited talk and text.

tend to either over-recover or under-recover its costs in years when weather causes usage to depart from the expected norm.

For the same reason, higher customer charges and lower energy charges, as well as declining-block rates, are a benefit to weather-sensitive customers. When a large margin to recover fixed costs is built into the variable energy charge, the bills of weather-sensitive customers would increase more than necessary in years when weather drives greater usage. Reduced bill shock in unusual weather years is a tangible benefit for many customers, especially those customers who live on tight budgets.

Q38. Are you recommending that IPL recover all of the residential and commercial fixed costs in the customer charge?

A38. No. Although a straight-fixed variable ("SFV") rate design would provide better price signals for efficient usage, I am not proposing a straight-fixed variable price structure for IPL's residential and commercial customers at this time. Instead, a substantial amount of fixed costs would continue to be recovered in the energy charge and the marginal price of consumption generally will exceed the marginal cost of production by a large amount. As shown in the table below, the proposed rates would continue to recover 75 percent of residential fixed costs in the energy charge, and 81 percent of the small commercial fixed costs in the energy charge.

Table 7: Residential & Small Commercial Fixed Cost Recovery

	Residential		Commercial - SS	
	Proposed Revenue	% of Fixed Costs	Proposed Revenue	% of Fixed Costs
Revenue Requirement	$ 502,135,171		$ 137,536,750	
Less: Energy and Fuel Costs	$ 167,059,584		$ 41,687,135	
Fixed-Cost Revenue Requirement	$ 335,075,587		$ 95,849,615	
Less: Customer Charge Revenues	$ 82,103,606	25%	$ 18,575,820	19%
Amount of Fixed Costs in Energy Charge	**$ 252,971,981**	**75%**	**$ 77,273,795**	**81%**

Thus, the proposed residential and commercial rate structures represent a gradual movement in the direction of greater cost reflection and efficiency, but are far from being a full straight-fixed variable rate design. Many of Mr. Watkins' arguments concerning the efficiency of recovering fixed costs on a volumetric basis imply that the proposed residential and small commercial rates would recover all fixed costs in the customer charge. While I disagree with Mr. Watkins' assertions and interpretations concerning the theory of efficient pricing, in reality the proposed rate structure would recover only a small minority of fixed costs in the customer charges. As a result, many of his theoretical arguments are essentially moot points.

Q39. At page 57, lines 17-19 of his testimony, Mr. Watkins claims that "the level of kWh consumption is the best and most direct indicator of benefits received." Is this correct?

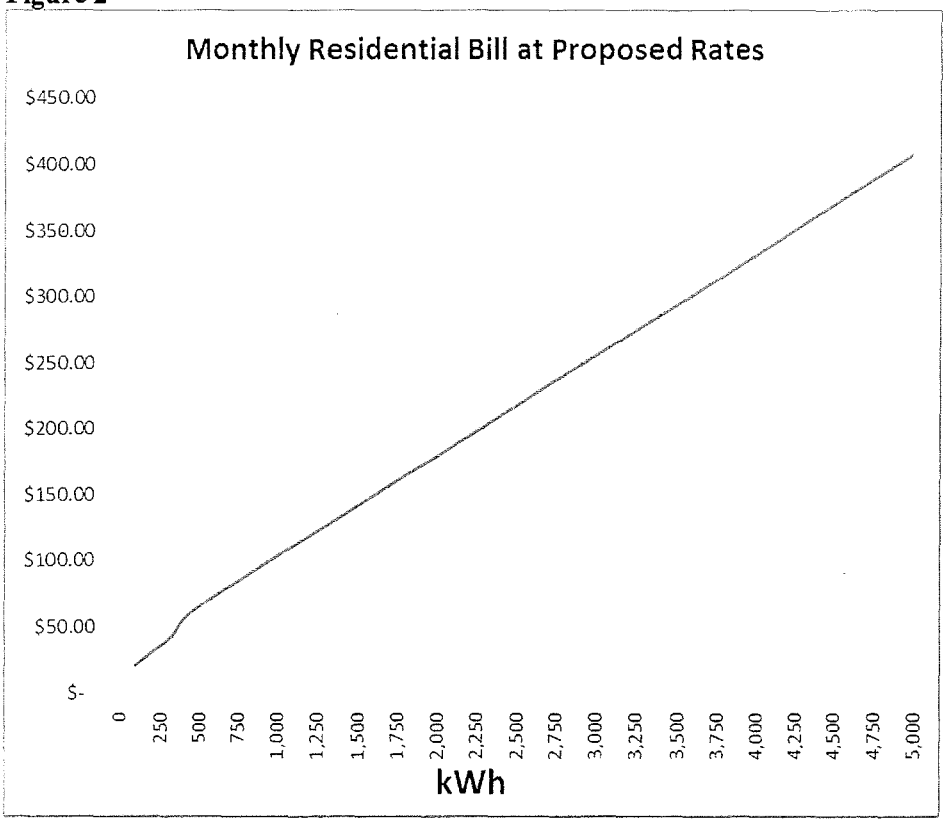
A39. While the level of kWh consumed is one indicator of the benefits received, utility service has multiple dimensions. In addition to producing kWh, the utility also provides a delivery service through its distribution system that incurs costs regardless of the amount of kWh one consumes. For example, if an IPL customer decides to spend the winter in Florida, the costs of the distribution system serving their Indianapolis home do not go

down even though they use very few kWh during those months. Utilities also must be reasonably ready to provide energy whenever the customer demands it, no matter how high or low the customer's annual load factor and kWh usage. These additional dimensions of the service are costly to provide and largely unrelated to the total number of kWh that the customer consumes. Thus, the number of kWh hours consumed is not the only measure of benefits received and neither the total costs, nor the total benefits, can be measured solely in kWh consumed.

Q40. At page 58 of his testimony Mr. Watkins claims that "pricing should reflect the Company's long-run costs, wherein all costs are variable or volumetric in nature, and users requiring more of the Company's products and services should pay more than customers who use less of these products and services". Does IPL's proposed residential rate structure charge more for customers who use more kWh?

A40. Yes. Obviously, the energy charge ensures that customers who use more kWh will pay more to compensate for the additional energy and fuel costs that they impose on the system. However, it is also true that the residential rate structure has been designed to ensure that the more energy a customer uses, the higher its monthly bill will be. As shown on Petitioner's Witness JSG Attachment-11-R and the Chart below, the proposed rate structure causes residential customers' bills to increase as they consume more kWh.

Figure 2



Thus, although the number of kWh are not necessarily the only measure of the total benefits that a customer derives from the electric system, the proposed residential rates in this proceeding meet Mr. Watkins' criterion that customers who use more kWh should pay higher monthly bills.

Q41. At page 66, Mr. Watkins observes that declining block rates are not cost justified. Do you agree?

A41. Mr. Watkins is partially correct in this observation. In the absence of demand meters and/or time of use meters, the most cost-justified rate design would be a straight-fixed variable rate that recovers all fixed costs in a fixed monthly charge. Because the rate

design proposed in this proceeding would recover such a large portion of the fixed costs in the variable energy charge, and thereby overstate the marginal cost of energy, the declining block rate structure represents a compromise approach in which successively larger rate blocks move closer to the marginal cost of energy. Although this approach has less cost justification than a straight-fixed variable rate design, it is more justified than a flat energy charge.

In addition, because customers who use more kWh do not impose proportionately higher costs on the system, it is reasonable to employ a declining block rate structure that somewhat reduces the already disproportionate fixed-cost burden on larger users. For example, the cost of providing 1,000 kWh to a residential customer is considerably less than twice as much as the cost to provide 500 kWh to a similar customer. However, if all fixed costs were to be recovered in a flat energy charge, the larger customer would pay rates designed to recover twice as much in fixed costs as the smaller customer, even though the larger customer does not impose twice as many fixed costs on the system. With a declining block rate structure, large customers do pay rates designed to recover a greater share of the fixed costs than the small customers, but the amount of unfairness inherent in a flat energy charge is mitigated.

How large to make the rate blocks, and how much to have the rates decline with each successive block is largely a matter of judgment in balancing customer impacts and efficient pricing. Thus, I agree with Mr. Watkins that the precise design of a declining-block rate structure cannot be determined by cost analysis alone. However, such a rate design represents a reasonable compromise between competing goals and considerations.

Consequently, I disagree with the proposal to phase out declining block rates discussed at page 67 of Mr. Watkins' testimony.

Q42. At page 60, lines 8-18 of his testimony, Mr. Watkins claims that rate designs that recover fixed costs through a volumetric energy charge are better at promoting conservation and efficient utilization of resources. Do you agree?

A42. No. The production and delivery of electricity consists of both fixed costs and variable costs. When a rate structure recovers fixed costs in variable energy charges, as Mr. Watkins recommends, the rate structure overstates the marginal cost of electricity and discourages consumption that would be efficient in the sense that the marginal benefit of consuming additional units of electricity exceed the marginal cost of the energy required to produce that electricity. Mr. Watkins' concepts of conservation and efficiency appear to be narrowly focused on attempting to discourage electricity use, but electricity use provides enormous benefits to consumers and the community, and consumers require proper price signals as to the marginal cost of electricity in order to make decisions that improve the welfare of themselves and the community.

One example of the problem with a rate design that loads fixed cost recovery into the energy charge is the possibility that the rate design might signal that a consumer can save $1,000 on its electric bill by making a $1,000 investment in some form of energy efficiency, but when viewed in a broader context, the consumer's investment could be inefficient. For example, the cost savings for IPL, and ultimately its customers might only be the $400 cost of energy saved. IPL's fixed costs of poles, wires, transformers, meters, maintenance, engineering, accounting systems, management, customer service

and taxes would still be there even though a rate design that attempts to recover these fixed costs in the variable energy charge improperly suggests that customers can avoid paying these costs by investing $1,000 to reduce energy usage. Thus, there can be a misallocation of resources if the utility rate structure does not properly reflect costs.

JI witness Mr. Howat provides an example of some of the real-world impacts of over-pricing the marginal cost of electricity:

> "It should be noted that some high-use electricity customers may have little control over the thermal characteristics and appliances that are used in their houses or apartments. Other high-use customers may require electricity-driven equipment for medical purposes. In such cases, it is important that program design features do not provide customers with an incentive to under-consume in a manner that could prove harmful to health."[16]

Although Mr. Howat's example was in the context of the low-income subsidy program that he is recommending, Mr. Watkins' proposal to overprice the marginal cost of electricity in the variable energy charge also provides incentives to under-consume in a manner that could reduce the overall welfare and well-being of IPL customers.

Q43. At page 55, lines 6-8 of his testimony Mr. Watkins claims that the proposed percentage increases in the customer charges "violate the regulatory principle of gradualism." Do you agree with his assessment?

A43. No. Mr. Watkins' argument in this regard is narrowly focused on the level of the customer charge without acknowledging the bigger picture that higher customer charges mean lower energy charges. The appropriate comparison is with the total bill, which is the sum of both the customer and energy charges. The proposed increases in customer

[16] Direct Testimony of John Howat on behalf of the Joint Intervenors, p. 15, footnote 15.

charges significantly reduce the percentage increases in energy charges that otherwise would be required. As a result, the percentage increases in overall bills will be far less than simply the increase in the customer charges. Moreover, as I discuss at page 16 of my filed Direct Testimony, the relatively small number of very small customers who would experience large percentage increases in rates would actually see increases in monthly bills that are less than $5. When viewed in this context, these rate increases are not excessive or overly burdensome. Nor do they violate the principle of gradualism.

Q44. Are IPL's proposed monthly customer charges reasonable compared to other electric utilities in the region?

A44. Yes, IPL's proposed customer charge is reasonable. Petitioner's Witness JSG Attachment 2-R compares the residential and small commercial fixed rates charged by investor-owned utilities (IOUs) and rural electric cooperatives, or REMCs, in Indiana. For residential customers, rural cooperatives have customer charges in the range of $15 to $44, with a median charge of $26, while current customer charges of IOUs are in a range of $5.50 to $11.00. In addition to illustrating that IPL's proposed customer charges -- $11.25 for the smallest customers and $17.00 for larger customers – are commensurate with other electric utilities in the state, Petitioner's Witness JSG Attachment 2-R shows that rural co-ops' fixed customer charges tend to be higher for both residential and small commercial customers than those charged by the IOUs. Because the cooperatives are owned by their customers, the higher customer charges of co-ops is an indicator of the type and level of pricing that customers adopt when they must decide fair, just and reasonable rates among themselves.

B. Impacts on Low-Income Customers

Q45. Do you have any comments concerning JI witness Mr. Howat's recommendation that IPL implement a low-income bill payment assistance program that targets IPL customers eligible for the federal Low Income Home Energy Assistance Program ("LIHEAP").

A45. As discussed by IPL witness Farris, the LIHEAP program and the Indiana Winter Assistance Fund already provide support for low income customers, and IPL offers payment arrangements for those customers experiencing a financial hardship. As discussed below, the Commission has previously ruled that it is statutorily limited from approving rate structures designed to accomplish the objectives of the type of program proposed by Mr. Howat. That aside, if the Commission proceeds with this proposal, the costs of the program must necessarily be recognized in the revenue requirement used to establish rates.

Q46. How much would the JI proposal cost IPL's unsubsidized customers?

A46. The JI estimate that their proposed subsidies would cost approximately $10.6 million per year. JI Ex. A, 17. They propose this cost be charged to all of IPL's other customer classes. JI Ex A, 18. The JI request for subsidies is not supported by principles of cost causation which are generally used to design rates.

Q47. Has the Commission considered this issue before?

A47. Yes. The Commission considered these issues in the early 1980's in debating whether it should adopt "Lifeline Rates" prescribed under the Public Utility Regulatory Policy Act ("PURPA"). Lifeline Rates were intended to ensure that low income customers could

afford sufficient electricity for essential needs by pricing the minimal amount of electricity necessary for essential needs below the utility's cost for all residential customers.[17] PURPA did not require the implementation of Lifeline Rates, only that state utility commissions consider such rate designs. At that time, the Commission concluded it could not adopt Lifeline Rates because they were unduly discriminatory in violation of Ind. Code § 8-1-2-103(a). The Commission also concluded that

> "a general Lifeline Rate structure is not an effective and equitable means of providing assistance to the needy residential electricity consumers and in the absence of legislation by the General Assembly of the State of Indiana stating that public policy nevertheless requires the offering of such general Lifeline Rates such rates should not and need not be established by any electric utility subject to our jurisdiction."[18]

I have included a copy of the Orders in this docket with my testimony as Petitioner's Witness JSG Attachment 3-R to provide background to the Commission on these matters. It is my understanding that the Commission's order concerning Lifeline Rates was affirmed by the Court of Appeals in *Citizens Action Coalition of Indiana, Inc. v. Public Serv. Co. of Indiana*, 450 N.E.2d 98 (Ind. Ct. App. 1983).

The JI proposal raises significant policy issues for the Commission to address. The manner and amount of low-income assistance is an issue that may be more appropriately addressed in a generic proceeding involving all regulated electric utilities, or by the legislature, than in the context of an individual rate proceeding.

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[17] *In re Determination of Proceedings Necessary by the Public Service Commission of Indiana to Fully Comply with the Requirements of PURPA*, Cause No. 35780-S8, 1982 Ind. PUC LEXIS 478 (Ind. PSC 3/24/82) ("Lifeline Order") rehearing denied 1982 Ind. PUC LEXIS 425 (PSCI 4/21/1982).

[18] Lifeline Order, at *26.

Q48. Does IPL's proposed rate design cause disproportionately high rate increases for low energy users as Mr. Howat claims at page 5, lines 14-17 of his testimony?

A48. No, and this is why deciding a complex policy issue such as that proposed by Mr. Howatt is better reserved for a generic proceeding rather than in the context of a general rate case where the problem he wants to address is really not present. The proposed rate increases are less for low-energy users than for high-energy users. As shown on Petitioner's Witness JSG Attachment 11-R, customers who use less than 325 kWh per month will see a rate increase of less than $5 per month. In contrast, the average residential usage is 1,000 kWh per month and customers at that usage level will see a rate increase of $7.29 per month under IPL's updated rebuttal position. More importantly, because such a large amount of fixed costs are still to be recovered in the variable energy charge, the monthly bill for low-usage customers, relative to the costs of serving them, will continue to be disproportionately low.

Q49. At page 5 of his evidence, Mr. Howat recommends that the proposal to increase residential customer charges should be rejected and declining block rates should be discontinued. Do you agree with this proposal?

A49. No. As discussed earlier, the increase in the customer charge is required to move the rate structure closer to one that recovers the costs of service on a basis that more closely reflects the costs of service and that provides more appropriate price signals to promote efficient usage. Mr. Howat claims that "on average low-income households, ... use less electricity than their counterparts." However, many low-income customers use more than the residential average amount. Thus, it does not follow that his rate design proposals will benefit all low-income customers, or solely low-income users. Moreover,

it is likely that Mr. Howat's proposal will benefit some middle- or high-income customers at the expense of some low-income customers. As a result, his rate design proposals are an inefficient and counter-productive approach for attempting to help low-income customers.

Q50. How does the energy usage of low-income Energy Assistance customers compare with that of residential customers who receive no assistance?

A50. The usage characteristics of low-income energy assistance customers are remarkably similar to those of customers who receive no assistance. IPL has three main categories of residential customers with different rate codes:

Table 8: Residential Customers by Class

	# of Customers
RS – Residential Basic	253,724
RC – Residential Basic with Water Heating	32,391
RH – Residential Basic with Space Heating	146,608

Approximately 8-10 percent of the customers within each rate code are in the Energy Assistance program, while approximately 90 percent of the customers in each rate code receive no assistance.

The median monthly residential kWh usage for low-income Energy Assistance customers is less than, but similar to, that of No-Assistance residential customers:

Table 9: Residential Median Monthly Usage

	Median Monthly kWh		
Median	**Energy Assistance**	**No Assistance**	**Usage Difference**
Rate RS (Standard)	635	745	17%
Rate RC (Cooling)	911	983	8%
Rate RH (Heating)	1,111	1,240	12%

The median monthly usage for both Energy Assistance and No-Assistance customers is markedly greater for customers with water-heating and space-heating equipment. Median average monthly usage for Energy Assistance customers in each category is less than, but remarkably similar to, the kWh usage of No-Assistance customers.

Notably, the median low-income Energy Assistance RS and RC customer has average usage in the second block (usage > 500 kWh) of the proposed rate structure, and the median low-income Energy Assistance RH customer has average usage that is in the third block (usage > 1,000 kWh) of the proposed rate structure.

Q51. How does the usage of the largest Energy Assistance customers compare with the usage of the largest No-Assistance residential customers?

A51. Again, energy usage of customers in the 90th percentile of the Energy Assistance group is somewhat less than, but remarkably similar to, the usage of their counterparts in the No-Assistance group:

Table 10: Largest Residential Usage

	Largest Customers Monthly kWh		
Largest (90th Percentile)	**Energy Assistance**	**No Assistance**	**Usage Difference**
Rate RS (Standard)	1,260	1,514	20%
Rate RC (Cooling)	1,738	1,952	12%
Rate RH (Heating)	2,208	2,361	7%

In other words, approximately 10 percent of the low-income Energy Assistance RC customers use more than 1,700 kWh per month and 10 percent of the low-income Energy Assistance RH customers use more than 2,200 kWh per month.

In fact, in each of the three rate categories, at least 20 percent of the low-income Energy Assistance customers use more than 1,000 kWh per month.

Q52. What do you conclude from your analysis of the usage characteristics of low-income Energy Assistance customers?

A52. It is incorrect to assume that low-income Energy Assistance customers predominately consume very small amounts of electricity. Instead, the distribution of their energy usage characteristics is very similar to that of No-Assistance customers, and a large proportion of low-income Energy Assistance customers have usage in the second and third blocks of the residential rate structure. As a result, proposals for lower customer charges and/or flat rate energy charges are likely to increase the monthly bills of a significant proportion of low-income Energy Assistance customers. It is simply wrong to characterize Mr. Howat's rate design proposals as having a clear benefit to low-income customers, and that presumption should be rejected by the Commission.

C. Migration Adjustment

Q53. What is Mr. Watkins' objection to your migration adjustment?

A53. The migration adjustment results from the assumption that there are customers who, under the new rates proposed in this proceeding, would be better off, *i.e.* have lower bills, under different rate schedules and would switch when the new rates become effective. Absent accounting for migrations, the proposed rates would not produce the approved revenue requirement. Since the Company would lose revenue from these rate class changes, I calculated the projected amount of the revenue that would be lost if the customers moved to the less expensive rate schedule and included it in the final design amounts for the new rates.

Mr. Watkins has several objections to this adjustment beginning at page 46 of his testimony. His first objection is that commercial and industrial customers have "a host" of rate schedule options and customers can select the rate schedule which meets their needs and that not every customer will pick the optimal rate schedule at any point in time. Mr. Watkins claims that the level of savings for the identified customers is small and that there would be little incentive for these customers to switch schedules. His next objection is that it is unrealistic to assume that every eligible customer would switch when notified. Finally, Mr. Watkins objects to adjusting the rates for assumed revenue loss after the Company has enjoyed the benefits of increased revenues from inefficient customer choice under the current rates.

Q54. Do you agree with Mr. Watkins criticisms of the migration adjustment?

A54. With the alternative rate options available to the commercial and industrial customer there is always the possibility that a customer might not be on the correct rate schedule. However, in this circumstance the Company can reasonably determine that certain customers can be on a more advantageous rate after the rate case and will inform the customer. While Mr. Watkins may deem the savings to be "relatively minor", the average customer likely to migrate from rate code SL to rate code SS would save $544, and the median customer would reduce its bill by more than 9.0 percent. At the same time, customers who have an incentive to move in the other direction, from rate code SS to rate code SL, would reduce their annual bills by an average of $42,000, or more than 6.0 percent. These savings are not "minor" and would offset some of the proposed increase. It is important that the Commission recognize that customers will migrate to the rate schedule which reduces their bill for electric service. Such migrations cause a dollar for dollar reduction in revenue the rates would otherwise be intended to produce. This reality must be taken into account in the determination of the revenue requirement. Otherwise, the rates will not produce the level of revenue intended by the Commission.

Q55. Please explain how IPL proposes to implement the migration adjustment?

A55. Later in this testimony I explain that I have updated the proposed rates to reflect IPL's rebuttal position. The change in the migration adjustment is included in the calculation of new rates I have designed for this filing. The migration adjustment increased from about $1.2 million to $1.3 million. Because the amount of the required migration adjustment depends on the various decisions and rate levels that come out of this proceeding, IPL proposes to re-calculate the amount of the migration adjustment using

the methodology I have proposed herein as part of its compliance filing at the end of this proceeding.

D. Commercial Space and Water Heating Rates

Q56. Please discuss Mr. Watkins' recommendations at page 68 of his testimony with regard to rate schedules CW and UW.

A56. Mr. Watkins agrees with the Company's proposal to freeze these rate schedules but also recommends that these schedules be eliminated in the Company's next rate filing. The Company did not end these rate schedules at this time as customers may have installed new equipment in order to take advantage of these rates. The timing of the next case could be sooner than the time customers would require to amortize their investment. It is premature to decide this issue now as this matter can be addressed in the next case. I recommend that the elimination of these schedules be allowed but not required in the Company's next rate case.

E. Rider 14 - Interruptible Power Credit

Q57. Do you agree with Mr. Watkins recommendations regarding Interruptible Power Rider 14?

A57. No. At page 71-73 of his testimony, Mr. Watkins recommends that that the current threshold for energy economy interruptions, $100/MWH, should be reduced so that an interruption can be called whenever the real-time Locational Marginal Price ("LMP") is reasonably forecasted to be in excess of IPL's purchased power benchmark. Rider No. 14 allows IPL to call for up to 80 hours per year of Dispatchable Curtailment for economy energy purposes. Each curtailment must be between four and eight hours at a time. As discussed in the testimony of IPL witness Mr. Dennis Dininger, the LMP

exceeded the purchased power benchmark 800 hours during the test year. If IPL were to call for a curtailment every time the LMP exceeds the purchased power benchmark, it could quickly exhaust its 80 hours of annual rights on relatively low value curtailments and not have curtailment rights when the LMP surges to extremely high levels.

Mr. Watkins also recommends that IPL begin using the curtailment provisions of Rider 14 that the customers are currently paying for, or the rate credit should be discontinued. However, the interruptible power rate credit has value as an alternative to additional peak generating resources even in years when the interruptible load is not curtailed. The fact that this load could be curtailed if necessary has reliability benefits which the level of the credit is designed to reflect.

Q58. At pages 28-34 of his testimony, Industrial Group witness James R. Dauphinais states the Industrial Group believes that IPL's proposed $6.00 per KW-month compensation level for Rider No. 14 is reasonable for this proceeding. He goes on to claim that the value of benefits associated with the interruptible rider are considerably greater than the $6.00 amount that IPL is proposing. In your opinion, should the Commission set the interruptible credit at a higher level?

A58. No. IPL is proposing to double the amount of the interruptible credit from $3.00 to $6.00 per kW of interruptible load. Mr. Dauphinais does not recommend any further increase in the amount of the credit in this proceeding. Instead, he proposes that the Commission re-visit that issue in a future rate case. In my opinion, the $6.00 credit appropriately reflects the avoided cost of a peaking unit for IPL and is an appropriate value for the credit at this time. The appropriate amount of the credit in a future rate case will depend

on the facts and circumstances that exist in the market at that time, as well as all of the circumstances related to the curtailable service. Therefore, Mr. Dauphinais' alternative calculations need not be addressed in this proceeding.

F. Demand Charges

Q59. At page 70 of his testimony, Mr. Watkins recommends limiting the increase in the demand charge for the large commercial and industrial rate classes to 50%. Do you agree?

A59. No. IPL's proposed rate design properly reflects the manner in which costs vary. IPL's proposed demand charges appropriately reflect costs and should be adopted by the Commission. Higher demand charges benefit higher load factor customers and provide the correct price signals for customers to undertake steps to improve their load factors. That outcome is both fair and efficient.

Q60. Please comment on the issue raised at page 17, lines 4 – 5 of Mr. Phillips' testimony regarding the elimination of declining demand blocks for industrial customers.

A60. The existing declining block demand charges do not have a cost basis. Moreover, the difference in demand charges between the blocks in the current rate is only three to seven percent and therefore not very large. All things considered, there is not a good reason to continue this aspect of the rate design.

Q61. How do you respond to Mr. Phillip's concern at page 17, lines 6 – 7 that one particular customer is projected to receive an increase significantly greater than 10%.

A61. The one customer referenced by Mr. Phillips is projected to receive an increase significantly greater than 10% as a result of its extremely low load factor. In the proposed rates, the demand charges are higher while the energy and customer charges are lower, than the current rates. The increase in a particular customer's bill due to higher demand charges can be offset by a reduction in the bill due to lower energy charges. This offset is dependent on the load factor of the customer. The higher the load factor, the larger the offset and vice versa. Even though a low load factor customer may see a larger increase than a high load factor customer, I still believe that the rates I have designed properly reflects the cost of serving such customers.

Q62. Please comment on the issue raised at page 17, lines 5 -7 of Mr. Phillips' testimony regarding the increase in demand charge for industrial customers.

A62. As mentioned in my direct testimony, the guiding principle I have used in designing rates is to set rates that reflect the costs of providing services to that particular class of customers. For the industrial customers, the rates for each component (*i.e.* energy, demand, and customer) were designed so that they are very close to the unit costs associated with each of these components resulting from the allocated cost of service study. I believe this approach leads to fair and efficient rates.

Mr. Phillips himself states the following at page 8 of his testimony:

"When the rates are designed so that the energy costs, demand costs, and customer costs are properly reflected in the energy, demand and customer components of the rate schedules, respectively, customers are provided with the proper incentives to minimize their costs, which will in turn minimize the costs to the utility."

Q63. Do you agree with Kroger witness Mr. Higgins recommendation at page 6 of his testimony on the allocation and design of the Capacity Cost Recovery ("CAP") Adjustment?

A63. Mr. Higgins agrees with my allocation of the CAP adjustment to the rate classes on the basis of demand since these costs are capacity related. Mr. Higgins further recommends that the CAP be designed as a demand charge or credit for the demand bill rate classes. It is certainly possible to design this rider to be a demand charge or credit and I have no objection to such a design for the demand billed classes. However, moving to a demand rate from the proposed per kWh rate would have the effect of reducing the amount of the rider paid by the higher load factor customers and increasing the amount paid by the lower load factor customers.

Q64. Does your reasoning and impact discussion also apply to Mr. Higgins recommendations regarding the OSS Margin Sharing and Regional Transmission Organization Adjustments, discussed at pages 9 and 10, respectively, in his testimony?

A64. Yes. Mr. Higgins agrees with IPL's allocation of the OSS Margin Sharing and Regional Transmission Organization Adjustments on a demand basis and recommends that these riders be designed as demand charges or credits for the demand billed classes. The impact of moving to a demand-billed rider from an energy-based rider would be to reduce the

amount of the rider paid by the higher load factor customers and increase the amount paid by the lower load factor customers.

Q65. Do you agree with Mr. Higgins' recommendation at page 18 of his testimony regarding how any reduction in the proposed revenue requirement for Rates SL and HL-Primary be treated?

A65. No. Mr. Higgins recommends that if the revenue requirements for Rates SL or HL-Primary are reduced from the levels proposed by the Company, that this reduction be reflected in an equal percentage reduction in the energy and demand charge components for these rate schedules. The problem with Mr. Higgins' approach is that there is very little margin, approximately one mill, in the energy charges for Rates SL and HL-Primary. A small reduction in the energy charge could set it below the cost of fuel and energy and create perverse incentives for consumption. Therefore it would not be possible to reduce the energy and demand charges on a pro rata basis and the entire reduction would have to be reflected in the demand charge.

G. Backup and Maintenance Service -- Rider Nos. 10 and 11

Q66. As a preliminary matter, does IPL provide Backup and Maintenance Service under Rate Schedules RS, SL, PL and HL?

A66. No. Backup Service, Rider No. 10, and Maintenance Service, Rider No. 11, are provided under Rate Schedules CGS and REP. If the energy from backup and maintenance power is not used exclusively for residential purposes, the demand and energy charges will be calculated based on the large commercial or industrial rate schedules, SL, PL or HL. If a CGS or REP customer also takes service under one of these rate schedules that rate

schedule will be used for the billing. If a customer has only backup or maintenance service from the Company, a customer served at the secondary voltage level will be billed under Rate SL and a customer served at the primary voltage level will be billed under Rate PL or HL.

Q67. At pages 39-40 of his testimony Mr. Dauphinais proposes to reduce the demand charges for Backup and Maintenance power under Rider Nos. 10 and 11. Do you agree with his recommendations?

A67. No. The current charges require a customer to pay the applicable monthly demand charge for Backup and Maintenance power and the customer's peak total demand (regular peak demand, plus backup and maintenance demand) is used to set the 11-month demand ratchet in its rates. Mr. Dauphinais' proposals would have IPL amend its tariff so that it would charge only a simple daily demand charge on days when the customer uses Backup power, and one-half of a simple daily demand charge on days when the customer uses Maintenance power. This proposed pricing structure would presume that fixed costs related to providing Backup and Maintenance service disappear on days when the customer does not use Backup or Maintenance service. Under the current rates, on days when the customer does not use these services IPL incurs no variable, energy-related costs and the customer incurs no energy charges. However, system capacity to serve these customers does not simply appear on days when the customers want to use it, and then disappear on days when they choose not to use it. IPL continues to carry the fixed costs of capacity on a year-round basis so that it can stand ready to serve customers who want backup and maintenance services. Thus, a daily demand charge is inadequate for recovering these fixed costs.

Q68. Does IPL provide any service under Rider Nos. 10 or 11?

A68. No. The Company informs me that no service has been, or is currently being provided, pursuant to Rider Nos. 10 or 11. Thus, there are no customers affected by this issue at this time.

Q69. At page 39, lines 13-14, Mr. Dauphinais claims that the current structure implicitly assumes that all Backup and Maintenance customers will require service "simultaneously, or during the system peak, or both." Do you agree?

A69. No. The demand charges for the different rate schedules are calculated, first, by allocating production and transmission costs to each class based on the 12-monthly coincident peak demands of that class, and most other demand-related costs based on non-coincident peak demand. Next, the allocated costs are divided by the sum of the individual billing demands (i.e., *non-coincident* ratcheted peak demands) of all of the customers in the class to derive the demand charge per kilowatt. Because the sum of the customers' billing demands is considerably greater than the class coincident peak demand, the actual demand charge is much less than it would be if it were based on the class-wide coincident peak demand. Thus, Mr. Dauphinais is wrong in his claim that the demand charges reflect an assumption that all Backup and Maintenance customers will require service simultaneously or at the time of the system peak. Instead, the level of the demand charges reflects class-wide diversity, and is not based directly on an assumption regarding the time of use for backup and maintenance services.

Q70. Do any of the other Indiana investor owned electric distribution utilities have Backup and Maintenance charges similar to those proposed by Mr. Dauphinais?

A70. Petitioner's Witness JSG Attachment 4-R provides a summary of the Backup and Maintenance tariff provisions and charges of the other Indiana investor owned electric utilities. Of the other utilities only NIPSCO has a charge similar to that proposed by Mr. Dauphinais for Backup Power,[19] but NIPSCO's tariff limits Backup service to only 45 days per rolling 12 month period and includes a non-fuel energy charge adder to cover variable operating costs and contribute to fixed costs. NIPSCO also is the only utility that has a charge for Maintenance Power similar to that proposed by Mr. Dauphinais, although NIPSCO requires Maintenance service to be scheduled at least 20 days in advance and limits Maintenance service to a maximum of 60 days per 12-month period.

H. DSM Lost Revenues

Q71. What is OUCC witness Rutter's recommendation regarding DSM lost revenues?

A71. At page 16 of his testimony Mr. Rutter recommends that the calculation of DSM lost revenue margin should consider the amount of the margin to be recovered in the Customer charge and the first block of the residential energy charge. He also suggests that the need for such an adjustment is reduced because the proposed rate design increases the amount of fixed costs recovered in the customer charge.

Q72. Do you agree with his analysis?

A72. No. Earlier in this testimony I showed that the proposed residential rates are designed to recover 75 percent of the residential fixed costs through the energy charge, and the small

[19] Duke Energy's Rider No. 50 provides for Backup and Maintenance Power but there are no stated rates for these services.

commercial rate is designed to recover 81 percent of the fixed costs in the energy charge. Thus, the proposed rate design does not reduce the need for and adjustment to reflect DSM lost revenues.

The proposed calculation of the lost margin revenues is shown on IPL Witness JLC Attachment 1 accompanying the filed Direct Testimony of James L. Cutshaw in this proceeding.[20] That exhibit shows that the calculation assumes that all lost margins will occur in the tail block of the energy charge. However, it is likely that some of the DSM lost margins will also occur in the first and second blocks of the rate structure where the lost margin would be even greater than the amount estimated in the proposed calculation. For example, 32 percent of the RS customer bills have all of their usage in the higher first block of the residential energy charge, meaning that any DSM margins lost from these customers would be underestimated by IPL's method of assuming that all lost margins are associated with the tail-block rate. If IPL were to adopt Mr. Rutter's recommendation to consider first block usage in the DSM lost revenue calculation, the result could be a greater lost revenue adjustment – but IPL is not proposing to make that change at this time.

V. STREET LIGHTING AND LED RETROFIT PROGRAM

Q73. Can you provide a summary of the City's recommendations to the Commission?

A73. Dr. Kramer, Ms. Park and Mr. Sommer advocate for IPL to undertake an LED replacement program in the City as soon as possible. This program is dubbed the

[20] An update to that schedule is being filed with rebuttal testimony as IPL Witness JLC Attachment 3-R.

"Brighter Indianapolis Program" (Park, p. 5) and Mr. Sommer calculates proposed rates for IPL to charge for LED replacement. The City proposes that the Commission require IPL to engage in this massive replacement program on a schedule Mr. Sommer (p. 9) characterizes as "aggressive".

Notably, this program would apply not only to the facilities on the City's service, but also to service provided to other customers in Indianapolis. Park at 6. The retrofits would be placed in the focus areas selected by the City but it appears the street lighting the City would require to be replaced in these areas would extend beyond the service IPL provides to the City.

Q74. Would IPL be willing to install LED street lighting for the City of Indianapolis?

A74. Yes, as long as adequate rates and agreements are in place with the City so as to allow IPL to recover its costs, including an allowed rate of return. However, there is a great deal of uncertainty regarding the financial viability of an LED street lighting replacement program in the absence of some form of significant subsidy. Thus, an appropriate design for such a program should include a mechanism to ensure that IPL will be able to recover its costs if the City's assumptions prove to be too optimistic. Even with such a mechanism in place the rates proposed by Mr. Sommer would be inadequate to provide a reasonable opportunity for cost recovery for IPL.

Q75. Do you agree that the City's proposal captures the true cost of its proposed program?

A75. No. There is a great deal of uncertainty regarding the financial viability of an LED street lighting replacement program in the absence of some form of significant subsidy. The

viability of many previous LED conversion projects hinged upon obtaining external financing subsidies that are no longer available (i.e., Department of Energy American Recovery and Reinvestment Act of 2009 (ARRA) grants). For example, the City of Carmel Indiana used the ARRA as the funding source for the replacement of 800 existing street lights.[21] Columbia City, Greenfield and Waynetown, Indiana each used a DOE Energy Efficiency and Conservation Block Grant ("EECBG") to fund their desire for LED street lighting fixtures.[22] Recently, when the Company came to the Commission on behalf of the City to request approval of an Electric Vehicle Sharing Equipment ("EVSE") infrastructure proposal (Cause No. 44478), it was suggested that the City should explore grant opportunities to address its infrastructure challenges. The City's witnesses in the current rate case indicated in response to IPL-City Data Request 3-3 that they have not attempted to solicit grant opportunities for the LED retrofit program that the City proposes for IPL to undertake[23].

Q76. Did the Commission recently consider a proposed LED lighting replacement program for the City?

A76. Yes. In Cause No. 44478 IPL joined with the City and the OUCC to present a much smaller street lighting proposal to the Commission as part of the settlement agreement in that proceeding. The Commission found the proposed program lacked sufficient details to allow the Commission to fully evaluate it and noted that:

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21 http://www.newstreet lights.com/projects/carmel-indiana-usa; http://www.newstreet lights.com/projects

22 http://www.newstreet lights.com/projects

23 A copy of this response is included in my Attachment 12-R.

> "The Settlement requires IPL to collaborate with the DSM Oversight Board to develop an energy-efficient street lighting program. However, while the benefits of the street lighting program itself might be obvious (increased energy efficiency and public safety for example), we note that under the terms of the Settlement, IPL's customers would pay for this program, too. This fact limits the extent to which we can find that the street lighting program benefits IPL's customers. Further, IPL has not provided any specific details about the project, promising only that such details would be provided in a case to be filed in the future."[24]

While the City has provided many pages of testimony in the current rate proceeding, the City's testimony fails to adequately describe the impacts of LED conversion for IPL, the City, or IPL's many customers.

Furthermore, the City's assumptions concerning the economic characteristics of LED lights are questionable and the rates proposed by Mr. Sommer are inadequate to fully recover the cost of providing the service. Given the uncertainties concerning the economics of such a program, it is necessary for the Commission to fully understand the costs of the proposed program before ordering such a program to commence and before a just and reasonable rate can be developed.

In my opinion, the City's analysis does not provide a sufficient basis to allow the Commission to order, in the context of this rate proceeding, IPL to undertake the Brighter Indianapolis Program as proposed by the City. The Company plans to continue working with the City on its desire for infrastructure upgrades. As discussed by IPL Witness Henley, the City and IPL have entered into a contract which provides an agreed upon process to address the City's desire for LED lighting. That process should continue until

[24] Order of the Commission, Cause No. 44478, Feb. 11, 2015, pp. 17-18.

the parties have a detailed plan that addresses the needs and concerns of both parties. At that time, IPL can make the appropriate filings with the Commission.

A. The Proposed Retrofit Program Is Uneconomic

Q77. Can you elaborate on specific omissions in the City's analysis?

A77. Dr. Kramer calculated the energy savings of an LED retrofit program on a kWh basis, but he did not translate those savings into dollar figures, based on the variable energy and fuel cost components of the electricity rate, and thus does not indicate whether the energy savings justify the capital costs of the program. Moreover, calculating the savings in energy costs is just one component of the necessary analysis. In order to assess the financial viability of an LED conversion program, the upfront LED capital costs must be compared against the future energy and maintenance cost savings the conversion program is expected to produce. However, Mr. Kramer's analysis omitted the financial and key economic factors required to determine the economic viability of an LED program such as the tradeoff between upfront capital costs and the economic value of subsequent cost savings.

Q78. Have you reviewed Mr. Sommer's and Dr. Kramer's assumptions regarding the purchase and installation costs associated with an LED replacement program?

A78. In his Exhibit 1-A, Dr. Kramer indicates the estimated cost of an LED fixture equivalent to a 100W HPS, ranging from $160-$250 per fixture.[25] The economics are dramatically different, depending on whether capital costs are at the $160 per fixture level or $250 per fixture level.

[25] Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. Exhibit 1-A, p. 38, line 1.

Dr. Kramer's estimate of LED installation costs of $45 per luminaire at page 19 of his testimony is based on the actual experience of three cities with installation costs ranging from $37.98 to $63.91 per luminaire[26]. I do not know what costs were included in the reported amounts but to the extent that they do not include an assessment of engineering labor and other overhead, they would understate installation costs.

In addition, he stated that "(b)y installing new luminaires in groups of several thousand it will be possible to gain substantial economy of scale benefits..."[27] However, even with the possibility of a substantial discount on installation for a mass LED retrofit, as well as bulk discounts on fixtures, such a conversion is not likely to be economically feasible without external financing support or increases in lighting rates.

Q79. Do you agree with the labor and other installation costs associated with an LED retrofit program that Mr. Sommer has assumed at page 28 of his testimony?

A79. No. For comparison purposes, it is useful to compare the City's estimate for replacing a 100W high-pressure sodium lamp with a lighting-equivalent LED light. Mr. Sommer, at page 27, uses what he refers to as a "conservative" estimate that the Direct Labor and truck costs associated with installation would be $66.00 per lamp, but IPL anticipates that these installation costs would be more than Mr. Sommer's estimate[28]. In addition, Mr. Sommer ignored IPL's engineering, accounting and other costs associated with a retrofit program. There are five overhead components as outlined in IPL's response to City of Indianapolis Data Requests 1-1 and shown here:

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26 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p.19, footnote 17.
27 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p.19, lines 5-8.
28 Based on a confidential estimate for volume installation from an Indiana vendor involved in this type of work. See Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb, page 6, Col. C, lines 9-16.

1. Benefits: IPL engineered labor x 0.614
2. Delivery Const. Clearing: IPL engineered labor x 0.3
3. Payroll Tax: IPL engineered labor x 0.076
4. Capitalized A&G: IPL engineered labor x 0.57
5. Stores Handling: Actual material costs x 0.3

Mr. Sommer omits cost items 1 to 4 – benefits, delivery construction clearing, payroll tax, and capitalized administrative and general expenses overhead components – and only includes the stores handling overhead component. However, proper accounting treatment of these costs recognizes that these are real costs associated with a capital program and that these costs should be capitalized and included in the cost of the plant. Mr. Sommer's omission of these costs causes him to estimate a retrofit cost of only $319.50 per fixture.

However, when all of the costs of installation and engineering for the program are included, IPL estimates that the true cost of replacing a 100W HPS light with an LED is considerably greater than Mr. Sommer's estimate. Considering only the omitted engineering costs, Mr. Sommer's estimate is approximately $90 too low:

Table 11 Cost of Replacing a 100W HPS with an LED

	Sommer	IPL
Fixture	$ 180.00	*
Photocell	$ 15.00	*
Material Costs	$ 195.00	*
Labor and Truck	$ 66.00	*
Direct Costs	$ 261.00	*
Engineering Labor	$ -	$ 36.10
Payroll Tax & Benefits	$ -	$ 24.91
Delivery Construction Clearing	$ -	$ 10.83
Capitalized A&G	$ -	$ 20.58
Stores Handling/Material	$ 58.50	*
Total Cost	**$ 319.50**	*

* Confidential information is contained on Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb, page 6, lines 9-16.

Q80. Do you have any issues with Dr. Kramer's estimated LED life?

A80. The amount of the energy savings depends crucially on the assumptions one makes as to the useful life of the LED fixtures. However, the useful life and total amount of energy savings is still a matter of significant uncertainty. Dr. Kramer's direct testimony noted "long life estimated at 100,000 hours or more"[29] when referring to LED life, but later in his testimony he claimed an LED life of 50,000 to 100,000 hours.[30] In Exhibit 1-A of Dr. Kramer's testimony, he listed the LED lamp life as over 50,000 hours.[31] Using the 3,941 Indianapolis annual lighting hours, this would translate to a range of 12.7-25.4 years.

In addition, while Dr. Kramer's estimates for LED lighting life ranged from 12.7 years to 25.4 years, based on the 3,941 annual lighting hours, Mr. Sommer's testimony stated, "Based upon information and recommendation provided by Dr. Kramer I conservatively calculated the new LED's will have a 25 year life."[32] However, Mr. Sommer provided no evidence to substantiate his claim that a 25-year LED life is considered "conservative." Indeed, the 25-year LED life estimate is at the upper end of Dr. Kramer's various estimates.

Dr. Kramer also mentioned a number of LED conversion studies in footnote 16 of his testimony, though these LED conversion programs have not been in service long enough to test the theoretic life of either 50,000-100,000 or 100,000 hours or more.[33] At this

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29 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p. 10, lines 15-17.
30 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p.18, line 14-15.
31 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p. 38, line 1.
32 Testimony direct Ted Sommer to be filed redacted 7-27-15.pdf. pp. 25-26, lines 22-23, 1-2.
33 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. pp. 18-19, footnote 16.

point in time, the actual average life of LED fixtures, and the total amount of energy savings, is uncertain and speculative.

Q81. Do you have any comments on Dr. Kramer's estimate of O&M cost savings associated with LEDs?

A81. Dr. Kramer stated that industry data indicates that maintenance costs are reduced by 80 percent for LED fixtures, versus HPS fixtures.[34] The lengthy footnote following that assertion of an 80-percent maintenance reduction includes a note that Los Angeles saw a 37-percent reduction in street light maintenance costs resulting from LED conversion.[35] The footnote also stated that the City of Las Vegas had an 80-percent decline in service call requests for its LED fixtures. However, service call requests are only one component of maintenance; thus, this data point is not a sufficient indicator to validate an assumed 80-percent decline in maintenance costs.[36]

Q82. Ms. Park (p. 5) discusses the City's challenges with regard to providing public street lighting and she contends that "savings from a LED fixture retrofit program with matching LED tariff rates would help with that challenge." How does the cost of the LED technology compare to HPS technology?

A82. While no one disputes that there are energy and operation and maintenance ("O&M") savings associated with the use of LED technology, those savings do not translate to annual rate savings compared to the City's current HPS rates on IPL's MU-1 tariff. I would add that even with a bulk purchase discount, the material costs for LED

34 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. p. 18, lines 18-19.
35 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. pp. 18-19, footnotes 16.
36 *Ibid.*

technology range from 100 percent more for the 100W HPS-equivalent LED light to 348 percent more for the 400W HPS-equivalent LED light.[37]

Q83. What types of information would you expect to see from a financial analysis of an LED replacement program?

A83. Information that is commonly used for making capital investment decisions include:

- Payback years; and
- Net present value ("NPV") of the project.

The payback years are calculated as the total LED conversion capital outlays (i.e., LED fixtures) divided by the projected annual energy and maintenance savings from LED fixtures, relative to the energy and maintenance costs of the original fixtures. For example, Dr. Kramer mentioned the Las Vegas and Los Angeles city LED conversions.[38] Both projects received substantial financial support from the Department of Energy's Municipal Solid-State Lighting Consortium or external funding mechanisms.[39,40] The DOE funding was provided in large part through the American Recovery and Reinvestment Act (ARRA) of 2009, which provided much of the financing for various municipal street lighting projects around the country. This funding, however, is no longer available.[41]

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37 City of Indianapolis DR 1-1: Confidential Attachment 2 and CONFIDENTIAL Attachment 5-Rb.
38 Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. Pages 23-24, lines 11-23, 1-10.
39 Municipal Solid-State Street Lighting Consortium. "The Light Post." Pages 1-2. U.S. Department of Energy (DOE), February 2013. Available here.
40 Clinton Global Initiative. City of Los Angeles LED Street Lighting Case Study, February 2009.
41 Municipal Solid-State Street Lighting Consortium. "The Light Post." Page 4. U.S. Department of Energy (DOE), June 2012. Available here.

Q84. Can you discuss the impact of net present value (NPV) and payback period on project economics and why this is relevant?

A84. The payback period is the number of years it would take to recover the initial capital costs. In this case it is calculated using the LED fixture capital costs as the numerator, and the energy and maintenance annual savings from LED conversion as the denominator. Mr. Sommer did not specify what the City would consider to be "a reasonable payback" period for an LED retrofit program.[42]

The NPV is another common technique for evaluating investments that is different from the payback period in that the NPV also factors in the time value of money (e.g., financing costs, inflation), as LED projects often involve significant initial capital outlays that require upfront financing, with cash flows taking place over extended periods (*e.g.*, monthly electricity charges). The NPV is calculated as the sum of the present value of outflowing cash flows (e.g., LED purchase costs, installation costs), expressed as a negative, and the sum of the present values of incoming cash flows (e.g., energy and maintenance savings associated with LED lighting, and potential LED rebates/grants), expressed as positive amounts. A positive NPV indicates a financially viable project that could pay for itself through cost savings.

[42] City Response to DR 2-17 which states that "[t]he reasonableness of a payback period would have to be reviewed in the context of all of the facts and details inherent in the proposal and cannot be determined in isolation." A copy of this response is included in my Attachment 12-R.

Q85. Have you performed a basic payback and NPV analysis?

A85. Yes. Table 12 below shows the expected savings associated with installation of a 51W LED fixture, comparing the capital outlays to the expected energy and O&M savings, relative to HPS fixtures. The calculations include:

- Capital Outlays: Estimated purchase and installation costs for new LED fixtures. Although we know that Mr. Sommer likely underestimated the required capital costs by a substantial amount, for the analysis we will use the capital costs of $319.50 for a 100 watt HPS equivalent LED light shown on page 28 of Mr. Sommer's his testimony:.
- Energy Savings: Energy savings are calculated as the energy and fuel savings of an LED fixture, relative to an HPS light. The calculation is as follows:

$$LED\ Energy\ Savings\ =\ HPS\ kWh^{43} \times \frac{\$0.033}{kWh} - LED\ kWh^{44} \times \frac{\$0.033}{kWh}$$

  The energy savings would be 283.7 kWh per year which, at 3.3 cents per kWh, equates to an energy cost savings of $9.36 per year.
- Maintenance Savings: The IPL maintenance cost is $31.91 per fixture for existing lights, calculated as follows:

[43] 100W HPS fixture kWh = 123 system watts x 3,941 annual operating hours / 1,000 watts = 484.7 kWh
[44] 51W LED fixture kWh = 51 watts x 3,941 annual operating hours / 1,000 watts = 201.0 kWh

Table 12

Municipal Lighting O&M Accounts	
Acct 596-Maintence Street Lighting & Signal System	$1,637,848
Acct 585-Street Lighting & Signal System Expense	$4,018
MU-1 Total	$1,641,866
Divided By: Inventory as of June 30, 2014	51,446
Average Annual O&M Per Light	$31.91

Assuming a 37-percent savings in maintenance costs from HPS to LED fixtures – a figure equal to the savings in maintenance costs experienced by Los Angeles discussed earlier – the indicated annual maintenance cost savings would be $11.81 per fixture.

Column E of the table below indicates that it would take slightly more than 15 years to achieve a simple payback of the investment with no return on capital. In other words, it would take more than 15 years before the savings would add up to the initial capital cost of $319.50. However, Column G shows the cumulative net present value of the investment when the time value of money (i.e., discount rate) is equal to IPL's filed weighted average cost of capital of 6.91 percent. Column G indicates that the cumulative net present value of the investment is still negative after 30 years. In other words, even after 30 years the energy and maintenance cost savings would not justify the upfront capital expenditures for the City's proposed LED retrofit program.

Table 13 Payback Period and Net Present Value of Replacing 100W HPS with 51W LED Light

						Pre-Tax ROR on Rate Base	6.9100%
	A	B	C	D	E	F	G
Year	Capital Outlay	Energy Savings	O&M Savings	Energy and O&M Savings	Cumulative Savings	PV of Savings @ 6.91%	Cumulative NPV of Savings
0	$ (319.50)						
1		$ 9.36	$ 11.81	$ 21.17	$ 21.17	$ 19.80	$ (299.70)
2		$ 9.36	$ 11.81	$ 21.17	$ 42.34	$ 18.52	$ (281.18)
3		$ 9.36	$ 11.81	$ 21.17	$ 63.51	$ 17.33	$ (263.85)
4		$ 9.36	$ 11.81	$ 21.17	$ 84.68	$ 16.21	$ (247.65)
5		$ 9.36	$ 11.81	$ 21.17	$ 105.85	$ 15.16	$ (232.49)
6		$ 9.36	$ 11.81	$ 21.17	$ 127.02	$ 14.18	$ (218.31)
7		$ 9.36	$ 11.81	$ 21.17	$ 148.19	$ 13.26	$ (205.05)
8		$ 9.36	$ 11.81	$ 21.17	$ 169.36	$ 12.40	$ (192.64)
9		$ 9.36	$ 11.81	$ 21.17	$ 190.53	$ 11.60	$ (181.04)
10		$ 9.36	$ 11.81	$ 21.17	$ 211.71	$ 10.85	$ (170.19)
11		$ 9.36	$ 11.81	$ 21.17	$ 232.88	$ 10.15	$ (160.04)
12		$ 9.36	$ 11.81	$ 21.17	$ 254.05	$ 9.50	$ (150.54)
13		$ 9.36	$ 11.81	$ 21.17	$ 275.22	$ 8.88	$ (141.66)
14		$ 9.36	$ 11.81	$ 21.17	$ 296.39	$ 8.31	$ (133.35)
15		$ 9.36	$ 11.81	$ 21.17	$ 317.56	$ 7.77	$ (125.58)
16		$ 9.36	$ 11.81	$ 21.17	$ 338.73	$ 7.27	$ (118.31)
17		$ 9.36	$ 11.81	$ 21.17	$ 359.90	$ 6.80	$ (111.51)
18		$ 9.36	$ 11.81	$ 21.17	$ 381.07	$ 6.36	$ (105.15)
19		$ 9.36	$ 11.81	$ 21.17	$ 402.24	$ 5.95	$ (99.21)
20		$ 9.36	$ 11.81	$ 21.17	$ 423.41	$ 5.56	$ (93.64)
21		$ 9.36	$ 11.81	$ 21.17	$ 444.58	$ 5.20	$ (88.44)
22		$ 9.36	$ 11.81	$ 21.17	$ 465.75	$ 4.87	$ (83.57)
23		$ 9.36	$ 11.81	$ 21.17	$ 486.92	$ 4.55	$ (79.02)
24		$ 9.36	$ 11.81	$ 21.17	$ 508.09	$ 4.26	$ (74.76)
25		$ 9.36	$ 11.81	$ 21.17	$ 529.26	$ 3.98	$ (70.77)
26		$ 9.36	$ 11.81	$ 21.17	$ 550.43	$ 3.73	$ (67.05)
27		$ 9.36	$ 11.81	$ 21.17	$ 571.60	$ 3.49	$ (63.56)
28		$ 9.36	$ 11.81	$ 21.17	$ 592.77	$ 3.26	$ (60.30)
29		$ 9.36	$ 11.81	$ 21.17	$ 613.94	$ 3.05	$ (57.25)
30		$ 9.36	$ 11.81	$ 21.17	$ 635.12	$ 2.85	$ (54.40)

Q86. Did you also evaluate the sensitivity of the NPV calculation to different discount rates?

A86. Yes. If one uses a return on equity of 9.55 percent in the analysis, the mid-point of the range suggested at page 48 of Mr. Sommer's testimony, the result is still a negative NPV after 30 years.[45] In order to achieve a zero NPV after 25 years, indicating that an investment has borderline financial viability, the required ROE would need to be reduced to 4.02 percent, which is below all the recommended costs of equity that have been presented in this Cause.

Q87. Does your analysis indicate that LED technology has a cost advantage sufficient to warrant a Commission order for IPL to undertake the mass replacement program proposed by the City?

A87. No. When analyzing the mass replacement decision quantitatively, the LED technology's O&M and energy cost savings do not outweigh the initial costs of the investment. Although there may be qualitative benefits as Witness Kramer described, at this time IPL does not agree that LED technology has an overall cost advantage.

B. LED Rate Assumptions

Q88. Are the estimated energy savings associated with LEDs a good indicator of cost savings for IPL or the City?

A88. No. Dr. Kramer stated that LEDs result in a reduction in energy use "by up to 60% or more."[46] However, the savings in the City's lighting bill would be considerably less than 60 percent because the energy and fuel costs, comprise just 34 percent of IPL's total

[45] The cumulative NPV using the City's ROE would be approximately ($40.15) after 30 years.
[46] Indianapolis testimony Direct Kramer, redacted to be filed 7-27-15.pdf. Page 21, lines 8-9.

revenue requirement.[47] Fixed generation, transmission, and distribution system costs are sunk costs that are not eliminated with LED installation. In addition, reduced energy consumption associated with LED installations would have no noticeable effect on the overhead costs of managing the system. Finally, there is a substantial cost to the proposed LED retrofit program that would require an increase in the lighting rates to be paid by the City.

Q89. Do you agree with Mr. Sommer's calculations on lighting rates?

A89. No. Mr. Sommer proposed two alternative lighting rates, the first of which presents rates based on IPL taking ownership of the fixtures, while the second involves the City purchasing and installing the fixtures. As shown on Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb and summarized in the table below, Mr. Sommer's rate calculations for both alternatives significantly underestimate IPL's costs for providing lighting service. In particular, Mr. Sommer's proposed lighting rates appear to be between 27 percent and 74 percent as high as the rates needed to recover the fully-allocated cost of service for LED lights (or 26 to 73 percent below the required rates).

[47] Variable energy and fuel costs comprise $435 million, or 34 percent, of IPL's $1,271 million revenue requirement.

Table 14: Proposed Annual Rate Calculation Comparisons ($/fixture)

HPS Wattage w/ Ballast	LED Equivalent	Sommer (S) IPL-Owned Fixtures Proposed Annual Rate	Sommer (S) Municipally-Financed/Installed Fixtures Proposed Annual Rate	Concentric (C) New LED Bulk Replacement Rate (Short-run)	Concentric (C) New LED Bulk Replacement Rate (Long-run)
123	51	$81.35	$44.30	$164.80	$157.96
186	70	$94.30	$51.78	$175.58	$165.40
303	150 (S), 138 (C)	$148.23	$83.01	$236.97	$222.49
469	209	$208.74	$113.79	$306.31	$283.49

Sources: Sommer and Kramer Workpapers.pdf. pp. 23-24. Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb, page 3, Col. M.

Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb presents two LED rate impacts for comparison:

1) New LED Rate (Short-run):

Rates for existing HPS lights are supported by demand-related costs of the production, transmission, and distribution systems. Replacement of a HPS light with a lower wattage LED light will not create any immediate savings in the fixed costs of production, transmission, and distribution. In addition, lower wattage, and therefore, less demand on the system from lights may cause demand-related costs to be reallocated to other customers in future rate cases. Thus, while the replacement fixture itself will immediately reduce the costs of energy and fuel, the "short-run" rate case assumes that the demand-related cost components of the rate remain those that apply to the original HPS wattage and that costs are not shifted to other customer classes.

2) New LED Rate (Long-run):

The long-run LED rate scenario gives immediate credit for long-run cost savings in production, transmission, and distribution plant. The long-run scenario implicitly assumes either (i) that production, transmission and distribution equipment required to

serve existing HPS lights will be downsized immediately, which is obviously unrealistic, or (ii) demand-related costs will be reallocated to other rate classes immediately. The long-run rate is designed by multiplying the demand-related costs per watt of the production, transmission, and distribution systems times the wattage of the new LED fixtures, and includes the annual capital and energy costs associated with the new LED fixtures.

Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb of this Rebuttal Testimony shows the calculation of proposed LED rates by fixture, as well as proposed vintage rates. The rate comparisons between Mr. Sommer and Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb are summarized in the table below.

Please note that the LED wattages assumed to be equivalent to current HPS lights differ between Mr. Sommer and those assumed on Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb. This difference reflects that fact that Mr. Sommer assumes that a 150W LED fixture will replace the 250W HPS fixtures[48][49].

As shown in Figure 4 below, Mr. Sommer's LED rates for new fixtures are well below Concentric's LED rate calculations. This table highlights Mr. Sommer's underestimation of the rates required to fully recover the cost for new LED lights.

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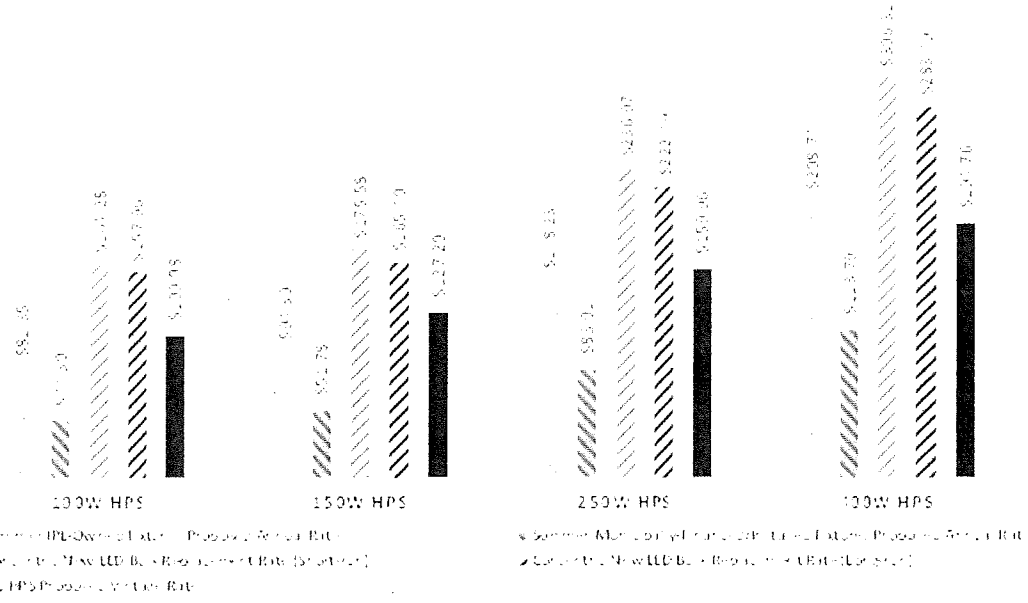
48 Mr. Sommer's calculations are based on an LED fixture of 150W and IPL's estimates are based on LED fixture of 138W.

49 WP COI 1 (Revised).

Figure 3: Proposed Rates



Sources: WP COI 1 (Revised) - and Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb.

Q90. What are the most important differences between your rate calculation and that of Mr. Sommer?

A90. Table 15 below provides a detailed explanation of how Mr. Sommer's annual rate calculations differ from mine on individual rate components. This rate discussion below is on a per-fixture basis and shows cost components for a 51W LED fixture replacement to illustrate the differences. The proposed annual rate is composed of the expenses including the revenue conversion factor and IPL's return. Mr. Sommer's scenario in which the City finances and installs the LED lights indicates a rate that is 27-28 percent of Concentric's proposed rate for 51W LED conversion. Mr. Sommer's alternative scenario in which IPL purchases and installs the LED lights indicates a rate of about half that of Concentric's rates. The key reasons Mr. Sommer's rates differed from Concentric's include:

1) Installed Cost: As mentioned earlier, Mr. Sommer's calculations did not include IPL engineering labor, payroll tax and benefits, delivery construction clearing, and capitalized A&G, which led to an underestimation of installed costs.

2) Return: Mr. Sommer's scenario in which the City finances and installs the LED fixtures does not include a return or cost of capital to the City even though the City, like any other entity, experiences a cost of funds.

3) Fixture Depreciation, Property Tax, and Insurance: Mr. Sommer assumed a depreciation period of 39 years (IPL's MU depreciation period for streetlight poles and other hardware). However, it is more reasonable to assume a depreciation period of 25 years or less to reflect the estimated life of LED fixtures. Thus, Mr. Sommer underestimated the annual economic depreciation required for the new fixtures.

4) Demand-Related Costs: Mr. Sommer reflected the fact that lower-wattage LED fixtures could lead to a reduction in demand-related costs in the long run, but did not address the fact that those costs remain fixed in the short run (a period which could run for decades) and must either continue to be collected from lighting customers or else shifted to other rate classes.

5) Depreciation: Despite including depreciation in fixed expenses on a 39-year basis, Mr. Sommer included a separate category for depreciation, assuming a depreciation schedule of 25 years for the installed equipment.

Thus, Mr. Sommer double counted depreciation expenses, and was inconsistent in his application of a depreciation schedule.

6) O&M: Mr. Sommer underestimated O&M costs associated with LED fixtures. IPL currently does not wash HPS lights due to the short life. However, Mr. Sommer assumed that despite an additional washing expense that is not currently factored into the rate, O&M would likely drop from the current rate of $31.91 per fixture to $6.97 per fixture, indicating a drop of over 78 percent. As discussed earlier, it is more reasonable to assume the same 37-percent reduction in lighting O&M costs that the city of Los Angeles experienced. That would place the annual LED O&M costs at $20.10 per light.

7) Customer-Related Costs: Mr. Sommer included none of the costs that are classified as being customer-related. However, $2.8 million of the customer-related costs[50] that were allocated to the municipal lighting class consists of things like: a portion of distribution system costs related to poles and conductors; $1.7 million of Administrative and General Expenses to pay for things such as administrative salaries, pensions and benefits, and regulatory commission expenses; and $0.4 million for Other taxes. None of these costs would be eliminated by replacing an HPS fixture with an LED version. Consequently, the rates for LED lights

[50] See JSG-Workpaper 1.0 (Revised), "Fuel, Energy, Demand, Customer" tab, line 9.

would need to include the same $54.75 per lamp per year that is to be recovered from the existing HPS lights.

Table 15: Proposed Annual Rate Calculation Comparisons ($/fixture)

Rate Components for a 51W LED Fixture Replacement	Sommer		Concentric	
	IPL-Owned Fixtures Proposed Annual Rate	Municipally-Financed/Installed Fixtures Proposed Annual Rate 1/	New LED Bulk Replacement Rate (Short-run)	New LED Bulk Replacement Rate (Long-run)
HPS Wattage w/ Ballast	*123*	*123*	*123*	*123*
LED Equivalent	*51*	*51*	*51*	*51*
Installed Cost	$319.50	$261.00	*	*
Return	$31.60	2/	*	*
Fixture Dep., Prop. Tax, Ins. (Fixed Expenses)	$17.93	$14.93	*	*
Fuel and Energy Expenses	$6.69	$6.69	$6.68	$6.68
Demand Expense	$4.39	$4.39	$10.58	$4.39
Depreciation	$12.78	$10.44	3/	3/
O&M	$6.97	$6.97	$20.10	$20.10
Customer Expenses	4/	4/	$54.75	$54.75
Expenses w/o RCF	***$48.75***	***$43.41***	*	*
Expenses w/ RCF	***$49.75***	***$44.30***	*	*
Proposed Annual Rate	**$81.35**	**$44.30**	**164.28**	**157.96**

* Confidential data is contained on *Petitioner's Witness JSG CONFIDENTIAL Attachment 5-Rb*, page 3.

Sources: WP COI 1 (Revised) and JSG CONFIDENTIAL Attachment-5-Rb

1/ Mr. Sommer assumed that the City of Indianapolis would incur no material handling costs for an installation program.

2/ Mr. Sommer assumed that the City of Indianapolis would pay the cost of capital directly to municipal bondholders or other financiers.

3/ IPL's fixture depreciation is included in Fixture Depreciation, Property Tax, and Insurance.

4/ Mr. Sommer omitted distribution system and A&G costs that were classified as customer-related.

Q91. Why did Mr. Sommer omit from his calculations the distribution system and A&G costs that were classified in the cost-of-service as being customer-related?

A91. At page 24, lines 1-3 of his testimony Mr. Sommer indicates that he believes customer costs of $54.75 per light are excessive. However, it appears that he may misunderstand

what those costs represent, or he may have meant to include those costs in his rate calculations but inadvertently left them out.

For example, in response to IPL-City data request 2-5 which asked why Mr. Sommer considers the $54.75 per lamp figure to be excessive, he responded by describing the expected reduction in lighting O&M costs that could be expected from an LED retrofit program. However, the $54.75 component is designed to recover fixed, customer-related costs of the distribution system and fixed Administrative and General costs, and it does not include recovery of the lighting O&M costs that Mr. Sommer discusses in his data response. Thus, there may be some confusion as to what costs are included in that cost component and whether it is reasonable to assume that those costs will be reduced by installing LED street lights.

Conversely, when asked in IPL-City data request 2-20 why he omitted these costs from his rate calculations, Mr. Sommer responded as follows:

> Similarly, the Company has $2,832,541 included in rates for the Customer Component of its MU-1 rates. These accounts are for costs of the light system for rate MU-1 other than O&M. This can also be found on Petitioner's Witness JSG-Workpaper 1.0 (Revised). This comes to $54.75 per light. **Mr. Sommer is not proposing a reduction to the recovery by the Company of this amount through rates**, although the customer costs of the same light using LED technology should be much less. (Emphasis added.)

Thus, while his analysis omitted these costs, this response indicates that he may have intended for his proposed LED rates to include recovery of distribution system and A&G costs that were classified as being customer-related.[51]

Q92. What is your conclusion concerning the recommendation of Dr. Kramer, and Mr. Sommer and Ms. Park that IPL immediately undertake an LED replacement program for the City of Indianapolis?

A92. Rather than providing a basic economic analysis of payback periods and net present value for the proposed LED conversions, the testimony of the City's witnesses relied on a number of outdated studies to select data to make points. My own analysis indicates that because of the high purchase and installation costs of the LED fixtures the program would not be able to pay for itself without either significant rate increases for the MU1 customers, or subsidies from a third-party benefactor. Moreover, depending upon the timing and level of rates established for LED retrofit lights, there may be a need to reallocate or shift fixed, demand-related costs to other rate classes. Thus, the City's evidence does not provide a sufficient basis for concluding that an LED conversion would not harm IPL, the City, or other customers. In my opinion, given the uncertainties concerning the economics of such a program, the Commission should set aside the issue of an LED replacement program and allow IPL and the City to continue their negotiation of the terms of a possible replacement program with an appropriate mechanism for cost recovery outside of this rate proceeding.

[51] A copy of this response is included in my Attachment 12-R.

VI. REBUTTAL UPDATES

Q93. Do you have any updated cost of service and rate design schedules that reflect IPL's rebuttal position and any corrections that were identified subsequent to the direct filing?

A93. Yes. There were some changes to the revenue requirement that were provided to me by the Company as well as some minor changes to the billing determinants for some of the rate classes. The changes in the revenue requirements are described in the rebuttal testimony of Yvonna Steadman and Craig Forestal. These changes include changes to certain O&M expenses including changes to rate case expenses, changes in certain labor and benefits costs and associated payroll taxes. I incorporated the updated revenue requirement provided by the Company into my allocated class cost of service and rate design models.

There were minor changes to the pro-forma billing determinants for certain rate classes. These changes were explicitly highlighted and provided as a response to OUCC-18-1[52]. Here is a list of changes made:

- Secondary Service (Large) (SL): Bill Counts, and Power Factor Calculations
- Primary Service (Large) (PL): Billing Demand, and Power Factor Calculations
- Process Heating (PH): Minimum Charge Adjustment Calculations
- High Load Factor Service - Primary (HL1): Power Factor Calculations

[52] A copy of this response is included in my Attachment 12-R.

The changes mentioned above will impact "JSG Attachment-4" and "JSG-Workpaper 2.0". These updated attachments are included in this rebuttal testimony as Petitioner's Witness JSG Attachments 9-R and JSF WP 2.0-R.

Q94. Can you please list all the changes that you have incorporated into your allocated class cost of service study and rate design?

A94. The changes incorporated into my allocated class cost of service study and rate design are as follows:

- Allocation of interruptible credit to all rate classes
- Revenue requirement changes as described in testimonies of IPL Witnesses Yvonna Steadman and Craig Forestal
- Pro Forma billing determinant changes for rate classes SL, PL, PH, and HL1

Q95. Did any of the schedules that were part of the Company's case-in-chief change as a result of the changes mentioned above?

A95. Yes, Petitioner's Witness JSG Attachments 6-R to 11-R, 13-R and 14-R as well as Rebuttal Workpapers JDT WP-1.0-R to JDT WP-4.0-R and JSG WP-1.0-R to JSG WP-5.0-R were part of the Company's case-in-chief filing and now have been updated to reflect IPL rebuttal positions. For ease of reference, here is a mapping of these new rebuttal attachments and workpapers to the schedules from the case-in-chief filing:

Table 16

Description	Rebuttal Attachment/Workpaper	Direct Filing Attachment/Workpaper
Summary of Class Cost Allocation and Unit Costs	JSG Attachment-6-R	JDT Attachment-3
Proposed Mitigated Revenue Requirement by Class	JSG Attachment-7-R	JSG Attachment-2
Class Revenue Summary	JSG Attachment-8-R	JSG Attachment-3
Test Year Revenue Proofs at Current and Proposed Rates	JSG Attachment-9-R	JSG Attachment-4
Summary of Proposed Rate Design	JSG Attachment-10-R	JSG Attachment-5

Residential Bill Impacts	JSG Attachment-11-R	JSG Attachment-6
Tariff Rate Sheets – CLEAN	JSG Attachment-13-R	EKC Attachment 1 (rate sheets)
Tariff Rate Sheets – REDLINE	JSG Attachment-14-R	EKC Attachment 2 (rate sheets)
Cost of Service Model - CONFIDENTIAL	JDT WP-1.0-R	JDT WP-1.0
Cost Functionalization and Classification	JDT WP-2.0-R	JDT WP-2.0
Functional Allocation Factors	JDT WP-3.0-R	JDT WP-3.0
Allocation to Rate Classes	JDT WP-4.0-R	JDT WP-4.0
New Lighting Rate Design Calculations	JSG WP-1.0-R	JSG WP-1.0
Rate Design and Revenue Proof Calculations	JSG WP-2.0-R	JSG WP-2.0
Residential Bill Impact Calculations	JSG WP-3.0-R	JSG WP-3.0
Power Factor Adjustment Calculations -Rate SL, PL, HL1, HL2, and HL3	JSG WP-4.0a-R	JSG WP-4.0
Power Factor Adjustment and Minimum Charge Calculations - Rate PH	JSG WP-4.0b-R	JSG WP-4.0
Employee Discount Calculations	JSG WP-5.0-R	JSG WP-5.0

VII. SUMMARY AND CONCLUSIONS

Q96. Please summarize the conclusions of your rebuttal testimony.

A96. Witnesses representing a number of intervening parties in this proceeding have disputed various aspects of the cost allocation and rate design proposed by IPL in this proceeding. However, a number of intervenor witnesses also support various aspects of the Company's proposed cost allocation and rate design methods. Most of the changes proposed by the intervenor witnesses involve shifting costs from one group of IPL customers to another group of IPL customers. As discussed earlier in this testimony, in my opinion most of the proposed changes to the filed cost allocation and rate design are without merit. There are, however, a few suggested changes that I agree with and have incorporated into the updated rebuttal exhibits that are filed with this rebuttal testimony. These changes include:

- Agreement with Mr. Phillips that the cost associated with the Interruptible Credit should be recovered from all rate classes based on their relative peak demands, and not just classes with interruptible customers, because all rate classes benefit from having interruptible load on the system.

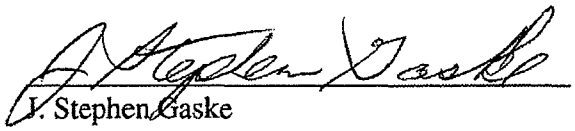
- Acceptance of Mr. Phillips proposal regarding Mitigation rules.

Q97. Does this conclude your prepared rebuttal testimony?

A97. Yes, it does.

VERIFICATION

I, J. STEPHEN GASKE, SENIOR VICE PRESIDENT, Concentric Energy Advisors, Inc., affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



J. Stephen Gaske

ELECTRIC UTILITY COST ALLOCATION MANUAL

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

January, 1992

From this breakdown it can be seen that each distribution account must be analyzed before it can be assigned to the appropriate functional category. Also, these accounts must be classified as demand-related, customer-related, or both. Some utilities assign distribution to customer-related expenses. Variations in the demands of various customer groups are used to develop the weighting factors for allocating costs to the appropriate group.

II. DEMAND AND CUSTOMER CLASSIFICATIONS 0F DISTRIBUTION PLANT ACCOUNTS

When the utility installs distribution plant to provide service to a customer and to meet the individual customer's peak demand requirements, the utility must classify distribution plant data separately into demand- and customer-related costs.

Classifying distribution plant as a demand cost assigns investment of that plant to a customer or group of customers based upon its contribution to some total peak load. The reason is that costs are incurred to serve area load, rather than a specific number of customers.

Distribution substations costs (which include Accounts 360 -Land and Land Rights, 361 - Structures and Improvements, and 362 -Station Equipment), are normally classified as demand-related. This classification is adopted because substations are normally built to serve a particular load and their size is not affected by the number of customers to be served.

Distribution plant Accounts 364 through 370 involve demand and customer costs. The customer component of distribution facilities is that portion of costs which varies with the number of customers. Thus, the number of poles, conductors, transformers, services, and meters are directly related to the number of customers on the utility's system. As shown in Table 6-1, each primary plant account can be separately classified into a demand and customer component. Two methods are used to determine the demand and customer components of distribution facilities. They are, the minimum-size-of-facilities method, and the minimum-intercept cost (zero-intercept or positive-intercept cost, as applicable) of facilities.

A. The Minimum-Size Method

Classifying distribution plant with the minimum-size method assumes that a minimum size distribution system can be built to serve the minimum loading requirements of the customer. The minimum-size method involves determining the minimum size pole, conductor, cable, transformer, and service that is currently installed by the utility. Normally, the average book cost for each piece of equipment determines

the price of all installed units. Once determined for each primary plant account, the minimum size distribution system is classified as customer-related costs. The demand-related costs for each account are the difference between the total investment in the account and customer-related costs. Comparative studies between the minimum-size and other methods show that it generally produces a larger customer component than the zero-intercept method (to be discussed). The following describes the methodologies for determining the minimum size for distribution plant Accounts 364, 365, 366, 367, 368, and 369.

1. **Account 364 - Poles, Towers, and Fixtures**

   - Determine the average installed book cost of the minimum height pole currently being installed.
   - Multiply the average book cost by the number of poles to find the customer component. Balance of plant account is the demand component.

2. **Account 365 - Overhead Conductors and Devices**

   - Determine minimum size conductor currently being installed.
   - Multiply average installed book cost per mile of minimum size conductor by the number of circuit miles to determine the customer component. Balance of plant account is demand component. (Note: two conductors in minimum system.)

3. **Accounts 366 and 367 - Underground Conduits, Conductors, and Devices**

   - Determine minimum size cable currently being installed.
   - Multiply average installed book cost per mile of minimum size cable by the circuit miles to determine the customer component. Balance of plant Account 367 is demand component. (Note: one cable with ground sheath is minimum system.) Account 366 conduit is assigned, basedon ratio of cable account.
   - Multiply average installed book cost of minimum size transformer by number of transformers in plant account to determine the customer component. Balance of plant account is demand component.

4. **Account 368 - Line Transformers**

   - Determine minimum size transformer currently being installed.

- Multiply average installed book cost of minimum size transformer by number of transformers in plant account to determine the customer component.

5. Account 369 - Services

- Determine minimum size and average length of services currently being installed.
- Estimate cost of minimum size service and multiply by number of services to get customer component.
- If overhead and underground services are booked separately, they should be handled separately. Most companies do not book service by size. This requires an engineering estimate of the cost of the minimum size, average length service. The resultant estimate is usually higher than the average book cost. In addition, the estimate should be adjusted for the average age of service, using a trend factor.

B. The Minimum-Intercept Method

The minimum-intercept method seeks to identify that portion of plant related to a hypothetical no-load or zero-intercept situation. This requires considerably more data and calculation than the minimum-size method. In most instances, it is more accurate, although the differences may be relatively small. The technique is to relate installed cost to current carrying capacity or demand rating, create a curve for various sizes of the equipment involved, using regression techniques, and extend the curve to a no-load intercept. The cost related to the zero-intercept is the customer component. The following describes the methodologies for determining the minimum intercept for distribution-plant Accounts 364, 365, 366, 367, and 368.

1. Account 364 - Poles, Towers, and Fixtures

- Determine the number, investment, and average installed book cost of distribution poles by height and class of pole. (Exclude stubs for guying.)
- Determine minimum intercept of pole cost by creating a regression equation, relating classes and heights of poles, and using the Class 7 cost intercept for each pole of equal height weighted by the number of poles in each height category.
- Multiply minimum intercept cost by total number of distribution poles to get customer component.

Survey of IURC-Regulated IOU & REMC Customer Charges

	Utility	Residential	Small Commercial
1	***IOUs***		
2	Duke Energy Indiana	$ 9.40	$ 9.40
3	Indiana Michigan Power	$ 6.80	$ 7.00
4	Indianapolis Power & Light	$ 11.00	$ 11.38
5	NIPSCO	$ 11.00	$ 20.00
6	SIGECO [1]		
7	*Effective*	$ 5.50	$ 7.50
8	*Proposed*	*$ 12.60*	*$ 12.02*
9	*High*	$ 11.00	$ 20.00
10	*Median*	**$ 9.40**	**$ 9.40**
11	*Median (w SIGECO Prop.)*	**$ 10.16**	**$ 11.96**
12	*Low*	$ 11.00	$ 20.00

	Utility	Residential	Small Commercial
13	***REMCs [2]***		
14	South Central Indiana REMC	$ 44.00	$ 65.00
15	Decatur County REMC	$ 37.00	$ 54.00
16	Nine Star REMC	$ 35.08	$ 34.17
17	Henry County REMC	$ 35.00	$ 35.00
18	Hendricks Power Coop	$ 34.00	$ 90.00
19	Utilities District of Western Indiar	$ 34.00	$ 39.00
20	Boone County REMC	$ 33.60	$ 69.19
21	Carroll White REMC	$ 32.00	$ 68.00
22	Clark County REMC	$ 31.50	$ 31.50
23	Warren County REMC	$ 31.00	$ 31.00
24	Bartholemew County REMC	$ 30.34	$ 30.97
25	Kankakee Valley County REMC	$ 30.00	$ 30.00
26	Parke County REMC	$ 29.50	$ 29.50
27	Paulding Putnam Electric Coop	$ 29.50	$ 29.50
28	Rush Shelby REMC	$ 29.00	$ 29.00
29	Tipmont REMC	$ 29.00	$ 29.00
30	Johnson County REMC	$ 28.75	$ 33.75
31	Whitewater Valley REMC	$ 26.27	$ 26.79
32	Fulton County REMC	$ 26.00	$ 26.00
33	Orange County REMC	$ 26.00	
34	Miami-Cass REMC	$ 25.75	$ 25.75
35	Jasper REMC	$ 25.00	$ 30.00
36	LaGrange County REMC	$ 25.00	$ 55.00
37	Noble County REMC	$ 25.00	$ 25.00
38	Southern Indiana Power	$ 24.50	$ 24.50
39	Jay County REMC	$ 24.00	$ 33.00
40	Southeastern Indiana REMC	$ 22.00	
41	Kosciusko REMC	$ 21.00	$ 21.00
42	Dubois REMC	$ 20.00	$ 20.00
43	Harrison County REMC	$ 20.00	$ 22.00
44	Heartland REMC	$ 20.00	$ 25.00
45	Steuben County REMC	$ 19.00	$ 19.00
46	Marshall County REMC	$ 17.55	$ 20.00
47	Jackson County REMC	$ 15.00	$ 25.00
48	Northeastern REMC	$ 15.00	$ 15.00
49	*High*	$ 44.00	$ 90.00
50	*Median*	**$ 26.27**	**$ 29.50**
51	*Low*	$ 15.00	$ 15.00

[1] Proposed in rebuttal in current rate case, $12.60 for Step 2 and$11.00 for Step 1 (Cause No. 43839)
[2] Includes rate tariffs available only

1982 Ind. PUC LEXIS 478

Public Service Commission of Indiana

March 24, 1982, Approved

Cause No. 35780-S8

Reporter
1982 Ind. PUC LEXIS 478

In the Matter of the Determination of Proceedings Necessary by the Public Service Commission of Indiana to Fully Comply with Requirements of the Public Utility Regulatory Policies Act (with Specific Reference to Lifeline Rates)

Core Terms

electricity, lifeline, consumer, rate structure, essential need, consume, target, electric utility, residential, houseguest, usage, customer, energy, user, public policy, low income, needy, basic level, high income, ratemaking, block, unjustly discriminatory, provide assistance, level of income, public utility, per year, preferential, pre hearing, refrigerate, elasticity

Panel: Wallace and Powers Concur; Harris Dissents with Opinion to Follow

Opinion By: Harold Hilt, Administrative Law Judge

Opinion

Public Law 95-617, the Public Utility Regulatory Policies Act (PURPA), effective November 9, 1978, especially Title I thereof, Retail Regulatory Policies for Electric Utilities, mandated this Commission to consider various rate design and service standards established by said Act.

In order to comply with the PURPA, the Commission, by Order dated July 13, 1979, in Cause No. 35780 instituted proceedings to determine the appropriate course of action to be taken in considering said rate design and service standards established by the PURPA and to establish timetables for the proceedings necessary for compliance with said Act.

The Commission, by Order dated November 14, 1979, provided that proceedings relating to Section 114 of the PURPA concerning "Lifeline Rates" be docketed as Sub-cause No. 35780-S8, and ordered that upon expiration of two (2) years from November 9, 1978, proceedings be initiated to consider whether "Lifeline Rates", as defined by the PURPA, should be offered by any electric utility subject to the Commission's jurisdiction and to the provisions of the PURPA which [*2] has not by said date already made such rates available.

On November 16, 1980, the Commission issued its Order setting a Preliminary Hearing and Prehearing Conference in said Cause No. 35780-S8 for December 2, 1980. Said Order also named Public Service Company of Indiana, Inc., Northern Indiana Public Service Company, Indiana & Michigan Electric Company, Southern Indiana Gas and Electric Company, Indianapolis Power & Light Company and Richmond Power & Light as Respondents to Sub-cause No. 35780-S8.

Pursuant to notice given and published as required by law, a Preliminary Hearing and Prehearing Conference in Sub-cause No. 35780-S8 was conducted on December 2, 1980, in Room 907, State Office Building, Indianapolis, Indiana.

On December 17, 1980, the Commission issued its Preliminary Hearing and Prehearing Conference Order in Sub-cause No. 35780-S8. Said Order provided that a generic proceeding and an Evidentiary Hearing in Sub-cause No. 35780-S8 be held on February 17, 1981. Said Order established two major issues to be considered at said hearing as follows:

A. Definition of "Essential Needs", and

B. The desirability of fixing, approving or allowing to go into effect a rate [*3] for "Essential Needs" of residential electric consumers, which is lower than a rate under the Standard referred to in Section 111 (d) (1) of the PURPA.

Said Order also established dates for the filing of testimony and exhibits.

Pursuant to said Order and notice given and published as required by law, proof of which was incorporated into the record by reference and placed in the official files of the Commission, a public hearing in Sub-cause No. 35780-S8 was held in Room 907, State Office Building, Indianapolis, Indiana, at 9:30 A.M., EST, on February 17, 1981.

The Commission having heard the testimony, examined the exhibits, considered the briefs filed herein, and being duly advised in the premises, now finds:

1. That Section 114 of the PURPA provides as follows:

"(a) Lower Rates. - no provision of this Title prohibits a State Regulatory Authority (with respect to an electric utility for which it has ratemaking authority) or a nonregulated electric utility from fixing, approving or allowing to go into effect a rate for essential needs (as defined by the State Regulatory Authority or by the Nonregulated Electric Utility, as the case may be) of residential electric consumers which [*4] is lower than a rate under the Standard referred to in Section 111 (d) (1).

(b) Determination. - if any State Regulated Electric Utility or Nonregulated Electric Utility does not have a lower rate as described in Sub Section (a) in effect two years after the date of the enactment of this Act, the State Regulatory Authority having ratemaking authority with respect to such State Regulated Electric Utility or the Nonregulated Electric Utility, as the case may be, shall determine after an Evidentiary Hearing whether such a rate should be implemented by such utility.

(c) Prior Proceedings - Section 124 shall not apply to the requirements of this Section."

2. That Section 111 (d) (1) of the PUPRA established a Cost of Service Standard as follows:

"(1) Cost of Service - rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the cost of providing electric service to such class as determined under Section 115 (a)."

The Commission by Order dated July 22, 1981, in Sub-cause No. 35780-S2 modified said Cost of Service Standard as follows:

"Rates charged by any electric utility [*5] for providing electric service to each class of electric consumers shall be designed, to the extent practicable, and consistent with other appropriate and applicable regulatory principles, to reflect the cost of providing electric service to such class."

The Commission has applied said modified Cost of Service Standard in Sub-cause Nos. 35780-S1, 35780-S3, 35780-S4, 35780-S5 and 35780-S6 and now finds that said modified Cost of Service Standard should be utilized in our consideration of "Lifeline Rates" herein.

It is apparent that this Commission may, within the constraints of Indiana law, fix, approve or allow to go into effect a rate for "essential needs" of residential electric consumers which is below the cost of providing service for such needs and be in compliance with the PURPA.

3. That Section 114, as set out in Finding No. 1, requires each State Regulatory Authority to define "essential needs".

The Preliminary Hearing and Prehearing Conference Order dated December 17, 1980, recognized that a definition of "essential needs" is necessary in order to consider "Lifeline Rates" and provided that such a definition be one of the major issues to be addressed herein. Accordingly, [*6] we will do so.

4. That the evidence herein established that the great degree of diversity within the residential class, i.e., number of persons in the household, ages of persons in the household, health of persons in the household, size of house, type of house, type of heating, effectiveness of insulation and the uses of electricity within the household will affect the level of electricity needed by residential customers in varying degrees.

The evidence also established that the basic usage level for essential needs could, depending upon the uses included in the definitions of essential needs, range from 250 to 1600 kwh per month. The lower level is based on the uses of lighting and refrigeration while the higher level includes the uses of space heating, water heating and cooking.

The Commission recognizes that space heating, water heating, cooking, lighting and refrigeration are basic requirements of modern life which may be categorized as "essential needs" for which electricity provides power. However, only lighting and refrigeration are consistently powered by electricity.

Therefore, the Commission now finds that the definition of "essential needs" should be based upon the [*7] uses for which there are no practical alternative energy sources, i.e., lighting, small appliances and refrigeration; and that a basic usage level of 300 kwh per month is a sufficient level of electric energy usage to provide such needs.

5. That the two basic forms of Lifeline Rates are "general" and "targeted" .

A general Lifeline Rate is a lower than cost, uniform charge per kilowatt-hour for a basic amount of electricity which is applicable to all residential customers. The subsequent blocks of energy usage are priced at a rate above the Cost of Service thereby permitting the utility to recoup the revenue shortfall resulting from the lower than cost rate applicable to the initial (Lifeline) block of energy usage.

A targeted Lifeline Rate is a lower than cost uniform charge per kilowatt-hour for a basic amount of electricity which is only available to specific income and/or demographic groups within the residential class. The subsequent blocks of energy usage by the targeted group and all blocks of energy usage by consumers other than the targeted group are priced at a rate above the Cost of Service thereby permitting the utility to recoup the revenue shortfall resulting from [*8] the lower than cost rate applicable to the initial (Lifeline) block of energy usage by the targeted group.

All Lifeline Rate structures employ one or more of the following methods for pricing electricity:

(A) A flat rate charge per kwh which is below Cost of Service for all units of consumption for a basic amount of electricity. All consumption above the basic level is priced so as to recover the revenue lost by pricing below the Cost of Service for the basic level. This method may be utilized with either a flat rate or declining block rate structures.

(B) An inverted rate structure by which the rate per unit of consumption increases with the quantity consumed. All consumption in excess of a basic level is priced above the Cost of Service.

(C) A freeze of rates for a basic amount of electricity.

(D) Elimination or reduction of customer service charges for certain users.

6. That it is the position of the Respondents and all Intervenors except Citizens Action Coalition, Inc., (CAC) and City of Fort Wayne (City) that the primary purpose of Lifeline Rates is to provide assistance to the needy (low income and elderly on fixed income) residential electric consumers. They also [*9] argue that any Lifeline Rate, general or targeted, results in the provision of service below cost which must be subsidized and as such are unjustly discriminatory and/or preferential which is impermissible under Indiana law. It is also their position that the establishment of such rates constitute ratemaking for the sole purpose of carrying out public policy which invades the prerogative of the legislature which has the power to determine public policy and the programs to implement such policy.

It is the position of Intervenors CAC and City that Lifeline Rates have several purposes - reduced rates for essential needs, help for poor, promote conservation, and apply marginal cost pricing to utility rates. They also argue that there is no

prohibition against the charging of a discriminatory rate based upon some consideration other than Cost of Service as long as that rate is not unjustly discriminatory.

It is clear from the language of Section 114 as set out in Finding No. 1 above, that a rate for "Essential Needs" lower than the Cost of Service Rate Standard as provided by Section 111 (d) (1) and as modified by this Commission is permitted for all residential consumers. [*10] It is equally clear that a purpose of "Lifeline Rates", as provided by Section 114 of the PURPA, is to reduce rates for "Essential Needs". It is unclear as to whether or not such rates are intended to provide assistance to the needy and/or promote conservation.

However, due to the unprecedented increase in the cost of electricity during the past decade and the resultant economic burden upon consumers, especially the poor, elderly, and handicapped, this Commission is compelled to examine any and all possible means to alleviate such a burden. Accordingly, we will do so.

Section 117 (b) of the PURPA provides as follows:

"Nothing in this Title prohibits any State Regulatory Authority or Nonregulated Electric Utility from adopting, pursuant to state law, any Standard or Rule effecting electric utilities which is different from any Standard established by this Sub Title."

It is apparent, from the Section cited above, that this Commission may, within the constraints of Indiana law, fix, approve or allow to go into effect general and/or targeted Lifeline Rates or any modification thereof and be in compliance with the PURPA.

IC 8-1-2-4 provides in part as follows:

"* * * the charge [*11] made by any public utility for any service rendered or to be rendered either directly or in connection therewith shall be reasonable and just and every unjust or unreasonable rate for such service is prohibited and declared unlawful. * * *"

IC 8-1-2-68 provides as follows:

"Unjust Rates - Order. - Whenever, upon an investigation, the Commission shall find any rates, tolls, charges, schedules or joint rate or rates, to be unjust, unreasonable, insufficient or unjustly discriminatory, or to be preferential or otherwise in violation of any of the provisions of this Act (8-1-2-1 - 8-1-2-120), the Commission shall determine, and by Order fixed just and reasonable rates, tolls, charges, schedules or joint rates to be imposed, observed and followed in the future in lieu of those found to be unjust, unreasonable, insufficient or unjustly discriminatory or preferential or otherwise in violation of any of the provisions of this Act."

The Court of Appeals of Indiana in rejecting the argument that rates must always be based upon Cost of Service held in *Bethleham Steel Corp. v Northern Indiana Public Service Co. (1979) Ind. App. 397 N.E. 2d 623* beginning at Page 633 as follows: [*12]

"The Industrial Intervenors's second primary attack on the rate design concerns the absence of an evaluation of the Cost of Service by the Commission. Cost of Service, according to the industrial Intervenors' is the proper foundation upon which the rate design should be based.

"The industrial Intervenors' have cited no cases which specifically hold that the rate design must be based on Cost of Service; we find no cases so stating and must conclude that the statute, *Ind. Code 8-1-2-4*, does not state or imply that there must be a finding of Cost of Service in order to determine the rate design.

"Although Cost of Service may be a factor the Commission could usefully consider in determining the rate design, it is not error for the Commission not to determine the Cost of Service in its findings. (Citations omitted)."

The Court of Appeals of Indiana in *Capital Improvement Board, etc. v Public Service Commission (1978), Ind. App. , 375 N.E.2d 616 at Page 633* held as follows:

"The second statute cited by Intervenors, *IC 1971, 8-1-2-68*, (Burns Code Ed.) does not prohibit differing rates for differing classes or types of service, but rather proscribes unreasonable differences [*13] or unjust discriminations. It is only unreasonable differences in the rates between the customers or classes of customers that violate this statute. *L.S. Ayres & Co. v Indianapolis Power & Light Company, supra.* The charging of different rates for service rendered under different conditions and under different circumstances is not unlawful or unduly preferential. See Public Utility Commission v Pennsylvania R. Co. (1962), 42 P.U.R.3d 166. This Court must give deference to the expertise of the Commission in making its determination of the reasonableness of the rate discrimination: * * *"

The Court of Appeals of Indiana in remanding approval of a contract rate for street lighting held in *L.S. Ayres & Co. v Indianapolis Power & Light Company (1976), 169 Ind. App. 652, 351 N.E.2d 814 at Page 840* as follows:

"The public policy referred to by the Commission is ill-defined, and we are unable to determine whether that public policy enumerated by the Commission is reasonable for the establishment of a nondiscriminatory contract rate. Therefore, we remand to the Commission for a more informative statement of its public policy and any other statement it deems [*14] appropriate in the establishment of the petitioner's contract rate with the City of Indianapolis."

The Court of Appeals of Indiana recognized that factors other than Cost of Service could be considered in the ratemaking process when it held in *LaRowe v Kokomo Gas & Fuel Co., (1979) Ind. App. , 386 N.E.2d 965 at Page 980* as follows:

"All the cases cited in support of the 'conservation analysis' are either Commission opinions or Court decisions upholding Commission on appeal. In the latter, the Courts merely had to find that the opinions were not unreasonable because the Commission had related the issues to a different context - conservation rather than cost and benefits. The PSC has worked within the traditional context in arriving at its decision. It is not for this Court to set aside a Commission ruling simply because it disagrees with the method by which the Commission arrived at its decision: * * *"

A reading of the statutes and the cases cited above, convince us that a rate below the Cost of Service is not illegal per se. It is our opinion that the authority delegated to this Commission is sufficiently broad that we in performing the legislative function [*15] of ratemaking may consider factors other than Cost of Service, including what may be termed as public policy considerations, and that the only constraint on our ratemaking authority is that we must determine and fix rates that are not unjust, unreasonable, insufficient or unjustly discriminatory or preferential.

7. That if a primary purpose of "Lifeline Rates" as provided by the PURPA is to provide aid to the needy, then it may appear that a form of Lifeline Rates which are "targeted" to provide rate relief to specific income and/or demographic groups within the residential class rather than all of such class would more effectively allocate "Lifeline" benefits to the residential customers most in need of such benefits.

The question then becomes one of whether or not such a "targeted" Lifeline Rate may be permissible under Indiana law.

IC 8-1-2-103 provides in part as follows:

"(a) No public utility, or agent or officer thereof, or officer of any municipality constituting a public utility, as defined in this chapter, may charge, demand, collect, or receive from any person a greater or less compensation for any service rendered or to be rendered, or for any service in connection [*16] therewith, than that prescribed in the published schedules or tariffs then in force or established as provided herein, or than it charges, demands, collects, or receives from any other person for a like and contemporaneous service. * * *"

The Public Service Commission of Indiana held in E. W. Bassett et al. v Merchants Heat & Light Company, Cause No. 4304, 4 P.U.R. 1919C at Page 483 as follows:

"* * * A rate cannot be made for those whose incomes are small or unfavorably affected by current conditions, and other rates for the same service for those whose incomes are larger or swollen by changing conditions * * *". (emphasis added).

Our interpretation of IC 8-1-2-103 compels us to concur with the Commission of 1919.

In addition, the record herein established that a targeted Lifeline Rate would impose a substantial administrative burden on the utilities, in that such a rate would require a substantial and continuing effort to identify and qualify those that may be eligible.

Finally, even though a targeted Lifeline Rate may eliminate the providing of a subsidy to the non-needy, it would not solve the problem of the low income/ high user that would be harmed [*17] by the higher rates for usage above the Lifeline level.

We, therefore, find that a Lifeline Rate "targeted" to provide rate relief to specific income and/or demographic groups for a basic level of electricity which is less than the rate charged all others for a like and contemporaneous service is prohibited by law.

8. That although we reject "targeted" Lifeline Rates as being prohibited by Indiana law we cannot, out of hand, reject a "general" Lifeline Rate without a proper review of such a rate.

The Commission now finds, based on the statutes and cases cited in Finding No. 6 herein, that such a Lifeline Rate structure based on some basic level of consumption and applicable to all of the residential class of consumers which recoups the resultant revenue shortfall within the residential class may be reasonable, just, non-discriminatory, and as such permissible under Indiana law.

The equity and efficiency of a "general" Lifeline Rate structure as an aid to the needy depends upon the degree to which the consumption of electricity is related to the level of income. If the low income customers are generally low users of electricity and the high income customers are generally [*18] high users of electricity then a general Lifeline Rate structure may be an equitable and effective method of providing assistance to the needy in paying their electric bills. However, as we stated in Finding No. 4 herein, many variables, other than level of income, will affect the level of electricity consumed by residential customers in varying degrees.

The evidence herein established the following:

A. A positive but only moderate, correlation exists between level of income and consumption of electricity.

B. Households using electricity for heating and/or cooking, regardless of income, consume above average quantities of electricity.

C. The type of house and its insulation produces a greater effect on electric consumption than variation in income.

D. Variation in family size produces a greater effect on electric consumption than variation in income.

E. The 1978 Annual Housing Survey discloses that in the North Central Region, which includes Indiana, the following:

1. 81% of households with income under $10,000 per year live in rental housing.

2. 53% of all rental housing is occupied by households with income under $10,000 per year.

3. 51% of households with income [*19] under $10,000 per year live in structures 40 years old or more.

4. Only 10% of renter occupied housing is heated with electricity.

5. Of that 10% more than half is occupied by households with income under $10,000 per year.

6. 54% of households with income under $10,000 per year occupying rental housing heat with utility gas and electric Lifeline Rates will contribute nothing towards payment of those heating bills.

F. Many low income households occupy rental housing where the electricity is master metered and the cost of which is included in the rent. Any electricity cost savings realized from Lifeline Rates would not necessarily be passed on in the form of decreased rent.

G. Many low income households consume small amounts of electricity, however, not all low income households are low users of electricity. In fact, a substantial percentage of low income households consume above average amounts of electricity.

H. Small quantity consumers of electricity do not necessarily have low income. In fact, a substantial percentage of middle and/or high income households consume below average amounts of electricity.

I. Of five major variables that affect the consumption of electricity **[*20]** the level of income is the least important in determining the level of electric consumption.

J. The average benefit under a general Lifeline Rate structure is less than $10.00 per month.

Based upon the above, the Commission now finds that although a general Lifeline Rate structure will benefit some low income/ low users, as intended, it will also have the undesirable result of benefiting a substantial number of middle and/or high income/ low users, and harming a substantial number of low income/ high users.

The Commission is sympathetic to the hardships imposed on households by inflation, including the rise in electric rates, and feels that some form of relief may be warranted. However, the problem is not one of rising electric rates per se, but rather those of general inflation and economic downturns such that a substantial number of households are unable to purchase the basic necessities, including a minimum amount of electricity, on their meager incomes.

The use of price subsidies such as Lifeline Rates as a means of solving the income distribution problem tends to distort the efficient allocation of resources by giving false price signals to consumers. Direct subsidies **[*21]** or monetary transfers are more effective methods of alleviating the problems associated with a maldistribution of income than price subsidies such as Lifeline Rates. Such methods involve income redistribution policy decisions, and such policy decisions should be made in the social and political forum, the legislature.

The most common programs that provide direct assistance to specific groups to supplement their income for the purchase of utility services are (1) cash payments in the form of a lump-sum payment, (2) energy stamps or coupon programs that eligible persons may purchase at a fraction of their face value which can then be used to pay utility bills, and (3) income tax credits for energy expenditures by which eligible persons can reduce their income tax liabilities. Such programs are more effective and preferable to general Lifeline Rate structures in that the benefits can be directed toward the persons in need of assistance and a greater amount of assistance can be provided since the funds are better targeted. The use of a rate design such as Lifeline Rate structures not only falsely alters the prices charged to the consumer by the utility but also improperly imposes **[*22]** the Commission as a surrogate for the legislature in making the social and political policy decisions in regard to income redistribution.

Therefore, the Commission finds that a general Lifeline Rate structure is not an effective and equitable means of providing assistance to the needy residential electricity consumers and in the absence of legislation by the General Assembly of the State of Indiana stating that public policy nevertheless requires the offering of such general Lifeline Rates such rates should not and need not be established by any electric utility subject to our jurisdiction and it will be so ordered.

9. That it is the position of Intervenors CAC and City that a Lifeline Rate structure will promote conservation.

The Respondents and all other Intervenors claim that a Lifeline Rate structure not only fails to encourage conservation but actually serves to increase consumption.

The degree to which any Lifeline Rate structure may result in conservation depends upon the following:

(A) The price elasticity of demand;

(B) The level of consumption included in the definition of essential needs; and

(C) The rate applicable to the Lifeline level of consumption.

If the level [*23] of consumption permitted by the definition of essential needs is high so as to include space heating and air conditioning loads and the rate applicable to such a consumption is low then such a Lifeline Rate structure would encourage consumption rather than conservation.

Residential consumers' price elasticity of demand for electricity will vary depending upon their end uses of electric power and their levels of income.

If low levels of consumption are primarily unavoidable for basic or essential needs and higher levels of usage include more discretionary consumption, then low income users' consumption is more likely to be related to basic or essential needs while middle and high income users' consumption is more likely to include non-essential discretionary end uses. Based upon such consumption patterns, the price elasticity of demand of low income users would be less than that of middle and high income users.

A Lifeline Rate structure that reduces the rates for unavoidable, essential needs usage and disproportionately raises the rates for non-essential, discretionary usage may result in net conservation.

The larger the level of usage included in the definition of essential needs [*24] the lower the reduction in rates for such usage must be in order to produce conservation. Otherwise the consumer would receive false price signals which would encourage usage.

The evidence herein does not establish the price elasticity of demand for electricity by residential consumers. However, it appears that the price elasticity of demand for both the low income and high income consumer would be relatively inelastic.

A rate structure that is based on cost will promote conservation in that such a rate structure will give true price signals to the consumer.

The design of a cost based rate structure of necessity requires a proper allocation of costs. A cost based rate structure that includes an allocation of "avoided costs" will be more effective in the promotion of conservation in that such a rate structure will give more accurate price signals to the consumer.

The determination of "avoided costs" would require the calculation of long-run marginal or incremental costs.

The argument then reverts back to the one of what costing methodology should be employed in allocating costs as a basis for determining rates.

The Commission by Consolidated Preliminary Hearing and Prehearing [*25] Conference Order dated February 5, 1981, in Consolidated Cause Nos. 35780-S3 through 35780-S6 determined that a fully allocated average embedded cost method was to be employed in our consideration of the Section 111(d) Rate Standards. Such determination is not to be construed as a rejection for future proceedings of all other pricing and/or costing theories or methodologies supported by evidence of record which will aid and/or enable us to set rates that are fair and equitable and which serve the stated purposes of the PURPA including conservation of energy. In fact the design of a rate structure that combines the use of both embedded and long-run marginal or incremental cost analysis may be desirable.

The evidence herein is insufficient for the Commission to make a determination as to the effect a Lifeline Rate structure would have on conservation. However, the Commission recognizes that conservation may be an important consideration in the design of electric rates and therefore the Commission cannot, out of hand, reject a rate structure that is designed to promote conservation and now finds that the Respondents should continue to address this issue in their future rate cases [*26] and it will be so ordered.

IT IS THEREFORE ORDERED BY THE PUBLIC SERVICE COMMISSION OF INDIANA that a Lifeline Rate "targeted" to provide rate relief to specific income and/or demographic groups for a basic level of electricity which is less than the price charged all others for a like and contemporaneous service is prohibited by law and the Respondents shall not establish or fix such a rate schedule.

IT IS FURTHER ORDERED that a general Lifeline Rate structure is not an effective and equitable means of providing assistance to the needy residential electricity consumers and in the absence of legislation by the General Assembly of the State of Indiana stating that public policy nevertheless requires the offering of such general Lifeline Rates such rates should not and need not be established by any electric utility subject to our jurisdiction.

IT IS FURTHER ORDERED that the Respondents shall in all their future rate cases address the issue of conservation of electric energy.

IT IS FURTHER ORDERED that this Order shall be effective on and after the date of its approval.

Dissent By: Harris

Dissent:

Harris' dissenting opinion:

I respectfully disagree with my fellow Commissioners' decision to reject targeted [*27] lifeline rates. It is my opinion that targeted lifeline rates are permissable under Indiana law and desirable from a public policy standpoint.

Electric utility customers have been divided unto different classes which pay different rates. While it is true that somewhat different services are provided to different classes of electric customers, the development of the classes, while logical, has been somewhat arbitrary. I do not believe that the establishment of a new class of customers - those targeted to be charged at lifeline rates - would be prohibited by the statute.

Feeling certain of the legality of targeted lifeline rates, I believe that public policy dictates that this Commission require that such rates be offered by electric utilities. Targeted lifeline rates would benefit needy people. By implementing such rates, this Commission could do a great deal toward helping those who suffer the most as electricity prices increase. I do not agree that the matter is the sole responsibility of the legislature rather than that of the Commsission. The Commission is the very public body that has been delegated the responsibility and authority to set rates and, historically , that [*28] has included the establishment of different rate categories and different rates for different classes of consumers.

In establishing targeted lifeline rates, it is necessary to define "essential needs". I disagree with my fellow Commissioners' position regarding this matter which is set out in Finding No. 4 of this Order. A definition of "essential needs" need not be based upon the uses of electricity for which there are no pactical alternative energy sources. "Essential needs" could be fairly determined for different customers depending on which essential electric appliances they now own. The Commission could determine essential needs for lighting, refrigeration, cooking, water heating, space heating and any unique medical needs. While I realize that administering targeted lifeline rates would be difficult, and that it would not solve everybody's problems, I do beliveve that it would help many needy ratepayers and that the benefits would far outweigh the difficulties.

Invester-Owned Utility Name	Rate Schedule	Back-up, Maintenance, and Supplemental Service Terms	Charges
Indiana-Michigan Power Company	TARIFF COGEN/SPP (Cogeneration and/or Small Power Production Service)	The tariff applies to customers with cogeneration and/or small power production (COGEN/SPP) facilities which qualify under Section 210 of the Public Utilities Regulatory Policies Act of 1978 and have a total design capacity of 100 kW or less. Customers have three options: 1) buying electricity from the company as needed to meet net load requirements, 2) buying and selling energy and on-peak capacity to the Company in excess of the customer's total load, 3) selling its total energy adn average on-peak capacity while simultaneously purchasing its total load requirements from the company. Customers choosing options 1 or 2 that have a total design capacity > 10 kW are required to purchase backup service to replace energy from those facilities during maintenance and unscheduled outages. Back up capacity established by mutual agreement. If this level exceed by greater actual demand, excluding firm load regularly supplied by Company, then greater demand becomes new backup capacity. Supplemental power is available to customers to supplement their COGEN/SPP power sources, enabling them to use either or both sources of supply.	Monthly Delivery charges: A monthly service charge of $1.359 per kW of backup capacity shall be paid by customers served under demand-metered rate schedules. Whenever backup and maintenance capacity is used and the customer notifies the Company prior to the meter reading date the backup contract capacity shall be subtracted from the total metered demand during teh period specified by the customer for demand billing purposes. Energy credit (monthly) Standard meter (all kWh): $0.0355 TOD meter On-peak kWh/Off-peak kWh: $0.0428 / $0.0303 Contracted Capacity Credit $8.56 per kW times the lowest of either 1) the monthly on-peak contract capacity or 2) on-peak kWh delivered to the Company divided by 305 or 3) lowest on-peak average capacity metered over the last 2 months Metering charges: Single phase, Standard measurement: $0.85 Single phase, TOD measurement: $0.95 Polyphase, Standard measurement: $1.15 Polyphase, TOD measurement: $1.20
Indianapolis Power and Light Company	Rate Schedules CGS & REP Rider 10: Back-up Power Rider 11: Maintenance Power Rider 12: Supplementary Power	When the energy from back-up power is not used exclusively for residential purposes, billing will be calculated on the rate provisions of large commerical or industrial service. Where the customer has only back-up power or maintenance power from the Company, a customer served at the secondary voltage level will be billed on the rate provisions of large secondary service. Maintenance power means electric energy or capacity furnished by the Company to a Customer served on the Cogen and SPP rate schedules or Renewable Energy Production rates during scheduled outages of the qualifying facility. Supplementary power means electric energy or capacity furnished by the Company to a customer served on the Cogen/SPP rate scheudle used regularly by the qualifying facility in addition to that which the facility generates itself.	Rate SL (proposed): $18.27/kW Rate PL (proposed): $19.16/kW Rate HL1 (proposed): $19.30/kW Rate HL2 (proposed): $19.53/kW Rate HL3 (proposed): $20.50/kW

Invester-Owned Utility Name	Rate Schedule	Back-up, Maintenance, and Supplemental Service Terms	Charges
Northern Indiana Public Service Company	Rider 676 BACK-UP, MAINTENANCE AND TEMPORARY INDUSTRIAL SERVICE RIDER	Available to High Load Factor Industrial Power Service customers or Industrial Power Service for Air Separation & Hydrogen Production Market Customers who desire to take a curtailable service from the Company on a temporary basis, including for back-up or maintenance purposes, subject to curtailments. Customer must specify capacity amount.	**Back-up Service** Demand charge: Applicable Rate 632 or 633 demand charge divided by number of days in the month, per kW per day Demand Charge: Rate 632 $10/31 = $0.3226; Rate 633 $15/31 = $0.4839 Energy charge: Real-time LMP + non-fuel energy charge of $0.0035 per kWh 45 day limit per 12 rolling months **Maintenance Service** Demand charge (Jan, May, Dec): $0.44 per kW/day Demand charge (Feb, Mar, Apr, Oct, Nov): $0.25 per kW/day Energy charge: $0.035887/kWh for the first 450 hours of the Billing Demand in the month. Must be scheduled at least 20 days in advance **Temporary Service** Demand charge: block system (i.e. $0.58 per kW/d for first 30 days of temporary demand, $0.87 per kW/d for next 30, etc.) Energy charge: $0.035887/kWh for the first 450 hours of the Billing Demand in the month.
Vectren	Rate BAMP: Backup, Auxiliary, and Maintenance Power Services	Backup Power Service is capacity and energy supplied by Company, during forced outages of Customer's generation equipment, in an amount not to exceed the lesser of (1) Customer's internal electric load, (2) the demonstrated capacity of Customer's electric generating equipment, or (3) an otherwise mutually agreed amount. Backup Power is available as either firm or non-firm in its character. Firm back up available for maximum of 60 days in a contract year. Firm portion must be specified in contract. Auxiliary Power Service is capacity and energy supplied by Company to Customer to meet a portion of its native usage on an ongoing daily basis in parallel with Customer's use of its own electric generation equipment. Maintenance Power: is capacity and energy provided by Company to replace capacity and energy normally generated by Customer's generating equipment during a scheduled outage of such equipment. Rate schedule applicable to customers whose electric capacity requirements are 1,000 kW or more and who own and operate 60 Hertz electric generating equipment, other than for emergency usage, to meet all or at least 1,000 kW of Customer's electric loads. Firm capacity limited to 250 MW	Customer Facilities Charge: $100.00 per month Capacity Charge: Backup Power Firm $6.21 plus 120% of the capacity component in the current Rate CSP, per kVa of Rated Capacity Non-firm $6.21 per kVa of Rated Capacity, plus $2.98 per kVa of Billing Demand. Auxiliary Power The Capacity Charge of Customer's applicable Rate Schedule, per kVa of Billing Demand Maintenance Power The applicable Demand Charge per kVa currently in effect for Rate LP ($10 per kVa), exclusive of any minimums. Energy Charges: All kWh used (Backup) 100% of Company's hourly incremental energy costs, per kWh, inclusive of any variable production charges. All kWh used (Auxiliary and The Energy Charge and Variable Production Maintenance) Charge and the Fuel Cost Adjustment in Appendix A of Customer's applicable Rate Schedule.

Key Concentric Assumptions

Line Item	(A) Assumption	(B) Value	(C) Source
1	IPL Filed Pre-tax Rate of Return	9.9%	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
2	Fuel and Energy Costs ($/kWh)	$ 0.033	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
3	Annual Operating Hours	3,941	IPL Tariff Sheet Nos. 90 and 110
4	Demand-related Expenses Allocation Cost ($/watts)	$ 0.086	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
5	IPL HPS O&M ($/fixture)	$ 31.91	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
6	Concentric-estimated LED O&M ($/fixture)	$ 20.10	JSG Testimony (HPS O&M x 63%)
7	Customer-related Expense Allocation Cost ($/fixture)	$ 54.75	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
8	Labor and Truck Costs ($/fixture)	[redacted]	Estimate based on CONFIDENTIAL vendor information
9	IPL Engineering Labor ($/fixture)	$ 36.10	City of Indianapolis DR 1-01-Question
10	IPL Labor Burdens (Payroll Tax & Benefits) - IPL engineering labor x :	0.69	City of Indianapolis DR 1-01-Question
11	IPL Delivery Construction Clearing - IPL engineering labor x :	0.30	City of Indianapolis DR 1-01-Question
12	IPL Capitalized A&G - IPL engineering labor x :	0.57	City of Indianapolis DR 1-01-Question
13	IPL Stores Handling/Material Burden - Actual material costs x :	0.30	City of Indianapolis DR 1-01-Question
14	25-Year Fixture Depreciation Rate	4.00%	IPL Estimate

Line Item	Comparison of Proposed Rates							Rate Proportions			
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	HPS Wattage w/ Ballast	LED Equivalent Watts	Sommer IPL-Owned Fixtures Proposed Annual Rate	Sommer Municipally-Financed/Installed Fixtures Proposed Annual Rate	Concentric New LED Bulk Replacement Rate (Short-run)	Concentric New LED Bulk Replacement Rate (Long-run)	IPL HPS Proposed Vintage Rate	Sommer IPL-Owned Rate / Concentric Short-run Rate	Sommer IPL-Owned Rate / Concentric Long-run Rate	Sommer Municipally-Financed/Installed Rate / Concentric Short-run Rate	Sommer Municipally-Financed/Installed Rate / Concentric Long-run Rate
1	123	51	$81.35	$44.30	$164.28	$157.96	$109.08	*50%*	*52%*	*27%*	*28%*
2	186	70	$94.30	$51.78	$175.58	$165.40	$127.20	*54%*	*57%*	*29%*	*31%*
3	303	150 (S), 138 (C)	$148.23	$83.01	$236.97	$222.49	$159.96	*63%*	*67%*	*35%*	*37%*
4	469	209	$208.74	$113.79	$306.31	$283.49	$194.76	*68%*	*74%*	*37%*	*40%*

Calculation of Comparative Rates

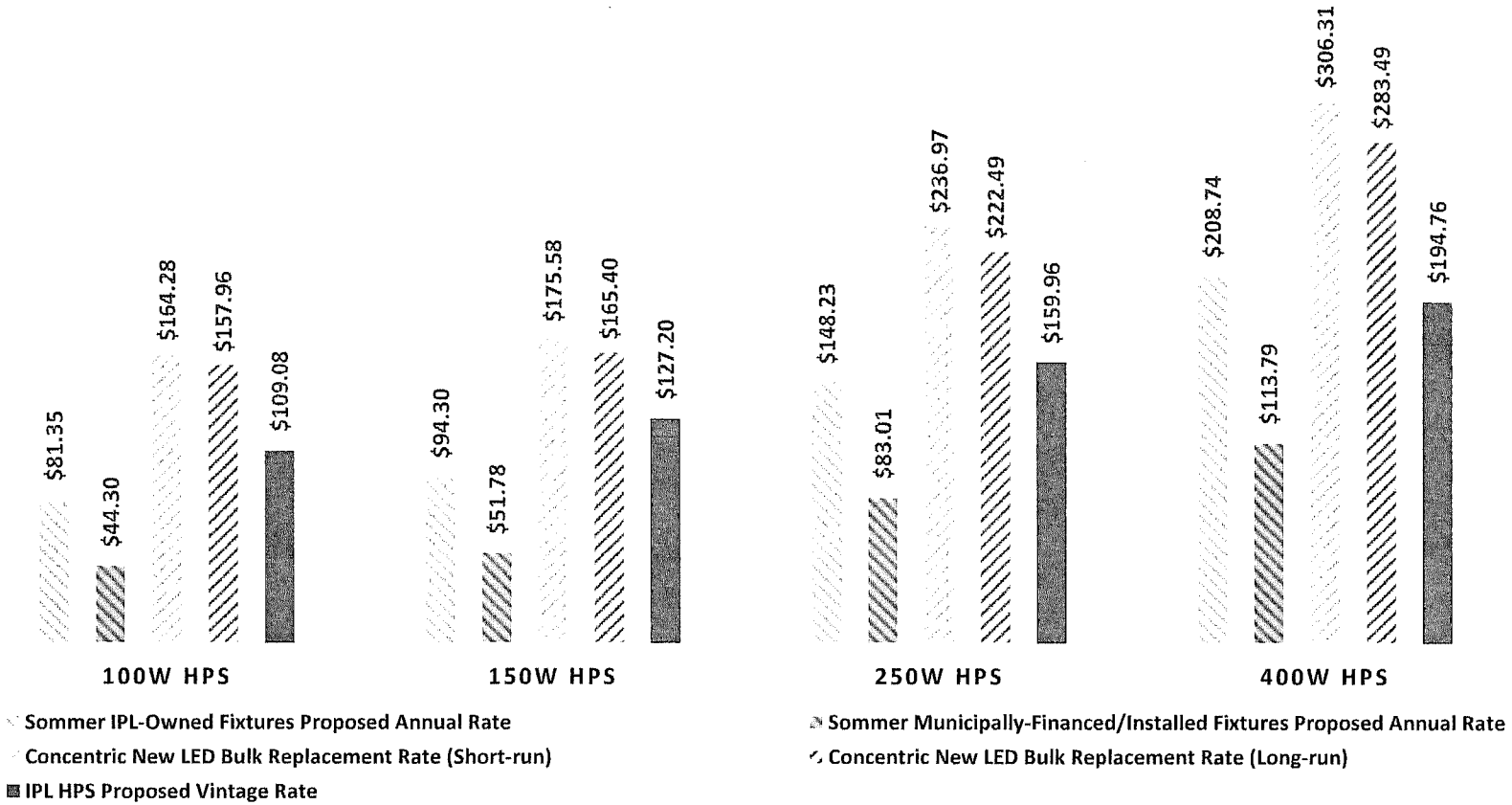
Line Item	(A) HPS Wattage w/ Ballast	(B) LED Equivalent	(C) Installed Fixture Cost	(D) Return	(E) Fixture Dep, Prop Tax, Ins.	(F) Fuel and Energy Expenses	(G) Demand-Related Expenses	(H) Fixture Depreciation	(I) Municipal Lighting O&M	(J) Customer-Related Expenses	(K) Expenses w/o RCF	(L) Expenses w/ RCF	(M) Calculated Rate 1/
			Material Costs + Labor, Material, and Other Capitalized Costs	(C*WACC)* Revenue Conversion Factor	C*(Depreciation+Prop. Tax)+Ins.	Operating Hours*Fuel & Energy Component* Watts/1,000	Demand Component* Watts	Customer Component	O&M Component	Customer Component	E+F+G+H+I +J	K*Revenue Conversion Factor	D+L
	Sommer IPL-Owned Fixtures Proposed Annual Rate												
5	123	51	$319.50	$31.60	$17.93	$6.68	$4.39	$12.78	$6.97	2/	$48.74	$49.73	$81.33
6	186	70	$365.00	$36.10	$20.26	$9.16	$6.02	$14.60	$6.97	2/	$57.01	$58.18	$94.27
7	303	150	$553.50	$54.74	$29.92	$19.64	$12.90	$22.14	$6.97	2/	$91.56	$93.44	$148.18
8	469	209	$800.50	$79.17	$42.58	$27.36	$17.97	$32.02	$6.97	2/	$126.90	$129.50	$208.67
	Sommer Municipally-Financed/Installed Fixtures Proposed Annual Rate 3/												
9	123	51	$261.00	4/	$14.93	$6.68	$4.39	$10.44	$6.97	2/	$43.40	$44.29	$44.29
10	186	70	$296.00	4/	$16.72	$9.16	$6.02	$11.84	$6.97	2/	$50.71	$51.75	$51.75
11	303	150	$441.00	4/	$24.15	$19.64	$12.90	$17.64	$6.97	2/	$81.30	$82.96	$82.96
12	469	209	$631.00	4/	$33.89	$27.36	$17.97	$25.24	$6.97	2/	$111.43	$113.72	$113.72
	Concentric New LED Bulk Replacement Rate (Short-run)												
13	123	51	[redacted]			$6.68	$10.58	5/	$20.10	$54.75	[redacted]		$164.28
14	186	70				$9.16	$16.00	5/	$20.10	$54.75			$175.58
15	303	138				$18.06	$26.06	5/	$20.10	$54.75			$236.97
16	469	209				$27.36	$40.33	5/	$20.10	$54.75			$306.31
	Concentric New LED Bulk Replacement Rate (Long-run)												
17	123	51	[redacted]			$6.68	$4.39	5/	$20.10	$54.75	[redacted]		$157.96
18	186	70				$9.16	$6.02	5/	$20.10	$54.75			$165.40
19	303	138				$18.06	$11.87	5/	$20.10	$54.75			$222.49
20	469	209				$27.36	$17.97	5/	$20.10	$54.75			$283.49
	IPL HPS Proposed Vintage Rate												
21	123												$ 109.08
22	186												$ 127.20
23	303												$ 159.96
24	469												$ 194.76

1/ Rates calculated from Mr. Sommer's inputs are $0.02-$0.07 less than Mr. Sommer's filed rates.
2/ Mr. Sommer omitted distribution system and A&G costs that were classified as customer-related.
3/ Mr. Sommer assumed that the City of Indianapolis would pay the cost of capital directly to municipal bondholders or other financiers.
4/ Mr. Sommer assumed no return to IPL in the municipally-financed/installed case.
5/ Fixture depreciation included in Fixture Dep., Prop. Tax, Ins.

Sources

Column	Sommer:	Gaske:
(C)	WP COI 1 (Revised)	IPL Estimates, City of Indianapolis DR 1-01-Question
(D)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
(E)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates, IPL Estimates
(F)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
(G)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
(H)	WP COI 1 (Revised)	IPL Estimate
(I)	WP COI 1 (Revised)	JSG Testimony (HPS O&M x 63%)
(J)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates
(L)	WP COI 1 (Revised)	JSG-Workpaper 1.0 (Revised) - New Lighting Rates

LED Replacement Rate Comparison Chart



Calculation of Installed Costs

Line Item	(A) HPS Wattage w/ Ballast	(B) LED Equivalent	(C) Installed Cost of Fixture	(D) Fixture and Photocell Material Costs	(E) Labor and Truck	(F) Direct costs	(G) Engineering Labor	(H) Labor Burdens (Payroll Tax & Benefits)	(I) Delivery Construction Clearing	(J) Capitalized A&G	(K) Stores Handling/ Material Burden
	Sommer IPL-Owned Fixtures Proposed Annual Rate										
1	123	51	$319.50	$195.00	$66.00	$261.00	-	-	-	-	$58.50
2	186	91	$365.00	$230.00	$66.00	$296.00	-	-	-	-	$69.00
3	303	150	$553.50	$375.00	$66.00	$441.00	-	-	-	-	$112.50
4	469	240	$800.50	$565.00	$66.00	$631.00	-	-	-	-	$169.50
	Sommer Municipally-Financed/Installed Fixtures Proposed Annual Rate										
5	123	51	$261.00	$195.00	$66.00	$261.00	-	-	-	-	-
6	186	91	$296.00	$230.00	$66.00	$296.00	-	-	-	-	-
7	303	150	$441.00	$375.00	$66.00	$441.00	-	-	-	-	-
8	469	240	$631.00	$565.00	$66.00	$631.00	-	-	-	-	-
	Concentric New LED Bulk Replacement Rate (Short-run)										
9	123	51	[redacted]				$36.10	$24.91	$10.83	$20.58	[redacted]
10	186	70					$36.10	$24.91	$10.83	$20.58	
11	303	138					$36.10	$24.91	$10.83	$20.58	
12	469	209					$36.10	$24.91	$10.83	$20.58	
	Concentric New LED Bulk Replacement Rate (Long-run)										
13	123	51	[redacted]				$36.10	$24.91	$10.83	$20.58	[redacted]
14	186	70					$36.10	$24.91	$10.83	$20.58	
15	303	138					$36.10	$24.91	$10.83	$20.58	
16	469	209					$36.10	$24.91	$10.83	$20.58	

Indianapolis Power and Light Company
Lighting Rate Design - New Lights

Weighted Average Cost of Capital (WACC)

Line No.	(A)		(B) Balance 6/30/2014	(C) % of Total	(D) Required Return	(E) Weighted Required Return
1	Long Term Debt	$	1,148,446	46.20%	5.67%	2.62%
2	Preferred Stock	$	59,784	2.41%	5.37%	0.13%
3	Common Equity	$	928,034	37.33%	10.93%	4.08%
4	Customer Deposits	$	26,688	1.07%	6.00%	0.06%
5	Deferred Income Taxes and	$	316,991	12.75%	0.00%	0.00%
6	Pre-1971 ITC	$	-	0.00%	0.00%	0.00%
7	Post-1970 ITC	$	5,945	0.24%	7.95%	0.02%
8	**Total WACC**	$	2,485,888	100.00%		**6.91%**

9 *Source:* IPL Financial Exhibit IPL-CC, Schedule CC3

10	Revenue Conversion Factor for Capital	1.43121

Indianapolis Power and Light Company
Lighting Rate Design - New Lights

Calculation of Annual Carrying Charge

Line No.	(A)	(B)	(C)	(D)
		APL	**MU (39-Year Life)**	**MU (25-Year LED Life)**
1	Depreciation [1]	3.23%	2.56%	4.00%
2	Property Tax [2]	2.56%	2.56%	2.56%
3	**TOTAL LEVELIZED FIXED CHARGE**	**5.79%**	**5.13%**	**6.56%**
4	Insurance	**$ 1.55**	**$ 1.55**	**$ 1.55**
5	Revenue Conversion Factor for Debt & Expense:	1.02048	1.02048	1.02048
6	Depreciation Period Assumed (Years)	31	39	25

[1] JJS Attachment 1

[2] Property Tax is estimate for year of 2015 (adj window).

IPL CLASS COST OF SERVICE STUDY
SUMMARY OF CLASS COSTS
TWELVE MONTHS ENDING JUNE 30, 2014 AS ADJUSTED

Petitioner's Witness JSG Attachment-6-R
IPL Witness JDT Attachment 3
Cause No. 44576/44602
IPL Basic Rates Case

Summary of Results

Line No.	Description	System Total	Residential	Small C&I	Large C&I	Lighting
	(A)	(B)	(C)	(D)	(E)	(F)
	Rate Base					
1	Plant in Service	$ 4,501,131,701	$ 2,102,016,022	$ 606,371,320	$ 1,665,870,358	$ 126,874,001
2	Accumulated Reserve	(2,827,661,271)	(1,343,617,784)	(376,577,101)	(988,264,483)	(119,201,903)
3	Other Rate Base Items	291,522,000	130,905,726	39,585,980	113,169,814	7,860,481
4	Total Rate Base	$ 1,964,992,430	$ 889,303,964	$ 269,380,198	$ 790,775,688	$ 15,532,579
	Revenues at Current Rates					
5	Retail Sales	$ 1,177,073,667	$ 465,528,940	$ 183,395,452	$ 511,458,261	$ 16,691,014
6	Other Revenue	20,161,991	12,679,588	2,150,577	4,727,016	604,810
7	Sales for Resale	6,324,121	2,672,653	854,722	2,782,058	14,688
8	Total Revenues	$ 1,203,559,779	$ 480,881,181	$ 186,400,751	$ 518,967,335	$ 17,310,512
	Expenses at Current Rates					
9	Operations & Maintenance Expenses	$ 392,360,177	$ 185,830,282	$ 52,793,717	$ 143,940,496	$ 9,795,683
10	Depreciation Expense	200,925,821	91,496,199	28,020,154	79,971,330	1,438,139
11	Amortization Expense	7,656,489	3,522,998	1,032,094	2,916,030	185,367
12	Taxes Other Than Income Taxes	44,979,501	20,927,911	6,113,409	16,865,168	1,073,013
13	Fuel Expenses	435,543,947	159,315,107	58,682,164	214,114,584	3,432,092
14	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	980,993	3,483,550	47,325
15	Income Taxes	16,236,000	(6,269,818)	11,181,107	11,029,647	295,064
16	Total Expenses - Current	$ 1,104,977,342	$ 457,586,217	$ 158,803,637	$ 472,320,805	$ 16,266,683
17	Current Operating Income	98,582,437	23,294,964	27,597,114	46,646,530	1,043,829
18	Return at Current Rates	5.02%	2.62%	10.24%	5.90%	6.72%
19	Index Rate of Return	1.00	0.52	2.04	1.18	1.34
	Revenue Requirement at Equal Rates of Return at Current Rates					
20	Required Return	5.02%	5.02%	5.02%	5.02%	5.02%
21	Required Operating Income	$ 98,582,437	$ 44,615,822	$ 13,514,636	$ 39,672,720	$ 779,260
	Expenses at Required Return					
22	Operations & Maintenance Expenses	$ 392,360,177	$ 185,830,282	$ 52,793,717	$ 143,940,496	$ 9,795,683
23	Depreciation Expense	200,925,821	91,496,199	28,020,154	79,971,330	1,438,139
24	Amortization Expense	7,656,489	3,522,998	1,032,094	2,916,030	185,367
25	Taxes Other than Income	44,979,501	20,927,911	6,113,409	16,865,168	1,073,013
26	Fuel Expenses	435,543,947	159,315,107	58,682,164	214,114,584	3,432,092
27	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	980,993	3,483,550	47,325
28	Income Taxes	16,236,000	7,347,987	2,225,788	6,533,885	128,340
29	Total Expense - Required	$ 1,104,977,342	$ 471,204,022	$ 149,848,318	$ 467,825,042	$ 16,099,959
30	Total Revenue Requirement at Equal Return	$ 1,203,559,779	$ 515,819,843	$ 163,362,954	$ 507,497,763	$ 16,879,219
31	Current Subsidy	$ -	$ (34,938,663)	$ 23,037,797	$ 11,469,573	$ 431,293
	Revenue Requirement at Equal Rates of Return at Proposed Rates					
32	Required Return	6.93%	6.93%	6.93%	6.93%	6.93%
33	Required Operating Income	$ 136,167,000	$ 61,625,608	$ 18,667,091	$ 54,797,948	$ 1,076,353
34	Operating Income (Deficiency)/Surplus	$ (37,584,563)	$ (38,330,644)	$ 8,930,022	$ (8,151,418)	$ (32,524)
	Expenses at Equal Rates of Return at Proposed Rates					
35	Operations & Maintenance Expenses	$ 392,682,177	$ 186,088,939	$ 52,823,404	$ 143,971,995	$ 9,797,840
36	Depreciation Expense	200,925,821	91,496,199	28,020,154	79,971,330	1,438,139
37	Amortization Expense	7,656,489	3,522,998	1,032,094	2,916,030	185,367
38	Taxes Other than Income	45,861,501	21,330,213	6,233,945	17,214,855	1,082,489
39	Fuel Expenses	435,543,947	159,315,107	58,682,164	214,114,584	3,432,092
40	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	980,993	3,483,550	47,325
41	Income Taxes	40,723,000	18,430,160	5,582,703	16,388,235	321,901
42	Total Expense - Required	$ 1,130,668,342	$ 482,947,154	$ 153,355,456	$ 478,060,578	$ 16,305,153

IPL CLASS COST OF SERVICE STUDY
SUMMARY OF CLASS COSTS
TWELVE MONTHS ENDING JUNE 30, 2014 AS ADJUSTED

Summary of Results

Line No.	Description	System Total	Residential	Small C&I	Large C&I	Lighting
	(A)	(B)	(C)	(D)	(E)	(F)
43a	Interruptible Power Credit	(0)	258,735	82,744	(342,901)	1,422
43	Total Revenue Requirement at Equal Return	$ 1,266,835,342	$ 544,572,762	$ 172,022,548	$ 532,858,526	$ 17,381,506
44	Revenue (Deficiency)/Surplus	$ (63,275,563)	$ (63,691,581)	$ 14,378,203	$ (13,891,191)	$ (70,994)
45	Total Revenues	1,203,559,779	480,881,181	186,400,751	518,967,335	17,310,512
46	Total Revenues as Proposed	$ 1,266,835,342	$ 544,572,762	$ 172,022,548	$ 532,858,526	$ 17,381,506
47	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 13,788,402	$ 1,994,811	$ 4,129,815	$ 582,985
48	Sales for Resale	6,324,121	2,672,653	854,722	2,782,058	14,688
49	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 528,111,708	$ 169,173,015	$ 525,946,653	$ 16,783,833
	Mitigation					
50	Mitigation	$ (0)	$ (27,950,930)	$ 18,426,738	$ 9,175,658	$ 348,534
51	Proposed Increase Post Mitigation	63,275,563	35,740,651	4,048,535	23,066,849	419,528
	Revenue Requirement at Proposed Mitigated Rates					
52	Revenue Defficiency/Surplus	$ 63,275,563	$ 35,740,651	$ 4,048,535	$ 23,066,849	$ 419,528
53	Total Revenues	1,203,559,779	480,881,181	186,400,751	518,967,335	17,310,512
54	Total Revenues as Proposed	$ 1,266,835,342	$ 516,621,832	$ 190,449,286	$ 542,034,184	$ 17,730,040
55	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 13,788,402	$ 1,994,811	$ 4,129,815	$ 582,985
56	Sales for Resale	6,324,121	2,672,653	854,722	2,782,058	14,688
57	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 500,160,778	$ 187,599,753	$ 535,122,311	$ 17,132,367
58	Total Margin in Base Rates	$ 109,346,867	$ 17,213,624	$ 34,244,297	$ 57,061,733	$ 827,213
59	Expenses (excl. Income Taxes)	$ 1,089,945,342	$ 464,516,994	$ 147,772,753	$ 461,672,343	$ 15,983,252
60	Interest Expense	71,820,000	32,503,846	9,845,781	28,902,661	567,712
61	Taxable Income	$ 105,070,000	$ 19,600,992	$ 32,830,752	$ 51,459,181	$ 1,179,075
62	Income Taxes	40,723,000	7,596,947	12,724,533	19,944,534	456,986
63	Operating Income as Proposed	$ 136,167,000	$ 44,507,891	$ 29,952,000	$ 60,417,307	$ 1,289,802
64	Return at Proposed Rates	6.93%	5.00%	11.12%	7.64%	8.30%
65	Index Rate of Return	1.00	0.72	1.60	1.10	1.20

Summary of Results

Line No.	Description	System Total	Residential	Small C&I	Large C&I	Lighting
	(A)	(B)	(C)	(D)	(E)	(F)
	Functional Revenue Requirement					
	Demand					
189	Production	$ 547,974,416	$ 231,839,569	$ 74,142,993	$ 240,717,746	$ 1,274,109
190	Transmission	$ 73,414,204	$ 31,025,760	$ 9,922,131	$ 32,295,806	$ 170,507
191	Distribution	$ 30,836,699	$ 14,683,190	$ 2,999,222	$ 12,923,123	$ 231,164
192	Distribution Primary	$ 37,844,109	$ 20,938,605	$ 4,270,775	$ 12,305,083	$ 329,646
193	Distribution Secondary	$ 13,561,642	$ 8,271,704	$ 1,671,958	$ 3,488,625	$ 129,356
194	Customer	$ -	$ -	$ -	$ -	$ -
195	Customer Service	$ -	$ -	$ -	$ -	$ -
196	Fuel Expenses	$ -	$ -	$ -	$ -	$ -
197	**Total**	$ 703,631,070	$ 306,758,827	$ 93,007,079	$ 301,730,382	$ 2,134,781
198	Zero-Check	-	-	-	-	-
	Customer					
199	Production	$ -	$ -	$ -	$ -	$ -
200	Transmission	$ -	$ -	$ -	$ -	$ -
201	Distribution	$ -	$ -	$ -	$ -	$ -
202	Distribution Primary	$ 21,843,451	$ 19,248,557	$ 2,338,931	$ 213,547	$ 42,417
203	Distribution Secondary	$ 5,527,712	$ 4,873,426	$ 591,985	$ 51,562	$ 10,739
204	Customer	$ 41,873,000	$ 20,167,950	$ 8,495,659	$ 1,613,224	$ 11,596,167
205	Customer Service	$ 37,382,676	$ 26,773,913	$ 6,155,569	$ 4,452,207	$ 987
206	Fuel Expenses	$ -	$ -	$ -	$ -	$ -
207	**Total**	$ 106,626,839	$ 71,063,846	$ 17,582,143	$ 6,330,540	$ 11,650,310
208	Zero-Check	-	-	-	-	-
	Energy					
209	Production	$ 21,033,486	$ 7,693,717	$ 2,833,906	$ 10,340,118	$ 165,744
217	**Total**	$ 21,033,486	$ 7,693,717	$ 2,833,906	$ 10,340,118	$ 165,744
218	Zero-Check	$ -	$ -	$ -	$ -	$ -
	Fuel					
219	Fuel Expenses	$ 435,543,947	$ 159,315,107	$ 58,682,164	$ 214,114,584	$ 3,432,092
220	**Total**	$ 435,543,947	$ 159,315,107	$ 58,682,164	$ 214,114,584	$ 3,432,092
221	Zero-Check	-	-	-	-	-
222	**Total**	1,266,835,342	544,831,497	172,105,292	532,515,625	17,382,928
	Total Revenue Requirement					
223	Demand	$ 703,631,070	$ 306,758,827	$ 93,007,079	$ 301,730,382	$ 2,134,781
224	Customer	$ 106,626,839	$ 71,063,846	$ 17,582,143	$ 6,330,540	$ 11,650,310
225	Energy	$ 21,033,486	$ 7,693,717	$ 2,833,906	$ 10,340,118	$ 165,744
226	Fuel	$ 435,543,947	$ 159,315,107	$ 58,682,164	$ 214,114,584	$ 3,432,092
227	**Total**	$ 1,266,835,342	$ 544,831,497	$ 172,105,292	$ 532,515,625	$ 17,382,928
228	Zero-Check	-	-	-	-	-

Summary of Results

Line No.	Description	System Total	Residential	Small C&I	Large C&I	Lighting
	(A)	(B)	(C)	(D)	(E)	(F)
	Billing Determinants					
229	Demand	15,773,534	0	0	15,773,534	0
230	Customer Bills (Count *12)	5,785,356	5,096,254	620,638	57,218	11,246
231	Energy	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
232	Fuel	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
	Unit Costs					
233	Demand		$ -	$ -	$ 19.13	$ -
234	Customer		$ 74.14	$ 178.19	$ 110.64	$ 1,225.78
235	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
236	Fuel		$ 0.0316	$ 0.0318	$ 0.0314	$ 0.0318
237	Demand Revenue		$ -	$ -	$ 301,730,382	$ -
238	Customer Revenue		377,822,673	110,589,223	6,330,540	13,785,091
239	Energy Revenue		7,693,717	2,833,906	10,340,118	165,744
240	Fuel Revenue		159,315,107	58,682,164	214,114,584	3,432,092
241	Total Revenue		544,831,497	172,105,292	532,515,625	17,382,928
242	Zero-Check		$ -	$ -	$ -	$ -

Adjusted Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

243	Ratio of Base Revenue to Total Revenue	96.77%	95.73%	97.49%	97.83%	95.72%
	Total Revenue Requirement					
244	Demand	$ 680,929,669	$ 293,651,823	$ 90,668,753	$ 295,187,444	$ 2,043,315
245	Customer	$ 103,186,714	$ 68,027,473	$ 17,140,104	$ 6,193,264	$ 11,151,144
246	Energy	$ 20,354,878	$ 7,364,985	$ 2,762,657	$ 10,115,896	$ 158,643
247	Fuel	$ 435,543,947	$ 159,315,107	$ 58,682,164	$ 214,114,584	$ 3,432,092
248	**Total**	$ 1,240,015,209	$ 528,359,388	$ 169,253,679	$ 525,611,187	$ 16,785,194
249	Zero-Check	-	247,680	80,664	(335,466)	1,361
	Billing Determinants					
250	Demand	15,773,534	0	0	15,773,534	0
251	Customer Bills (Count *12)	5,785,356	5,096,254	620,638	57,218	11,246
252	Energy	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
253	Fuel	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
	Unit Costs					
254	Demand		$ -	$ -	$ 18.71	$ -
255	Customer		$ 70.97	$ 173.71	$ 108.24	$ 1,173.26
256	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
257	Fuel		$ 0.0316	$ 0.0318	$ 0.0314	$ 0.0318
258	Demand Revenue		$ -	$ -	$ 295,187,444	$ -
259	Customer Revenue		361,679,296	107,808,857	6,193,264	13,194,459
260	Energy Revenue		7,364,985	2,762,657	10,115,896	158,643
261	Fuel Revenue		159,315,107	58,682,164	214,114,584	3,432,092
262	Total Revenue		528,359,388	169,253,679	525,611,187	16,785,194
263	Zero-Check		$ -	$ -	$ -	$ -
	Grid Facility					
264	Grid Facility - Revenue Requirement	$ 253,821,384	$ 139,745,627	$ 35,529,921	$ 65,882,858	$ 11,974,940
265	Grid Facility - Unit Costs	$ 43.87	$ 27.42	$ 57.25	$ 1,151.44	$ 1,064.82

Summary of Results

Line No.	Description	System Total	Residential	Small C&I	Large C&I	Lighting
	(A)	(B)	(C)	(D)	(E)	(F)
	Mitigated Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)					
266	Ratio of Base Revenue to Total Revenue	97.88%	96.81%	98.50%	98.72%	96.63%
267	Mitigated Amount	(0)	(27,950,930)	18,426,738	9,175,658	348,534
	Total Revenue Requirement					
268	Demand	$ 680,929,669	$ 270,958,122	$ 106,165,897	$ 304,174,545	$ 2,097,290
269	Customer	$ 103,186,714	$ 62,770,243	$ 20,069,698	$ 6,381,820	$ 11,445,703
270	Energy	$ 20,354,878	$ 7,364,985	$ 2,762,657	$ 10,115,896	$ 158,643
271	Fuel	$ 435,543,947	$ 159,315,107	$ 58,682,164	$ 214,114,584	$ 3,432,092
272	Total	$ 1,240,015,209	$ 500,408,458	$ 187,680,417	$ 534,786,846	$ 17,133,728
273	Zero-Check	-	247,680	80,664	(335,466)	1,361
	Billing Determinants					
274	Demand	15,773,534	0	0	15,773,534	0
275	Customer Bills (Count *12)	5,785,356	5,096,254	620,638	57,218	11,246
276	Energy	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
277	Fuel	13,818,053,682	5,047,840,289	1,847,949,801	6,814,212,393	108,051,199
	Unit Costs					
278	Demand		$ -	$ -	$ 19.28	$ -
279	Customer		$ 65.49	$ 203.40	$ 111.54	$ 1,204.25
280	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
281	Fuel		$ 0.0316	$ 0.0318	$ 0.0314	$ 0.0318
282	Demand Revenue		$ -	$ -	$ 304,174,545	$ -
283	Customer Revenue		333,728,366	126,235,596	6,381,820	13,542,993
284	Energy Revenue		7,364,985	2,762,657	10,115,896	158,643
285	Fuel Revenue		159,315,107	58,682,164	214,114,584	3,432,092
286	Total Revenue		500,408,458	187,680,417	534,786,846	17,133,728
287	Zero-Check		$ -	$ -	$ -	$ -
	Grid Facility					
288	Grid Facility - Revenue Requirement	$ 256,730,696	$ 141,331,663	$ 35,900,915	$ 66,484,434	$ 12,089,242
289	Grid Facility - Unit Costs	$ 44.38	$ 27.73	$ 57.85	$ 1,161.95	$ 1,074.98

IPL
CLASS COST OF SERVICE STUDY
TWELVE MONTHS ENDING JUNE 30, 2014 AS ADJUSTED

Line No.	Description	System Total	Residential RS	Secondary Small SS	Space Conditioning SH	Space Conditioning - Schools SE	Water Heating - Controlled CB	Water Heating - Uncontrolled UW	Secondary Large SL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Rate Base								
1	Plant in Service	$ 4,501,131,701	$ 2,102,016,022	$ 419,006,366	$ 180,541,766	$ 6,113,308	$ 269,087	$ 440,793	$ 926,937,888
2	Accumulated Reserve	(2,827,661,271)	(1,343,617,784)	(261,293,620)	(111,118,197)	(3,687,333)	(189,083)	(288,868)	(556,681,142)
3	Other Rate Base Items	291,522,000	130,905,726	27,706,422	11,443,868	387,191	18,004	30,494	62,908,978
4	Total Rate Base	$ 1,964,992,430	$ 889,303,964	$ 185,419,168	$ 80,867,438	$ 2,813,166	$ 98,008	$ 182,419	$ 433,165,724
	Revenues at Current Rates								
5	Retail Sales	$ 1,177,073,667	$ 465,528,940	$ 136,470,561	$ 45,159,028	$ 1,607,407	$ 43,906	$ 114,549	$ 289,397,201
6	Other Revenue	20,161,991	12,679,588	1,640,032	492,373	15,275	1,098	1,799	2,701,878
7	Sales for Resale	6,324,121	2,672,653	570,967	273,060	10,016	194	485	1,531,173
8	Total Revenues	$ 1,203,559,779	$ 480,881,181	$ 138,681,560	$ 45,924,461	$ 1,632,698	$ 45,199	$ 116,834	$ 293,630,252
	Expenses at Current Rates								
9	Operations & Maintenance Expenses	$ 392,360,177	$ 185,830,282	$ 37,190,090	$ 15,026,384	$ 511,850	$ 25,228	$ 40,164	$ 81,321,786
10	Depreciation Expense	200,925,821	91,496,199	19,389,694	8,309,850	290,232	10,978	19,400	44,487,032
11	Amortization Expense	7,656,489	3,522,998	709,671	310,612	10,662	424	725	1,619,710
12	Taxes Other Than Income Taxes	44,979,501	20,927,911	4,261,293	1,784,242	60,688	2,711	4,475	9,405,079
13	Fuel Expenses	435,543,947	159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
14	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	662,283	306,950	10,741	295	725	1,853,875
15	Income Taxes	16,236,000	(6,269,818)	11,587,633	(405,542)	6,509	(6,672)	(821)	10,138,407
16	Total Expenses - Current	$ 1,104,977,342	$ 457,586,217	$ 113,555,283	$ 43,566,715	$ 1,518,274	$ 52,033	$ 111,333	$ 261,627,071
17	Current Operating Income	98,582,437	23,294,964	25,126,277	2,357,746	114,424	(6,834)	5,501	32,003,181
18	Return at Current Rates	5.02%	2.62%	13.55%	2.92%	4.07%	-6.97%	3.02%	7.39%
19	Index Rate of Return	1.00	0.52	2.70	0.58	0.81	(1.39)	0.60	1.47
	Revenue Requirement at Equal Rates of Return at Current Rates								
20	Required Return	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%
21	Required Operating Income	$ 98,582,437	$ 44,615,822	$ 9,302,363	$ 4,057,069	$ 141,135	$ 4,917	$ 9,152	$ 21,731,653
	Expenses at Required Return								
22	Operations & Maintenance Expenses	$ 392,360,177	$ 185,830,282	$ 37,190,090	$ 15,026,384	$ 511,850	$ 25,228	$ 40,164	$ 81,321,786
23	Depreciation Expense	200,925,821	91,496,199	19,389,694	8,309,850	290,232	10,978	19,400	44,487,032
24	Amortization Expense	7,656,489	3,522,998	709,671	310,612	10,662	424	725	1,619,710
25	Taxes Other than Income	44,979,501	20,927,911	4,261,293	1,784,242	60,688	2,711	4,475	9,405,079
26	Fuel Expenses	435,543,947	159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
27	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	662,283	306,950	10,741	295	725	1,853,875
28	Income Taxes	16,236,000	7,347,987	1,532,049	668,177	23,244	810	1,507	3,579,087
29	Total Expense - Required	$ 1,104,977,342	$ 471,204,022	$ 103,499,700	$ 44,640,434	$ 1,535,009	$ 59,514	$ 113,661	$ 255,067,752
30	Total Revenue Requirement at Equal Return	$ 1,203,559,779	$ 515,819,843	$ 112,802,063	$ 48,697,503	$ 1,676,144	$ 64,431	$ 122,813	$ 276,799,404
31	Current Subsidy	$ -	$ (34,938,663)	$ 25,879,497	$ (2,773,042)	$ (43,446)	$ (19,233)	$ (5,979)	$ 16,830,848
	Revenue Requirement at Equal Rates of Return at Proposed Rates								
32	Required Return	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%
33	Required Operating Income	$ 136,167,000	$ 61,625,608	$ 12,848,890	$ 5,603,826	$ 194,942	$ 6,792	$ 12,641	$ 30,016,847
34	Operating Income (Deficiency)/Surplus	$ (37,584,563)	$ (38,330,644)	$ 12,277,387	$ (3,246,080)	$ (80,518)	$ (13,626)	$ (7,140)	$ 1,986,334
	Expenses at Equal Rates of Return at Proposed Rates								
35	Operations & Maintenance Expenses	$ 392,682,177	$ 186,088,939	$ 37,214,998	$ 15,030,966	$ 511,964	$ 25,269	$ 40,206	$ 81,340,680
36	Depreciation Expense	200,925,821	91,496,199	19,389,694	8,309,850	290,232	10,978	19,400	44,487,032
37	Amortization Expense	7,656,489	3,522,998	709,671	310,612	10,662	424	725	1,619,710
38	Taxes Other than Income	45,861,501	21,330,213	4,344,580	1,820,118	61,932	2,757	4,559	9,597,555
39	Fuel Expenses	435,543,947	159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
40	Non-FAC Trackable Fuel Expenses	7,275,406	2,763,538	662,283	306,950	10,741	295	725	1,853,875
41	Income Taxes	40,723,000	18,430,160	3,842,674	1,675,917	58,301	2,031	3,780	8,977,036
42	Total Expense - Required	$ 1,130,668,342	$ 482,947,154	$ 105,918,520	$ 45,688,632	$ 1,571,423	$ 60,822	$ 116,060	$ 260,677,070

Line No.	Description	System Total	Primary	Process Heating	HLF - Primary	HLF - Sub-Tran	HLF -Tran	Protective Lighting	Municipal Lighting
	(A)	(B)	PL (J)	PH (K)	HL1 (L)	HL2 (M)	HL3 (N)	APL (O)	MU1 (P)
	Rate Base								
1	Plant in Service	$ 4,501,131,701	$ 310,603,326	$ 21,886,277	$ 296,114,979	$ 47,053,615	$ 63,274,274	$ 50,424,850	$ 76,449,151
2	Accumulated Reserve	(2,827,661,271)	(182,922,459)	(13,278,362)	(174,052,349)	(26,198,406)	(35,131,764)	(46,125,527)	(73,076,376)
3	Other Rate Base Items	291,522,000	20,595,522	1,366,172	20,229,867	3,347,209	4,722,065	4,510,195	3,350,286
4	Total Rate Base	$ 1,964,992,430	$ 148,276,389	$ 9,974,086	$ 142,292,497	$ 24,202,418	$ 32,864,575	$ 8,809,518	$ 6,723,061
	Revenues at Current Rates								
5	Retail Sales	$ 1,177,073,667	$ 90,079,633	$ 5,468,221	$ 89,838,298	$ 14,968,962	$ 21,705,945	$ 5,943,269	$ 10,747,745
6	Other Revenue	20,161,991	837,150	59,271	844,735	124,472	159,511	235,605	369,205
7	Sales for Resale	6,324,121	520,325	34,076	487,193	84,752	124,538	5,569	9,119
8	Total Revenues	$ 1,203,559,779	$ 91,437,109	$ 5,561,568	$ 91,170,227	$ 15,178,186	$ 21,989,993	$ 6,184,442	$ 11,126,070
	Expenses at Current Rates								
9	Operations & Maintenance Expenses	$ 392,360,177	$ 26,141,329	$ 1,789,436	$ 24,793,225	$ 4,118,576	$ 5,776,144	$ 5,536,805	$ 4,258,878
10	Depreciation Expense	200,925,821	14,820,237	1,002,243	13,969,400	2,351,850	3,340,568	870,595	567,543
11	Amortization Expense	7,656,489	543,850	37,830	516,780	83,528	114,332	74,178	111,189
12	Taxes Other Than Income Taxes	44,979,501	3,118,492	215,807	2,974,298	488,711	662,781	555,546	517,467
13	Fuel Expenses	435,543,947	38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
14	Non-FAC Trackable Fuel Expenses	7,275,406	637,134	37,143	668,916	114,113	172,369	20,002	27,323
15	Income Taxes	16,236,000	693,493	(28,469)	310,759	(12,821)	(71,722)	(1,035,655)	1,330,718
16	Total Expenses - Current	$ 1,104,977,342	$ 84,855,368	$ 5,237,040	$ 85,412,762	$ 14,302,384	$ 20,886,179	$ 7,486,526	$ 8,780,157
17	Current Operating Income	98,582,437	6,581,741	324,528	5,757,465	875,801	1,103,815	(1,302,084)	2,345,913
18	Return at Current Rates	5.02%	4.44%	3.25%	4.05%	3.62%	3.36%	-14.78%	34.89%
19	Index Rate of Return	1.00	0.88	0.65	0.81	0.72	0.67	(2.95)	6.96
	Revenue Requirement at Equal Rates of Return at Current Rates								
20	Required Return	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%	5.02%
21	Required Operating Income	$ 98,582,437	$ 7,438,933	$ 500,394	$ 7,138,725	$ 1,214,220	$ 1,648,795	$ 441,968	$ 337,292
	Expenses at Required Return								
22	Operations & Maintenance Expenses	$ 392,360,177	$ 26,141,329	$ 1,789,436	$ 24,793,225	$ 4,118,576	$ 5,776,144	$ 5,536,805	$ 4,258,878
23	Depreciation Expense	200,925,821	14,820,237	1,002,243	13,969,400	2,351,850	3,340,568	870,595	567,543
24	Amortization Expense	7,656,489	543,850	37,830	516,780	83,528	114,332	74,178	111,189
25	Taxes Other than Income	44,979,501	3,118,492	215,807	2,974,298	488,711	662,781	555,546	517,467
26	Fuel Expenses	435,543,947	38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
27	Non-FAC Trackable Fuel Expenses	7,275,406	637,134	37,143	668,916	114,113	172,369	20,002	27,323
28	Income Taxes	16,236,000	1,225,153	82,412	1,175,710	199,976	271,548	72,790	55,550
29	Total Expense - Required	$ 1,104,977,342	$ 85,387,027	$ 5,347,921	$ 86,277,713	$ 14,515,181	$ 21,229,448	$ 8,594,971	$ 7,504,988
30	Total Revenue Requirement at Equal Return	$ 1,203,559,779	$ 92,825,961	$ 5,848,315	$ 93,416,438	$ 15,729,402	$ 22,878,243	$ 9,036,939	$ 7,842,280
31	Current Subsidy	$ -	$ (1,388,852)	$ (286,747)	$ (2,246,211)	$ (551,216)	$ (888,250)	$ (2,852,497)	$ 3,283,789
	Revenue Requirement at Equal Rates of Return at Proposed Rates								
32	Required Return	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%	6.93%
33	Required Operating Income	$ 136,167,000	$ 10,275,027	$ 691,169	$ 9,860,365	$ 1,677,142	$ 2,277,398	$ 610,468	$ 465,884
34	Operating Income (Deficiency)/Surplus	$ (37,584,563)	$ (3,693,287)	$ (366,641)	$ (4,102,900)	$ (801,340)	$ (1,173,584)	$ (1,912,552)	$ 1,880,029
	Expenses at Equal Rates of Return at Proposed Rates								
35	Operations & Maintenance Expenses	$ 392,682,177	$ 26,146,667	$ 1,789,828	$ 24,798,233	$ 4,119,372	$ 5,777,214	$ 5,537,678	$ 4,260,162
36	Depreciation Expense	200,925,821	14,820,237	1,002,243	13,969,400	2,351,850	3,340,568	870,595	567,543
37	Amortization Expense	7,656,489	543,850	37,830	516,780	83,528	114,332	74,178	111,189
38	Taxes Other than Income	45,861,501	3,183,743	220,208	3,036,806	499,306	677,237	560,913	521,576
39	Fuel Expenses	435,543,947	38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
40	Non-FAC Trackable Fuel Expenses	7,275,406	637,134	37,143	668,916	114,113	172,369	20,002	27,323
41	Income Taxes	40,723,000	3,072,917	206,705	2,948,906	501,577	681,094	182,571	139,330
42	Total Expense - Required	$ 1,130,668,342	$ 87,305,381	$ 5,477,007	$ 88,118,425	$ 14,828,175	$ 21,654,519	$ 8,710,992	$ 7,594,161

IPL
CLASS COST OF SERVICE STUDY
TWELVE MONTHS ENDING JUNE 30, 2014 AS ADJUSTED

Line No.	Description	System Total	Residential RS	Secondary Small SS	Space Conditioning SH	Space Conditioning - Schools SE	Water Heating - Controlled CB	Water Heating - Uncontrolled UW	Secondary Large SL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
43a	Interruptble Power Credit	(0)	258,735	55,274	26,434	970	19	47	148,230
43	Total Revenue Requirement at Equal Return	$ 1,266,835,342	$ 544,831,497	$ 118,822,684	$ 51,318,892	$ 1,767,335	$ 67,633	$ 128,748	$ 290,842,148
44	Revenue (Deficiency)/Surplus	$ (63,275,563)	$ (63,950,316)	$ 19,858,876	$ (5,394,432)	$ (134,637)	$ (22,434)	$ (11,914)	$ 2,788,105
45	Total Revenues	1,203,559,779	480,881,181	138,681,560	45,924,461	1,632,698	45,199	116,834	293,630,252
46	Total Revenues as Proposed	$ 1,266,835,342	$ 544,831,497	$ 118,822,684	$ 51,318,892	$ 1,767,335	$ 67,633	$ 128,748	$ 290,842,148
47	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 13,788,402	$ 1,532,082	$ 446,298	$ 13,517	$ 1,147	$ 1,767	$ 2,364,214
48	Sales for Resale	6,324,121	2,672,653	·570,967	273,060	10,016	194	485	1,531,173
49	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 528,370,443	$ 116,719,636	$ 50,599,535	$ 1,743,802	$ 66,291	$ 126,495	$ 286,946,760
	Mitigation								
50	Mitigation	$ (0)	$ (27,950,930)	$ 20,703,598	$ (2,218,434)	$ (34,757)	$ (18,886)	$ (4,783)	$ 13,464,679
51	Proposed Increase Post Mitigation	63,275,563	35,999,386	844,722	3,175,998	99,881	3,549	7,131	10,676,574
	Revenue Requirement at Proposed Mitigated Rates								
52	Revenue Defficiency/Surplus	$ 63,275,563	$ 35,999,386	$ 844,722	$ 3,175,998	$ 99,881	$ 3,549	$ 7,131	$ 10,676,574
53	Total Revenues	1,203,559,779	480,881,181	138,681,560	45,924,461	1,632,698	45,199	116,834	293,630,252
54	Total Revenues as Proposed	$ 1,266,835,342	$ 516,880,567	$ 139,526,282	$ 49,100,459	$ 1,732,579	$ 48,747	$ 123,964	$ 304,306,826
55	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 13,788,402	$ 1,532,082	$ 446,298	$ 13,517	$ 1,147	$ 1,767	$ 2,364,214
56	Sales for Resale	6,324,121	2,672,653	570,967	273,060	10,016	194	485	1,531,173
57	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 500,419,513	$ 137,423,233	$ 48,381,101	$ 1,709,045	$ 47,406	$ 121,712	$ 300,411,438
58	Total Margin in Base Rates	$ 109,346,867	$ 17,472,359	$ 31,504,714	$ 2,692,470	$ 137,622	$ (13,417)	$ 5,652	$ 39,734,368
59	Expenses (excl. Income Taxes)	$ 1,089,945,342	$ 464,516,994	$ 102,075,846	$ 44,012,714	$ 1,513,123	$ 58,791	$ 112,279	$ 251,700,034
60	Interest Expense	71,820,000	32,503,846	6,777,026	2,955,685	102,821	3,582	6,667	15,832,103
61	Taxable Income	$ 105,070,000	$ 19,859,727	$ 30,673,410	$ 2,132,059	$ 116,635	$ (13,626)	$ 5,018	$ 36,774,689
62	Income Taxes	40,723,000	7,697,227	11,888,391	826,343	45,206	(5,281)	1,945	14,253,123
63	Operating Income as Proposed	$ 136,167,000	$ 44,666,346	$ 25,562,045	$ 4,261,402	$ 174,250	$ (4,763)	$ 9,740	$ 38,353,669
64	Return at Proposed Rates	6.93%	5.02%	13.79%	5.27%	6.19%	-4.86%	5.34%	8.85%
65	Index Rate of Return	1.00	0.72	1.99	0.76	0.89	(0.70)	0.77	1.28

Line No.	Description	System Total	Primary	Process Heating	HLF - Primary	HLF - Sub-Tran	HLF -Tran	Protective Lighting	Municipal Lighting
	(A)	(B)	PL (J)	PH (K)	HL1 (L)	HL2 (M)	HL3 (N)	APL (O)	MU1 (P)
43a	Interruptible Power Credit	(0)	50,372	3,299	47,164	8,205	(600,171)	539	883
43	Total Revenue Requirement at Equal Return	$ 1,266,835,342	$ 97,630,781	$ 6,171,475	$ 98,025,954	$ 16,513,521	$ 23,331,746	$ 9,322,000	$ 8,060,928
44	Revenue (Deficiency)/Surplus	$ (63,275,563)	$ (6,193,672)	$ (609,907)	$ (6,855,727)	$ (1,335,336)	$ (1,341,753)	$ (3,137,557)	$ 3,065,141
45	Total Revenues	1,203,559,779	91,437,109	5,561,568	91,170,227	15,178,186	21,989,993	6,184,442	11,126,070
46	Total Revenues as Proposed	$ 1,266,835,342	$ 97,630,781	$ 6,171,475	$ 98,025,954	$ 16,513,521	$ 23,331,746	$ 9,322,000	$ 8,060,928
47	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 732,314	$ 52,711	$ 739,720	$ 107,007	$ 133,848	$ 227,833	$ 355,151
48	Sales for Resale	6,324,121	520,325	34,076	487,193	84,752	124,538	5,569	9,119
49	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 96,378,142	$ 6,084,688	$ 96,799,041	$ 16,321,762	$ 23,073,360	$ 9,088,598	$ 7,696,657
	Mitigation								
50	Mitigation	$ (0)	$ (1,111,082)	$ (229,397)	$ (1,796,969)	$ (440,973)	$ (710,600)	$ (2,702,554)	$ 3,051,088
51	Proposed Increase Post Mitigation	63,275,563	5,082,590	380,509	5,058,758	894,363	631,153	435,003	(14,054)
	Revenue Requirement at Proposed Mitigated Rates								
52	Revenue Defficiency/Surplus	$ 63,275,563	$ 5,082,590	$ 380,509	$ 5,058,758	$ 894,363	$ 631,153	$ 435,003	$ (14,054)
53	Total Revenues	1,203,559,779	91,437,109	5,561,568	91,170,227	15,178,186	21,989,993	6,184,442	11,126,070
54	Total Revenues as Proposed	$ 1,266,835,342	$ 96,519,699	$ 5,942,077	$ 96,228,985	$ 16,072,548	$ 22,621,146	$ 6,619,446	$ 11,112,016
55	Less Total Other Revenues Including Migrations	$ 20,496,012	$ 732,314	$ 52,711	$ 739,720	$ 107,007	$ 133,848	$ 227,833	$ 355,151
56	Sales for Resale	6,324,121	520,325	34,076	487,193	84,752	124,538	5,569	9,119
57	Total Base Rate Revenues as Proposed	$ 1,240,015,209	$ 95,267,060	$ 5,855,291	$ 95,002,072	$ 15,880,789	$ 22,362,760	$ 6,386,044	$ 10,747,745
58	Total Margin in Base Rates	$ 109,346,867	$ 7,961,678	$ 378,283	$ 6,883,647	$ 1,052,614	$ 708,241	$ (2,324,948)	$ 3,153,584
59	Expenses (excl. Income Taxes)	$ 1,089,945,342	$ 84,232,464	$ 5,270,302	$ 85,169,519	$ 14,326,598	$ 20,973,425	$ 8,528,421	$ 7,454,831
60	Interest Expense	71,820,000	5,419,466	364,550	5,200,756	884,593	1,201,192	321,986	245,726
61	Taxable Income	$ 105,070,000	$ 6,867,769	$ 307,225	$ 5,858,710	$ 861,358	$ 446,529	$ (2,230,962)	$ 3,411,459
62	Income Taxes	40,723,000	2,661,808	119,074	2,270,717	333,845	173,065	(864,675)	1,322,212
63	Operating Income as Proposed	$ 136,167,000	$ 9,625,427	$ 552,701	$ 8,788,749	$ 1,412,106	$ 1,474,655	$ (1,044,300)	$ 2,334,973
64	Return at Proposed Rates	6.93%	6.49%	5.54%	6.18%	5.83%	4.49%	-11.85%	34.73%
65	Index Rate of Return	1.00	0.94	0.80	0.89	0.84	0.65	(1.71)	5.01

Line No.	Description	System Total	Residential RS	Secondary Small SS	Space Conditioning SH	Space Conditioning - Schools SE	Water Heating - Controlled CB	Water Heating - Uncontrolled UW	Secondary Large SL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Functional Revenue Requirement								
	Demand								
189	Production	$ 547,974,416	$ 231,839,569	$ 49,528,572	$ 23,686,606	$ 868,854	$ 16,856	$ 42,105	$ 132,821,828
190	Transmission	$ 73,414,204	$ 31,025,760	$ 6,628,125	$ 3,169,843	$ 116,274	$ 2,256	$ 5,635	$ 17,774,783
191	Distribution	$ 30,836,699	$ 14,683,190	$ 1,707,726	$ 1,252,388	$ 37,155	$ 498	$ 1,456	$ 5,176,446
192	Distribution Primary	$ 37,844,109	$ 20,938,605	$ 2,429,069	$ 1,785,938	$ 52,983	$ 709	$ 2,076	$ 7,322,124
193	Distribution Secondary	$ 13,561,642	$ 8,271,704	$ 945,979	$ 703,996	$ 20,885	$ 280	$ 818	$ 3,476,486
194	Customer	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Customer Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
196	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	**Total**	$ 703,631,070	$ 306,758,827	$ 61,239,470	$ 30,598,771	$ 1,096,151	$ 20,598	$ 52,090	$ 166,571,668
198	Zero-Check	-	-	-	-	-	-	-	-
	Customer								
199	Production	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
201	Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Distribution Primary	$ 21,843,451	$ 19,248,557	$ 2,144,099	$ 185,093	$ 1,256	$ 4,326	$ 4,156	$ 204,333
203	Distribution Secondary	$ 5,527,712	$ 4,873,426	$ 542,657	$ 46,863	$ 318	$ 1,095	$ 1,052	$ 51,379
204	Customer	$ 41,873,000	$ 20,167,950	$ 7,579,177	$ 886,247	$ 8,405	$ 10,239	$ 11,592	$ 1,513,103
205	Customer Service	$ 37,382,676	$ 26,773,913	$ 5,642,813	$ 487,126	$ 3,305	$ 11,386	$ 10,939	$ 4,253,038
206	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	**Total**	$ 106,626,839	$ 71,063,846	$ 15,908,746	$ 1,605,328	$ 13,284	$ 27,046	$ 27,739	$ 6,021,852
208	Zero-Check	-	-	-	-	-	-	-	-
	Energy								
209	Production	$ 21,033,486	$ 7,693,717	$ 1,919,848	$ 880,575	$ 30,308	$ 921	$ 2,254	$ 5,447,446
210	Transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
212	Distribution Primary	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Distribution Secondary	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Customer	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Customer Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
216	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
217	**Total**	$ 21,033,486	$ 7,693,717	$ 1,919,848	$ 880,575	$ 30,308	$ 921	$ 2,254	$ 5,447,446
218	Zero-Check	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Fuel								
219	Fuel Expenses	$ 435,543,947	$ 159,315,107	$ 39,754,620	$ 18,234,219	$ 627,592	$ 19,068	$ 46,665	$ 112,801,182
220	**Total**	$ 435,543,947	$ 159,315,107	$ 39,754,620	$ 18,234,219	$ 627,592	$ 19,068	$ 46,665	$ 112,801,182
221	Zero-Check	-	-	-	-	-	-	-	-
222	**Total**	1,266,835,342	544,831,497	118,822,684	51,318,892	1,767,335	67,633	128,748	290,842,148
	Total Revenue Requirement								
223	Demand	$ 703,631,070	$ 306,758,827	$ 61,239,470	$ 30,598,771	$ 1,096,151	$ 20,598	$ 52,090	$ 166,571,668
224	Customer	$ 106,626,839	$ 71,063,846	$ 15,908,746	$ 1,605,328	$ 13,284	$ 27,046	$ 27,739	$ 6,021,852
225	Energy	$ 21,033,486	$ 7,693,717	$ 1,919,848	$ 880,575	$ 30,308	$ 921	$ 2,254	$ 5,447,446
226	Fuel	$ 435,543,947	$ 159,315,107	$ 39,754,620	$ 18,234,219	$ 627,592	$ 19,068	$ 46,665	$ 112,801,182
227	**Total**	$ 1,266,835,342	$ 544,831,497	$ 118,822,684	$ 51,318,892	$ 1,767,335	$ 67,633	$ 128,748	$ 290,842,148
228	Zero-Check	-	-	-	-	-	-	-	-

Line No.	Description	System Total	Primary	Process Heating	HLF - Primary	HLF - Sub-Tran	HLF -Tran	Protective Lighting	Municipal Lighting
	(A)	(B)	PL (J)	PH (K)	HL1 (L)	HL2 (M)	HL3 (N)	APL (O)	MU1 (P)
Functional Revenue Requirement									
	Demand								
189	Production	$ 547,974,416	$ 45,135,677	$ 2,955,943	$ 42,261,654	$ 7,351,831	$ 10,190,813	$ 483,044	$ 791,065
190	Transmission	$ 73,414,204	$ 6,040,249	$ 395,577	$ 5,655,635	$ 983,853	$ 1,445,709	$ 64,643	$ 105,864
191	Distribution	$ 30,836,699	$ 2,984,767	$ 212,825	$ 3,612,811	$ 665,229	$ 271,045	$ 104,252	$ 126,912
192	Distribution Primary	$ 37,844,109	$ 2,485,484	$ 262,074	$ 2,235,401	$ -	$ -	$ 148,666	$ 180,980
193	Distribution Secondary	$ 13,561,642	$ -	$ 12,139	$ -	$ -	$ -	$ 58,338	$ 71,018
194	Customer	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
195	Customer Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
196	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
197	**Total**	$ 703,631,070	$ 56,646,177	$ 3,838,558	$ 53,765,500	$ 9,000,913	$ 11,907,567	$ 858,943	$ 1,275,838
198	Zero-Check	-	-	-	-	-	-	-	-
	Customer								
199	Production	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
200	Transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
201	Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
202	Distribution Primary	$ 21,843,451	$ 6,559	$ 1,445	$ 1,211	$ -	$ -	$ -	$ 42,417
203	Distribution Secondary	$ 5,527,712	$ -	$ 183	$ -	$ -	$ -	$ -	$ 10,739
204	Customer	$ 41,873,000	$ 62,073	$ 12,747	$ 17,713	$ 3,928	$ 3,661	$ 6,927,250	$ 4,668,916
205	Customer Service	$ 37,382,676	$ 136,521	$ 30,068	$ 25,200	$ 4,553	$ 2,826	$ -	$ 987
206	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
207	**Total**	$ 106,626,839	$ 205,154	$ 44,442	$ 44,124	$ 8,481	$ 6,487	$ 6,927,250	$ 4,723,060
208	Zero-Check	-	-	-	-	-	-	-	-
	Energy								
209	Production	$ 21,033,486	$ 1,878,617	$ 105,425	$ 2,036,946	$ 345,698	$ 525,987	$ 70,751	$ 94,993
210	Transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
211	Distribution	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
212	Distribution Primary	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
213	Distribution Secondary	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
214	Customer	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
215	Customer Service	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
216	Fuel Expenses	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
217	**Total**	$ 21,033,486	$ 1,878,617	$ 105,425	$ 2,036,946	$ 345,698	$ 525,987	$ 70,751	$ 94,993
218	Zero-Check	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Fuel								
219	Fuel Expenses	$ 435,543,947	$ 38,900,834	$ 2,183,050	$ 42,179,384	$ 7,158,429	$ 10,891,705	$ 1,465,055	$ 1,967,038
220	**Total**	$ 435,543,947	$ 38,900,834	$ 2,183,050	$ 42,179,384	$ 7,158,429	$ 10,891,705	$ 1,465,055	$ 1,967,038
221	Zero-Check	-	-	-	-	-	-	-	-
222	**Total**	1,266,835,342	97,630,781	6,171,475	98,025,954	16,513,521	23,331,746	9,322,000	8,060,928
	Total Revenue Requirement								
223	Demand	$ 703,631,070	$ 56,646,177	$ 3,838,558	$ 53,765,500	$ 9,000,913	$ 11,907,567	$ 858,943	$ 1,275,838
224	Customer	$ 106,626,839	$ 205,154	$ 44,442	$ 44,124	$ 8,481	$ 6,487	$ 6,927,250	$ 4,723,060
225	Energy	$ 21,033,486	$ 1,878,617	$ 105,425	$ 2,036,946	$ 345,698	$ 525,987	$ 70,751	$ 94,993
226	Fuel	$ 435,543,947	$ 38,900,834	$ 2,183,050	$ 42,179,384	$ 7,158,429	$ 10,891,705	$ 1,465,055	$ 1,967,038
227	**Total**	$ 1,266,835,342	$ 97,630,781	$ 6,171,475	$ 98,025,954	$ 16,513,521	$ 23,331,746	$ 9,322,000	$ 8,060,928
228	Zero-Check	-	-	-	-	-	-	-	-

Line No.	Description	System Total	Residential RS	Secondary Small SS	Space Conditioning SH	Space Conditioning - Schools SE	Water Heating - Controlled CB	Water Heating - Uncontrolled UW	Secondary Large SL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Billing Determinants								
229	Demand	15,773,534	0	0	0	0	0	0	9,301,139
230	Customer Bills (Count *12)	5,785,356	5,096,254	569,100	48,948	334	1,152	1,104	54,683
231	Energy	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
232	Fuel	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
	Unit Costs								
233	Demand		$ -	$ -	$ -	$ -	$ -	$ -	$ 17.91
234	Customer		$ 74.14	$ 135.56	$ 657.92	$ 3,321.66	$ 41.36	$ 72.31	$ 110.12
235	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
236	Fuel		$ 0.0316	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0319
237	Demand Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ 166,571,668
238	Customer Revenue		377,822,673	77,148,216	32,204,099	1,109,435	47,644	79,829	6,021,852
239	Energy Revenue		7,693,717	1,919,848	880,575	30,308	921	2,254	5,447,446
240	Fuel Revenue		159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
241	Total Revenue		544,831,497	118,822,684	51,318,892	1,767,335	67,633	128,748	290,842,148
242	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -

Adjusted Revenue Requirement (Excluding Other Revenue and Sal for Resale Revenues)

Line No.	Description	System Total	RS	SS	SH	SE	CB	UW	SL
243	Ratio of Base Revenue to Total Revenue	96.77%	95.73%	97.34%	97.83%	97.94%	97.24%	97.26%	97.81%
	Total Revenue Requirement								
244	Demand	$ 681,563,109	$ 293,660,619	$ 59,610,625	$ 29,933,464	$ 1,073,517	$ 20,029	$ 50,661	$ 162,927,218
245	Customer	$ 102,506,192	$ 68,029,511	$ 15,485,606	$ 1,570,424	$ 13,010	$ 26,299	$ 26,978	$ 5,890,099
246	Energy	$ 20,401,960	$ 7,365,205	$ 1,868,784	$ 861,429	$ 29,682	$ 895	$ 2,192	$ 5,328,260
247	Fuel	$ 435,543,947	$ 159,315,107	$ 39,754,620	$ 18,234,219	$ 627,592	$ 19,068	$ 46,665	$ 112,801,182
248	**Total**	$ 1,240,015,209	$ 528,370,443	$ 116,719,636	$ 50,599,535	$ 1,743,802	$ 66,291	$ 126,495	$ 286,946,760
249	Zero-Check	-	-	-	-	-	-	-	-
	Billing Determinants								
250	Demand	15,773,534	0	0	0	0	0	0	9,301,139
251	Customer Bills (Count *12)	5,785,356	5,096,254	569,100	48,948	334	1,152	1,104	54,683
252	Energy	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
253	Fuel	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
	Unit Costs								
254	Demand		$ -	$ -	$ -	$ -	$ -	$ -	$ 17.52
255	Customer		$ 70.97	$ 131.96	$ 643.62	$ 3,253.08	$ 40.21	$ 70.33	$ 107.71
256	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
257	Fuel		$ 0.0316	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0319
258	Demand Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ 162,927,218
259	Customer Revenue		361,690,130	75,096,231	31,503,887	1,086,528	46,328	77,639	5,890,099
260	Energy Revenue		7,365,205	1,868,784	861,429	29,682	895	2,192	5,328,260
261	Fuel Revenue		159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
262	Total Revenue		528,370,443	116,719,636	50,599,535	1,743,802	66,291	126,495	286,946,760
263	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Grid Facility								
264	Grid Facility - Revenue Requirement	$ 253,821,384	$ 139,749,813	$ 26,885,018	$ 8,332,297	$ 235,614	$ 29,938	$ 36,689	$ 38,901,521
265	Grid Facility - Unit Costs	$ 43.87	$ 27.42	$ 47.24	$ 170.23	$ 705.43	$ 25.99	$ 33.23	$ 711.40

Line No.	Description	System Total	Primary	Process Heating	HLF - Primary	HLF - Sub-Tran	HLF -Tran	Protective Lighting	Municipal Lighting
			PL	PH	HL1	HL2	HL3	APL	MU1
	(A)	(B)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
	Billing Determinants								
229	Demand	15,773,534	2,778,697	0	2,644,855	434,845	613,998	0	0
230	Customer Bills (Count *12)	5,785,356	1,719	384	336	60	36	0	11,246
231	Energy	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
232	Fuel	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
	Unit Costs								
233	Demand		$ 20.39	$ -	$ 20.33	$ 20.70	$ 19.39	$ -	$ -
234	Customer		$ 119.34	$ 10,111.98	$ 131.32	$ 141.36	$ 180.19	$ -	$ 533
235	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.1703	$ 0.0015
236	Fuel		$ 0.0309	$ 0.0313	$ 0.0309	$ 0.0308	$ 0.0304	$ 0.0318	$ 0.0318
237	Demand Revenue		$ 56,646,177	$ -	$ 53,765,500	$ 9,000,913	$ 11,907,567	$ -	$ -
238	Customer Revenue		205,154	3,883,000	44,124	8,481	6,487	-	5,998,898
239	Energy Revenue		1,878,617	105,425	2,036,946	345,698	525,987	7,856,945	94,993
240	Fuel Revenue		38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
241	Total Revenue		97,630,781	6,171,475	98,025,954	16,513,521	23,331,746	9,322,000	8,060,928
242	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -

Adjusted Revenue Requirement (Excluding Other Revenue and Sal

243	Ratio of Base Revenue to Total Revenue	96.77%	97.87%	97.82%	97.80%	97.95%	97.92%	97.03%	94.02%
	Total Revenue Requirement								
244	Demand	$ 681,563,109	$ 55,437,982	$ 3,755,032	$ 52,584,306	$ 8,816,413	$ 11,660,241	$ 833,427	$ 1,199,573
245	Customer	$ 102,506,192	$ 200,778	$ 43,475	$ 43,154	$ 8,308	$ 6,352	$ 6,721,466	$ 4,440,732
246	Energy	$ 20,401,960	$ 1,838,548	$ 103,131	$ 1,992,196	$ 338,612	$ 515,062	$ 68,649	$ 89,315
247	Fuel	$ 435,543,947	$ 38,900,834	$ 2,183,050	$ 42,179,384	$ 7,158,429	$ 10,891,705	$ 1,465,055	$ 1,967,038
248	**Total**	$ 1,240,015,209	$ 96,378,142	$ 6,084,688	$ 96,799,041	$ 16,321,762	$ 23,073,360	$ 9,088,598	$ 7,696,657
249	Zero-Check	-	-	-	-	-	-	-	-
	Billing Determinants								
250	Demand	15,773,534	2,778,697	0	2,644,855	434,845	613,998	0	0
251	Customer Bills (Count *12)	5,785,356	1,719	384	336	60	36	0	11,246
252	Energy	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
253	Fuel	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
	Unit Costs								
254	Demand		$ 19.95	$ -	$ 19.88	$ 20.27	$ 18.99	$ -	$ -
255	Customer		$ 116.80	$ 9,891.95	$ 128.44	$ 138.46	$ 176.44	$ -	$ 502
256	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0014	$ 0.1653	$ 0.0014
257	Fuel		$ 0.0309	$ 0.0313	$ 0.0309	$ 0.0308	$ 0.0304	$ 0.0318	$ 0.0318
258	Demand Revenue		$ 55,437,982	$ -	$ 52,584,306	$ 8,816,413	$ 11,660,241	$ -	$ -
259	Customer Revenue		200,778	3,798,507	43,154	8,308	6,352	-	5,640,305
260	Energy Revenue		1,838,548	103,131	1,992,196	338,612	515,062	7,623,543	89,315
261	Fuel Revenue		38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
262	Total Revenue		96,378,142	6,084,688	96,799,041	16,321,762	23,073,360	9,088,598	7,696,657
263	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Grid Facility								
264	Grid Facility - Revenue Requirement	$ 253,821,384	$ 11,465,773	$ 906,885	$ 11,294,268	$ 1,623,587	$ 1,687,448	$ 7,086,199	$ 4,896,527
265	Grid Facility - Unit Costs	$ 43.87	$ 6,670.02	$ 2,361.68	$ 33,613.89	$ 27,059.78	$ 46,873.55	#DIV/0!	$ 435.40

Line No.	Description	System Total	Residential	Secondary Small	Space Conditioning	Space Conditioning - Schools	Water Heating - Controlled	Water Heating - Uncontrolled	Secondary Large
		RS	SS	SH	SE	CB	UW	SL	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Mitigated Revenue Requirement (Excluding Other Revenuend Sale for Resale Revenues)								
266	Ratio of Base Revenue to Total Revenue	97.88%	96.82%	98.49%	98.53%	98.64%	97.25%	98.18%	98.72%
267	Mitigated Amount	(0)	(27,950,930)	20,703,598	(2,218,434)	(34,757)	(18,886)	(4,783)	13,464,679
	Total Revenue Requirement								
268	Demand	$ 682,215,787	$ 270,966,919	$ 76,044,931	$ 27,825,616	$ 1,039,177	$ 11,864	$ 47,540	$ 175,922,109
269	Customer	$ 101,853,514	$ 62,772,281	$ 19,754,898	$ 1,459,838	$ 12,594	$ 15,578	$ 25,316	$ 6,359,887
270	Energy	$ 20,401,960	$ 7,365,205	$ 1,868,784	$ 861,429	$ 29,682	$ 895	$ 2,192	$ 5,328,260
271	Fuel	$ 435,543,947	$ 159,315,107	$ 39,754,620	$ 18,234,219	$ 627,592	$ 19,068	$ 46,665	$ 112,801,182
272	**Total**	$ 1,240,015,209	$ 500,419,513	$ 137,423,233	$ 48,381,101	$ 1,709,045	$ 47,406	$ 121,712	$ 300,411,438
273	Zero-Check	-	-	-	-	-	-	-	-
	Billing Determinants								
274	Demand	15,773,534	0	0	0	0	0	0	9,301,139
275	Customer Bills (Count *12)	5,785,356	5,096,254	569,100	48,948	334	1,152	1,104	54,683
276	Energy	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
277	Fuel	13,818,053,682	5,047,840,289	1,252,061,457	574,060,665	19,758,234	600,323	1,469,122	3,532,675,388
	Unit Costs								
278	Demand		$ -	$ -	$ -	$ -	$ -	$ -	$ 18.91
279	Customer		$ 65.49	$ 168.34	$ 598.30	$ 3,149.01	$ 23.82	$ 65.99	$ 116.30
280	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015
281	Fuel		$ 0.031561	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0318	$ 0.0319
282	Demand Revenue		$ -	$ -	$ -	$ -	$ -	$ -	$ 175,922,109
283	Customer Revenue		333,739,200	95,799,829	29,285,454	1,051,771	27,442	72,856	6,359,887
284	Energy Revenue		7,365,205	1,868,784	861,429	29,682	895	2,192	5,328,260
285	Fuel Revenue		159,315,107	39,754,620	18,234,219	627,592	19,068	46,665	112,801,182
286	Total Revenue		500,419,513	137,423,233	48,381,101	1,709,045	47,406	121,712	300,411,438
287	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Grid Facility								
288	Grid Facility - Revenue Requirement	$ 256,730,696	$ 141,333,992	$ 27,203,339	$ 8,392,705	$ 237,314	$ 29,941	$ 37,039	$ 39,262,580
289	Grid Facility - Unit Costs	$ 44.38	$ 27.73	$ 47.80	$ 171.46	$ 710.52	$ 25.99	$ 33.55	$ 718.00

Line No.	Description	System Total	Primary	Process Heating	HLF - Primary	HLF - Sub-Tran	HLF -Tran	Protective Lighting	Municipal Lighting
			PL	PH	HL1	HL2	HL3	APL	MU1
	(A)	(B)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
	Mitigated Revenue Requirement (Excluding Other Revenue								
266	Ratio of Base Revenue to Total Revenue	97.88%	98.70%	98.54%	98.73%	98.81%	98.86%	96.47%	96.72%
267	Mitigated Amount	(0)	(1,111,082)	(229,397)	(1,796,969)	(440,973)	(710,600)	(2,702,554)	3,051,088
	Total Revenue Requirement								
268	Demand	$ 682,215,787	$ 54,330,910	$ 3,528,260	$ 50,788,811	$ 8,375,856	$ 10,950,028	$ 535,292	$ 1,848,475
269	Customer	$ 101,853,514	$ 196,768	$ 40,850	$ 41,681	$ 7,892	$ 5,965	$ 4,317,048	$ 6,842,918
270	Energy	$ 20,401,960	$ 1,838,548	$ 103,131	$ 1,992,196	$ 338,612	$ 515,062	$ 68,649	$ 89,315
271	Fuel	$ 435,543,947	$ 38,900,834	$ 2,183,050	$ 42,179,384	$ 7,158,429	$ 10,891,705	$ 1,465,055	$ 1,967,038
272	**Total**	$ 1,240,015,209	$ 95,267,060	$ 5,855,291	$ 95,002,072	$ 15,880,789	$ 22,362,760	$ 6,386,044	$ 10,747,745
273	Zero-Check	-	-	-	-	-	-	-	-
	Billing Determinants								
274	Demand	15,773,534	2,778,697	0	2,644,855	434,845	613,998	0	0
275	Customer Bills (Count *12)	5,785,356	1,719	384	336	60	36	0	11,246
276	Energy	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
277	Fuel	13,818,053,682	1,257,445,479	69,769,752	1,363,422,610	232,596,964	358,302,200	46,123,736	61,927,463
	Unit Costs								
278	Demand		$ 19.55	$ -	$ 19.20	$ 19.26	$ 17.83	$ -	$ -
279	Customer		$ 114.47	$ 9,294.56	$ 124.05	$ 131.54	$ 165.70	$ -	$ 773
280	Energy		$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0015	$ 0.0014	$ 0.1067	$ 0.0014
281	Fuel		$ 0.0309	$ 0.0313	$ 0.0309	$ 0.0308	$ 0.0304	$ 0.0318	$ 0.0318
282	Demand Revenue		$ 54,330,910	$ -	$ 50,788,811	$ 8,375,856	$ 10,950,028	$ -	$ -
283	Customer Revenue		196,768	3,569,110	41,681	7,892	5,965	-	8,691,393
284	Energy Revenue		1,838,548	103,131	1,992,196	338,612	515,062	4,920,989	89,315
285	Fuel Revenue		38,900,834	2,183,050	42,179,384	7,158,429	10,891,705	1,465,055	1,967,038
286	Total Revenue		95,267,060	5,855,291	95,002,072	15,880,789	22,362,760	6,386,044	10,747,745
287	Zero-Check		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Grid Facility								
288	Grid Facility - Revenue Requirement	$ 256,730,696	$ 11,563,607	$ 913,517	$ 11,400,734	$ 1,637,787	$ 1,703,557	$ 7,045,641	$ 5,037,111
289	Grid Facility - Unit Costs	$ 44.38	$ 6,726.94	$ 2,378.95	$ 33,930.75	$ 27,296.46	$ 47,321.02	#DIV/0!	$ 447.90

INDIANAPOLIS POWER AND LIGHT COMPANY
Proposed Mitigation of Rate Increases

Line No.	A	B	C	D	E [C - D]	F [E / C]	G	H	I	J % <	K
			Current Revenue	Proposed Revenue	ACOSS Deficiency at 6.90% ROR	ACOSS Rate Increase	Current Subsidy at 4.81% ROR	% of Current Subsidy	Revised Deficiency	Revised Rate Incr.	Proposed Mitigated Revenue
1	**System Total**		$ 1,177,073,667	$ 1,240,015,209	$ (62,941,542)	5.35%		G*Factor	E - H	I / C	**$ 1,240,015,209**
								80.00%			
2	**Residential**		$ 465,528,940	$ 528,370,443	$ (62,841,503)	13.50%	$ (34,938,663)	$ (27,950,930)	$ (34,890,573)	**7.49%**	**$ 500,419,513**
3	**Small C&I**		$ 183,395,452	$ 169,255,759	$ 14,139,693	-7.71%	$ 23,037,797	$ 18,426,738	$ (4,287,045)	**2.34%**	**$ 187,682,497**
4	**Large C&I**		$ 511,458,261	$ 525,603,752	$ (14,145,491)	2.77%	$ 11,469,573	$ 9,175,658	$ (23,321,149)	**4.56%**	**$ 534,779,410**
5	**Lighting**		$ 16,691,014	$ 16,785,255	$ (94,241)	0.56%	$ 431,293	$ 348,534	$ (442,775)	**2.65%**	**$ 17,133,789**
6							$ (0)	$ (0)	$ (62,941,542)		
7								Change in Other Revenue	$ (334,021)		
8								**Total Revenue Deficiency**	**$ (63,275,563)**		

INDIANAPOLIS POWER AND LIGHT COMPANY

Proposed Mitigation of Rate Increases

Line No.	A	B	C	D	E	F	G	H	I	J	K
					[C - D]	[E / C]				% <	
			Current Revenue	Proposed Revenue	ACOSS Deficiency at 6.93% ROR	ACOSS Rate Increase	Current Subsidy at 5.02% ROR	Retain % of Current Subsidy	Revised Deficiency	Revised Rate Incr.	Proposed Mitigated Revenue
1	**System Total**		$ 1,177,073,667	$ 1,240,015,209	$ (62,941,542)	5.35%		G*Factor **80.00%**	E - H	I / C	**$ 1,240,015,209**
2	**Residential**	**RS**	$ 465,528,940	$ 528,370,443	$ (62,841,503)	13.50%	$ (34,938,663)	$ (27,950,930)	$ (34,890,573)	**7.49%**	**$ 500,419,513**
3	**Secondary Small**	**SS**	$ 136,470,561	$ 116,719,636	$ 19,750,926	-14.47%	$ 25,879,497	$ 20,703,598	$ (952,672)	**0.70%**	**$ 137,423,233**
4	**Space Conditioning**	**SH**	$ 45,159,028	$ 50,599,535	$ (5,440,507)	12.05%	$ (2,773,042)	$ (2,218,434)	$ (3,222,073)	**7.13%**	**$ 48,381,101**
5	**Space Conditioning - Schools**	**SE**	$ 1,607,407	$ 1,743,802	$ (136,395)	8.49%	$ (43,446)	$ (34,757)	$ (101,638)	**6.32%**	**$ 1,709,045**
6	**Water Heating - Controlled**	**CB**	$ 43,906	$ 66,291	$ (22,385)	50.98%	$ (19,233)	$ (18,886)	$ (3,499)	**7.97%**	**$ 47,406**
7	**Water Heating - Uncontrolled**	**UW**	$ 114,549	$ 126,495	$ (11,946)	10.43%	$ (5,979)	$ (4,783)	$ (7,163)	**6.25%**	**$ 121,712**
8	**Secondary Large**	**SL**	$ 289,397,201	$ 286,946,760	$ 2,450,442	-0.85%	$ 16,830,848	$ 13,464,679	$ (11,014,237)	**3.81%**	**$ 300,411,438**
9	**Primary**	**PL**	$ 90,079,633	$ 96,378,142	$ (6,298,508)	6.99%	$ (1,388,852)	$ (1,111,082)	$ (5,187,426)	**5.76%**	**$ 95,267,060**
10	**Process Heating**	**PH**	$ 5,468,221	$ 6,084,688	$ (616,467)	11.27%	$ (286,747)	$ (229,397)	$ (387,070)	**7.08%**	**$ 5,855,291**
11	**HLF - Primary**	**HL1**	$ 89,838,298	$ 96,799,041	$ (6,960,742)	7.75%	$ (2,246,211)	$ (1,796,969)	$ (5,163,773)	**5.75%**	**$ 95,002,072**
12	**HLF - Sub-Tran**	**HL2**	$ 14,968,962	$ 16,321,762	$ (1,352,800)	9.04%	$ (551,216)	$ (440,973)	$ (911,827)	**6.09%**	**$ 15,880,789**
13	**HLF -Tran**	**HL3**	$ 21,705,945	$ 23,073,360	$ (1,367,415)	6.30%	$ (888,250)	$ (710,600)	$ (656,815)	**3.03%**	**$ 22,362,760**
14	**Automatic Protective Lighting**	**APL**	$ 5,943,269	$ 9,088,598	$ (3,145,329)	52.92%	$ (2,852,497)	$ (2,702,554)	$ (442,775)	**7.45%**	**$ 6,386,044**
15	**Municipal Lighting**	**MU1**	$ 10,747,745	$ 7,696,657	$ 3,051,088	-28.39%	$ 3,283,789	$ 3,051,088	$ -	**0.00%**	**$ 10,747,745**
16							$ (0)	$ (0)	$ (62,941,542)		
17								Change in Other Revenue	$ (334,021)		
18	**Decision Rules**							**Total Revenue Deficiency**	**$ (63,275,563)**		
19	1) No Rate decreases.										
20	2) Eliminate 20.00% of Subsidy at Current Rates.						Additional Mitigation Added to Col. H		TRUE		
21	3) Mitigate any increases > 10%					50.00%	Incr. CB Mitigation	$ (3,499)			
22							Incr. APL Mitigation	$ (863,331)			
23							Decr. MU Mitigation	$ 424,056			

INDIANAPOLIS POWER AND LIGHT COMPANY
Comparison of Current and Proposed Pro Forma Revenues

Line No.	Rate Class	Rate Code	Current Revenue	Unmitigated Proposed Revenue	Mitigated Proposed Revenue	Increase: Unmitigated - Current ($)	Increase: Mitigated - Current ($)	**Increase: Unmitigated - Current (%)**	**Increase: Mitigated - Current (%)**
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	Residential Service (Rate RS) - Codes RS, RC, RH	RS	$ 465,528,940	$ 528,370,443	$ 500,419,513	$ 62,841,503	$ 34,890,573	**13.50%**	**7.49%**
2	Secondary Service (Small) (Rate SS)	SS	136,470,561	116,719,636	137,423,233	(19,750,926)	952,672	**-14.47%**	**0.70%**
3	Electric Space Conditioning-Secondary Service (Rate SH)	SH	45,159,028	50,599,535	48,381,101	5,440,507	3,222,073	**12.05%**	**7.13%**
4	Electric Space Conditioning-Schools (Rate SE)	SE	1,607,407	1,743,802	1,709,045	136,395	101,638	**8.49%**	**6.32%**
5	Water Heating-Controlled Service (Rate CB/CW)	CB	43,906	66,291	47,406	22,385	3,499	**50.98%**	**7.97%**
6	Water Heating-Uncontrolled Service (Rate UW)	UW	114,549	126,495	121,712	11,946	7,163	**10.43%**	**6.25%**
7	Secondary Service (Large) - (Rate SL)	SL	289,397,201	286,946,760	300,411,438	(2,450,442)	11,014,237	**-0.85%**	**3.81%**
8	Primary Service (Large) - (Rate PL)	PL	90,079,633	96,378,142	95,267,060	6,298,508	5,187,426	**6.99%**	**5.76%**
9	Process Heating (Rate PH)	PH	5,468,221	6,084,688	5,855,291	616,467	387,070	**11.27%**	**7.08%**
10	High Load Factor (Rate HL-1) (Primary Distribution)	HL1	89,838,298	96,799,041	95,002,072	6,960,742	5,163,773	**7.75%**	**5.75%**
11	High Load Factor (Rate HL-2) (Sub transmission)	HL2	14,968,962	16,321,762	15,880,789	1,352,800	911,827	**9.04%**	**6.09%**
12	High Load Factor (Rate HL-3) (Transmission)	HL3	21,705,945	23,073,360	22,362,760	1,367,415	656,815	**6.30%**	**3.03%**
13	Automatic Protective Lighting (APL)	APL	5,943,269	9,088,598	6,386,044	3,145,329	442,775	**52.92%**	**7.45%**
14	Municipal Lighting (MU)	MU	$ 10,747,745	$ 7,696,657	$ 10,747,745	$ (3,051,088)	$ -	**-28.39%**	**0.00%**
15	**TOTAL SYSTEM**		**$ 1,177,073,667**	**$ 1,240,015,209**	**$ 1,240,015,209**	**$ 62,941,542**	**$ 62,941,542**	**5.35%**	**5.35%**

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Residential Service (RS, RC,RH, CR/CW)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	First 500 kWh	2,240,671,009	$ 0.0670	$ 150,124,958		$ -	$ 150,124,958
2	Over 500 kWh	1,791,391,216	$ 0.0440	$ 78,821,214		$ -	$ 78,821,214
3	Over 1,000	1,015,675,564	$ 0.0318	$ 32,298,483		$ -	$ 32,298,483
4	Resid (CR/CW)	102,500	$ 0.0318	$ 3,260	$ -	$ -	$ 3,260
5	Total kWh	5,047,840,289		$ 261,247,914	$ -	$ -	$ 261,247,914
	Customer Charge						
6	0 to 325 kWh	787,616	$ 6.7000	$ 5,277,027	$ -	$ -	$ 5,277,027
7	Over 325 kWh	4,308,242	$ 11.0000	$ 47,390,662	$ -	$ -	$ 47,390,662
8	Resid (CR/CW)	396	$ 4.60	$ 1,822	$ -	$ -	$ 1,822
9		5,096,254		$ 52,669,511	$ -	$ -	$ 52,669,511
10	Residential Service (RS, RC,RH)			$ 313,917,424	$ -	$ -	$ 313,917,424
	Contract Riders						
11	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
12	No. 6 Fuel Cost Adjustment			$ 96,232,000	$ -	$ -	$ 96,232,000
13	No. 7 Employee Discount			$ (94,213)	$ -	$ -	$ (94,213)
14	No. 9 Net Metering			$ -	$ -	$ -	$ -
15	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
16	No. 20 Environmental Compliance Cost Recove			$ 36,756,000	$ -	$ -	$ 36,756,000
17	No. 21 Green Power			$ 18,201	$ -	$ -	$ 18,201
18	No. 22 Core and Core Demand Side Managem			$ 17,570,000	$ -	$ -	$ 17,570,000
19	Total Rider			$ 150,481,988	$ -	$ -	$ 150,481,988
20	Grand Total			$ 464,399,412	$ -	$ -	$ 464,399,412
21						*Balancing Adjustment*	*1.00243*
22						**Total Revenue**	**$ 465,528,940**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Residential Service (RS, RC,RH, CR/CW)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
First 500 kWh	2,240,671,009	$ 0.093595	$ 209,715,199		$ -	$ 209,715,199
Over 500 kWh	1,791,391,216	$ 0.072660	$ 130,162,452		$ -	$ 130,162,452
Over 1,000	1,015,675,564	$ 0.060057	$ 60,998,510		$ -	$ 60,998,510
Resid (CR/CW)	102,500	$ 0.060057	$ 6,156	$ -	$ -	$ 6,156
Total kWh	5,047,840,289		$ 400,882,316	$ -	$ -	$ 400,882,316
		Target	$ 400,882,316			
		Difference	$ -			
Customer Charge						
0 to 325 kWh	787,616	$ 11.2500	$ 8,860,680	$ -	$ -	$ 8,860,680
Over 325 kWh	4,308,242	$ 17.0000	$ 73,240,114	$ -	$ -	$ 73,240,114
Resid (CR/CW)	396	$ 7.1000	$ 2,812	$ -	$ -	$ 2,812
	5,096,254		$ 82,103,606	$ -	$ -	$ 82,103,606
		Target	$ 82,103,606			
		Difference	$ -			
Residential Service (RS, RC,RH)			$ 482,985,922	$ -	$ -	$ 482,985,922
		Target	$ 482,985,922			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 7 Employee Discount			$ (154,609)	$ -	$ -	$ (154,609)
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ 18,201	$ -	$ -	$ 18,201
No. 22 Core and Core Demand Side Manageme			$ 17,570,000	$ -	$ -	$ 17,570,000
Total Rider			$ 17,433,591	$ -	$ -	$ 17,433,591
Grand Total			$ 500,419,513	$ -	$ -	$ 500,419,513
			Check	TRUE		

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Secondary Service (SS)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	First 5,000 kWh	876,780,881	$ 0.0738	$ 64,706,429	$ -	$ -	$ 64,706,429
2	Over 5,000	375,280,576	$ 0.0591	$ 22,179,082	$ -	$ -	$ 22,179,082
3	Total kWh	1,252,061,457		$ 86,885,511	$ -	$ -	$ 86,885,511
	Customer Charge						
4	0 to 5,000 kWh	493,959	$ 11.3800	$ 5,621,253	$ -	$ -	$ 5,621,253
5	Over 5,000 kWh	75,141	$ 32.1400	$ 2,415,032	$ -	$ -	$ 2,415,032
		569,100		$ 8,036,285	$ -	$ -	$ 8,036,285
6	Secondary Service (SS)			$ 94,921,796	$ -	$ -	$ 94,921,796
	Contract Riders						
7	Special Contract Revenue			$ 1,278,376	$ -	$ -	$ 1,278,376
8	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
9	No. 4 Additional Charges for other facitities			$ -	$ -	$ -	$ -
10	No. 6 Fuel Cost Adjustment			$ 23,869,293	$ -	$ -	$ 23,869,293
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
13	No. 20 Environmental Compliance Cost Recove			$ 13,632,122	$ -	$ -	$ 13,632,122
14	No. 21 Green Power			$ (7,023)	$ -	$ -	$ (7,023)
15	No. 22 Core and Core Demand Side Managem			$ 3,076,036	$ -	$ -	$ 3,076,036
16	Total Rider			$ 41,848,803	$ -	$ -	$ 41,848,803
17	Grand Total			$ 136,770,599	$ -	$ -	$ 136,770,599
18						*Balancing Adjustment*	*0.997806*
19						**Total Revenue**	**$ 136,470,561**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Secondary Service (SS)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
First 5,000 kWh	876,780,881	$ 0.095855	$ 84,044,040	$ -	$ -	$ 84,044,040
Over 5,000	375,280,576	$ 0.081155	$ 30,455,984	$ -	$ -	$ 30,455,984
Total kWh	1,252,061,457		$ 114,500,025	$ -	$ -	$ 114,500,025
		Target	$ 114,500,025			
		Difference	$ -			
Customer Charge						
0 to 5,000 kWh	493,959	$ 30.00	$ 14,818,770	$ -	$ -	$ 14,818,770
Over 5,000 kWh	75,141	$ 50.00	$ 3,757,050	$ -	$ -	$ 3,757,050
	569,100		$ 18,575,820	$ -	$ -	$ 18,575,820
		Target	$ 18,575,820			
		Difference	$ -			
Secondary Service (SS)			$ 133,075,845	$ -	$ -	$ 133,075,845
		Target	$ 133,075,845			
		Difference	$ -			
Contract Riders						
Special Contract Revenue			$ 1,278,376	$ -	$ -	$ 1,278,376
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facitities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ (7,023)	$ -	$ -	$ (7,023)
No. 22 Core and Core Demand Side Managemen			$ 3,076,036	$ -	$ -	$ 3,076,036
Total Rider			$ 4,347,389	$ -	$ -	$ 4,347,389
Grand Total			$ 137,423,233	$ -	$ -	$ 137,423,233
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Secondary Service - Electric Space Conditioning Separately Metered (SH)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	574,060,665	$ 0.0452	$ 25,947,542	$ -	$ -	$ 25,947,542
	Customer Charge						
2	All Customers	48,948	$ 11.21	$ 548,707	$ -	$ -	$ 548,707
3	Secondary Service (SH)			$ 26,496,249	$ -	$ -	$ 26,496,249
	Contract Riders						
4	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
5	No. 6 Fuel Cost Adjustment			$ 10,943,889	$ -	$ -	$ 10,943,889
6	No. 9 Net Metering			$ -	$ -	$ -	$ -
7	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
8	No. 15 Load Displacement			$ -			
9	No. 20 Environmental Compliance Cost Recove			$ 6,250,224	$ -	$ -	$ 6,250,224
10	No. 21 Green Power			$ (4,307)	$ -	$ -	$ (4,307)
11	No. 22 Core and Core Demand Side Managen			$ 1,410,339	$ -	$ -	$ 1,410,339
12	Total Rider			$ 18,600,146	$ -	$ -	$ 18,600,146
13	Grand Total			$ 45,096,395	$ -	$ -	$ 45,096,395
14						*Balancing Adjustment*	*1.001389*
15						**Total Revenue**	**$ 45,159,028**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Secondary Service - Electric Space Conditioning Separately Metered (SH)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	574,060,665	$ 0.079271	$ 45,506,629	$ -	$ -	$ 45,506,629
		Target	$ 45,506,629			
		Difference	$ -			
Customer Charge						
All Customers	48,948	$ 30.00	$ 1,468,440	$ -	$ -	$ 1,468,440
		Target	$ 1,468,440			
		Difference	$ -			
Secondary Service (SH)			$ 46,975,069	$ -	$ -	$ 46,975,069
		Target	$ 46,975,069			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recove			$ -	$ -	$ -	$ -
No. 21 Green Power			$ (4,307)	$ -	$ -	$ (4,307)
No. 22 Core and Core Demand Side Managem			$ 1,410,339	$ -	$ -	$ 1,410,339
Total Rider			$ 1,406,032	$ -	$ -	$ 1,406,032
Grand Total			$ 48,381,101	$ -	$ -	$ 48,381,101
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Secondary Service - Electric Space Conditioning Separately Metered Schools (SE)

Line No.	Description (A)	Annualized Volumes (B)	Current Rate (C)	Annualized Revenue (D)	Adjustment (E)	Adjustment (F)	Total Revenue (G)
	Billed kwh						
1	First 5,000 kWh	1,375,755	$ 0.0738	$ 101,531	$ -	$ -	$ 101,531
2	Over 5,000 kWh	2,345,087	$ 0.0591	$ 138,595	$ -	$ -	$ 138,595
3	Excess of 155 x Connected load	16,037,392	$ 0.0452	$ 724,890	$ -	$ -	$ 724,890
	Total kWh	19,758,234		$ 965,015	$ -	$ -	$ 965,015
	Customer Charge						
4	All Customers	334	$ 11.21	$ 3,744	$ -	$ -	$ 3,744
5	Secondary Service (SE)			$ 968,760	$ -	$ -	$ 968,760
	Contract Riders						
6	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
7	No. 6 Fuel Cost Adjustment			$ 376,671	$ -	$ -	$ 376,671
8	No. 9 Net Metering			$ -	$ -	$ -	$ -
9	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
10	No. 15 Load Displacement			$ -	$ -	$ -	$ -
11	No. 20 Environmental Compliance Cost Recovery			$ 215,123	$ -	$ -	$ 215,123
12	No. 21 Green Power			$ -	$ -	$ -	$ -
13	No. 22 Core and Core Demand Side Management			$ 48,542	$ -	$ -	$ 48,542
14	Total Rider			$ 640,335	$ -	$ -	$ 640,335
15	Grand Total			$ 1,609,095	$ -	$ -	$ 1,609,095
16					*Balancing Adjustment*		0.9990
17						**Total Revenue**	**$ 1,607,407**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Secondary Service - Electric Space Conditioning Separately Metered Schools (SE)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description (H)	Annualized Volumes (I)	Proposed Rate (J)	Revenue (K)	Adjustment (L)	Adjustment (M)	Total Revenue (N)
Billed kwh						
First 5,000 kWh	1,375,755	$ 0.108493	$ 149,259	$ -	$ -	$ 149,259
Over 5,000 kWh	2,345,087	$ 0.093793	$ 219,952	$ -	$ -	$ 219,952
Excess of 155 x Cc	16,037,392	$ 0.079893	$ 1,281,272	$ -	$ -	$ 1,281,272
Total kWh	19,758,234		$ 1,650,483	$ -	$ -	$ 1,650,483
		Target	$ 1,650,483			
		Difference	$ -			
Customer Charge						
All Customers	334	$ 30.00	$ 10,020	$ -	$ -	$ 10,020
		Target	$ 10,020			
		Difference	$ -			
Secondary Service (SE)			$ 1,660,503	$ -	$ -	$ 1,660,503
		Target	$ 1,660,503			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recove			$ -	$ -	$ -	$ -
No. 21 Green Power			$ -	$ -	$ -	$ -
No. 22 Core and Core Demand Side Managen			$ 48,542	$ -	$ -	$ 48,542
Total Rider			$ 48,542	$ -	$ -	$ 48,542
Grand Total			$ 1,709,045	$ -	$ -	$ 1,709,045
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Water Heating-Controlled Service (Rate CB)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	600,323	$ 0.0318	$ 19,090	$ -	$ -	$ 19,090
	Customer Charge						
2	All Customers	1,152	$ 4.60	$ 5,299	$ -	$ -	$ 5,299
3	Water Heating - Controlled (CB)			$ 24,389	$ -	$ -	$ 24,389
	Contract Riders						
4	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
5	No. 6 Fuel Cost Adjustment			$ 11,445	$ -	$ -	$ 11,445
6	No. 9 Net Metering			$ -	$ -	$ -	$ -
7	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
8	No. 20 Environmental Compliance Cost Recove			$ 6,536	$ -	$ -	$ 6,536
9	No. 21 Green Power			$ (5)	$ -	$ -	$ (5)
10	No. 22 Core and Core Demand Side Managen			$ 1,475	$ -	$ -	$ 1,475
11	Total Rider			$ 19,451	$ -	$ -	$ 19,451
12	Grand Total			$ 43,840	$ -	$ -	$ 43,840
13						*Balancing Adjustment*	*1.0015*
14						**Total Revenue**	**$ 43,906**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Water Heating-Controlled Service (Rate CB)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	600,323	$ 0.062894	$ 37,757	$ -	$ -	$ 37,757
		Target	$ 37,757			
		Difference	$ -			
Customer Charge						
All Customers	1,152	$ 7.10	$ 8,179	$ -	$ -	$ 8,179
		Target	$ 8,179			
		Difference	$ -			
Water Heating - Controlled (CB)			$ 45,936	$ -	$ -	$ 45,936
		Target	$ 45,936			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ (5)	$ -	$ -	$ (5)
No. 22 Core and Core Demand Side Managemer			$ 1,475	$ -	$ -	$ 1,475
Total Rider			$ 1,470	$ -	$ -	$ 1,470
Grand Total			$ 47,406	$ -	$ -	$ 47,406
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Water Heating - Uncontrolled Service (UW)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	1,469,122	$ 0.0421	$ 61,850	$ -	$ -	$ 61,850
	Customer Charge						
2	All Customers	1,104	$ 4.60	$ 5,078	$ -	$ -	$ 5,078
3	Water Heating - Unontrolled (UW)			$ 66,928	$ -	$ -	$ 66,928
	Contract Riders						
4	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
5	No. 6 Fuel Cost Adjustment			$ 28,007	$ -	$ -	$ 28,007
6	No. 9 Net Metering			$ -	$ -	$ -	$ -
7	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
8	No. 20 Environmental Compliance Cost Recove			$ 15,995	$ -	$ -	$ 15,995
9	No. 21 Green Power			$ -	$ -	$ -	$ -
10	No. 22 Core and Core Demand Side Managen			$ 3,609	$ -	$ -	$ 3,609
11	Total Rider			$ 47,612	$ -	$ -	$ 47,612
12	Grand Total			$ 114,540	$ -	$ -	$ 114,540
13						*Balancing Adjustment*	*1.000076*
14						**Total Revenue**	**$ 114,549**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Water Heating - Uncontrolled Service (UW)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	1,469,122	$ 0.060100	$ 88,295	$ -	$ -	$ 88,295
		Target	$ 88,295			
		Difference	$ -			
Customer Charge						
All Customers	1,104	$ 27.00	$ 29,808	$ -	$ -	$ 29,808
		Target	$ 29,808			
		Difference	$ -			
Water Heating - Unontrolled (UW)			$ 118,103	$ -	$ -	$ 118,103
		Target	$ 118,103			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ -	$ -	$ -	$ -
No. 22 Core and Core Demand Side Managemer			$ 3,609	$ -	$ -	$ 3,609
Total Rider			$ 3,609	$ -	$ -	$ 3,609
Grand Total			$ 121,712	$ -	$ -	$ 121,712
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Secondary Service (Large) (SL)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	3,532,675,388	$ 0.0268	$ 94,675,700	$ -	$ -	$ 94,675,700
	Billed kW						
2	First 500 kW	8,141,135	$ 10.55	$ 85,888,974	$ -	$ -	$ 85,888,974
3	Over 500 kW	1,160,004	$ 10.18	$ 11,808,841	$ -	$ -	$ 11,808,841
		9,301,139		$ 97,697,815	$ -	$ -	$ 97,697,815
	Power factor						
4				$ (3,533,900)			$ (3,533,900)
	Customer Charge						
5	All Customers	54,683	$ 103.33	$ 5,650,394	$ -	$ -	$ 5,650,394
6	Secondary Service (Large) (SL)			$ 194,490,010	$ -	$ -	$ 194,490,010
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 67,346,905	$ -	$ -	$ 67,346,905
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
13	No. 15 Load Displacement			$ (27,418)	$ -	$ -	$ (27,418)
14	No. 16 Load Displacement			$ -	$ -	$ -	$ -
15	No. 17 Curtailment Energy			$ (4,605)	$ -	$ -	$ (4,605)
16	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
17	No. 20 Environmental Compliance Cost Recove			$ 23,144,337	$ -	$ -	$ 23,144,337
18	No. 21 Green Power			$ (21,374)	$ -	$ -	$ (21,374)
19	No. 22 Core and Core Demand Side Managem			$ 4,953,057	$ -	$ -	$ 4,953,057
20	Total Rider			$ 95,390,901	$ -	$ -	$ 95,390,901
21	Grand Total			$ 289,880,911	$ -	$ -	$ 289,880,911
22					*Balancing Adjustment*		*0.998331*
23						**Total Revenue**	**$ 289,397,201**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Secondary Service (Large) (SL)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	3,532,675,388	$ 0.035150	$ 124,174,794	$ -	$ -	$ 124,174,794
		Target	$ 124,174,794			
		Difference	$ -			
Billed kW						
First 500 kW	8,141,135	$ 18.29	$ 148,901,359	$ -	$ -	$ 148,901,359
Over 500 kW	1,160,004	$ 18.29	$ 21,216,473	$ -	$ -	$ 21,216,473
	9,301,139		$ 170,117,832	$ -	$ -	$ 170,117,832
		Target	$ 170,117,832			
		Difference	$ -			
Power factor						
			$ (5,342,808)			$ (5,342,808)
Customer Charge						
All Customers	54,683	$ 120.00	$ 6,561,960	$ -	$ -	$ 6,561,960
		Target	$ 6,561,960			
		Difference	$ -			
Secondary Service (Large) (SL)			$ 295,511,778	$ -	$ -	$ 295,511,778
		Target	$ 295,511,778			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 13 Air Conditioning Load Management			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ (27,418)	$ -	$ -	$ (27,418)
No. 16 Load Displacement			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ (4,605)	$ -	$ -	$ (4,605)
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recove			$ -	$ -	$ -	$ -
No. 21 Green Power			$ (21,374)	$ -	$ -	$ (21,374)
No. 22 Core and Core Demand Side Managem			$ 4,953,057	$ -	$ -	$ 4,953,057
Total Rider			$ 4,899,660	$ -	$ -	$ 4,899,660
Grand Total			$ 300,411,438	$ -	$ -	$ 300,411,438
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Primary Service (Large) (PL)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	1,257,445,479	$ 0.0207	$ 26,029,121	$ -	$ -	$ 26,029,121
	Billed kW						
2	First 2,000 kW	2,102,782	$ 11.28	$ 23,719,381	$ -	$ -	$ 23,719,381
3	Over 2,000 kW	675,915	$ 11.19	$ 7,563,489	$ -	$ -	$ 7,563,489
		2,778,697		$ 31,282,870	$ -	$ -	$ 31,282,870
	Power factor						
4				$ (1,494,427)			$ (1,494,427)
	Customer Charge						
5	All Customers	1,719	$ 310.67	$ 534,042	$ -	$ -	$ 534,042
6	Primary Service (Large) (PL)			$ 56,351,606	$ -	$ -	$ 56,351,606
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 23,971,934	$ -	$ -	$ 23,971,934
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 14 Interruptible Power			$ -	$ -	$ -	$ -
13	No. 15 Load Displacement			$ (61,619)	$ -	$ -	$ (61,619)
14	No. 16 Load Displacement			$ -	$ -	$ -	$ -
15	No. 17 Curtailment Energy			$ (6,597)	$ -	$ -	$ (6,597)
16	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
17	No. 20 Environmental Compliance Cost Recovery			$ 8,238,159	$ -	$ -	$ 8,238,159
18	No. 21 Green Power			$ (7,073)	$ -	$ -	$ (7,073)
19	No. 22 Core and Core Demand Side Manageme			$ 1,763,026	$ -	$ -	$ 1,763,026
20	Total Rider			$ 33,897,830	$ -	$ -	$ 33,897,830
21	Grand Total			$ 90,249,436	$ -	$ -	$ 90,249,436
22						*Balancing Adjustment*	0.998119
23						**Total Revenue**	**$ 90,079,633**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Primary Service (Laege) (PL)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	1,257,445,479	$ 0.034099	$ 42,877,803	$ -	$ -	$ 42,877,803
		Target	$ 42,877,803			
		Difference	$ -			
Billed kW						
First 2,000 kW	2,102,782	$ 19.07	$ 40,100,053	$ -	$ -	$ 40,100,053
Over 2,000 kW	675,915	$ 19.07	$ 12,889,699	$ -	$ -	$ 12,889,699
	2,778,697		$ 52,989,752	$ -	$ -	$ 52,989,752
		Target	$ 52,989,752			
		Difference	$ -			
Power factor						
			$ (2,494,512)			$ (2,494,512)
Customer Charge						
All Customers	1,719	$ 120.00	$ 206,280	$ -	$ -	$ 206,280
		Target	$ 206,280			
		Difference	$ -			
Primary Service (Large) (PL)			$ 93,579,323	$ -	$ -	$ 93,579,323
		Target	$ 93,579,323			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 14 Interruptible Power			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ (61,619)	$ -	$ -	$ (61,619)
No. 16 Load Displacement			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ (6,597)	$ -	$ -	$ (6,597)
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ (7,073)	$ -	$ -	$ (7,073)
No. 22 Core and Core Demand Side Manageme			$ 1,763,026	$ -	$ -	$ 1,763,026
Total Rider			$ 1,687,737			$ 1,687,737
Grand Total			$ 95,267,060	$ -	$ -	$ 95,267,060
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
Process Heating (PH)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	First 250 Hrs use	60,616,330	$ 0.0510	$ 3,091,433	$ -	$ -	$ 3,091,433
2	Additional kWh	9,153,422	$ 0.0360	$ 329,523	$ -	$ -	$ 329,523
3	Total kWh	69,769,752		$ 3,420,956	$ -	$ -	$ 3,420,956
	Minimum Charge Adj.			$ 141,713			$ 141,713
	Power factor			$ 26,071			$ 26,071
4							
	Customer Charge						
5		384	$ 310.67	$ 119,297	$ -	$ -	$ 119,297
6	Process Heating (PH)			$ 3,708,037	$ -	$ -	$ 3,708,037
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 1,330,090	$ -	$ -	$ 1,330,090
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
13	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
14	No. 20 Environmental Compliance Cost Recove			$ 457,097	$ -	$ -	$ 457,097
15	No. 21 Green Power			$ -	$ -	$ -	$ -
16	No. 22 Core and Core Demand Side Managen			$ 97,822	$ -	$ -	$ 97,822
17	Total Rider			$ 1,885,009	$ -	$ -	$ 1,885,009
18	Grand Total			$ 5,593,046	$ -	$ -	$ 5,593,046
19						*Balancing Adjustment*	*0.977682*
20						**Total Revenue**	**$ 5,468,221**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
Process Heating (PH)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
First 250 Hrs use	60,616,330	$ 0.075408	$ 4,570,950	$ -	$ -	$ 4,570,950
Additional kWh	9,153,422	$ 0.060408	$ 552,939	$ -	$ -	$ 552,939
Total kWh	69,769,752		$ 5,123,889	$ -	$ -	$ 5,123,889
		Target	$ 5,123,889			
		Difference	$ -			
Minimum Charge Adj.			$ 209,531			$ 209,531
Power factor			$ 40,048			$ 40,048
Customer Charge						
	384	$ 1,000.00	$ 384,000	$ -	$ -	$ 384,000
		Target	$ 384,000			
		Difference	$ -			
Process Heating (PH)			$ 5,757,469	$ -	$ -	$ 5,757,469
		Target	$ 5,757,469			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ -	$ -	$ -	$ -
No. 22 Core and Core Demand Side Managemer			$ 97,822	$ -	$ -	$ 97,822
Total Rider			$ 97,822	$ -	$ -	$ 97,822
Grand Total			$ 5,855,291	$ -	$ -	$ 5,855,291
			Check TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
High Load Factor Service - Primary (HL1)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	1,363,422,610	$ 0.0207	$ 28,222,848	$ -	$ -	$ 28,222,848
	Billed kW						
2	First 4,000 kW	1,220,067	$ 11.11	$ 13,554,944	$ -	$ -	$ 13,554,944
3	Over 4,000 kW	1,424,788	$ 10.57	$ 15,060,009	$ -	$ -	$ 15,060,009
		2,644,855		$ 28,614,954	$ -	$ -	$ 28,614,954
	Power factor						
4				$ (1,884,168)			$ (1,884,168)
	Customer Charge						
5	All Customers	336	$ 310.67	$ 104,385	$ -	$ -	$ 104,385
6	High Load Factor Service (HL1)			$ 55,058,019	$ -	$ -	$ 55,058,019
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 25,992,281	$ -	$ -	$ 25,992,281
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 14 Interruptible Power			$ -	$ -	$ -	$ -
13	No. 15 Load Displacement			$ (87,390)	$ -	$ -	$ (87,390)
14	No. 16 Load Displacement			$ -	$ -	$ -	$ -
15	No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
16	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
17	No. 20 Environmental Compliance Cost Recove			$ 7,313,695	$ -	$ -	$ 7,313,695
18	No. 21 Green Power			$ 57,193	$ -	$ -	$ 57,193
19	No. 22 Core and Core Demand Side Managen			$ 1,911,613	$ -	$ -	$ 1,911,613
20	Total Rider			$ 35,187,393		$ -	$ 35,187,393
21	Grand Total			$ 90,245,411	$ -	$ -	$ 90,245,411
22					*Balancing Adjustment*		*0.995489*
23					**Total Revenue**		**$ 89,838,298**
					Check		TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
High Load Factor Service - Primary (HL1)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	1,363,422,610	$ 0.034097	$ 46,488,027	$ -	$ -	$ 46,488,027
		Target	$ 46,488,027			
		Difference	$ -			
Billed kW						
First 4,000 kW	1,220,067	$ 18.82	$ 22,961,661	$ -	$ -	$ 22,961,661
Over 4,000 kW	1,424,788	$ 18.82	$ 26,814,510	$ -	$ -	$ 26,814,510
	2,644,855		$ 49,776,171	$ -	$ -	$ 49,776,171
		Target	$ 49,776,171			
		Difference	$ -			
Power factor						
			$ (3,188,902)			$ (3,188,902)
Customer Charge						
All Customers	336	$ 135.00	$ 45,360	$ -	$ -	$ 45,360
		Target	$ 45,360			
		Difference	$ -			
High Load Factor Service (HL1)			$ 93,120,656	$ -	$ -	$ 93,120,656
		Target	$ 93,120,656			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 14 Interruptible Power			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ (87,390)	$ -	$ -	$ (87,390)
No. 16 Load Displacement			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recove			$ -	$ -	$ -	$ -
No. 21 Green Power			$ 57,193	$ -	$ -	$ 57,193
No. 22 Core and Core Demand Side Managen			$ 1,911,613	$ -	$ -	$ 1,911,613
Total Rider			$ 1,881,416		$ -	$ 1,881,416
Grand Total			$ 95,002,072	$ -	$ -	$ 95,002,072
		Check	TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
High Load Factor Service - Sub transmission (HL2)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	232,596,964	$ 0.0199	$ 4,628,680	$ -	$ -	$ 4,628,680
	Billed kW						
2	First 4,000 kW	209,266	$ 10.95	$ 2,291,463	$ -	$ -	$ 2,291,463
3	Over 4,000 kW	225,579	$ 10.60	$ 2,391,137	$ -	$ -	$ 2,391,137
		434,845		$ 4,682,600	$ -	$ -	$ 4,682,600
	Power factor						
4				$ (403,489)			$ (403,489)
	Customer Charge						
5	All Customers	60	$ 310.67	$ 18,640	$ -	$ -	$ 18,640
6	High Load Factor Service (HL2)			$ 8,926,431	$ -	$ -	$ 8,926,431
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 4,434,227	$ -	$ -	$ 4,434,227
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 14 Interruptible Power			$ -	$ -	$ -	$ -
13	No. 15 Load Displacement			$ -	$ -	$ -	$ -
14	No. 16 Load Displacement			$ -	$ -	$ -	$ -
15	No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
16	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
17	No. 20 Environmental Compliance Cost Recove			$ 1,247,701	$ -	$ -	$ 1,247,701
18	No. 21 Green Power			$ 9,757	$ -	$ -	$ 9,757
19	No. 22 Core and Core Demand Side Managen			$ 326,117	$ -	$ -	$ 326,117
20	Total Rider			$ 6,017,802	$ -	$ -	$ 6,017,802
21	Grand Total			$ 14,944,233	$ -	$ -	$ 14,944,233
22					*Balancing Adjustment*		*1.001655*
23					**Total Revenue**		**$ 14,968,962**
					Check		TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
High Load Factor Service - Sub transmission (HL2)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	232,596,964	$ 0.033958	$ 7,898,507	$ -	$ -	$ 7,898,507
		Target	$ 7,898,507			
		Difference	$ -			
Billed kW						
First 4,000 kW	209,266	$ 19.18	$ 4,013,722	$ -	$ -	$ 4,013,722
Over 4,000 kW	225,579	$ 19.18	$ 4,326,605	$ -	$ -	$ 4,326,605
	434,845		$ 8,340,327	$ -	$ -	$ 8,340,327
		Target	$ 8,340,327			
		Difference	$ -			
Power factor						
			$ (702,319)			$ (702,319)
Customer Charge						
All Customers	60	$ 140.00	$ 8,400	$ -	$ -	$ 8,400
		Target	$ 8,400			
		Difference	$ -			
High Load Factor Service (HL2)			$ 15,544,915	$ -	$ -	$ 15,544,915
		Target	$ 15,544,915			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facilities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 14 Interruptible Power			$ -	$ -	$ -	$ -
No. 15 Load Displacement			$ -	$ -	$ -	$ -
No. 16 Load Displacement			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recove			$ -	$ -	$ -	$ -
No. 21 Green Power			$ 9,757	$ -	$ -	$ 9,757
No. 22 Core and Core Demand Side Managen			$ 326,117	$ -	$ -	$ 326,117
Total Rider			$ 335,874		$ -	$ 335,874
Grand Total			$ 15,880,789	$ -	$ -	$ 15,880,789
			TRUE			

Indianapolis Power and Light Company
Pro Forma Revenue at Current Rates
Test Year Ended June 30, 2014
High Load Factor Service - Transmission (HL3)

Line No.	Description	Annualized Volumes	Current Rate	Annualized Revenue	Adjustment	Adjustment	Total Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Billed kwh						
1	All kWh	358,302,200	$ 0.0199	$ 7,130,214	$ -	$ -	$ 7,130,214
	Billed kW						
2	First 4,000 kW	121,807	$ 10.65	$ 1,297,245	$ -	$ -	$ 1,297,245
3	Over 4,000 kW	492,191	$ 9.90	$ 4,872,691	$ -	$ -	$ 4,872,691
		613,998		$ 6,169,935	$ -	$ -	$ 6,169,935
	Power factor						
4				$ (538,707)			$ (538,707)
	Customer Charge						
5	All Customers	36	$ 310.67	$ 11,184	$ -	$ -	$ 11,184
6	High Load Factor Service (HL2)			$ 12,772,626	$ -	$ -	$ 12,772,626
	Contract Riders						
7	No. 3 Demand Side Management			$ -	$ -	$ -	$ -
8	No. 4 Additional Charges for other facitities			$ -	$ -	$ -	$ -
9	No. 6 Fuel Cost Adjustment			$ 6,830,671	$ -	$ -	$ 6,830,671
10	No. 8 Off Peak Service			$ -	$ -	$ -	$ -
11	No. 9 Net Metering			$ -	$ -	$ -	$ -
12	No. 14 Interruptible Power			$ (306,114)	$ -	$ -	$ (306,114)
13	No. 15 Load Displacement			$ -	$ -	$ -	$ -
14	No. 16 Load Displacement			$ -	$ -	$ -	$ -
15	No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
16	No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
17	No. 20 Environmental Compliance Cost Recovery			$ 1,922,011	$ -	$ -	$ 1,922,011
18	No. 21 Green Power			$ -	$ -	$ -	$ -
19	No. 22 Core and Core Demand Side Managemen			$ 502,365	$ -	$ -	$ 502,365
20	Total Rider			$ 8,948,933	$ -	$ -	$ 8,948,933
21	Grand Total			$ 21,721,559	$ -	$ -	$ 21,721,559
22					*Balancing Adjustment*		*0.999281*
23						**Total Revenue**	**$ 21,705,945**
						Check	TRUE

Indianapolis Power and Light Company
Pro Forma Revenue at Proposed Rates
Test Year Ended June 30, 2014
High Load Factor Service - Transmission (HL3)

Solved for Yellow Highlighted Cells
Targeted Difference at Zero

Description	Annualized Volumes	Proposed Rate	Revenue	Adjustment	Adjustment	Total Revenue
(H)	(I)	(J)	(K)	(L)	(M)	(N)
Billed kwh						
All kWh	358,302,200	$ 0.033533	$ 12,015,126	$ -	$ -	$12,015,126
		Target	$ 12,015,126			
		Difference	$ -			
Billed kW						
First 4,000 kW	121,807	$ 18.56	$ 2,260,738	$ -	$ -	$ 2,260,738
Over 4,000 kW	492,191	$ 18.56	$ 9,135,065	$ -	$ -	$ 9,135,065
	613,998		$ 11,395,803	$ -	$ -	$11,395,803
		Target	$ 11,395,803			
		Difference	$ -			
Power factor			$ (944,785)			$ (944,785)
Customer Charge						
All Customers	36	$ 180.00	$ 6,480	$ -	$ -	$ 6,480
		Target	$ 6,480			
		Difference	$ -			
High Load Factor Service (HL2)			$ 22,472,624	$ -	$ -	$22,472,624
		Target	$ 22,472,624			
		Difference	$ -			
Contract Riders						
No. 3 Demand Side Management			$ -	$ -	$ -	$ -
No. 4 Additional Charges for other facitities			$ -	$ -	$ -	$ -
No. 6 Fuel Cost Adjustment			$ -	$ -	$ -	$ -
No. 8 Off Peak Service			$ -	$ -	$ -	$ -
No. 9 Net Metering			$ -	$ -	$ -	$ -
No. 14 Interruptible Power			$ (612,228)	$ -	$ -	$ (612,228)
No. 15 Load Displacement			$ -	$ -	$ -	$ -
No. 16 Load Displacement			$ -	$ -	$ -	$ -
No. 17 Curtailment Energy			$ -	$ -	$ -	$ -
No. 18 Curtailment Energy II			$ -	$ -	$ -	$ -
No. 20 Environmental Compliance Cost Recovery			$ -	$ -	$ -	$ -
No. 21 Green Power			$ -	$ -	$ -	$ -
No. 22 Core and Core Demand Side Managemen			$ 502,365	$ -	$ -	$ 502,365
Total Rider			$ (109,863)			$ (109,863)
Grand Total			$ 22,362,760	$ -	$ -	$22,362,760
			TRUE			

14hod

Indianapolis Power and Light Company
Lighting Rate Design

Line No.	Description	June 2014 Inventory	Current Annual Rate	Change (%)	Proposed Annual Rate	Current Revenue	Proposed Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Company Installed, Owned, and Maintained (APL)			**6.83%**			
1	175 WATT LIGHT	13,009	$82.44	6.83%	$88.07	$1,072,462	$1,145,703
2	400 WATT MV REDDY SENT.	1,957	$154.08	6.83%	$164.61	$301,535	$322,142
3	1000 WATT MV REDDY SENT.	199	$267.24	6.83%	$285.50	$53,181	$56,815
4	100 WATT LIGHT	6,109	$74.16	6.83%	$79.23	$453,043	$484,016
5	150 WATT HPS REDDY SENT.	1,193	$158.16	6.83%	$168.97	$188,685	$201,581
6	250 WATT HPS REDDY SENT.	954	$208.80	6.83%	$223.06	$199,195	$212,799
7	400 WATT HPS REDDY SENT.	1,324	$239.76	6.83%	$256.14	$317,442	$339,129
8	175 WATT MV - SEC. METERED - OVERHEAD	76	$62.64	6.83%	$66.92	$4,761	$5,086
9	400 WATT MV - SEC. METERED OVERHEAD	16	$121.44	6.83%	$129.74	$1,943	$2,076
10	1000 WATT MV - SEC. METERED - OVERHEAD	1	$188.04	6.83%	$200.89	$188	$201
11	100 WATT HPS - SEC. METERED - OVERHEAD	13	$64.80	6.83%	$69.23	$842	$900
12	150 WATT HPS - SEC. METERED - OVERHEAD	1	$148.44	6.83%	$158.58	$148	$159
13	250 WATT HPS - SEC. METERED - OVERHEAD	2	$187.56	6.83%	$200.37	$375	$401
14	400 WATT HPS - SEC. METERED - OVERHEAD	12	$206.88	6.83%	$221.01	$2,483	$2,652
15	ENERGY AND CONTROL ONLY	1	$36.60	6.83%	$39.10	$37	$39
16	400 WATT MV FLOOD - OVERHEAD	688	$154.32	6.83%	$164.86	$106,172	$113,424
17	150 WATT HPS FLOOD - OVERHEAD	560	$158.64	6.83%	$169.48	$88,838	$94,909
18	250 WATT HPS FLOOD - OVERHEAD	722	$208.92	6.83%	$223.19	$150,840	$161,143
19	400 WATT HPS FLOOD - OVERHEAD	6,630	$239.88	6.83%	$256.27	$1,590,404	$1,699,070
20	400 WATT METAL HALIDE FLOOD - OVERHEAD	1,586	$239.88	6.83%	$256.27	$380,450	$406,444
21	400 WATT MV FLOOD - SEC. METERED	6	$121.44	6.83%	$129.74	$729	$778
22	150 WATT HPS FLOOD - SEC. METERED	1	$148.44	6.83%	$158.58	$148	$159
23	250 WATT HPS FLOOD - SEC. METERED	6	$187.56	6.83%	$200.37	$1,125	$1,202
24	400 WATT HPS FLOOD - SEC. METERED	36	$206.88	6.83%	$221.01	$7,448	$7,956
25	400 WATT METAL HALIDE FLOOD-SEC. METERED	2	$206.88	6.83%	$221.01	$414	$442
26	- WOOD POLE WITH OVERHEAD FEED -	9,408	$42.24	6.83%	$45.13	$397,394	$424,583
27	- WOOD POLE WITH UNDERGROUND FEED -	918	$104.28	6.83%	$111.40	$95,729	$102,265
28	400 WATT MV-1ST FIXTURE	20	$231.96	6.83%	$247.81	$4,639	$4,956
29	175 WATT MV-1ST FIXTURE	3	$191.16	6.83%	$204.22	$573	$613
30	400 WATT HPS-1ST FIXTURE	148	$340.92	6.83%	$364.21	$50,456	$53,903
31	250 WATT HPS-1ST FIXTURE	212	$229.68	6.83%	$245.37	$48,692	$52,018
32	150 WATT HPS-1ST FIXTURE	198	$199.20	6.83%	$212.81	$39,442	$42,136
33	100 WATT HPS-1ST FIXTURE	34	$183.96	6.83%	$196.53	$6,255	$6,682
34	400 WATT HPS-1ST FIXTURE-SHOEBOX	116	$281.88	6.83%	$301.14	$32,698	$34,932
35	250 WATT HPS-1ST FIXTURE-SHOEBOX	122	$231.24	6.83%	$247.04	$28,211	$30,139
36	400 WATT METAL HALIDE-1ST FIX-SHOEBOX	403	$281.88	6.83%	$301.14	$113,598	$121,359
37	400 WATT MV-1ST FIXTURE-FLOOD	5	$231.96	6.83%	$247.81	$1,160	$1,239
38	150 WATT HPS-1ST FIXTURE-FLOOD	46	$199.20	6.83%	$212.81	$9,163	$9,789
39	250 WATT HPS-1ST FIXTURE-FLOOD	76	$229.68	6.83%	$245.37	$17,456	$18,648
40	400 WATT HPS-1ST FIXTURE-FLOOD	281	$340.92	6.83%	$364.21	$95,799	$102,343
41	400 WATT METAL HALIDE-1ST FIX-FLOOD	120	$281.88	6.83%	$301.14	$33,826	$36,137
42	400 WATT MV-ADDIT'L FIXTURE	7	$154.08	6.83%	$164.61	$1,079	$1,152
43	175 WATT MV-ADDIT'L FIXTURE	2	$82.44	6.83%	$88.07	$165	$176
44	400 WATT HPS-ADDIT'L FIXTURE	65	$239.76	6.83%	$256.14	$15,584	$16,649
45	250 WATT HPS-ADDIT'L FIXTURE	20	$208.80	6.83%	$223.06	$4,176	$4,461
46	150 WATT HPS-ADDIT'L FIXTURE	17	$158.16	6.83%	$168.97	$2,689	$2,872
47	100 WATT HPS-ADDIT'L FIXTURE	3	$74.16	6.83%	$79.23	$222	$238
48	400 WATT HPS-ADDIT'L FIXTURE-SHOEBOX	27	$96.36	6.83%	$102.94	$2,602	$2,779
49	250 WATT HPS-ADDIT'L FIXTURE-SHOEBOX	13	$76.32	6.83%	$81.53	$992	$1,060
50	400 WATT METAL HALIDE-ADDT'L FIX-SHOEBOX	113	$96.36	6.83%	$102.94	$10,889	$11,632
51	400 WATT MV-ADDIT'L FIXTURE-FLOOD	7	$154.08	6.83%	$164.61	$1,079	$1,152
52	150 WATT HPS-ADDIT'L FIXTURE-FLOOD	50	$158.16	6.83%	$168.97	$7,908	$8,449
53	250 WATT HPS-ADDIT'L FIXTURE-FLOOD	61	$208.80	6.83%	$223.06	$12,737	$13,607
54	400 WATT HPS-ADDIT'L FIXTURE-FLOOD	337	$239.76	6.83%	$256.14	$80,799	$86,319
55	400 WATT METAL HALIDE-ADDT'L FIX-FLOOD	228	$96.36	6.83%	$102.94	$21,970	$23,470
56	175 W MV POST TOP WASH	45	$291.84	6.83%	$311.78	$13,133	$14,030
57	175 W MV POST TOP	32	$186.12	6.83%	$198.84	$5,956	$6,363
58	100 W HPS POST TOP WASH	93	$286.08	6.83%	$305.62	$26,605	$28,423
59	100 W HPS POST TOP	416	$183.12	6.83%	$195.63	$76,178	$81,382
60	150 W HPS POST TOP WASH	132	$327.72	6.83%	$350.11	$43,259	$46,215
61	150 W HPS POST TOP BALL	64	$224.76	6.83%	$240.11	$14,385	$15,367
62	250 WATT MET HAL 18 FT DIR EMBEDDED	109	$538.20	6.83%	$574.97	$58,664	$62,672
63	250 WATT MET HAL 12 FT ANCHOR BASED	80	$590.88	6.83%	$631.25	$47,270	$50,500
64	2-250 WATT MET HAL 18 FT DIR EMBEDDED	89	$740.64	6.83%	$791.24	$65,917	$70,420
65	2-250 WATT MET HAL 12 FT ANCHOR BASED	3	$793.32	6.83%	$847.52	$2,380	$2,543

Indianapolis Power and Light Company
Lighting Rate Design

Line No.	Description	June 2014 Inventory	Current Annual Rate	Change (%)	Proposed Annual Rate	Current Revenue	Proposed Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
66	250 WATT MET HAL 18 FT DIR EMBED PRI METER	32	$494.28	6.83%	$528.05	$15,817	$16,898
67	250 WATT MET HAL 12 FT ANCHOR BASE PRI METER	16	$546.96	6.83%	$584.33	$8,751	$9,349
68	2-250 WATT MET HAL 18 FT DIR EMBED PRI METER	17	$658.92	6.83%	$703.94	$11,202	$11,967
69	2-250 WATT MET HAL 12 FT ANCHOR BASE PRI METER	9	$711.72	6.83%	$760.34	$6,405	$6,843
70	Total	**49,301**			**Total APL**	**$6,456,791**	**$6,897,958**

Indianapolis Power and Light Company
Lighting Rate Design

Line No.	Description	June 2014 Inventory	Current Annual Rate	Change (%)	Proposed Annual Rate	Current Revenue	Proposed Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Company Installed, Owned, and Maintained (MU-1)			**0.00%**			
71	1000 WATT MV - OVERHEAD	1	$294.36	0.00%	$294.36	$294	$294
72	1000 WATT MV - METAL COLUMN	7	$440.52	0.00%	$440.52	$3,084	$3,084
73	400 WATT MV - OVERHEAD	41	$163.56	0.00%	$163.56	$6,706	$6,706
74	400 WATT MV - METAL COLUMN	220	$231.96	0.00%	$231.96	$51,031	$51,031
75	175 WATT MV - OVERHEAD	1,099	$116.28	0.00%	$116.28	$127,792	$127,792
76	175 WATT MV - METAL COLUMN	1,101	$191.16	0.00%	$191.16	$210,467	$210,467
77	175 W MV - POST TOP	616	$186.12	0.00%	$186.12	$114,650	$114,650
78	175 W MV - POST TOP WASH	211	$291.84	0.00%	$291.84	$61,578	$61,578
79	400 WATT HPS - OVERHEAD	1,528	$194.76	0.00%	$194.76	$297,593	$297,593
80	400 WATT HPS - TRAFFIC COLUMN	388	$194.76	0.00%	$194.76	$75,567	$75,567
81	400 WATT HPS - METAL COLUMN	2,186	$340.92	0.00%	$340.92	$745,251	$745,251
82	250 WATT HPS - OVERHEAD	5,466	$159.96	0.00%	$159.96	$874,341	$874,341
83	250 WATT HPS - TRAFFIC COLUMN	210	$159.96	0.00%	$159.96	$33,592	$33,592
84	250 WATT HPS - METAL COLUMN	2,145	$229.68	0.00%	$229.68	$492,664	$492,664
85	150 WATT HPS - OVERHEAD	1,736	$127.20	0.00%	$127.20	$220,819	$220,819
86	150 WATT HPS - TRAFFIC COLUMN	26	$127.20	0.00%	$127.20	$3,307	$3,307
87	150 WATT HPS - METAL COLUMN	789	$199.20	0.00%	$199.20	$157,169	$157,169
88	100 WATT HPS - OVERHEAD	12,083	$109.08	0.00%	$109.08	$1,318,014	$1,318,014
89	100 WATT HPS - TRAFFIC COLUMN	3	$109.08	0.00%	$109.08	$327	$327
90	100 WATT HPS - METAL COLUMN	2,698	$183.96	0.00%	$183.96	$496,324	$496,324
91	100 W HPS - POST TOP	5,817	$183.12	0.00%	$183.12	$1,065,209	$1,065,209
92	100 W HPS - POST TOP WASH	1,783	$286.08	0.00%	$286.08	$510,081	$510,081
93	150 W HPS- POST TOP BALL	28	$220.44	0.00%	$220.44	$6,172	$6,172
94	150 W HPS - POST TOP WASH	3,064	$327.72	0.00%	$327.72	$1,004,134	$1,004,134
95	1-150 & 4-100 WATT HPS - CLUSTER	22	$735.60	0.00%	$735.60	$16,183	$16,183
96	400 WATT HPS-METAL COLUMN-PAINTED BRONZE	329	$372.24	0.00%	$372.24	$122,467	$122,467
97	400 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE	45	$199.92	0.00%	$199.92	$8,996	$8,996
98	250 WATT HPS-METAL COLUMN-PAINTED BRONZE	43	$261.00	0.00%	$261.00	$11,223	$11,223
99	175 WATT MV - FIBERGLASS COLUMN	9	$181.92	0.00%	$181.92	$1,637	$1,637
100	100 WATT HPS - FIBERGLASS COLUMN	305	$174.60	0.00%	$174.60	$53,253	$53,253
101	150 WATT HPS - FIBERGLASS COLUMN	789	$189.84	0.00%	$189.84	$149,784	$149,784
102	250 WATT HPS - FIBERGLASS COLUMN	684	$220.44	0.00%	$220.44	$150,781	$150,781
103	400 WATT HPS - FIBERGLASS COLUMN	622	$316.08	0.00%	$316.08	$196,602	$196,602
104	400 WATT MH SHOEBOX - FIBERGLASS COLUMN	117	$288.72	0.00%	$288.72	$33,780	$33,780
105	2-400 WATT MH SHOEBOX-FIBERGLASS COLUMN	55	$391.80	0.00%	$391.80	$21,549	$21,549
106	150 WATT HPS UPASS 4100HRS -WALL MOUNTED	203	$167.88	0.00%	$167.88	$34,080	$34,080
107	250 W HPS - SHOEBOX	75	$231.24	0.00%	$231.24	$17,343	$17,343
108	2-250 W HPS-SHOEBOX	8	$307.56	0.00%	$307.56	$2,460	$2,460
109	400 WATT HPS UPASS 8760HRS WALL MOUNTED	85	$349.32	0.00%	$349.32	$29,692	$29,692
110	150 WATT HPS UPASS 8760HRS WALL MOUNTED	104	$213.72	0.00%	$213.72	$22,227	$22,227
111	400 W HPS - SHOEBOX	49	$281.88	0.00%	$281.88	$13,812	$13,812
112	2-400 W HPS-SHOEBOX	27	$378.24	0.00%	$378.24	$10,212	$10,212
113	EXCESS MATERIAL FOR CIRCLE CENTRE MALL	1	$6,286.94	0.00%	$6,286.94	$6,287	$6,287
114	PEDESTRIAN LIGHT FOR CIRCLE CENTRE MALL	75	$787.20	0.00%	$787.20	$59,040	$59,040
115	80W LED POST TOP	1	$482.16	0.00%	$482.16	$482	$482
116	TWIN 80W LED POST TOP	80	$781.92	0.00%	$781.92	$62,554	$62,554
117	**Total**	**46,974**				**$8,900,611**	**$8,900,611**
	Customer Installed, Owned, and Maintained (MU-1)			**0.00%**			
118	250 WATT MV - CUSTOMER OWNED	16	$145.44	0.00%	$145.44	$2,327	$2,327
119	175 WATT MV - CUSTOMER OWNED	42	$91.08	0.00%	$91.08	$3,825	$3,825
120	400 WATT HPS - CUSTOMER OWNED	1,261	$135.48	0.00%	$135.48	$170,840	$170,840
121	250 WATT HPS - CUSTOMER OWNED	1,218	$109.56	0.00%	$109.56	$133,444	$133,444
122	150 WATT HPS - CUSTOMER OWNED	562	$84.72	0.00%	$84.72	$47,613	$47,613
123	1000 WATT HPS - CUSTOMER OWNED	1,358	$276.84	0.00%	$276.84	$375,949	$375,949
124	175 WATT MV ORNIMENTAL - CUSTOMER OWNED	2	$142.44	0.00%	$142.44	$285	$285
125	400 WATT HPS-CUSTOMER OWNED WO/MAINT	240	$114.96	0.00%	$114.96	$27,590	$27,590
126	150 WATT HPS - CUSTOMER OWNED WO/MAINT	12	$64.20	0.00%	$64.20	$770	$770
127	1000 WATT HPS - CUSTOMER OWNED WO/MAINT	42	$256.32	0.00%	$256.32	$10,765	$10,765
128	**Total**	**4,753**				**$773,409**	**$773,409**
	Customer Installed, Owned, but Company Maintained (MU-1)			**0.00%**			
129	400 WATT HPS - CUSTOMER OWNED W/MAINT	13	$135.48	0.00%	$135.48	$1,761	$1,761
130	**Total**	**13**				**$1,761**	**$1,761**

Indianapolis Power and Light Company
Lighting Rate Design

Line No.	Description	June 2014 Inventory	Current Annual Rate	Change (%)	Proposed Annual Rate	Current Revenue	Proposed Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
131		51,740			Total MU-1	$9,675,782	$9,675,782

Indianapolis Power and Light Company
Lighting Rate Design

Line No.	Description	June 2014 Inventory	Current Annual Rate	Change (%)	Proposed Annual Rate	Current Revenue	Proposed Revenue
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Customer Installed, Owned, but Company Maintained (MU-4)			**0.00%**			
132	SEWER MONITOR	2	$37.80	0.00%	$37.80	$76	$76
133	TRAFFIC SIGNAL	997	$487.21	0.00%	$487.21	$485,750	$485,748
134	AIR RAID SIRENS	164	$104.83	0.00%	$104.83	$17,192	$17,192
135	TRAFFIC COUNTING DEVICE	3	$37.80	0.00%	$37.80	$113	$113
136	STREET LIGHT	613	$78.43	0.00%	$78.43	$48,076	$48,078
137	CITY TERRITORY	10	$9.18	0.00%	$9.18	$92	$92
138	WI-FI	94	$40.92	0.00%	$40.92	$3,846	$3,846
139	SURVEILLANCE CAMERAS	44	$111.48	0.00%	$111.48	$4,905	$4,905
140		**1,927**			**Total MU-4**	**$560,050**	**$560,050**
141					**Total Lighting (APL and MU)**	**$16,692,623**	**$17,133,790**
142					*Balancing Adjustment*	*0.9999*	
143			**Total Lighting Revenue (APL and MU) @ Pro Forma Current Rates**			**$16,691,014**	
144					**Proposed Target Revenue**		**$17,133,789**
145					Difference		($1)

INDIANAPOLIS POWER AND LIGHT COMPANY
Rate Design Summary

Test Year Ended June 30, 2014

	(A)	(B)	(C)		(D)	
Line No.	**Rate RS**		**Current Rate with ECCR and Fuel (Base Fuel and FCA)**		**Proposed Rates**	
	Billed kwh					
1		First 500 kWh	$	0.093346	$	0.093595
2		Over 500 kWh	$	0.070346	$	0.072660
3		Over 1,000	$	0.058146	$	0.060057
	Customer Charge					
4		0 to 325 kWh	$	6.70	$	11.25
5		Over 325 kWh	$	11.00	$	17.00

	(A)	(B)	(C)		(D)	
Line No.	**Rate SS**		**Current Rate with ECCR and Fuel (Base Fuel and FCA)**		**Proposed Rates**	
	Billed kwh					
1		First 5,000 kWh	$	0.103752	$	0.095855
2		Over 5,000 kWh	$	0.089052	$	0.081155
	Customer Charge					
3		0 to 5,000 kWh	$	11.38	$	30.00
4		Over 5,000 kWh	$	32.14	$	50.00

	(A)	(B)	(C)		(D)	
Line No.	**Rate SH**		**Current Rate with ECCR and Fuel (Base Fuel and FCA)**		**Proposed Rates**	
	Billed kwh					
1		All kWh	$	0.075152	$	0.079271
	Customer Charge					
2		All Customers	$	11.21	$	30.00

INDIANAPOLIS POWER AND LIGHT COMPANY
Rate Design Summary

Test Year Ended June 30, 2014

Line No.	(A)	(B)	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Rate SE			
	Billed kwh			
1		First 5,000 kWh	$ 0.103752	$ 0.108493
2		Over 5,000 kWh	$ 0.089052	$ 0.093793
3		Excess of 155 x Con	$ 0.075152	$ 0.079893
	Customer Charge			
4		All Customers	$ 11.21	$ 30.00

Line No.	(A)	(B)	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Rate UW			
	Billed kwh			
1		All kWh	$ 0.072052	$ 0.060100
	Customer Charge			
2		All Customers	$ 4.60	$ 27.00

Line No.	(A)	(B)	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Rate CB			
	Billed kwh			
1		All kWh	$ 0.061752	$ 0.062894
	Customer Charge			
2		All Customers	$ 4.60	$ 7.10

INDIANAPOLIS POWER AND LIGHT COMPANY
Rate Design Summary

Test Year Ended June 30, 2014

Line No.	(A) Rate SL	(B)	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh			
1		All kWh	$ 0.052415	$ 0.035150
	Billed kW			
2		First 500 kW	$ 10.55	$ 18.29
3		Over 500 kW	$ 10.18	$ 18.29
	Customer Charge			
4		All Customers	$ 103.33	$ 120.00

Line No.	(A) Rate PL	(B)	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh			
1		All kWh	$ 0.046315	$ 0.034099
	Billed kW			
2		First 2,000 kW	$ 11.28	$ 19.07
3		Over 2,000 kW	$ 11.19	$ 19.07
	Customer Charge			
4		All Customers	$ 310.67	$ 120.00

INDIANAPOLIS POWER AND LIGHT COMPANY
Rate Design Summary

Test Year Ended June 30, 2014

Line No.	(A) (B) [redacted] Rate PH	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh		
1	First 250 Hrs use	$ 0.076615	$ 0.075408
2	Additional kWh	$ 0.061615	$ 0.060408
	Customer Charge		
3	All Customers	$ 310.67	$ 1,000.00

Line No.	(A) (B) [redacted] Rate HL1	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh		
1	All kWh	$ 0.045128	$ 0.034097
	Billed kW		
2	First 4,000 kW	$ 11.11	$ 18.82
3	Over 4,000 kW	$ 10.57	$ 18.82
	Customer Charge		
4	All Customers	$ 310.67	$ 135.00

INDIANAPOLIS POWER AND LIGHT COMPANY
Rate Design Summary

Test Year Ended June 30, 2014

Line No.	(A) (B) [redacted] Rate HL2	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh		
1	All kWh	$ 0.044328	$ 0.033958
	Billed kW		
2	First 4,000 kW	$ 10.95	$ 19.18
3	Over 4,000 kW	$ 10.60	$ 19.18
	Customer Charge		
4	All Customers	$ 310.67	$ 140.00

Line No.	(A) (B) [redacted] Rate HL3	(C) Current Rate with ECCR and Fuel (Base Fuel and FCA)	(D) Proposed Rates
	Billed kwh		
1	All kWh	$ 0.044328	$ 0.033533
	Billed kW		
2	First 4,000 kW	$ 10.65	$ 18.56
3	Over 4,000 kW	$ 9.90	$ 18.56
	Customer Charge		
4	All Customers	$ 310.67	$ 180.00

Indianapolis Power and Light Company
Proposed Rates - Residential Bill Impacts - RS Customers

Proposed Rates

Energy Charge		Including Fuel Current Rate	Including Fuel Proposed Rate	Including Fuel & DSM Current Rate	Including Fuel & DSM Proposed Rate	Excluding Fuel Current Rate	Excluding Fuel Proposed Rate
First 500 kWh		$ 0.093346	$ 0.093595	$ 0.096827	$ 0.097076	$ 0.065307	$ 0.065515
Over 500 kWh	500	$ 0.070346	$ 0.072660	$ 0.073827	$ 0.076141	$ 0.042307	$ 0.044580

Customer Charge					
0 to 325 kWh		$ 6.70	$ 11.25	$ 6.70	$ 11.25
Over 325 kWh	325	$ 11.00	$ 17.00	$ 11.00	$ 17.00

DSM Charge ($/kWh)	$ 0.003481

Bill Impacts for RS Customers

Line No.	Monthly kWh	% of Customers	Including Fuel & DSM: Monthly Margin or Base Rate Present Rates	Including Fuel & DSM: Monthly Margin or Base Rate Proposed Rates	Including Fuel & DSM: Increase / <Decrease> Amount	Including Fuel & DSM: Increase / <Decrease> Percent	Including Fuel & DSM: Proposed ¢ / kWh	Excluding Fuel: Monthly Total Bill Present Rates	Excluding Fuel: Monthly Total Bill Proposed Rates	Excluding Fuel: Increase / <Decrease> Amount	Excluding Fuel: Increase / <Decrease> Percent	Excluding Fuel: Proposed ¢ / kWh
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
1	100	3.3%	$ 16.38	$ 20.96	$ 4.58	27.96%	0.20960	$ 13.23	$ 17.80	$ 4.57	34.54%	0.17800
2	200	3.6%	26.07	30.67	4.60	17.64%	0.15335	19.76	24.35	4.59	23.23%	0.12175
3	325	8.7%	38.17	42.80	4.63	12.13%	0.13169	27.92	32.54	4.62	16.55%	0.10012
4	400	7.0%	49.73	55.83	6.10	12.27%	0.13958	37.12	43.21	6.09	16.41%	0.10803
5	500	10.2%	59.41	65.54	6.13	10.32%	0.13108	43.65	49.76	6.11	14.00%	0.09952
6	600	10.2%	66.79	73.15	6.36	9.52%	0.12192	47.88	54.22	6.34	13.24%	0.09037
7	700	9.7%	74.18	80.77	6.59	8.88%	0.11539	52.11	58.68	6.57	12.61%	0.08383
8	800	8.7%	81.56	88.38	6.82	8.36%	0.11048	56.34	63.13	6.79	12.05%	0.07891
9	900	7.4%	88.94	96.00	7.06	7.94%	0.10667	60.57	67.59	7.02	11.59%	0.07510
10	1,000	6.2%	96.32	103.61	7.29	7.57%	0.10361	64.80	72.05	7.25	11.19%	0.07205
11	1,250	10.8%	114.78	122.65	7.87	6.86%	0.09812	75.38	83.19	7.81	10.36%	0.06655
12	1,500	6.1%	133.24	141.68	8.44	6.33%	0.09445	85.96	94.34	8.38	9.75%	0.06289
13	1,750	3.4%	151.69	160.72	9.03	5.95%	0.09184	96.53	105.48	8.95	9.27%	0.06027
14	2,000	1.8%	170.15	179.75	9.60	5.64%	0.08988	107.11	116.63	9.52	8.89%	0.05832
15	2,500	1.7%	207.06	217.82	10.76	5.20%	0.08713	128.26	138.92	10.66	8.31%	0.05557
16	5,000	1.1%	391.63	408.17	16.54	4.22%	0.08163	234.03	250.37	16.34	6.98%	0.05007
17	10,000	0.1%	760.77	788.88	28.11	3.69%	0.07889	445.57	473.27	27.70	6.22%	0.04733
18	>10,000	0.0%										
19	1,000		96.32	103.61	7.29	7.57%	0.10361	64.80	72.05	7.25	11.19%	0.07205

Indianapolis Power and Light Company
Proposed Rates - Residential Bill Impacts - RH/RC Customers

Proposed Rates

Energy Charge		Including Fuel Current Rate	Including Fuel Proposed Rate	Including Fuel & DSM Current Rate	Including Fuel & DSM Proposed Rate	Excluding Fuel Current Rate	Excluding Fuel Proposed Rate
First 500 kWh		$ 0.093346	$ 0.093595	$ 0.096827	$ 0.097076	$ 0.065307	$ 0.065515
Over 500 kWh	500	$ 0.070346	$ 0.072660	$ 0.073827	$ 0.076141	$ 0.042307	$ 0.044580
Over 1,000	1000	$ 0.058146	$ 0.060057	$ 0.061627	$ 0.063538	$ 0.030107	$ 0.031977
Customer Charge							
0 to 325 kWh		$ 6.70	$ 11.25	$ 6.70	$ 11.25		
Over 325 kWh	325	$ 11.00	$ 17.00	$ 11.00	$ 17.00		
DSM Charge ($/kWh)		$ 0.003481					

Bill Impacts for RH/RC Customers

Line No.	Monthly kWh	% of Customers	Including Fuel & DSM: Monthly Margin or Base Rate Present Rates	Including Fuel & DSM: Monthly Margin or Base Rate Proposed Rates	Including Fuel & DSM: Increase / <Decrease> Amount	Including Fuel & DSM: Increase / <Decrease> Percent	Including Fuel & DSM: Proposed ¢ / kWh	Excluding Fuel: Monthly Total Bill Present Rates	Excluding Fuel: Monthly Total Bill Proposed Rates	Excluding Fuel: Increase / <Decrease> Amount	Excluding Fuel: Increase / <Decrease> Percent	Excluding Fuel: Proposed ¢ / kWh
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
1	100	1.4%	$ 16.38	$ 20.96	$ 4.58	27.96%	0.20960	$ 13.23	$ 17.80	$ 4.57	34.54%	0.17800
2	200	1.1%	26.07	30.67	4.60	17.64%	0.15335	19.76	24.35	4.59	23.23%	0.12175
3	325	2.6%	38.17	42.80	4.63	12.13%	0.13169	27.92	32.54	4.62	16.55%	0.10012
4	400	2.6%	49.73	55.83	6.10	12.27%	0.13958	37.12	43.21	6.09	16.41%	0.10803
5	500	4.7%	59.41	65.54	6.13	10.32%	0.13108	43.65	49.76	6.11	14.00%	0.09952
6	600	5.9%	66.79	73.15	6.36	9.52%	0.12192	47.88	54.22	6.34	13.24%	0.09037
7	700	6.7%	74.18	80.77	6.59	8.88%	0.11539	52.11	58.68	6.57	12.61%	0.08383
8	800	6.8%	81.56	88.38	6.82	8.36%	0.11048	56.34	63.13	6.79	12.05%	0.07891
9	900	6.7%	88.94	96.00	7.06	7.94%	0.10667	60.57	67.59	7.02	11.59%	0.07510
10	1,000	6.2%	96.32	103.61	7.29	7.57%	0.10361	64.80	72.05	7.25	11.19%	0.07205
11	1,250	13.9%	111.73	119.50	7.77	6.95%	0.09560	72.33	80.04	7.71	10.66%	0.06403
12	1,500	11.5%	127.14	135.38	8.24	6.48%	0.09025	79.86	88.04	8.18	10.24%	0.05869
13	1,750	9.1%	142.54	151.26	8.72	6.12%	0.08643	87.38	96.03	8.65	9.90%	0.05487
14	2,000	7.0%	157.95	167.15	9.20	5.82%	0.08358	94.91	104.03	9.12	9.61%	0.05202
15	2,500	8.0%	188.76	198.92	10.16	5.38%	0.07957	109.96	120.02	10.06	9.15%	0.04801
16	5,000	5.5%	342.83	357.76	14.93	4.35%	0.07155	185.23	199.96	14.73	7.95%	0.03999
17	10,000	0.2%	650.97	675.45	24.48	3.76%	0.06755	335.77	359.84	24.07	7.17%	0.03598
18	>10,000	0.0%										
19	1,000		96.32	103.61	7.29	7.57%	0.10361	64.80	72.05	7.25	11.19%	0.07205

Data Request IG DR 5 - 13

Provide all data used in the FERC Tests.

Objection:

IPL objects to the request on the grounds and to the extent the request is overly broad and unduly burdensome, particularly with respect to the request for "all" data. Subject to and without waiver of the foregoing objections, IPL provides the following response.

Response:

Please see IG DR 5-13 Attachment 1 (FERC Test).

Data Request OUCC DR 18 - 20

With regard to IPL Workpaper 7.0-IPL Witness JDT Attachment 3 (Minimum System Study), please provide all source documents, and electronic spreadsheets showing the development of each of the values for each of the line items; i.e., numbers of units, per unit replacement costs, total replacement costs, etc., listed under: Primary Poles - Account 364; Secondary Poles - Account 364; Primary Overhead Conductors - Account 365; Primary Underground Conductors - Account 367; Secondary Overhead Conductors - Account 365; and, Secondary Underground Conductors - Account 367.

Objection:

Response:

Please see OUCC DR 18-20 Attachment 1. Replacement costs for equipment within the study were provided by IPL engineering personnel.

Request No. 3-3: Mr. Sommer's testimony on page 8 states: "Our initial proposed LED change out is for 20,000 of most common style Cobra Head street lights." Has the City sought any federal or state grants and/or funding to assist with this proposed LED change out? If so, please identify each such application or request for federal or state grants and provide a copy of the application and supporting documentation.

Response: No.

Data Request City of Indianapolis DR 1 - 01

Regarding Company Workpaper JSG-Workpaper 1.0 New Lighting Rates. Please provide detail for the installed cost of each fixture listed in Column F. Detail should include:
a. The Manufacturer of the fixture, along with type and wattage of fixture and identifying name and model of fixture.
b. The Cost of the light bracket, by whom on behalf of IPL the cost was determined, the date they determined it prior to inclusion in the JSG-Workpaper 1.0 New Lighting Rates, how they determined the cost and what they relied on to determine the cost.
c. The Cost of the Pole, by whom on behalf of IPL it was determined, the date they determined it prior to inclusion in the JSG-Workpaper 1.0 New Lighting Rates, how they determined the cost and what they relied on to determine the cost.
d. Cost of Labor broken down into all its included components, by whom on behalf of IPL the cost was determined, the date they determined the cost prior to inclusion in the JSG-Workpaper 1.0 New Lighting Rates, how they determined the cost and what they relied on to determine the cost.
e. All installation costs for each fixture broken down by component, including things like labor, trucks, etc.
f. All other associated cost calculations for a-f.
g. All associated work papers for a-f.
h. All pricing, bids, quotes, RFPs or other source documents for costs relied upon, in and in support of the preparation of JSG- Workpaper 1.0 New Lighting Rates.

Objection:

IPL objects to the Request on the grounds and to the extent the request seeks a compilation, analysis or study that IPL has not performed and to which IPL objects to performing. IPL further objects to the Request on the grounds and to the extent the request seeks information that is confidential, proprietary, competitively-sensitive and/or trade secret. IPL further objects to the request on the grounds and to the extent it is overly broad and unduly burdensome, particularly subparts (f), (g) and (h). Subject to and without waiver of the foregoing objections, IPL provides the following response.

Response:

a. See City of Indianapolis DR 1-1 Attachment 1.
b.-d. Each luminaire's installed cost is composed of four elements:
1) the contractor labor costs, which is based on the Meade 6-1-13 thru 12-31-14 unit price list for "Street Light Construction" shown in City of Indianapolis DR 1-1 Confidential Attachment 2.
2) a consistent IPL engineered labor cost of $36.10, which represents one hour at the average hourly rate for an IPL lighting representative at the time of calculation.

3) the actual material cost used for the lighting installation, which is developed from the "CUSTOMER BILLING MATERIAL & LABOR DETAIL" shown in City of Indianapolis DR 1-1 Confidential Attachment 2. Please note the labor cost listed on this sheet was not used in the luminaire's installed cost calculation; see subpart 1) for contractor labor costs used in the luminaire's installed cost calculation.
4) IPL's burden rates, which are derived from set percentages of the IPL engineered labor and the actual material costs. Below is the breakdown of IPL's burden rates as applied to each luminaire.

Benefits:	IPL engineered labor	x 0.614
Delivery Const. Clearing:	IPL engineered labor	x 0.3
Payroll Tax:	IPL engineered labor	x 0.076
Capitalized A&G:	IPL engineered labor	x 0.57
Stores Handling:	Actual material costs	x 0.3

e. All installation costs for each fixture are based on unit pricing from the contractor (Meade, Inc.). IPL does not receive a breakdown of the installation costs by component from the contractor.
f. None.
g. See the documents provided in response to subpart a. through d.
h. See City of Indianapolis DR 1-1 Confidential Attachments 3 through 6 for Meade pricing. See City of Indianapolis DR 1-1 Confidential Attachment 7 for the Meade contract. See City of Indianapolis DR 1-1 Confidential Attachments 8 through 10 for purchase orders.

Response:

Generally new plant investment e.g. in poles in new locations that support new LED lights are additions to rate base that support additional return dollars. When the Company puts in a piece of plant equipment, it is put into Rate Base. Net original cost Rate Base is multiplied by the Weighted Cost of Capital that the Commission deems appropriate. The Weighted Cost of Capital includes a Return on Equity. This Return on Equity (9.2% recommended by OUCC, 10.93% as requested by IPL) represents profits. If the Commission wishes it may increase, or decrease such authorized return based on its view of the value, condition, efficiency etc. of the utility's plant, and many other considerations.

We assume IPL is in the business of retail regulated electricity sales for the long term, way beyond this current rate case. When public convenience and necessity require investment in new plant, be it new poles, underground distribution etc. such investments will have the regulated opportunity to generate reasonable profits. If your question "taking into account the significant initial capital outlay and upfront financing costs" is a statement that IPL can not reasonably afford the investment in new poles or is unwilling to invest in new needed poles, those are concerns IPL will have to articulate for itself. If IPL is implying that it is unprofitable to put new plant into service due to regulatory lag, IPL previously invested in hundreds of millions of dollars of new plant under "regulatory lag," operated profitably, has not sought a base rate increase for many years and it may avail itself of appropriate TDISC legislation and base rate proceedings such as this one.

Mr. Sommer proposed new tariffs for LED street light retrofits, not installation on new poles in new locations with LED street lights. If IPL wants such a new location, new pole and LED streetlight tariff it may be proposed yet in this cause and if reasonable, possibly be approved by agreement. If Mr. Sommer's proposed LED Street light retrofit rates are accepted by the Commission, the new lower rates paid by the City may provide capital to install, or pay to have installed poles and fixtures where there are none at this time.

Request No. 2-17:

On page 32 and 33 of Witness Sommer direct testimony, it states "If the avoided cost of return on the new LED rate base capital costs is large enough it may create a reasonable payback

stream of savings adequate to justify the municipal financing of the LED capital costs." What payback period does Mr. Sommer believe is "reasonable"? Please explain your response.

Response: An appropriate payback period must be considered within the context of the efficiency measure being contemplated. The Meriam-Webster Dictionary defines Payback as "an amount of money that you receive after investing in something and that is equal to or greater than the amount of money that you originally invested". The reasonableness of a payback period is dependent on many factors not specified in the question. The reasonableness of a payback period would have to be reviewed in the context of all the facts and details inherent in the proposal and can not be determined in isolation.

Request No. 2-18: Please provide Witness Sommer WP COI 1 in excel format.

Response: See attached WP COI 1 in excel format.

Request No. 2-19: In reference to Witness Sommer WP COI 1, page 6 of 8:

(a) Please explain why this calculation was based on 10,000 lights.

(b) Please provide the source of $2,038.50, $509.63, and $55.00 for replacement costs.

(c) Please explain why you assume replacement of 100 lights per year. Please provide all supporting documents, studies, analyses and calculations.

(d) Please provide the source of $80.00, $8.00, and $100.00 for washing costs.

(e) Please explain why the Company labor expenses are zero in the calculation. Does the City believe there are no Company labor expenses, such as planning, involved in the replacement and washing of lights? Please provide all supporting documents, studies, analyses and calculations.

Response:

Mr. Gaske's average annual system service costs of $54.75 and O&M costs of $31.91 for rate MU-1 have no basis upon nor tie to IPL service and maintenance of new long lived ten year warranted LED cobra head street lights. Dr. Kramer's Exhibit 1-A is a summary of information from available published data sources. As noted in the footnote 4 of page 38 it presents information that is generally available regrading what has been indicated by various industry sources. As noted in footnote 4 page 38 of Dr. Kramer's Testimony, this particular reference of $5-$15 LED annual maintenance costs is from a published presentation that considered O&M costs by Georgia Power. See footnote 4 for details. If IPL's proposed rates are applied to new cobra head LED street lights IPL will over recover costs and over charge its street light customers.

Request No. 2-5:

Witness Sommer direct testimony page 24 states "IPL is embedding very high customer costs of $93.54 per year for APL rate and $54.75 per year for MU-1 rate. Those costs are excessively high when compared to industry norms for LED lighting."

(a) Please explain fully what Mr. Sommer means by "industry norms" as used in this testimony.

(b) Please provide all documents, studies and analyses relied upon by Mr. Sommer for his statement regarding "industry norms" and indicate which "industry norms" were compared.

Response:

(a) & (b). Mr. Sumer was referring to cobra head LEDs' much lower than HPS O&M and customer costs. The best LEDs come with a ten year warranty, thereby dramatically reducing their maintenance costs. They have useful lives much longer than HPS, again reducing maintenance costs. They do not get as hot as HPS thereby reducing washing frequency and costs. Dr. Kramer's Exhibit 1-A demonstrates LED maintenance costs of $5 to $15. If lower O&M costs are not reflected in IPL's street light rates those rates will over collect O&M and be excessive. Customer costs will be much lower following the change out of LED Fixtures due to their reliability, longer lamp life, and their lower lumen depreciation. It is anticipated that customer costs will track downward with their installation. With the implementation of LED rates, Mr. Sommer is not

recommending that the current MU-1 rates be lowered by the anticipated reduction in customer costs. Those rates would continue to be applied to old technology lights and Mr. Sommer's proposed LED tariffs would be applied to the new cobra head LEDs. Going forward if the level of Customer Costs included within the test year expenses are not reduced consistent with the anticipated reduction in customer costs associated with LED's, this will result in the Company over collecting customer costs. See Attachment spreadsheet. See Mr. Sommer's testimony 21-24.

Request No. 2-6: Witness Sommer direct testimony page 25 to 26 states, "I conservatively calculated that the new LED's will have a 25 year life…"

(a) Please provide all documents, studies, analyses and calculations relied upon by Mr. Sommer to conclude that a 25 year life is conservative.

(b) Please explain why the manufacturer would only warrant the fixture for 8 years (or 10 years with additional payment for an extended warranty) if the fixture truly had a 25 year life.

(c) Please see page 4 of the attached Analysis of Alternatives for Street Lighting presentation. What has changed since January 2015 (6 months ago) that the 10 year life presented on page 4 has now grown to a 25 year life? Please provide all supporting documents, studies, analyses and calculations.

Objection: To he request seeks production of all supporting documents it is unduly burdensome. The data and design information regarding specific vendor street lighting products and testing is voluminous and hence is too large to copy. This information may be made available for examination at the Energy Efficiency and Reliability Center in Hammond, Indiana, under reasonable terms and conditions.

Response: (a) This is based on a life of >100,000 hours as quoted from the luminaire vendors that were ranked highest

responsibilities for IPL's personnel. Mr. Sommer is not proposing a reduction to the $3,699,664 included in test year O & M for lights under the APL and MU-1 tariffs. The test year time and cost included in base rates for administering old technology lights is available to administer new technology lights. Notably despite IPL MU-1 tariff language requiring four year rotating cycle group relamping of many MU-1 streetlights, and yearly washing of some types of street lights IPL does not wash lights or replace lights except upon a report of their failure or poor performance. Avoidance of such washing costs that would have been known when existing base rates were approved may yield even more available O&M revenue to cover new LED administration. Note new LED cobra heads will not need washing for the first seven years, yielding savings and cost reduction to IPL.

(f) We are not aware of studies addressing the washing of 80 fixtures a day by two men and a truck. That average number was chosen by Mr. Sommer because after consideration of the steps that have to be taken to wash each fixture in a sequential manner, street by street, it appeared reasonable that two reasonably efficient men in a truck with a power washer should be able to wash at a minimum 80 fixtures a day. If 80 is a concern, reducing the number will have negligible impact on O & M, but Mr. Sommer believes an average of 80 is reasonable.

(g) Mr. Sommer used a 7 year washing cycle as a result of conversations with Dr. Kramer and the use of 7.5 years by the City of Seattle. See Attachment 2-7 K-1.

Request No. 2-20: In reference to Witness Sommer WP COI 1, page 7 of 8, please explain why no customer expenses are included in the rate calculation. Does the City believe there are no administrative and general expenses, customer service expenses, distribution related customer expenses, etc.? Please provide all supporting documents, studies, analyses and calculations.

Response: Mr. Sommer is proposing an LED tariff that only relates to changing out the existing fixtures. Mr. Sommer is including

$69,677 per year to change out any of the LED fixtures that fail. That is $696.77 per fixture estimated to fail, when there is no fixture cost as LED fixtures will be under warranty for 10 years.

Note Mr. Sommer is not proposing a reduction to the $3,699,664 included in test year O & M for lights under the APL and MU-1 tariffs, even though the O & M costs of the LED lights are much lower and as LED light fixtures are installed and the number of LED's increases IPL will likely over recover street light O&M. For instance, the average O & M for existing lights for Rate MU-1 is shown on Petitioner's Witness JSG-Work paper 1.0 (Revised) to be $31.91 per light. As LED lights are put into place, the difference between the $31.91 per light and the $6.97 per light as calculated by Mr. Sommer may fall to the bottom line of the Company as additional profit on the lights under its MU-1 Tariff.

Similarly, the Company has $2,832,541 included in rates for the Customer Component of its MU-1 rates. These accounts are for costs of the light system for rate MU-1 other than O&M. This can also be found on Petitioner's Witness JSG-Work paper 1.0 (Revised). This comes to $54.75 per light. Mr. Sommer is not proposing a reduction to the recovery by the Company of this amount through rates, although the customer costs of the same light using LED technology should be much less.

Request No. 2-21: In reference to Witness Sommer WP COI 1, page 7 of 8, what does RCF represent?

Response: RCF = Revenue Conversion Factor.

Data Request OUCC DR 18 - 01

If not provided elsewhere within this set of requests, please provide all workpapers, source documents, and electronic spreadsheets showing the development of each external allocator utilized in Mr. Taylor's class cost of service study ("CCOSS") and presented in Tab: "External" of his ACOSS provided as IPL Confidential Workpaper 1.0-IPL. In this response, provide the source for all data and the bases for any weightings. Please provide in hard copy as well as in Microsoft readable electronic format (preferably Microsoft Excel).

Objection:

Response:

See OUCC DR 18-1 Attachment 1 for the development of all but one of the external allocators utilized in the allocated cost of service study (ACOSS). The "INTDPLT" allocator is equal to the total Distribution Plant in Service that has been allocated to each class within the ACOSS model.

The source documents utilized in developing these allocators are provided as OUCC DR 18-1 Attachment 2, which is a zipped file. The names of the supporting documents contained within the zipped file are listed below:

- CEA 1.3 Updated_Backup
- 903_Oracle (Records & Billing)_Backup
- 907-910_Oracle (Cust Service)_Backup
- CEA - customers, kwh, kw combined
- RS RC RH CR KWH Totals and Count--TYE063014_101714
- SS KWH Totals and Count--TYE063014_101714
- SE KWH Totals and Count--TYE063014_101014
- SH KWH Totals and Count--TYE063014_101714
- CB UW KWH Totals and Count--TYE063014_101714
- SL KWH Totals and Count--TYE063014_120914
- PL KWH Totals and Count--TYE063014_101014
- PH KWH Totals and Count--TYE063014_101014
- HL1 KWH Totals and Count--TYE063014_101014
- HL2 KWH Totals and Count--TYE063014_101014
- HL3 KWH Totals and Count--TYE063014_101014
- CEA - Concentric - Allocation Factor Study July 1, 2013 through June 20, 2014
- IPL Meter Type By Rate Class Backup
- Service wire cost estimate Backup

- CEA - Dedicated Substation Analysis June 2014
- 904 (Uncollectibles)_Backup

Since the time of the filing a few refinements to pro forma billing determinant information have been developed for four rate codes: SL, PL, PH and HL1. The last four tabs of the file "CEA - customers, kwh, kw combined" shows highlighted cells with refinements to billing unit data. These refinements do not change the revenue requirements for the rate classes, but will have a small, inconsequential effect on the rates per unit calculated in the rate designs for these four codes within the large C & I class; however, when final rates are designed at the conclusion of the case, the adjustment should be included. There is no impact on any other rate codes.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 10

RATE RS
RESIDENTIAL SERVICE

AVAILABILITY:
Available, exclusively for residential purposes, including electric water heating, to individual private dwellings and individually metered apartments. Not available, however, to master-metered apartments, clubs, fraternities, boarding or rooming houses, or hotels/motels. The water heating and/or space heating billing provision shall not apply where the water heating and/or space heating equipment does not conform to the general requirements set forth in the sections captioned "WATER HEATING SPECIFICATIONS" and "SPACE HEATING SPECIFICATIONS."

The following will not be served under this rate: (1) Single phase motors having an individual capacity in excess of five horsepower, except where Company's system conditions permit, and upon approval of the Company; and (2) welding equipment and other apparatus that in the opinion of the Company may cause objectionable voltage fluctuations.

This rate is available for residential service only. Water heating service may be separately metered and separately billed in accordance with the Company's applicable rate schedule. When electric energy is used on the same premises for other than residential purposes, such energy shall be separately metered and billed in accordance with the Company's approved rate schedule applicable thereto, except as provided for in Rule 29.3.

CHARACTER OF SERVICE:
Standard Characteristics: Three wire, single phase, sixty cycle alternating current ordinarily supplied at 120/240 volts.

The Company may, however, furnish three phase, four wire service, 120/240 volts, 120/208 volts, or 277/480 volts, if in its judgment, which shall be final, it would be more advantageous to both the Customer and the Company due to engineering, safety or other practical reasons. Residential service at 120/208 volts single phase will be available in those multi-family projects or geographic locations where this is the standard voltage established. Where line extensions are required, such extensions will be provided under the Company's standard conditions for line extension.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	
For bills of 0-325 KWH per month	$11.25 per month
For bills over 325 KWH per month	$17.00 per month
Energy Charge	
Any part of the first 500 KWH per month	9.3595¢ net per KWH
Over 500 KWH per month	7.2660¢ net per KWH
With electric heating and/or water heating over 1000 KWH per month	6.0057¢ net per KWH

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 11

RATE RS (Continued)

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable for each month that service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 7	Employee Billing	see Page 159
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

WATER HEATING SPECIFICATIONS:
All water heaters shall be non-inductive storage type heaters having a minimum tank capacity of forty (40) gallons, and may be either the single or twin unit electric heating element type. If the heater has two elements, each heating element shall be separately controlled by an adjustable thermostat, and the thermostats shall be wired so that only one unit shall be energized at a time. One heating element shall be located near the bottom of the tank and the upper unit shall be located approximately one-fourth the distance down from the top of the tank.

The heating elements in all water heaters shall be limited in size to a maximum of 5500 watts.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuit furnishing water heating service under this schedule shall be subject to approval by the Company. All installations shall comply with all applicable State, County and Municipal laws, ordinances, rules and regulations.

Subject to the written approval of the Company, in special cases, and only when the elements are a maximum of 4500 watts, the capacity of the storage tank may be less than forty (40) gallons.

SPACE HEATING SPECIFICATIONS:
All electric heating units shall be permanently installed, shall be designed and wired for 208 or 240 volt electric service and shall be controlled by an approved thermostatic device causing minimum radio interference. The maximum wattage of any resistance heating unit or the wattage of a group of such units controlled by any one device, all of which may be energized at the same time, as well as all other aspects of the installation, shall be subject to approval by the Company, and shall be in accordance with approved electric heating standards for the best electric heating results. Approved central or individual space heating units, including heat pump installations, will be served under this rate.

Indianapolis Power & Light Company
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I.U.R.C. No. E-17

Original No. 12

RATE RS (Continued)

SPACE HEATING SPECIFICATIONS: (Continued)
The Company may require inspection of any and all electric heating installations, by its representatives, to determine that the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not thereby intend to warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

MOTOR SPECIFICATIONS:
All electric motors used by the Customer shall conform to the Company's Standard Motor Specifications relating to rated voltage, starting current, power factor, etc.

TERM:
No definite term. However, all service is subject to the term of any contract for a line extension to the premises to be served.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 17

RATE UW
WATER HEATING -- UNCONTROLLED SERVICE

AVAILABILITY:
This Rate is closed and not available for service to new installations after the effective date of this tariff but remains in effect for current Customers. When new or upgraded facilities are required to maintain service to a Rate UW Customer, the Customer shall be removed from Rate UW and be required to take service under an appropriate general service tariff for which the Customer qualifies. Available for separately metered uncontrolled water heating service only, through a non-inductive heater, with resistance elements of either immersion or "wraparound" type, provided that the applicant is a user of the Company's electric service supplied under some other rate at the same location. Not available for seasonal or temporary service, resale, booster heaters or where the energy is to be used for space heating, either directly or indirectly through heat transfer or any combination of such systems.

CHARACTER OF SERVICE:
Single phase, sixty cycle alternating current, at a voltage of approximately 208 or 240 volts, or 208, 240, or 480 volts, three phase at the option of the Company.

SPECIFICATIONS AND CONDITIONS OF SERVICE:
All water heaters shall be non-inductive storage type heaters having a minimum capacity of forty (40) gallons, and shall be automatically controlled.

The maximum electrical capacity that shall be used at any one time shall not exceed 300 watts per gallon of heater tank capacity. All heating elements shall be controlled by adjustable thermostats, and, when service is furnished from the Company's general distribution system, the heating elements shall have such additional controls as may be required so that the energizing of the elements will be limited to steps not exceeding 20 kilowatts at any one time.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuits furnishing water heating service under this schedule shall be subject to approval by the Company.

If the Customer's water heating requirements necessitate two or more heaters, service will be furnished through a single metering installation under the provisions of this rate; provided that beyond the point of the service entrance equipment the circuit or circuits supplying the heaters shall not be contained in a conduit, cable or raceway with any other circuits.

Further, all installations shall comply with applicable State, County and Municipal laws, ordinances, rules and regulations.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$27.00 per month
Energy Charge	6.0100¢ net per KWH

Effective TBD

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 18

RATE UW (Continued)

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable each month the service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 19

RATE CW
WATER HEATING -- CONTROLLED SERVICE

AVAILABILITY:
This Rate is closed and not available for service to new installations after the effective date of this tariff but remains in effect for current Customers. When new or upgraded facilities are required to maintain service to a Rate CW Customer, the Customer shall be removed from Rate CW and be required to take service under an appropriate general service tariff for which the Customer qualifies. Available for separately metered domestic and other water heating service, through a non-inductive pressure type heater, with resistance elements of either immersion or "wrap-around" type; provided that the applicant is a user of the Company's electric service supplied under some other rate at the same location. Not available for booster heaters, or in any case if the energy is to be used for space heating, either directly or indirectly, or for any purpose other than water heating.

The Company shall have the right to install or place in operation time control equipment to regulate the operation of the water heater at any time demands on the Company's system or other conditions, in the judgment of the Company, require installation or operation of such devices. The off-service period or periods will not exceed an aggregate of six hours per day.

CHARACTER OF SERVICE:
Single phase, sixty cycle alternating current, at a voltage of approximately 208 or 240 volts, or 208, 240 or 480 volts three phase, at the option of the Company.

SPECIFICATIONS AND CONDITIONS OF SERVICE:
All water heaters shall be non-inductive storage type heaters having a minimum tank capacity of forty (40) gallons, and may be either the single or twin unit electric heating element type. If the heater has two elements, each heating element shall be separately controlled by an adjustable thermostat, and the thermostats shall be wired so that only one unit shall be energized at a time. One heating element shall be located near the bottom of the tank and the upper unit shall be located approximately one-fourth the distance down from the top of the tank.

The heating elements in all water heaters shall be limited in size to a maximum of 5500 watts each.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuit furnishing water heating service under this schedule shall be subject to approval by the Company. All installations shall comply with all applicable State, County and Municipal laws, ordinances, rules and regulations.

Subject to the written approval of the Company, in special cases, and only when the elements are a maximum of 4500 watts, the capacity of the storage tank may be less than forty (40) gallons.

The necessary time control equipment, if installed or placed in operation, will be owned, operated, maintained and sealed by the Company.

If the Customer's water heating requirements necessitate two heaters of the type described in this rate, service will be provided for the two heaters through a single metering installation under the provisions of this rate; provided that beyond the point of the service entrance, the circuit or circuits supplying the heaters shall not be contained in a conduit, cable or raceway with any other circuits. If the number of heaters required exceeds two, but the requirements of this rate are otherwise met, service will be furnished only upon special written approval of the Company.

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 20

RATE CW (Continued)

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$7.10 per month
Energy Charge	6.2894¢ net per KWH

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable each month the service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 31

RATE SS
SECONDARY SERVICE (SMALL)

AVAILABILITY:
Available for general service - lighting and/or power. Available only to the ultimate consumer of the energy; not for resale. Not available for stand-by or auxiliary service. Customers requiring in excess of 75 KW demand will be served only under special agreement, setting out the minimum monthly service charge.

CHARACTER OF SERVICE:
Sixty cycle alternating current measured and delivered at 120 volts single phase two wire, 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage, (4160 volts or 13,200 volts) if in its judgment, it is more advantageous to both the Customer and the Company from the standpoint of engineering or other practical considerations. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	
For bills of 0-5000 KWH/mo.	$30.00 per month
For bills over 5000 KWH/mo.	$50.00 per month
Energy Charge	
First 5000 KWH per month	9.5855¢ net per KWH
Over 5000 KWH per month	8.1155¢ net per KWH

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable for each month that service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished By Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3

Effective TBD

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 32

RATE SS (Continued)

STANDARD CONTRACT RIDERS APPLICABLE (Continued):

No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

TERM:
Standard three year term or short term or temporary service. However, all contracts are subject to the term of any contract for a line extension to the premises under consideration.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 33

RATE SH
SECONDARY SERVICE - ELECTRIC SPACE CONDITIONING
SEPARATELY METERED

AVAILABILITY:
Available in the entire area served for non-residential separately metered electric space heating or combined electric space heating, air cooling and/or water heating, subject to the conditions hereinafter set forth.

Permanently installed electric equipment to cool the same area served by the electric space heating equipment may be connected to the space heating circuit provided adequate controls are installed and in operation so that only the space heating equipment or the space cooling equipment operates at any one time; and, provided further, that the electric space heating load is equal to or greater than the space cooling load. Electric water heaters which conform to the applicable requirements set out in the Company's Rate CW and UW may also be connected to the space heating circuit and billed under this rate. Neither the lighting load nor any other equipment than that described above may be connected to the space heating circuit.

The electric space heating and cooling installation shall be for the sole purpose of contributing to the personal comfort or health of the occupants of the premises. In no case may energy supplied and billed under this rate be used for manufacturing or product processing purposes. The latter service and all other power and lighting service will be supplied directly to the Customer and will be separately metered and billed at the rate applicable; provided, however, that all electric service to Elementary Schools, Junior High Schools, and High Schools, otherwise meeting the conditions and requirements of this rate, may be single metered and billed under sub-paragraph (2) of the section below captioned "RATE."

This rate is not available for temporary, periodic or seasonal service, or where the heating installation does not conform to the general requirements set forth in the section hereof captioned "SPACE HEATING SPECIFICATIONS."

CHARACTER OF SERVICE:
Sixty cycle alternating current, measured and delivered at 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire, 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage (4160 volts or 13,200 volts) if in its judgment it is more advantageous to both the Customer and the Company from an engineering or other practical consideration. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
(1) As to any and all Customers qualifying under the "Availability" clause for separately metered space heating or combined space heating, air cooling and/or water heating, the following:

The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$30.00 per month
Energy Charge	7.9271¢ net per KWH

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One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 34

RATE SH (Continued)

RATE (Continued)

(2) In the case only of Elementary Schools, Junior High Schools and High Schools qualifying under the "Availability" clause, but with the additional qualification that electricity is used to the exclusion of any other source of energy for space heating and air cooling in the structure or structures or addition to the structure or structures on the premises and where all of the electric energy requirements are single metered, except that electric water heating may be separately metered and billed on the rate applicable, thereto the following:

The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$30.00 per month

Energy Charge

The KWH determined by multiplying the KW connected lighting load by an average burning time of 155 hours per month shall be billed as follows:

Any part of the first 5000 KWH per month	10.8493¢ net per KWH
All over 5000 KWH per month	9.3793¢ net per KWH
All KWH in excess of 155 times the connected KW lighting load	7.9893¢ net per KWH

MINIMUM CHARGE PER MONTH:

For bills computed under (1) above: The Customer Charge which is payable for each month that service is connected for the Customer's use.

For bills computed under (2) above: The minimum charge shall be the Customer Charge plus the Energy and Demand Charges for 155 hours use of the connected lighting load, except for the billing periods of July through September when the minimum charge shall be the Customer Charge.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 15	Load Displacement	see Page 171
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

Indianapolis Power & Light Company
One Monument Circle
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I.U.R.C. No. E-17

Original No. 35

RATE SH (Continued)

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

SPACE HEATING SPECIFICATIONS:
All electric heating units shall be permanently installed, and shall be controlled by an approved thermostatic device causing minimum radio interference.

All heating installations shall be of a type acceptable to the Company, and should be in accordance with approved electric heating standards for the best electric heating results. Approved central or individual space heating units, including heat pump installations, will be served under this rate.

The Company may require inspection of any and all electric heating installations, by its representatives, to determine that the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not thereby intend to warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

MOTOR SPECIFICATIONS:
All electric motors used by the Customer shall conform to the Company's Standard Motor Specifications relating to rated voltage, starting current, power factor, etc.

TERM:
No definite term. However, all service is subject to the term of any contract for a line extension to the premises to be served.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 40

RATE OES
OFF-PEAK ENERGY STORAGE
SEPARATELY METERED

AVAILABILITY:
Available for non-residential separately metered Electric Energy Storage Service, subject to the conditions hereinafter set forth.

Electric Energy Storage Service is defined as any electric equipment/process, the sole function of which is to consume electrical energy off-peak to be:

1) used for thermal (heating/cooling) conditioning Off-Peak; and/or,
2) stored for all uses On-Peak.

In no case may energy supplied and billed under this rate be used for off-peak manufacturing, product processing, lighting, or any non-thermal conditioning purposes.

This rate is intended for year-round application; seasonal disconnect is not permitted. This rate is not available for any equipment/process that has been a part of a Demand-Side Management or other Company program for which an incentive or other benefit has been received.

CHARACTER OF SERVICE:
Sixty cycle alternating current measured and delivered at 120 volts single phase two wire, 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage, (4160 volts or 13,200 volts) if in its judgment, it is more advantageous to both the Customer and the Company from the standpoint of engineering or other practical considerations. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge		$82.00 per month
Energy Charge		
	Off-Peak Period:	2.50¢ net per KWH
	On-Peak Period:	10.00¢ net per KWH

where, the Off-peak period is defined as all hours between 10 p.m. and 6 a.m. weekdays, and all hours on Saturday, Sunday and holidays. All other hours are considered to be On-peak.

MINIMUM CHARGE PER MONTH
The Customer Charge which is payable for each month that service is connected for the Customer's use.

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Original No. 41

RATE OES (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

ENERGY STORAGE EQUIPMENT SPECIFICATIONS:
All energy storage installations shall be permanently installed, shall be of a type acceptable to the Company, and shall be in accordance with all applicable standards and codes.

The Company may inspect any and all energy storage installations to determine the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

TERM:
Standard three year term.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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Original No. 50

RATE SL
SECONDARY SERVICE (LARGE)

AVAILABILITY:
Available to any alternating current Customer for lighting and/or power service who will contract for not less than fifty (50) kilowatts of demand.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire, which voltage will be designated by the Company, and through a single metering installation. If the Company, at its option, measures all the energy at the primary side of the transformers (4,160 volts or 13,200 volts), the following deductions will be made in the meter readings: Two and one-half percent (2½%) will be deducted from the KW of demand established by the Customer during the month and two and one-half percent (2½%) will be deducted from the KWH consumed. No discount will be allowed where any part of energy is utilized at primary voltage.

TRANSFORMER OWNERSHIP:
All transformers and supplementary equipment will be owned, installed, operated and maintained by the Company. No discount will be allowed for Customer ownership of transformation facilities.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$120.00
Demand Charge All KW of billing demand per month @	$18.29 net per KW
Energy Charge	3.5150¢ net per KWH

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration, but not less than sixty percent (60%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case upon less than fifty (50) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of

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Original No. 51

RATE SL (Continued)

such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than fifty (50) kilowatts.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 2	Stand-by Service	see Page 152
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

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Original No. 52

RATE SL (Continued)

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 53

RATE PL
PRIMARY SERVICE (LARGE)

AVAILABILITY:
Available for power and lighting delivered at primary distribution voltage. Minimum contract five hundred (500) kilowatts of demand. Not for resale.

CHARACTER OF SERVICE:
Standard Characteristics: Three phase, sixty cycle alternating current supplied from overhead lines through transformers and other substation equipment owned by the Company, delivered at one point on Customer's premises, and at primary distribution voltage, approximately 4,160 or 13,200 volts. All distribution transformers, lines and other equipment on the Customer's side of the point of delivery shall be installed, owned, operated and maintained by the Customer.

Non-Standard Characteristics: If the Customer desires service necessitating transformers (including circuit breakers, supporting structure and supplementary equipment) which do not conform to the standard of the Company as to design, voltage ratio or capacity; or if the Customer desires the exclusive use and/or control of the transformers of standard or non-standard characteristics, energy will be delivered in either case at the high tension side of such transformers, which, however, shall be installed, owned, operated and maintained by the Customer.

Demand and energy measurements may be made at either the high tension (input) or low tension (load) side of the transformers, but, if measured at the high tension side, will be adjusted before billing by the deduction of one-half percent (½%), so that they will be equivalent to measurement at a standard primary distribution voltage, approximately 4,160 or 13,200 volts. The Company, for engineering or other practical reasons, may at its option supply and measure service at sub-transmission voltage.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$120.00
Demand Charge	
All KW of billing demand per month @	$19.07 net per KW
Energy Charge	3.4099¢ net per KWH

Effective TBD

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One Monument Circle
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I.U.R.C. No. E-17

Original No. 54

RATE PL (Continued)

DETERMINATION OF BILLING DEMAND:

The billing demand shall be determined as being the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration but with the further provision that the demand charge shall be based upon not less than sixty percent (60%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case upon less than five hundred (500) kilowatts.

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than five hundred (500) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

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Original No. 55

RATE PL (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 2	Stand-by Service	see Page 152
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 56

RATE PH
PROCESS HEATING

AVAILABILITY:
Available, subject to a minimum contract of one hundred (100) kilowatts of demand, for Process Heating when used for manufacturing purposes only and service is supplied from the overhead distribution system. All other lighting, space heating and power will be measured and billed separately under the rate appropriate for that service.

MEASUREMENT:
Energy will be delivered and measured in the form of three phase, sixty cycle alternating current at 120/240 volts, 120/208 volts or 277/480 volts and ordinarily at the primary side of any auxiliary transformers used in connection with the Customer's industrial heating equipment.

In case these quantities are measured at primary distribution voltage (4,160 or 13,200 volts) or at subtransmission voltage (34,500 volts), three and one-half percent (3½%) will be deducted from the measured KWH and three percent (3%) will be deducted from the measured KW demand before billing. The service voltage will be specified by the Company.

RATE:
The Customer Charge; plus the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$1,000.00
Energy Charge	
Any part of the first 250 hours use of the billing demand per month	@ 7.5408¢ net per KWH
All additional energy	@ 6.0408¢ net per KWH

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, occurring during the billing month under consideration and in no event less than sixty percent (60%) of the highest billing demand used in any of the preceding eleven (11) months, nor less than one hundred (100) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the energy charge by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

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Original No. 57

RATE PH (Continued)

POWER FACTOR: (Continued)

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and the computed charge for 120 hours use of the billing demand.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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Original No. 58

RATE HL
(HIGH LOAD FACTOR -
PRIMARY DISTRIBUTION, SUB-TRANSMISSION AND TRANSMISSION VOLTAGES)

AVAILABILITY:
Available for power and lighting service at standard primary distribution, sub-transmission, or transmission line voltages. Delivery voltage to be determined by the Company. Minimum contract two thousand (2,000) kilowatts of demand. Not for resale.

CHARACTER OF SERVICE:
Standard Characteristics: Three phase, sixty cycle alternating current, delivered and metered at one point on Customer's premises, at primary distribution voltage (approximately 4,160 or 13,200 volts), sub-transmission voltage (approximately 34,500 volts), or transmission voltage (approximately 138,000 or 345,000 volts). All distribution transformers, lines and other equipment on the Customer's side of the point of delivery shall be installed, owned, operated and maintained by the Customer.

Non-Standard Characteristics: If the Customer desires service necessitating transformers (including circuit breakers, supporting structure and supplementary equipment) which do not conform to the standards of the Company as to design, voltage ratio or capacity, or if the Customer desires the exclusive use and/or control of the transformers (whether standard or non-standard), such transformers shall be installed, owned, operated and maintained by the Customer, and the point of delivery in either case shall be at the high voltage side of the transformers.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge

For service at primary distribution voltage	$135.00
For service at sub-transmission voltage	$140.00
For service at transmission voltage	$180.00

Demand Charge

For service at primary distribution voltage (4,160 or 13,200 volts)
All KW of billing demand per month @ $18.82 net per KW

For service at sub-transmission voltage (34,500 volts)
All KW of billing demand per month @ $19.18 net per KW

For service at transmission voltage (138,000 or 345,000 volts)
All KW of billing demand per month @ $18.56 net per KW

Energy Charge

For service at primary distribution voltage	3.4097¢ net per KWH
For service at sub-transmission voltage	3.3958¢ net per KWH
For service at transmission voltage	3.3533¢ net per KWH

Effective TBD

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Original No. 59

RATE HL (Continued)

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration, but not less than seventy-five percent (75%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case less than two thousand (2,000) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than two thousand (2,000) kilowatts.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171

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RATE HL (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:(Continued)

No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Five years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 61

RATE CSC
CUSTOMER SPECIFIC CONTRACTS

PURPOSE:
To provide an appropriate response to non-standard or specialized Customer requests for electric services and/or meet competitive forces in the energy services markets in a manner that satisfies the needs of participating Customers while balancing the interests of the participating Customer, the non-participating Customers, and the Company.

AVAILABILITY:
Any Customer with a minimum contract demand of 2000 kilowatts, not for resale, can be considered for a Rate CSC, Customer Specific Contract, upon written application to the Company if one or more of the following conditions is shown to exist:

1) The Customer desires non-standard electric service for new or existing load;

2) The Customer desires specialized electric service for new or existing load;

3) The Customer has potential new load which will not materialize at the Company's standard tariff rates; and/or

4) The Customer intends to utilize a source other than the Company for electric service for new or existing load absent service under this rate by showing:

   (a) The Customer has a competitive alternative to the Company's standard tariff rates; and

   (b) The comparative economics, including but not limited to availability of capital, environmental impacts, and assessment of risk, of the alternative over the Company's standard tariff rates are material; and

   (c) The alternative is demonstrated to be technologically feasible and legally permissible; and

   (d) The Customer has taken substantial steps to fairly evaluate the alternative sufficient to establish the Customer's actual ability to utilize the alternative within a reasonable period of time.

Upon receipt of the Customer's written application, and such further information as the Company may require, the Company and the applying Customer may, at the sole discretion of either party, commence negotiation of rates, terms, and conditions of service under this tariff. If the parties reach a mutually acceptable agreement, it shall be reduced to writing and submitted to the Engineering Department of the Commission for approval pursuant to I.C. 8-1-2-24; 25. Such submission shall include, but not be limited to:

A) Full disclosure of all rates, terms and conditions of service and any and all agreements related thereto;

B) Evidence received by the Company showing the Customer's satisfaction of the condition(s) set forth above as 1 through 4 (a-d); and

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Original No. 62

RATE CSC (Continued)

AVAILABILITY (Continued):

C) An analysis demonstrating that the compensation to be received under the contract during its term shall exceed the incremental cost to the Company from performance under the contract.

CHARACTER OF SERVICE:
Three phase, sixty cycle alternating current unless otherwise specified.

RATE:
All charges for service under this rate shall be the charges contained in the contract between the Company and the Customer.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

CONTRACT TERMS:
The duration of the contract, and the terms and conditions of service shall be those contained in the contract between the Company and the Customer.

CONFIDENTIALITY
Upon request of the Company or the Customer, upon good cause shown by affidavit, all terms and conditions of any contract under this tariff, and any information contained in the submission set forth above at A) through C), shall be protected from disclosure as confidential, proprietary trade secrets pursuant to I.C. 8-1-2-29 and I.C. 5-14-3.

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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 90

RATE MU-1 (VINTAGE)
MUNICIPAL LIGHTING AND OTHER DEVICES

APPLICABILITY:
For Street and Traffic Lighting of public streets, parkways, improved alleys, boulevards, drives, bridges, parking areas, or other public places by Cities or Towns or by individuals, groups of individuals, associations and other than incorporated municipalities; and lighting of public parks, drives, bridges, parking areas or other public places by only Cities or Towns where there is a prospect that the capital expenditure is warranted. The capital expenditure will be warranted if the amount of revenue received in sixty (60) months exceeds the estimated cost of installation for the lights as calculated by the Company. If the 60-month revenue does not exceed the cost of installation, the Customer must pay two and one-half (2½) times the difference of the cost of installation and the 60-month revenue prior to installation of the lighting. The terms, prices and provisions of this rate schedule shall be applicable to a consolidated city of the first class only to the extent not inconsistent with the specifications, terms, prices and provisions in contracts which may be entered into by such city pursuant to I.C. § 36-9-9-1, et. seq.

This rate is also available to municipalities for other municipal devices used for public purposes.

Rate MU-1 Vintage is no longer available for new installations after the effective date of this tariff. Specific rates on the Rate MU-1 Vintage tariff marked with a double asterisk (**) remain in effect for existing installations until the Company can no longer repair or support maintenance requirements for that particular light.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CHARACTER OF SERVICE:

a) Flat Rate Street Lighting Service:
   (1) Company to furnish, erect and maintain the necessary lamps, fixtures, poles, wiring, etc., and to operate them on a lighting schedule approximately 4100 hours per year.
   (2) Company to operate Customer-owned equipment on a lighting schedule approximately 4100 hours per year.

b) Flat Rate Service for Traffic Signals, Safety Lighting Fixtures and/or Other Municipal Devices:
   Optional flat rate unmetered service for the supply of energy only, 24 hours per day or less at the option of the Customer, for traffic signals, safety lighting fixtures and/or Other Municipal Devices. All equipment including fixtures, supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer. This service will be delivered and measured at Company's secondary distribution voltage.

c) Additional Facilities:
   If the Customer and Company agree to installations requiring additional facilities that are not addressed in other sections of this tariff, these facilities will be subject to an additional facilities charge of 1.65% of the installed cost per month.

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RATE MU-1 (VINTAGE) (Continued)
BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying monthly KWH as shown in Lighting KWH table, plus one-twelfth (1/12) of the annual charges for flat rate service set out in Rate sections (a) and (b) which follow.

RATE:
Section (a) (1)
Prices in Section (a) (1) are for Company-owned equipment and include all maintenance costs associated with the equipment. Also included when an outage is due to failure of lamp, said lamp will be replaced within two (2) working days after such fact has been reported to or discovered by the Company. When failure or outage is due to reasons other than lamp failure, said repair will be completed within seven (7) working days after such fact has been reported to or discovered by the Company. Underground cable replacements will be completed within thirty (30) days of discovery by the Company. These time periods are barring natural disasters, acts of God, or the inability of the Company to gain access.

Section (a) (1) (a)

Lamps in enclosed fixtures, suspended from mast arms on wood poles and supplied from overhead circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$294.36**
400-watt Mercury Vapor Lamp	163.56**
175-watt Mercury Vapor Lamp	116.28**
400-watt High Pressure Sodium Lamp	194.76
250-watt High Pressure Sodium Lamp	159.96
150-watt High Pressure Sodium Lamp	127.20
100-watt High Pressure Sodium Lamp	109.08
400-watt Metal Halide Lamp	194.76**

Section (a) (1) (b)

Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$440.52**
400-watt Mercury Vapor Lamp	231.96**
175-watt Mercury Vapor Lamp	191.16**
175-watt Mercury Vapor - Fiberglass	181.92**
400-watt High Pressure Sodium Lamp	340.92
400-watt High Pressure Sodium - Fiberglass	316.08
400-watt High Pressure Sodium - Shoebox	281.88
2-400-watt High Pressure Sodium - Shoebox	378.24
250-watt High Pressure Sodium Lamp	229.68
250-watt High Pressure Sodium - Fiberglass	220.44
250-watt High Pressure Sodium - Shoebox	231.24
2-250-watt High Pressure Sodium - Shoebox	307.56
150-watt High Pressure Sodium Lamp	199.20

Effective TBD

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RATE MU-1 (VINTAGE) (Continued)
Section (a) (1) (b)

150-watt High Pressure Sodium - Fiberglass	189.84
100-watt High Pressure Sodium Lamp	183.96
100-watt high Pressure Sodium - Fiberglass	174.60
400-watt High Pressure Sodium Painted Bronze Column	372.24
400-watt High Pressure Sodium Bronze Traffic Pole	199.92**
250-watt High Pressure Sodium Painted Bronze Column	261.00
250-watt High Pressure Sodium Lamp Bronze Traffic Pole	164.88**
400-watt Metal Halide - Shoebox	288.72**
2-400-watt Metal Halide - Shoebox	391.80**
400-watt Metal Halide Metal Column	340.92**
400-watt Metal Halide - Fiberglass	316.08**

Section (a) (1) (c)

Lamps in enclosed post top type fixtures, mounted on metal or fiberglass ornamental columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
175-watt Mercury Vapor Post Std.	$186.12**
175-watt Mercury Vapor Washington Post Std.	291.84**
150-watt High Pressure Sodium Washington Post Std.	327.72
150-watt High Pressure Sodium 18" Ball Globe Post Std.	220.44
100-watt High Pressure Sodium Post Std.	183.12
100-watt High Pressure Sodium Washington Post Std.	286.08
2-80-watt LED Washington Post Std.	781.92
80-watt LED Washington Post Std.	482.16
3-150-watt High Pressure Sodium Single Column	585.96**
3-150-watt High Pressure Sodium Twin Column	585.96**
1-150-watt High Pressure Sodium & 4-100-watt High Pressure Sodium Cluster	735.60

"Std." means Ornamental Standard.

Section (a) (1) (d)

Prices below apply to lighting for the City of Indianapolis in the downtown area.

Prices for Flat Rate Street Lighting Service	Price Per Year Per Each Unit
150-watt High Pressure Sodium Pedestrian Lamp	$787.20

Section (a) (1) (e)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
Lamps in enclosed fixtures mounted to underpasses or tunnels.	
175-watt Mercury Vapor Lamp	$163.56**
150-watt High Pressure Sodium Lamp	167.88

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RATE MU-1 (VINTAGE) (Continued)

Section (a) (1) (e)

Lamps operated approximately 8760 hours per year.

175-watt Mercury Vapor Lamp	202.08**
400-watt High Pressure Sodium Lamp	349.32
150-watt High Pressure Sodium Lamp	213.72

Section (a) (2)

Lamps operated approximately 4100 hours per year

Section (a) (2) (a)

Prices below apply only to Customer-owned equipment which meets the Company's standards and upon inspection is acceptable to the Company and include only normal operating and minor maintenance costs which are: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. Should parts become not readily available, the Customer shall be required to supply IPL with the minor maintenance material. In the event Customer does not supply necessary material, the light would go out of service. The Customer is to furnish all other maintenance and repairs.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$230.88**
400-watt Mercury Vapor Lamp	123.96**
250-watt Mercury Vapor Lamp	145.44**
175-watt Mercury Vapor Lamp	91.08**
5-100-watt Mercury Vapor Cluster	268.08**
100-watt Mercury Vapor Lamp	86.04**
400-watt High Pressure Sodium Lamp	135.48
250-watt High Pressure Sodium Lamp	109.56
150-watt High Pressure Sodium Lamp	84.72
1000-watt High Pressure Sodium Lamp	276.84
175-watt Mercury Vapor 15' Ornamental Standard	142.44**

Section (a) (2) (b)

Prices below apply only to Interstate Highway System lighting, which is owned by the State of Indiana, which equipment meets the Company's standards and upon inspection is acceptable to the Company. Available maintenance by the Company is: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. The Customer is to furnish all other maintenance and repairs. No new installations will be served and no additions to present installations will be permitted.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit	
	Without Maintenance	With Maintenance
1000-watt Mercury Vapor Lamp	$210.36**	$230.88**
400-watt Mercury Vapor Lamp	103.44**	123.96**
250-watt Mercury Vapor Lamp	124.92**	145.44**
175-watt Mercury Vapor Lamp	70.56**	91.08**
5-100-watt Mercury Vapor Cluster	247.56**	268.08**

Effective TBD

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RATE MU-1 (VINATGE) (Continued)

Section (a) (2) (b)

100-watt Mercury Vapor Lamp	65.52**	86.04**
400-watt High Pressure Sodium Lamp	114.96	135.48
250-watt High Pressure Sodium Lamp	89.04	109.56
150-watt High Pressure Sodium Lamp	64.20	84.72
1000-watt High Pressure Sodium Lamp	256.32	276.84
175-watt Mercury Vapor 15' Ornamental Standard	121.92**	142.44**

Section (b)
Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices
Prices for furnishing unmetered electrical energy only, per each traffic signal, safety lighting fixture or other municipal device. All equipment, including the fixtures, their supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer.

Prices are per year per watt burning, based upon the average of the watts burning throughout the operating cycle of the fixture under consideration, but with the further condition, that for billing purposes no fixture or device will be considered as having a rating less than sixty (60) watts. New traffic signals, safety lighting fixtures, or other municipal lighting devices under Section (b) will no longer be installed under the Rate MU-1 Vintage tariff. At the discretion of the Company, a customer may make an addition to an existing circuit if the customer communicates the addition to the Company for billing purposes.

Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices (Continued)

Minimum charge is per year per each fixture or device

Price per watt	$ 0.63
Minimum per fixture or device	37.80

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

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RATE MU-1 (VINTAGE) (Continued)

TERM:
This service is available for a standard term of five (5) years, unless otherwise approved by the Company, and, if not terminated by at least a 60-day notice prior to the expiration of the initial five-year term, shall be continued on a monthly basis, terminable on a 15-day written notice prior to the end of any such monthly period. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. After the initial term, if a Customer's lighting account goes 30 days into arrears, the lighting facilities will be subject to disconnect. If the bill is still not paid 60 days from the initial due date, the Company may, at its discretion, remove its facilities. Customer remains obligated to pay all amounts due.

CONDITIONS OF SERVICE:
The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

A Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on the Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

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RATE MU-1 (VINTAGE) (Continued)

ROADWAY IMPROVEMENT / CONSTRUCTION PROJECTS:
A streetlight shall be eligible for relocation if the majority of the supporting infrastructure (wiring, ducts, risers, and so forth) can remain in place and the street light pole/column is moved no more than 15 feet. Furthermore, light relocation work must be able to be completed prior to Customer construction. The Customer shall notify the Company a minimum of six weeks before the start of a scheduled construction project; for emergency work, the Company shall be notified as soon as practical. The Customer will be billed by the Company for the actual cost incurred: includes labor, materials, engineering and overhead. Also, the Customer will be billed actual costs for lights that are required to be removed from the field for a Customer project, during the initial five (5) year term; the Company may, at its option, declare the service charges for the remaining months of a term immediately due.

Lights that have been in the field for the full initial five (5) year term will be removed at no charge. Should the Customer want Company owned lights to be placed back into service, after ordering their removal, the installation shall be treated as new construction.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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RATE MU-1 (VINTAGE) (Continued)

MONTHLY LIGHTING KWH TABLE

Lamp	Monthly KWh												Annual KWh
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

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RATE MU-1 (NEW)
MUNICIPAL LIGHTING AND OTHER DEVICES

APPLICABILITY:
For Street and Traffic Lighting of public streets, parkways, improved alleys, boulevards, drives, bridges, parking areas, or other public places by Cities or Towns or by individuals, groups of individuals, associations and other than incorporated municipalities; and lighting of public parks, drives, bridges, parking areas or other public places by only Cities or Towns where there is a prospect that the capital expenditure is warranted. The capital expenditure will be warranted if the amount of revenue received in sixty (60) months exceeds the estimated cost of installation for the lights as calculated by the Company. If the 60-month revenue does not exceed the cost of installation, the Customer must pay two and one-half (2½) times the difference of the cost of installation and the 60-month revenue prior to installation of the lighting. The terms, prices and provisions of this rate schedule shall be applicable to a consolidated city of the first class only to the extent not inconsistent with the specifications, terms, prices and provisions in contracts which may be entered into by such city pursuant to I.C. § 36-9-9-1, et. seq.

This rate is also available to municipalities for other municipal devices used for public purposes.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CHARACTER OF SERVICE:
a) Flat Rate Street Lighting Service:
   (1) Company to furnish, erect and maintain the necessary lamps, fixtures, poles, wiring, etc., and to operate them on a lighting schedule approximately 4100 hours per year.
   (2) Company to operate Customer-owned equipment on a lighting schedule approximately 4100 hours per year.

b) Flat Rate Service for Traffic Signals, Safety Lighting Fixtures and/or Other Municipal Devices:
   Optional flat rate unmetered service for the supply of energy only, 24 hours per day or less at the option of the Customer, for traffic signals, safety lighting fixtures and/or Other Municipal Devices. All equipment including fixtures, supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer. This service will be delivered and measured at Company's secondary distribution voltage.

d) Additional Facilities:
   If the Customer and Company agree to installations requiring additional facilities that are not addressed in other sections of this tariff, these facilities will be subject to an additional facilities charge of 1.65% of the installed cost per month.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying monthly KWH as shown in Lighting KWH table, plus one-twelfth (1/12) of the annual charges for flat rate service set out in Rate sections (a) and (b) which follow.

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RATE MU-1 (NEW) (Continued)

RATE:
Section (a) (1)
Prices in Section (a) (1) are for Company-owned equipment and include all maintenance costs associated with the equipment. Also included when an outage is due to failure of lamp, said lamp will be replaced within two (2) working days after such fact has been reported to or discovered by the Company. When failure or outage is due to reasons other than lamp failure, said repair will be completed within seven (7) working days after such fact has been reported to or discovered by the Company. Underground cable replacements will be completed within thirty (30) days of discovery by the Company. These time periods are barring natural disasters, acts of God, or the inability of the Company to gain access.

Section (a) (1) (a)

Lamps in enclosed fixtures, suspended from mast arms on wood poles and supplied from overhead circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$392.37
250-watt High Pressure Sodium Lamp	353.98
150-watt High Pressure Sodium Lamp	329.67
100-watt High Pressure Sodium Lamp	307.61
400-watt High Pressure Sodium Lamp - Traffic Column	366.39
250-watt High Pressure Sodium Lamp - Traffic Column	328.01
150-watt High Pressure Sodium Lamp - Traffic Column	303.70
100-watt High Pressure Sodium Lamp - Traffic Column	281.64

Section (a) (1) (b)

Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$581.76
400-watt High Pressure Sodium - Fiberglass	432.37
400-watt High Pressure Sodium - Shoebox	463.29
2-400-watt High Pressure Sodium - Shoebox	590.03
250-watt High Pressure Sodium Lamp	543.37
250-watt High Pressure Sodium - Fiberglass	393.98
250-watt High Pressure Sodium - Shoebox	423.86
2-250-watt High Pressure Sodium - Shoebox	560.65
150-watt High Pressure Sodium Lamp	475.42
150-watt High Pressure Sodium - Fiberglass	359.04
100-watt High Pressure Sodium Lamp	464.00
100-watt high Pressure Sodium - Fiberglass	347.62
400-watt High Pressure Sodium Painted Bronze Column	584.04
250-watt High Pressure Sodium Painted Bronze Column	548.89

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RATE MU-1 (NEW) (Continued)

Section (a) (1) (c)

Lamps in enclosed post top type fixtures, mounted on metal or fiberglass ornamental columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
150-watt High Pressure Sodium Washington Post Std.	$461.95
150-watt High Pressure Sodium 18" Ball Globe Post Std.	354.89
100-watt High Pressure Sodium Post Std.	263.40
100-watt High Pressure Sodium Washington Post Std.	400.09
2-80-watt LED Washington Post Std.	967.97
80-watt LED Washington Post Std.	646.42
1-150-watt High Pressure Sodium & 4-100-watt High Pressure Sodium Cluster	1,007.79

"Std." means Ornamental Standard.

Section (a) (1) (d)

Prices below apply to lighting for the City of Indianapolis in the downtown area.

Prices for Flat Rate Street Lighting Service	Price Per Year Per Each Unit
150-watt High Pressure Sodium Pedestrian Lamp	$464.13

Section (a) (1) (e)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
Lamps in enclosed fixtures mounted to underpasses or tunnels.	
150-watt High Pressure Sodium Lamp	$248.37
Lamps operated approximately 8760 hours per year.	
400-watt High Pressure Sodium Lamp	417.74
150-watt High Pressure Sodium Lamp	277.74

Section (a) (2)
Lamps operated approximately 4100 hours per year

Section (a) (2) (a)

Prices below apply only to Customer-owned equipment which meets the Company's standards and upon inspection is acceptable to the Company and include only normal operating and minor maintenance costs which are: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. Should parts become not readily available, the Customer shall be required to supply IPL with the minor maintenance material. In the event Customer does not supply necessary material, the light would go out of service. The Customer is to furnish all other maintenance and repairs.

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RATE MU-1 (NEW) (Continued)

Section (a) (2) (a) (continued)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$191.46
250-watt High Pressure Sodium Lamp	154.79
150-watt High Pressure Sodium Lamp	128.94
1000-watt High Pressure Sodium Lamp	331.97

Section (a) (2) (b)

Prices below apply only to Interstate Highway System lighting, which is owned by the State of Indiana, which equipment meets the Company's standards and upon inspection is acceptable to the Company. Available maintenance by the Company is: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. The Customer is to furnish all other maintenance and repairs.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit	
	Without Maintenance	With Maintenance
400-watt High Pressure Sodium Lamp	$158.90	$191.46
250-watt High Pressure Sodium Lamp	122.23	154.79
150-watt High Pressure Sodium Lamp	96.38	128.94
1000-watt High Pressure Sodium Lamp	299.40	331.97

Section (b)

Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices

Prices for furnishing unmetered electrical energy only, per each traffic signal, safety lighting fixture or other municipal device. All equipment, including the fixtures, their supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer.

Prices are per year per watt burning, based upon the average of the watts burning throughout the operating cycle of the fixture under consideration, but with the further condition, that for billing purposes no fixture or device will be considered as having a rating less than sixty (60) watts.

Minimum charge is per year per each fixture or device

Price per watt	$ 0.63
Minimum per fixture or device	37.80

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

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RATE MU-1 (NEW) (Continued)

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

TERM:
This service is available for a standard term of five (5) years, unless otherwise approved by the Company, and, if not terminated by at least a 60-day notice prior to the expiration of the initial five-year term, shall be continued on a monthly basis, terminable on a 15-day written notice prior to the end of any such monthly period. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. After the initial term, if a Customer's lighting account goes 30 days into arrears, the lighting facilities will be subject to disconnect. If the bill is still not paid 60 days from the initial due date, the Company may, at its discretion, remove its facilities. Customer remains obligated to pay all amounts due.

CONDITIONS OF SERVICE:
The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

A Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on the Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

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RATE MU-1 (NEW) (Continued)

ROADWAY IMPROVEMENT / CONSTRUCTION PROJECTS:
A streetlight shall be eligible for relocation if the majority of the supporting infrastructure (wiring, ducts, risers, and so forth) can remain in place and the street light pole/column is moved no more than 15 feet. Furthermore, light relocation work must be able to be completed prior to Customer construction. The Customer shall notify the Company a minimum of six weeks before the start of a scheduled construction project; for emergency work, the Company shall be notified as soon as practical. The Customer will be billed by the Company for the actual cost incurred: includes labor, materials, engineering and overhead. Also, the Customer will be billed actual costs for lights that are required to be removed from the field for a Customer project, during the initial five (5) year term; the Company may, at its option, declare the service charges for the remaining months of a term immediately due.

Lights that have been in the field for the full initial five (5) year term will be removed at no charge. Should the Customer want Company owned lights to be placed back into service, after ordering their removal, the installation shall be treated as new construction.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

RATE MU-1 (NEW) (Continued)

MONTHLY LIGHTING KWH
TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

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RATE APL (VINTAGE)
AUTOMATIC PROTECTIVE LIGHTING SERVICE

AVAILABILITY:
Available to any Customer for outdoor area lighting, provided that: (1) adequate facilities are available to serve the premises or location; and (2) the capital expenditure for installation of such outdoor lighting facilities is warranted. The determination that such capital expenditure is warranted shall be established if the amount of revenue projected to be received from the Customer in the thirty-six (36) month-period following installation of the outdoor lighting facilities exceeds the estimated cost of installation for the lights, as calculated by the Company. If the projected thirty-six (36) month revenue does not exceed the estimated cost of installation, the Customer must pay two and one half (2½) times the difference of the estimated cost of installation and the projected thirty-six (36) month revenue prior to installation of the outdoor lighting facilities. Notwithstanding the foregoing, IPL reserves the right to refuse service under the provisions of this Rate APL, consistent with applicable laws, rules, and regulations.

Rate APL Vintage is no longer available for new installations after the effective date of this tariff. Specific rates on the Rate APL Vintage tariff marked with a double asterisk (**) remain in effect for existing installations until the Company can no longer repair or support maintenance requirements for that particular light.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CONDITIONS OF SERVICE:
Customer shall secure all permits, licenses and authority necessary for the installation and maintenance of facilities upon and over public property.

The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer.

If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs

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RATE APL (VINTAGE) (continued)

CONDITIONS OF SERVICE (continued):
and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the Company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

All lighting fixtures and other materials, including wiring must comply with the Company's specifications and will be subject to Company's approval.

A. Company installs, owns, and maintains unit or units.

Company shall own, operate, and maintain the lighting unit or units, including the fixtures, lamps, ballasts, photoelectric controls, mounting brackets and all necessary wiring. Company shall furnish all electric energy required for operation of the unit.

The units shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half (½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4,100 hours per annum.

The Company reserves the right to shield, re-angle, or relocate a light to prevent light projection on adjacent properties at the request of the adjacent property owner. If shielding, re-angling, or relocating the light does not resolve the light trespass complaint, the Company reserves the right to remove the offending light.

Barring circumstances beyond its control, the Company will replace burned out lamps within 48 hours after notification of Company by Customer.

B. Customer installs, owns and maintains unit or units.

The Customer may install, own and maintain the lighting unit or units, including all fixtures, lamps, standards or poles and mounting brackets, ballasts, cable and necessary wiring. The Customer's wiring, serving the lighting units contracted for under this Clause B must be brought by the Customer to an existing Company pole selected by the Company and upon which Company's 120 volt lines are presently attached. In the case of underground service installed by the Customer, the Customer shall install the wiring, conduit riser and weatherhead on a pole approved by the Company and terminating at a point designated by the Company. The units shall be direct connected by the Company to the Company's 120 volt lines and shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half

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RATE APL (VINTAGE) (continued)

CONDITIONS OF SERVICE (continued)
(½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4100 hours per annum.

Burned out lamps will not be replaced by the Company under Clause B.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying the monthly KWH as shown in Lighting KWH table, plus the flat rates set out in the Rate sections which follow.

RATE:
For service under Conditions of Service, Clause A above. The rates are monthly.

a) For bracket arm supported units on existing wood pole:

	Each Luminaire
175-watt Mercury Vapor Lamp	$ 7.34**
400-watt Mercury Vapor Lamp	13.72**
1000-watt Mercury Vapor Lamp	23.79**
100-watt High Pressure Sodium Lamp	6.60
150-watt High Pressure Sodium Lamp	14.08
250-watt High Pressure Sodium Lamp	18.59
400-watt High Pressure Sodium Lamp	21.35
400-watt Mercury Vapor Flood	13.74**
150-watt High Pressure Sodium Flood	14.12
250-watt High Pressure Sodium Flood	18.60
400-watt High Pressure Sodium Flood	21.36
400-watt Metal Halide Lamp	21.36**
For additional facilities when required:	
one wood pole (overhead only)	3.76
one wood or fiberglass pole (underground only)	9.28

b) Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

	First Luminaire	Each Additional Luminaire on Same Column
1000-watt Mercury Vapor Lamp	$39.22**	$23.79**
400-watt Mercury Vapor Lamp	20.65**	13.72**
175-watt Mercury Vapor Lamp	17.02**	7.34**
400-watt High Pressure Sodium Lamp	30.35	21.35
250-watt High Pressure Sodium Lamp	20.45	18.59

Effective TBD

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RATE APL (VINTAGE) (continued)

RATE, Clause A (continued)

150-watt High Pressure Sodium Lamp	17.73	14.08
100-watt High Pressure Sodium Lamp	16.38	6.60
400-watt High Pressure Sodium Painted Bronze Column	33.14	21.34
250-watt High Pressure Sodium Painted Bronze Column	23.24	18.59
400-watt High Pressure Sodium - Shoebox	25.10	8.58
250-watt High Pressure Sodium - Shoebox	20.59	6.79
400-watt Metal Halide - Shoebox	25.10**	8.58**

c) For a post top fixture on a fiberglass, metal or ornamental column and containing one:

175-watt Mercury Vapor Washington Post Std.	$25.98**
175-watt Mercury Vapor Post Std.	16.57**
100-watt High Pressure Sodium Washington Post Std.	25.47
100-watt High Pressure Sodium Post Std.	16.30
150-watt High Pressure Sodium Washington Post Std.	29.18
150-watt High Pressure Sodium Post Std.	20.01

"Std." means Ornamental Standard.

d) Charges in addition to Energy Charge as Registered through Customer's Meter For Units Containing One:

	Each Luminaire
175-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	$ 5.58**
400-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	10.81**
1000-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	16.74**
100-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	5.77**
150-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	$13.22**
250-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	16.70**
400-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	18.42**
400-watt Metal Halide Lamp on Company's existing wood pole and connected to Customer's metered secondary	18.42**

Indianapolis, Indiana

RATE APL (VINTAGE) (continued)

RATE, Clause A (continued)

e) Prices below apply to University of Indianapolis Lighting.

	Each Luminaire
250-watt Metal Halide 18' Direct Embedded	$ 47.91
250-watt Metal Halide 12' Anchor Based	52.60
2-250-watt Metal Halide 18' Direct Embedded	65.94
2-250-watt Metal Halide 12' Anchor Based	70.63

For service under Conditions of Service, Clause B above. The rates are monthly.

Up to and including 150-watt incandescent lamp or equivalent - $3.26**
per month per lamp

TERM:
This service is available for a standard term of three (3) years and, if not terminated by at least thirty (30) days' notice prior to the expiration of the initial 3-year term, shall be continued on a yearly basis, terminable on a thirty (30) days' notice prior to the end of any such one-year term. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. If, prior to expiration of the initial term, the service contracted for under this Rate is supplanted by municipal lighting service, the Company may remove its facilities and no charge will be made for the remaining months of such initial term.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
Charges under this Rate are net and will be a part of the Customer's regular service bill and subject to the same charges as any other item on the Customer's bill.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

RATE APL (VINTAGE) (continued)

MONTHLY LIGHTING KWH TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 112

RATE APL (NEW)
AUTOMATIC PROTECTIVE LIGHTING SERVICE

AVAILABILITY:
Available to any Customer for outdoor area lighting, provided that: (1) adequate facilities are available to serve the premises or location; and (2) the capital expenditure for installation of such outdoor lighting facilities is warranted. The determination that such capital expenditure is warranted shall be established if the amount of revenue projected to be received from the Customer in the thirty-six (36) month-period following installation of the outdoor lighting facilities exceeds the estimated cost of installation for the lights, as calculated by the Company. If the projected thirty-six (36) month revenue does not exceed the estimated cost of installation, the Customer must pay two and one half (2½) times the difference of the estimated cost of installation and the projected thirty-six (36) month revenue prior to installation of the outdoor lighting facilities. Notwithstanding the foregoing, IPL reserves the right to refuse service under the provisions of this Rate APL, consistent with applicable laws, rules, and regulations.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CONDITIONS OF SERVICE:
Customer shall secure all permits, licenses and authority necessary for the installation and maintenance of facilities upon and over public property.

The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

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Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 113
One Monument Circle
Indianapolis, Indiana

RATE APL (NEW) (continued)

CONDITIONS OF SERVICE (continued)
Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the Company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

All lighting fixtures and other materials, including wiring must comply with the Company's specifications and will be subject to Company's approval. Company shall own, operate, and maintain the lighting unit or units, including the fixtures, lamps, ballasts, photoelectric controls, mounting brackets and all necessary wiring. Company shall furnish all electric energy required for operation of the unit.

The units shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half (½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4,100 hours per annum. Barring circumstances beyond its control, the Company will replace burned out lamps within 48 hours after notification of Company by Customer.

The Company reserves the right to shield, re-angle, or relocate a light to prevent light projection on adjacent properties at the request of the adjacent property owner. If shielding, re-angling, or relocating the light does not resolve the light trespass complaint, the Company reserves the right to remove the offending light.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying the monthly KWH as shown in Lighting KWH table, plus the flat rates set out in the Rate sections which follow.

RATE:
For service under Conditions of Service above. The rates are monthly.

a) For bracket arm supported units on existing wood pole:	Each Luminaire
100-watt High Pressure Sodium Lamp	$19.39
150-watt High Pressure Sodium Lamp	21.06
250-watt High Pressure Sodium Lamp	22.95
400-watt High Pressure Sodium Lamp	25.98
150-watt High Pressure Sodium Flood	26.89
250-watt High Pressure Sodium Flood	24.28
400-watt High Pressure Sodium Flood	27.11
For additional facilities when required:	
one wood pole (overhead only)	20.68
one wood or fiberglass pole (underground only)	25.15

Indianapolis, Indiana

RATE APL (NEW) (continued)

RATE (continued)

b) Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

	First Luminaire	Each Additional Luminaire on Same Column
400-watt High Pressure Sodium Lamp	$43.43	$27.87
250-watt High Pressure Sodium Lamp	40.41	24.85
150-watt High Pressure Sodium Lamp	38.52	22.96
100-watt High Pressure Sodium Lamp	36.72	21.16
400-watt High Pressure Sodium Lamp - Flood	42.43	29.46
250-watt High Pressure Sodium Lamp - Flood	39.61	26.63
150-watt High Pressure Sodium Lamp - Flood	37.33	24.35
400-watt High Pressure Sodium Painted Bronze Column	43.43	26.68
250-watt High Pressure Sodium Painted Bronze Column	40.41	23.93
400-watt High Pressure Sodium - Shoebox	43.10	27.11
250-watt High Pressure Sodium - Shoebox	39.99	24.00

c) For a post top fixture on a fiberglass, metal or ornamental column and containing one:

100-watt High Pressure Sodium Washington Post Std.	$38.48
100-watt High Pressure Sodium Post Std.	26.37
150-watt High Pressure Sodium Washington Post Std.	43.75
150-watt High Pressure Sodium Post Std.	34.21

"Std." means Ornamental Standard.

d) Prices below apply to University of Indianapolis Lighting.

	Each Luminaire
250-watt Metal Halide 18' Direct Embedded	$ 50.04
250-watt Metal Halide 12' Anchor Based	52.70
2-250-watt Metal Halide 18' Direct Embedded	69.21
2-250-watt Metal Halide 12' Anchor Based	71.81

TERM:
This service is available for a standard term of three (3) years and, if not terminated by at least thirty (30) days' notice prior to the expiration of the initial 3-year term, shall be continued on a yearly basis, terminable on a thirty (30) days' notice prior to the end of any such one-year term. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. If, prior to expiration of the initial term, the service contracted for under this Rate is supplanted by municipal lighting service, the Company may remove its facilities and no charge will be made for the remaining months of such initial term.

RATE APL (NEW) (continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
Charges under this Rate are net and will be a part of the Customer's regular service bill and subject to the same charges as any other item on the Customer's bill.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

MONTHLY LIGHTING KWH TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

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Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 120

RATE CGS
COGENERATION & SMALL POWER PRODUCTION

AVAILABILITY:

Available to any Customer of Indianapolis Power & Light Company (the "Company") that operates within the Company's service territory a Qualifying Cogeneration Facility or a Qualifying Small Power Production Facility subject to the Company's rules and regulations and, any terms, conditions and restrictions imposed by any valid and applicable law or regulation. This tariff is submitted pursuant to the requirements of the Commission's regulations and shall cease to be effective if such regulations are set aside, withdrawn or for any reason cease to be applicable to the Company. An Existing Qualifying Facility is not subject to, or entitled to the benefits of this Rate CGS except as otherwise expressly provided by law.

DEFINITIONS:

(a) Qualifying Facility is either a Cogeneration Facility or Small Power Production Facility, but does not include any facility substantial construction of which was not begun on or after November 9, 1978, or any facility not meeting applicable ownership requirements.

(b) Existing Qualifying Facility means a Qualifying Facility which was in operation before July 1, 1983.

(c) Cogeneration Facility means a facility that simultaneously generates electricity and useful thermal energy; and meets the energy efficiency standards established for cogeneration facilities by the FERC pursuant to 16 U.S.C. 824a-3.

(d) Small Power Production Facility means an arrangement of equipment for the production of electricity with capacity no greater than eighty megawatts, all of which equipment is located within a site one mile in radius from the generating equipment or, for hydroelectric facilities, at the same impoundment of water, and which equipment must be powered at least seventy-five percent (75%) by biomass, waste, renewable resources, geothermal resources, or any combination thereof, and not more than twenty-five percent (25%) by oil, natural gas, and coal or any combination thereof.

(e) Purchase means the purchase of electric energy or capacity or both from a Qualifying Facility by the Company.

(f) Sale means the sale of electric energy or capacity or both by the Company to a Qualifying Facility.

(g) Avoided Costs means the incremental costs to the Company of electric energy or capacity or both which, but for the purchase from a Qualifying Facility or Facilities, the Company would generate itself or purchase from another source.

(h) Interconnection Costs means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with a Qualifying Facility, to the extent such costs are in excess of the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection Costs do not include any costs included in the calculation of Avoided Costs.

(i) Supplementary Power means electric energy or capacity supplied by the Company, regularly used by a Qualifying Facility in addition to that which the facility generates itself.

(j) Back-up Power means electric energy or capacity supplied by the Company to replace energy ordinarily generated by a facility's own generation equipment during an unscheduled outage of the facility.

(k) Interruptible Power means electric energy or capacity supplied by the Company subject to interruption by the Company under specified conditions.

(l) Maintenance Power means electric energy or capacity supplied by the Company during scheduled outages of the Qualifying Facility.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 121
One Monument Circle
Indianapolis, Indiana

RATE CGS (Continued)

DEFINITIONS: (Continued)

(m) System Emergency means a condition on the Company's system which is liable to result in imminent significant disruption of service to Customers or in substantial deviation from normal service standards or which is imminently liable to endanger life or property.
(n) Commission means the Indiana Utility Regulatory Commission.
(o) FERC means the Federal Energy Regulatory Commission.
(p) Peak Period means the time between 6 a.m. and 10 p.m. (April through September) or between 7 a.m. and 11 p.m. (October through March) on all days except Saturdays and Sundays, which daily time period will be subject to change from time to time at the Company's option. This change would occur after no less than ten (10) days notice has been given to all Customers who would be affected, and to the Commission.
(q) Off Peak Period means the time not included in the Peak Period.

PURCHASE AND SALE:

The Company shall purchase energy or capacity which is made available by a Qualifying Facility and shall sell energy or capacity to a Qualifying Facility only in accordance with the terms and conditions set forth herein, but subject to all applicable requirements of Federal law or regulation, court decisions or orders from courts of competent jurisdiction and the continuing jurisdiction of the Commission and FERC. A written contract shall be required between the Company and each Qualifying Facility incorporating specific provisions governing the interconnection and each purchase and sale.

Purchases and sales shall also be subject to the following general terms and conditions:

(a) Purchases and sales may occur simultaneously.
(b) The Company need not purchase or sell at the time of a System Emergency.

INTERCONNECTION CONDITIONS AND COSTS:

(a) The Company, subject to prior compliance by the Qualifying Facility with all applicable Federal and State laws and regulations, shall make parallel interconnection with the Qualifying Facility in such a way as to accomplish purchases and sales as described in Sections (b) through (f).
(b) The Qualifying Facility shall comply with the National Electrical Safety Code, as supplemented, the applicable requirements of 170 IAC 4-4.3, and the Company's rules and regulations for electric service.
(c) Interconnection Costs from the Qualifying Facility to the Company's distribution or transmission system, including those costs of (d) and (e) below, shall be borne by the Qualifying Facility. There shall be no obligation on the Company to finance such interconnection.
(d) The Qualifying Facility shall install, operate, and maintain in good order such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the Company for operation parallel to its system. The Qualifying Facility shall bear full responsibility for the installation and safe operation of this equipment.
(e) Breakers capable of isolating the Qualifying Facility from the Company shall at all times be immediately accessible to the Company. The Company may isolate the Qualifying Facility at its own discretion if the Company believes continued parallel operation with the Qualifying Facility creates or contributes to a System Emergency. System Emergencies causing discontinuance of parallel operation are subject to verification by the Commission.
(f) To properly record numbers of kilowatthours for, respectively, purchase and sale, the following configurations shall be the basis for metering:

Indianapolis, Indiana

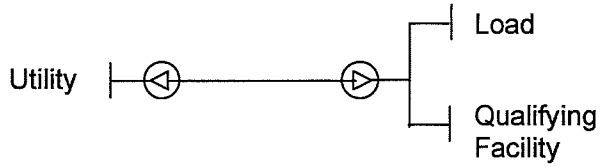
RATE CGS (Continued)

INTERCONNECTION CONDITIONS AND COSTS: (Continued)

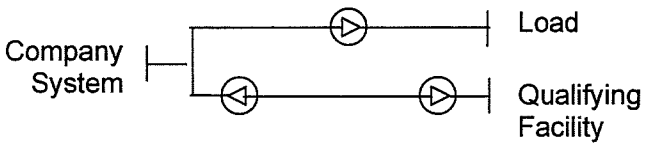
(f) (Continued)

(1) Where purchases are intended to be less than 1000 kilowatthours per month, and the Company and Qualifying Facility mutually agree, a single bidirectional meter may be placed between, at one side, the Company system and, on the other side, the Qualifying Facility and any load associated with it.

(2) Where such measurement is appropriate for measurement of energy, the circuit shall include at minimum two monodirectional meters in a series arrangement between, at one side, the Company system and, on the other side, the Qualifying Facility and any load associated with it:



(3) Where such is appropriate for measurement of energy, the circuit shall include a monodirectional meter between the on-site load and the Company and, in a series arrangement, two monodirectional meters between the Qualifying Facility and the Company system:



(4) The meter measuring purchases by the Company shall be of a design to record time periods, and shall be capable of electronically transmitting instantaneous readings.

(5) Other metering arrangements shall be the subject of negotiations between the Company and the Qualifying Facility.

RATE FOR PURCHASE:
The rate the Company will pay each Qualifying Facility for energy and capacity purchased will be established in advance by written contract with the Company as filed and approved by the Commission and will be based on the RATE FOR PURCHASE on file from time to time with the Commission, adjusted as outlined in the remaining parts of this section. Unless otherwise agreed the RATES FOR PURCHASE shall be:

(1)	Capacity	$7.39 per KW per month
(2)	Energy - Peak Period	3.02¢ per KWH
	- Off Peak Period	2.65¢ per KWH

RATE FOR PURCHASE: (Continued)

In the event of an impasse in negotiations concerning RATES FOR PURCHASE of energy or capacity, either party may petition the Commission for a determination naming the other party as respondent.

The monthly capacity payment shall be adjusted by the following factor:

$$F = \frac{Ep}{(K)\ (Tp)}$$

Where:
- F = Capacity payment adjustment factor.
- Ep = Kilowatt-hours delivered to the Company during the Peak Period.
- K = Kilowatts of capacity the Qualifying Facility contracts to provide.
- Tp = Number of hours in the peak period.

The KW capacity available and the kilowatthours in the peak period shall be determined by a suitable recording type instrument.

For intended purchases of 72,000 kilowatthours or more per month of energy from a Qualifying Facility, the Company and the Qualifying Facility may agree to increase or decrease the rate in recognition of the following factors:

(1) The extent to which scheduled outages of the Qualifying Facility can be usefully coordinated with scheduled outages of the Company's generation facilities;
(2) The relationship of the availability of energy from the Qualifying Facility to the ability of the Company to avoid costs, particularly as is evidenced by the Company's ability to dispatch the Qualifying Facility;
(3) The usefulness of energy from the Qualifying Facility during System Emergencies, including the ability of the Qualifying Facility to separate its load from its generation.

The Company and a Qualifying Facility may negotiate a rate for energy or capacity purchase which differs from the filed rate of Rate CGS.

RATES FOR SALE BY COMPANY:
Back-up Power shall be provided under Standard Contract Rider No. 10. Maintenance Power shall be provided under Standard Contract Rider No. 11. Supplementary Power shall be provided under Standard Contract Rider No. 12. A Customer may not simultaneously qualify for Rate CGS, Rate REP Renewable Energy Production, Standard Contract Rider No. 9 Net Metering, and Standard Contract Rider No. 8 for off-peak service.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 10	Back-up Power	see Page 162
No. 11	Maintenance Power	see Page 163
No. 12	Supplementary Power	see Page 164

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 124
One Monument Circle
Indianapolis, Indiana

RATE REP
RENEWABLE ENERGY PRODUCTION

AVAILABILITY:
Available to any Customer of Indianapolis Power & Light Company (the "Company") that operates within the Company's service territory a Qualifying Renewable Energy Power Production Facility subject to the Company's rules and regulations and, any terms, conditions and restrictions imposed by any valid and applicable law or regulation. This tariff is submitted pursuant to the requirements of the Commission's regulations and shall cease to be effective if such regulations are set aside, withdrawn or for any reason cease to be applicable to the Company. An Existing Qualifying Renewable Energy Power Production Facility is eligible to the benefits of this Rate REP except as otherwise expressly forbidden by law.

DEFINITIONS:

(a) Qualifying Renewable Energy Power Production Facility (the "Facility") means an arrangement of equipment for the production of electricity with capacity no less than 50 kW (20 kW for solar) and no greater than 10 MW. The Facility shall be located at one site and is not the aggregation of more than one site each less than 50 kW (20 kW for solar) and which produces electric power through the use of 100% renewable resources or fuel. Such resources or fuels include:
   a. Solar photovoltaic cells and panels
   b. Wind
   c. Dedicated crops grown for energy production
   d. Organic waste biomass
   e. Biomass will be consistent with the State's definition in IC 8-1-8.8-10.

(b) Purchase means the purchase of electric energy or capacity or both from the Facility by the Company and is also inclusive of all environmental attributes.

(c) Sale means the sale of electric energy or capacity or both by the Facility to the Company and is also inclusive of all environmental attributes.

(d) Environmental Attributes means Renewable Energy Credits ("REC"), carbon credits, greenhouse gas offsets or any other environmental credit, commodity or classification that may be associated with the production of renewable energy from the Facility.

(e) Interconnection Costs means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with a Facility, to the extent such costs are in excess of the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection Costs do not include any costs included in the calculation of Avoided Costs.

(f) System Emergency means a condition on the Company's system which is liable to result in imminent significant disruption of service to Customers or in substantial deviation from normal service standards or which is imminently liable to endanger life or property.

(g) Commission means the Indiana Utility Regulatory Commission.

(h) FERC means Federal Energy Regulatory Commission.

(i) Peak Period means the time between 6 a.m. and 10 p.m. (April through September) or between 7 a.m. and 11 p.m. (October through March) on all days except Saturdays and Sundays, which daily time period will be subject to change from time to time at the Company's option. This change would occur after no less than ten (10) days notice has been given to all Customers who would be affected, and to the Commission.

(j) Off Peak Period means the time not included in the Peak Period.

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Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 124.1
One Monument Circle
Indianapolis, Indiana

RATE REP (Continued)

PURCHASE AND SALE:

Purchases and sales shall also be subject to the following general terms and conditions:

a. The Company shall not be obligated to purchase or sell at a time of System Emergency.
b. The Customer shall sell the total production of the Facility to the Company.
c. The Customer shall receive service for their load at the appropriate retail rate from the Company. The applicable rate is not impacted by the Customer's participation in Rate REP.
d. The Company may limit total participation under this Rate REP to 1% of the Company's retail electric kWh sales from the prior calendar year.

INTERCONNECTION CONDITIONS AND COSTS:

(a) The Company, subject to prior compliance by the Facility with all applicable Federal and State laws and regulations, shall make parallel interconnection with the Facility in such a way as to accomplish purchases and sales as described in Sections (b) through (f).

(b) The Facility shall comply with the National Electrical Safety Code, as supplemented, the applicable requirements of 170 IAC 4-4.3, and the Company's rules and regulations for electric service.

(c) Interconnection Costs from the Facility to the Company's distribution or transmission system, including those costs of (d) and (e) below, shall be borne by the Facility. There shall be no obligation on the Company to finance such interconnection.

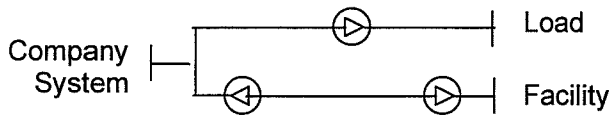
(d) The Facility shall install, operate, and maintain in good order such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the Company for operation parallel to its system. The Facility shall bear full responsibility for the installation and safe operation of this equipment.

(e) Breakers capable of isolating the Facility from the Company shall at all times be immediately accessible to the Company. The Company may isolate the Facility at its own discretion if the Company believes continued parallel operation with the Facility creates or contributes to a System Emergency. System Emergencies causing discontinuance of parallel operation are subject to verification by the Commission.

(f) To properly record numbers of kilowatthours for, respectively, purchase and sale, the following configurations shall be the basis for metering.

(1) Where such measurement is appropriate for measurement of energy, the circuit shall include at minimum one monodirectional meter between, at one side, the Company system and, on the other side, the load and a bidirectional meter between, at one side, the Company system and on the other side, the Facility and any load associated with it

(2) Where such measurement is appropriate for measurement of energy, the circuit shall include a monodirectional meter between the on-site load and the Company and, in a series arrangement, two monodirectional meters between the Facility and the Company system:



004855

Effective TBD

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 124.2
One Monument Circle
Indianapolis, Indiana

RATE REP (Continued)

(3) The meter measuring purchases by the Company shall be of a design to record time periods, and shall be capable of electronically transmitting instantaneous readings.

(4) Other metering arrangements shall be the subject of negotiations between the Company and the Customer.

RATE REP PURCHASE RATES:

The rate the Company will pay each Customer for energy and capacity purchased from their Facility will be established in advance by written contract with the Company as filed and approved by the Commission and will be based on the RATE REP PURCHASE RATES. the RATE REP PURCHASE RATES may be adjusted by the Company as circumstances warrant through the IURC's 30-day administrative filing process. Unless otherwise agreed, the RATE REP PURCHASE RATES shall be:

(a)	Solar			
	a. Capacity		None	
	b. Energy			
		(a)	For Facilities generating 20 kW to 100 kW:	24.0¢ per KWH
		(b)	For Facilities generating more than 100 kW:	20.0¢ per KWH
(b)	Wind			
	a. Capacity		None	
	b. Energy			
		(a)	For Facilities generating 50 kW to 100 kW:	14.0¢ per KWH
		(b)	For Facilities generating 100 kW to 1 MW:	10.5¢ per KWH
		(c)	For Facilities generating more than 1 MW:	7.5¢ per KWH
(c)	Biomass			
	a. Capacity		$6.18 per KW per month	
	b. Energy		8.5¢ per KWH	

The Company and the Customer may negotiate terms and a rate for energy or capacity which differs from the filed rates by the Company. The length of any contract shall not exceed ten (10) years. The Company and the Customer may agree to increase or decrease the rate in recognition of the following factors:

(1) The extent to which scheduled outages of the Facility can be usefully coordinated with scheduled outages of the Company's generation facilities;
(2) The relationship of the availability of energy from the Facility to the ability of the Company to avoid costs, particularly as is evidenced by the Company's ability to dispatch the Facility;
(3) The usefulness of the Facility during System Emergencies, including the ability of the Facility to separate its load from its generation;
(4) The impact of tax credits, grants and other financial incentives that when combined with the rate would produce excessive profits for the Facility.
(5) Rates and adjustments prescribed in the contract shall remain in effect notwithstanding changes made to the RATE REP PURCHASE RATES from time to time.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 124.3
One Monument Circle
Indianapolis, Indiana

RATE REP (Continued)

RATES FOR SALE BY COMPANY:
Back-up Power shall be provided under Standard Contract Rider No. 10. Maintenance Power shall be provided under Standard Contract Rider No. 11. Supplementary Power shall be provided under Standard Contract Rider No. 12. A Customer may not simultaneously qualify for Rate REP, Rate CGS Cogeneration and Small Power Production, Standard Contract Rider No. 9, Net Metering, and Standard Contract Rider No. 8 for off-peak service.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 10	Back-Up Power	see Page 162
No. 11	Maintenance Power	see Page 163
No. 12	Supplementary Power	see Page 164

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Effective TBD

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No.E-17

Original No. 130

RATE EVX
TIME OF USE SERVICE
FOR ELECTRIC VEHICLE CHARGING ON CUSTOMER PREMISES

AVAILABILITY:
Available to Customers concurrently served under any of the following retail electric rates: Rate RS, Rate SS, Rate SH, or Rate SL, exclusively for charging of such Customers' licensed electric vehicles (EVs) using electricity provided by the Company at locations on such Customers' premises within the Company's assigned utility service area. Participation is voluntary. Energy consumption metered and billed under this tariff shall be used exclusively for charging electric vehicles.

The Company reserves the right to periodically interrupt service to test demand response strategies and system results. The Company does not anticipate receiving demand response revenues or providing monetary credits to Customers at this time.

EQUIPMENT-NEW CUSTOMERS:
Customers who receive service under this rate on or after January 1, 2013 are New Customers.

New Customers shall be responsible for procuring, paying for, installing, and owning the EV charging equipment, a meter base, a dedicated 40 amp circuit, and any additional necessary equipment. New Customer procured EV charging equipment must meet UL listing standards. Meter base must be installed outside of premise with 4 ft. of clearance and unrestricted access. Such installations must conform to current National Electric Code (NEC) specifications. Charging may only be accomplished using an SAE approved J1772 plug.

The Company will procure, pay for, install, own and maintain a meter.

EQUIPMENT-EXISTING CUSTOMERS:
Customers who received service under this rate prior to January 1, 2013 are Existing Customers.

The Company maintains ownership of EV charging equipment and separate metering equipment that the Company installed in Customer Premises for Existing Customers.

If, during the term of this rate, the Existing Customer requests removal and relocation of the charging equipment and meter within the Company's service territory, the Existing Customer shall pay all costs associated with removal and relocation of the charging equipment.

METERING AND BILLING:
EV charging service will be separately metered and identified on the bill in accordance with the Company's applicable rate schedule. Should interval gaps occur, consumption will be billed at the appropriate off-peak rate.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company.

RATE:
The Energy Charge shown hereafter plus the Fuel Cost Adjustment, the Environment Compliance Cost Recovery Adjustment, and the Core and Core Plus Demand-Side Management Adjustment calculated in accordance with Rider No. 6, Rider No. 20 and Rider No. 22, respectively.

Indianapolis Power & Light Company I.U.R.C. No.E-16 Original No. 131
One Monument Circle
Indianapolis, Indiana

RATE EVX (Continued)

Energy Charge June through September (Summer Months)

For all Peak kWh	12.150¢ per kWh
For all Mid-Peak kWh	5.507¢ per kWh
For all Off-Peak kWh	2.331¢ per kWh

Summer Months

	Peak	Mid-Peak	Off-Peak
Non-Holiday Weekdays (Monday—Friday)	2 p.m. to 7 p.m.	10 a.m. to 2 p.m. 7 p.m. to 10 p.m.	Midnight to 10 a.m. 10 p.m. to Midnight
Weekends and Observed Holidays*	N/A	10 a.m. to 10 p.m.	Midnight to 10 a.m. 10 p.m. to Midnight

*Observed Holidays include: Independence Day and Labor Day

Energy Charge January through May & October through December (Non-Summer Months)

For all Peak kWh	6.910¢ per kWh
For all Off-Peak kWh	2.764¢ per kWh

Non-Summer Months

	Peak	Off-Peak
All Days	8 a.m. to 8 p.m.	Midnight to 8 a.m. 8 p.m. to Midnight

PARTICIPATING CUSTOMER OBLIGATIONS: In addition to Customer obligations outlined in the Company's Rules and Regulations for Electric Service and in the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter, Customers taking service under this rate shall:

(1) Supply the Company with suitable locations for installation of metering and other necessary equipment;
(2) Provide sufficient access to their premises to install metering and other necessary equipment;
(3) Be responsible for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of electrical wiring and electrical system on Customer premises, and ensure that such wiring and system meet, at a minimum, the provisions of the NEC, the governmental authorities having jurisdiction, and the reasonable requirements of the Company; and
(4) Take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of Customer-owned EV charging equipment.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 7	Employee Billing	see Page 159
No. 9	Net Metering	see Page 161

Indianapolis Power & Light Company I.U.R.C. No.E-16 Original No. 132
One Monument Circle

Effective TBD

Indianapolis, Indiana

RATE EVX (Continued)

No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess over Three Dollars ($3.00).

TERM:
The anticipated term for this rate is two (2) years beginning with the date of approval by the Commission. Participating Customers shall be required to participate for a minimum term equal to the shorter of twelve (12) months, or through the end of the term.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis, Indiana

RATE EVP
ELECTRIC VEHICLE CHARGING ON PUBLIC PREMISES

AVAILABILITY:
Available to Customers charging their electric vehicles (EVs) at certain public charging facilities located within the Company's assigned utility service area. Such public charging facilities may be located at hotels, museums, public parking facilities, etc. Participation is voluntary. Energy consumption billed under this rate shall be used exclusively for charging licensed electric vehicles.

EQUIPMENT:
The Company will own and operate the public charging equipment and will install, own and operate any necessary metering equipment subject to a lease agreement with the owners of the property on which public charging equipment is located. Customer's charging system in the electric vehicle must meet applicable standards. Further, Customers must take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of the Customers' charging system in the electric vehicle.

METERING AND BILLING:
EV charging service will be billed and paid for at the point of service prior to charging by means of credit, debit, or pre-paid cards, as determined by the Company, at rates specified in this rate schedule. The charging service will be metered separately.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company. Service provided includes use of the charging equipment, electricity needed per session, and the convenience of charging in a public location.

RATE:
During the term of this rate, the initial service charge is a flat fee of $2.50 per charging session. The Company may seek authority to change this rate, if approved by the Indiana Utility Regulatory Commission.

STANDARD CONTRACT RIDERS APPLICABLE:
NONE

PAYMENT:
This rate requires Customers to prepay for the voluntary service provided pursuant to this tariff by means of credit, debit, or pre-paid cards only, as determined by the Company. Payment must be made before charging service is rendered.

TERM:
The anticipated term for this rate is two (2) years beginning with the Commission approved effective date.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 10

RATE RS
RESIDENTIAL SERVICE

AVAILABILITY:
Available, exclusively for residential purposes, including electric water heating, to individual private dwellings and individually metered apartments. Not available, however, to master-metered apartments, clubs, fraternities, boarding or rooming houses, or hotels/motels. The water heating and/or space heating billing provision shall not apply where the water heating and/or space heating equipment does not conform to the general requirements set forth in the sections captioned "WATER HEATING SPECIFICATIONS" and "SPACE HEATING SPECIFICATIONS."

The following will not be served under this rate: (1) Single phase motors having an individual capacity in excess of five horsepower, except where Company's system conditions permit, and upon approval of the Company; and (2) welding equipment and other apparatus that in the opinion of the Company may cause objectionable voltage fluctuations.

This rate is available for residential service only. Water heating service may be separately metered and separately billed in accordance with the Company's applicable rate schedule. When electric energy is used on the same premises for other than residential purposes, such energy shall be separately metered and billed in accordance with the Company's approved rate schedule applicable thereto, except as provided for in Rule 29.3.

CHARACTER OF SERVICE:
Standard Characteristics: Three wire, single phase, sixty cycle alternating current ordinarily supplied at 120/240 volts.

The Company may, however, furnish three phase, four wire service, 120/240 volts, 120/208 volts, or 277/480 volts, if in its judgment, which shall be final, it would be more advantageous to both the Customer and the Company due to engineering, safety or other practical reasons. Residential service at 120/208 volts single phase will be available in those multi-family projects or geographic locations where this is the standard voltage established. Where line extensions are required, such extensions will be provided under the Company's standard conditions for line extension.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	
For bills of 0-325 KWH per month	$11.25 per month
For bills over 325 KWH per month	$17.00 per month
Energy Charge	
Any part of the first 500 KWH per month	9.3~~935~~595¢ net per KWH
Over 500 KWH per month	7.~~3000~~2660¢ net per KWH
With electric heating and/or water heating over 1000 KWH per month	6.0~~397~~057¢ net per KWH

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 11
One Monument Circle
Indianapolis, Indiana

RATE RS (Continued)

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable for each month that service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 7	Employee Billing	see Page 159
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

WATER HEATING SPECIFICATIONS:
All water heaters shall be non-inductive storage type heaters having a minimum tank capacity of forty (40) gallons, and may be either the single or twin unit electric heating element type. If the heater has two elements, each heating element shall be separately controlled by an adjustable thermostat, and the thermostats shall be wired so that only one unit shall be energized at a time. One heating element shall be located near the bottom of the tank and the upper unit shall be located approximately one-fourth the distance down from the top of the tank.

The heating elements in all water heaters shall be limited in size to a maximum of 5500 watts.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuit furnishing water heating service under this schedule shall be subject to approval by the Company. All installations shall comply with all applicable State, County and Municipal laws, ordinances, rules and regulations.

Subject to the written approval of the Company, in special cases, and only when the elements are a maximum of 4500 watts, the capacity of the storage tank may be less than forty (40) gallons.

SPACE HEATING SPECIFICATIONS:
All electric heating units shall be permanently installed, shall be designed and wired for 208 or 240 volt electric service and shall be controlled by an approved thermostatic device causing minimum radio interference. The maximum wattage of any resistance heating unit or the wattage of a group of such units controlled by any one device, all of which may be energized at the same time, as well as all other aspects of the installation, shall be subject to approval by the Company, and shall be in accordance with approved electric heating standards for the best electric heating results. Approved central or individual space heating units, including heat pump installations, will be served under this rate.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 12

RATE RS (Continued)

SPACE HEATING SPECIFICATIONS: (Continued)
The Company may require inspection of any and all electric heating installations, by its representatives, to determine that the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not thereby intend to warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

MOTOR SPECIFICATIONS:
All electric motors used by the Customer shall conform to the Company's Standard Motor Specifications relating to rated voltage, starting current, power factor, etc.

TERM:
No definite term. However, all service is subject to the term of any contract for a line extension to the premises to be served.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 17
One Monument Circle
Indianapolis, Indiana

RATE UW
WATER HEATING -- UNCONTROLLED SERVICE

AVAILABILITY:
This Rate is closed and not available for service to new installations after the effective date of this tariff but remains in effect for current Customers. When new or upgraded facilities are required to maintain service to a Rate UW Customer, the Customer shall be removed from Rate UW and be required to take service under an appropriate general service tariff for which the Customer qualifies. Available for separately metered uncontrolled water heating service only, through a non-inductive heater, with resistance elements of either immersion or "wraparound" type, provided that the applicant is a user of the Company's electric service supplied under some other rate at the same location. Not available for seasonal or temporary service, resale, booster heaters or where the energy is to be used for space heating, either directly or indirectly through heat transfer or any combination of such systems.

CHARACTER OF SERVICE:
Single phase, sixty cycle alternating current, at a voltage of approximately 208 or 240 volts, or 208, 240, or 480 volts, three phase at the option of the Company.

SPECIFICATIONS AND CONDITIONS OF SERVICE:
All water heaters shall be non-inductive storage type heaters having a minimum capacity of forty (40) gallons, and shall be automatically controlled.

The maximum electrical capacity that shall be used at any one time shall not exceed 300 watts per gallon of heater tank capacity. All heating elements shall be controlled by adjustable thermostats, and, when service is furnished from the Company's general distribution system, the heating elements shall have such additional controls as may be required so that the energizing of the elements will be limited to steps not exceeding 20 kilowatts at any one time.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuits furnishing water heating service under this schedule shall be subject to approval by the Company.

If the Customer's water heating requirements necessitate two or more heaters, service will be furnished through a single metering installation under the provisions of this rate; provided that beyond the point of the service entrance equipment the circuit or circuits supplying the heaters shall not be contained in a conduit, cable or raceway with any other circuits.

Further, all installations shall comply with applicable State, County and Municipal laws, ordinances, rules and regulations.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$27.00 per month
Energy Charge	6.0~~973~~100¢ net per KWH

Effective TBD

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 18
One Monument Circle
Indianapolis, Indiana

RATE UW (Continued)

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable each month the service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 19
One Monument Circle
Indianapolis, Indiana

RATE CW
WATER HEATING -- CONTROLLED SERVICE

AVAILABILITY:
This Rate is closed and not available for service to new installations after the effective date of this tariff but remains in effect for current Customers. When new or upgraded facilities are required to maintain service to a Rate CW Customer, the Customer shall be removed from Rate CW and be required to take service under an appropriate general service tariff for which the Customer qualifies. Available for separately metered domestic and other water heating service, through a non-inductive pressure type heater, with resistance elements of either immersion or "wrap-around" type; provided that the applicant is a user of the Company's electric service supplied under some other rate at the same location. Not available for booster heaters, or in any case if the energy is to be used for space heating, either directly or indirectly, or for any purpose other than water heating.

The Company shall have the right to install or place in operation time control equipment to regulate the operation of the water heater at any time demands on the Company's system or other conditions, in the judgment of the Company, require installation or operation of such devices. The off-service period or periods will not exceed an aggregate of six hours per day.

CHARACTER OF SERVICE:
Single phase, sixty cycle alternating current, at a voltage of approximately 208 or 240 volts, or 208, 240 or 480 volts three phase, at the option of the Company.

SPECIFICATIONS AND CONDITIONS OF SERVICE:
All water heaters shall be non-inductive storage type heaters having a minimum tank capacity of forty (40) gallons, and may be either the single or twin unit electric heating element type. If the heater has two elements, each heating element shall be separately controlled by an adjustable thermostat, and the thermostats shall be wired so that only one unit shall be energized at a time. One heating element shall be located near the bottom of the tank and the upper unit shall be located approximately one-fourth the distance down from the top of the tank.

The heating elements in all water heaters shall be limited in size to a maximum of 5500 watts each.

The general specifications relating to the design, element size and operating characteristics of all water heaters connected to the Company's lines and the necessary electrical protection of the circuit furnishing water heating service under this schedule shall be subject to approval by the Company. All installations shall comply with all applicable State, County and Municipal laws, ordinances, rules and regulations.

Subject to the written approval of the Company, in special cases, and only when the elements are a maximum of 4500 watts, the capacity of the storage tank may be less than forty (40) gallons.

The necessary time control equipment, if installed or placed in operation, will be owned, operated, maintained and sealed by the Company.

If the Customer's water heating requirements necessitate two heaters of the type described in this rate, service will be provided for the two heaters through a single metering installation under the provisions of this rate; provided that beyond the point of the service entrance, the circuit or circuits supplying the heaters shall not be contained in a conduit, cable or raceway with any other circuits. If the number of heaters required exceeds two, but the requirements of this rate are otherwise met, service will be furnished only upon special written approval of the Company.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 20

RATE CW (Continued)

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$7.10 per month
Energy Charge	6.~~37392~~2894¢ net per KWH

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable each month the service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 31

RATE SS
SECONDARY SERVICE (SMALL)

AVAILABILITY:
Available for general service - lighting and/or power. Available only to the ultimate consumer of the energy; not for resale. Not available for stand-by or auxiliary service. Customers requiring in excess of 75 KW demand will be served only under special agreement, setting out the minimum monthly service charge.

CHARACTER OF SERVICE:
Sixty cycle alternating current measured and delivered at 120 volts single phase two wire, 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage, (4160 volts or 13,200 volts) if in its judgment, it is more advantageous to both the Customer and the Company from the standpoint of engineering or other practical considerations. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	
For bills of 0-5000 KWH/mo.	$30.00 per month
For bills over 5000 KWH/mo.	$50.00 per month
Energy Charge	
First 5000 KWH per month	9.5~~946~~855¢ net per KWH
Over 5000 KWH per month	8.1~~246~~155¢ net per KWH

MINIMUM CHARGE PER MONTH:
The Customer Charge which is payable for each month that service is connected for the Customer's use.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished By Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3

Effective TBD

Indianapolis Power & Light Company
One Monument Circle
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I.U.R.C. No. E-17

Original No. 32

RATE SS (Continued)

STANDARD CONTRACT RIDERS APPLICABLE (Continued):

No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

TERM:
Standard three year term or short term or temporary service. However, all contracts are subject to the term of any contract for a line extension to the premises under consideration.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 33

RATE SH
SECONDARY SERVICE - ELECTRIC SPACE CONDITIONING
SEPARATELY METERED

AVAILABILITY:
Available in the entire area served for non-residential separately metered electric space heating or combined electric space heating, air cooling and/or water heating, subject to the conditions hereinafter set forth.

Permanently installed electric equipment to cool the same area served by the electric space heating equipment may be connected to the space heating circuit provided adequate controls are installed and in operation so that only the space heating equipment or the space cooling equipment operates at any one time; and, provided further, that the electric space heating load is equal to or greater than the space cooling load. Electric water heaters which conform to the applicable requirements set out in the Company's Rate CW and UW may also be connected to the space heating circuit and billed under this rate. Neither the lighting load nor any other equipment than that described above may be connected to the space heating circuit.

The electric space heating and cooling installation shall be for the sole purpose of contributing to the personal comfort or health of the occupants of the premises. In no case may energy supplied and billed under this rate be used for manufacturing or product processing purposes. The latter service and all other power and lighting service will be supplied directly to the Customer and will be separately metered and billed at the rate applicable; provided, however, that all electric service to Elementary Schools, Junior High Schools, and High Schools, otherwise meeting the conditions and requirements of this rate, may be single metered and billed under sub-paragraph (2) of the section below captioned "RATE."

This rate is not available for temporary, periodic or seasonal service, or where the heating installation does not conform to the general requirements set forth in the section hereof captioned "SPACE HEATING SPECIFICATIONS."

CHARACTER OF SERVICE:
Sixty cycle alternating current, measured and delivered at 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire, 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage (4160 volts or 13,200 volts) if in its judgment it is more advantageous to both the Customer and the Company from an engineering or other practical consideration. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
(1) As to any and all Customers qualifying under the "Availability" clause for separately metered space heating or combined space heating, air cooling and/or water heating, the following:

The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$30.00 per month
Energy Charge	7.99~~14~~271¢ net per KWH

Effective TBD

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Original No. 34

RATE SH (Continued)

RATE (Continued)

(2) In the case only of Elementary Schools, Junior High Schools and High Schools qualifying under the "Availability" clause, but with the additional qualification that electricity is used to the exclusion of any other source of energy for space heating and air cooling in the structure or structures or addition to the structure or structures on the premises and where all of the electric energy requirements are single metered, except that electric water heating may be separately metered and billed on the rate applicable, thereto the following:

The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$30.00 per month

Energy Charge

The KWH determined by multiplying the KW connected lighting load by an average burning time of 155 hours per month shall be billed as follows:

Any part of the first 5000 KWH per month	10.~~9315~~8493¢ net per KWH
All over 5000 KWH per month	9.~~4615~~3793¢ net per KWH
All KWH in excess of 155 times the connected KW lighting load	~~8.071~~57.9893¢ net per KWH

MINIMUM CHARGE PER MONTH:

For bills computed under (1) above: The Customer Charge which is payable for each month that service is connected for the Customer's use.

For bills computed under (2) above: The minimum charge shall be the Customer Charge plus the Energy and Demand Charges for 155 hours use of the connected lighting load, except for the billing periods of July through September when the minimum charge shall be the Customer Charge.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 15	Load Displacement	see Page 171
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

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RATE SH (Continued)

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

SPACE HEATING SPECIFICATIONS:
All electric heating units shall be permanently installed, and shall be controlled by an approved thermostatic device causing minimum radio interference.

All heating installations shall be of a type acceptable to the Company, and should be in accordance with approved electric heating standards for the best electric heating results. Approved central or individual space heating units, including heat pump installations, will be served under this rate.

The Company may require inspection of any and all electric heating installations, by its representatives, to determine that the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not thereby intend to warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

MOTOR SPECIFICATIONS:
All electric motors used by the Customer shall conform to the Company's Standard Motor Specifications relating to rated voltage, starting current, power factor, etc.

TERM:
No definite term. However, all service is subject to the term of any contract for a line extension to the premises to be served.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 40

RATE OES
OFF-PEAK ENERGY STORAGE
SEPARATELY METERED

AVAILABILITY:
Available for non-residential separately metered Electric Energy Storage Service, subject to the conditions hereinafter set forth.

Electric Energy Storage Service is defined as any electric equipment/process, the sole function of which is to consume electrical energy off-peak to be:

1) used for thermal (heating/cooling) conditioning Off-Peak; and/or,
2) stored for all uses On-Peak.

In no case may energy supplied and billed under this rate be used for off-peak manufacturing, product processing, lighting, or any non-thermal conditioning purposes.

This rate is intended for year-round application; seasonal disconnect is not permitted. This rate is not available for any equipment/process that has been a part of a Demand-Side Management or other Company program for which an incentive or other benefit has been received.

CHARACTER OF SERVICE:
Sixty cycle alternating current measured and delivered at 120 volts single phase two wire, 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts single phase three wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire; however, Company may deliver and measure energy three phase, at standard primary voltage, (4160 volts or 13,200 volts) if in its judgment, it is more advantageous to both the Customer and the Company from the standpoint of engineering or other practical considerations. If energy is delivered and metered at primary voltage, three and one-half percent (3½%) will be deducted from KWH consumed for billing purposes. No discount will be allowed where any part of the energy is utilized at primary voltage.

RATE:
The sum of the Customer Charge and Energy Charge shown hereafter plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge		$82.00 per month
Energy Charge		
	Off-Peak Period:	2.50¢ net per KWH
	On-Peak Period:	10.00¢ net per KWH

where, the Off-peak period is defined as all hours between 10 p.m. and 6 a.m. weekdays, and all hours on Saturday, Sunday and holidays. All other hours are considered to be On-peak.

MINIMUM CHARGE PER MONTH
The Customer Charge which is payable for each month that service is connected for the Customer's use.

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Original No. 41

RATE OES (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 9	Net Metering	see Page 161
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

ENERGY STORAGE EQUIPMENT SPECIFICATIONS:
All energy storage installations shall be permanently installed, shall be of a type acceptable to the Company, and shall be in accordance with all applicable standards and codes.

The Company may inspect any and all energy storage installations to determine the installations conform to these requirements.

Notwithstanding any provision for inspection and approval of any equipment by the Company contained herein, the Company does not warrant or guarantee, nor shall the Company be held responsible, either directly or indirectly, for the design, installation, operation, use or performance of any equipment used by the Customer.

TERM:
Standard three year term.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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Original No. 50

RATE SL
SECONDARY SERVICE (LARGE)

AVAILABILITY:
Available to any alternating current Customer for lighting and/or power service who will contract for not less than fifty (50) kilowatts of demand.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, 120/208 volts three phase four wire or 277/480 volts three phase four wire, which voltage will be designated by the Company, and through a single metering installation. If the Company, at its option, measures all the energy at the primary side of the transformers (4,160 volts or 13,200 volts), the following deductions will be made in the meter readings: Two and one-half percent (2½%) will be deducted from the KW of demand established by the Customer during the month and two and one-half percent (2½%) will be deducted from the KWH consumed. No discount will be allowed where any part of energy is utilized at primary voltage.

TRANSFORMER OWNERSHIP:
All transformers and supplementary equipment will be owned, installed, operated and maintained by the Company. No discount will be allowed for Customer ownership of transformation facilities.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$120.00
Demand Charge All KW of billing demand per month @	$18.2~~79~~ net per KW
Energy Charge	3.51~~62~~50¢ net per KWH

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration, but not less than sixty percent (60%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case upon less than fifty (50) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of

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Original No. 51

RATE SL (Continued)

such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than fifty (50) kilowatts.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 2	Stand-by Service	see Page 152
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 13	Air Conditioning Load Management Adjustment	see Page 165
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

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Original No. 52

RATE SL (Continued)

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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Original No. 53

RATE PL
PRIMARY SERVICE (LARGE)

AVAILABILITY:
Available for power and lighting delivered at primary distribution voltage. Minimum contract five hundred (500) kilowatts of demand. Not for resale.

CHARACTER OF SERVICE:
Standard Characteristics: Three phase, sixty cycle alternating current supplied from overhead lines through transformers and other substation equipment owned by the Company, delivered at one point on Customer's premises, and at primary distribution voltage, approximately 4,160 or 13,200 volts. All distribution transformers, lines and other equipment on the Customer's side of the point of delivery shall be installed, owned, operated and maintained by the Customer.

Non-Standard Characteristics: If the Customer desires service necessitating transformers (including circuit breakers, supporting structure and supplementary equipment) which do not conform to the standard of the Company as to design, voltage ratio or capacity; or if the Customer desires the exclusive use and/or control of the transformers of standard or non-standard characteristics, energy will be delivered in either case at the high tension side of such transformers, which, however, shall be installed, owned, operated and maintained by the Customer.

Demand and energy measurements may be made at either the high tension (input) or low tension (load) side of the transformers, but, if measured at the high tension side, will be adjusted before billing by the deduction of one-half percent (½%), so that they will be equivalent to measurement at a standard primary distribution voltage, approximately 4,160 or 13,200 volts. The Company, for engineering or other practical reasons, may at its option supply and measure service at sub-transmission voltage.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$120.00
Demand Charge	
All KW of billing demand per month @	$19.~~10~~07 net per KW
Energy Charge	3.4~~183~~099¢ net per KWH

Effective TBD

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Original No. 54

RATE PL (Continued)

DETERMINATION OF BILLING DEMAND:

The billing demand shall be determined as being the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration but with the further provision that the demand charge shall be based upon not less than sixty percent (60%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case upon less than five hundred (500) kilowatts.

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than five hundred (500) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

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Original No. 55

RATE PL (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 2	Stand-by Service	see Page 152
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 5	Short Term Service	see Page 156
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 56

RATE PH
PROCESS HEATING

AVAILABILITY:
Available, subject to a minimum contract of one hundred (100) kilowatts of demand, for Process Heating when used for manufacturing purposes only and service is supplied from the overhead distribution system. All other lighting, space heating and power will be measured and billed separately under the rate appropriate for that service.

MEASUREMENT:
Energy will be delivered and measured in the form of three phase, sixty cycle alternating current at 120/240 volts, 120/208 volts or 277/480 volts and ordinarily at the primary side of any auxiliary transformers used in connection with the Customer's industrial heating equipment.

In case these quantities are measured at primary distribution voltage (4,160 or 13,200 volts) or at subtransmission voltage (34,500 volts), three and one-half percent (3½%) will be deducted from the measured KWH and three percent (3%) will be deducted from the measured KW demand before billing. The service voltage will be specified by the Company.

RATE:
The Customer Charge; plus the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge	$1,000.00
Energy Charge	
Any part of the first 250 hours use of the billing demand per month	@ 7.~~81945~~408¢ net per KWH
All additional energy	@ 6.~~31940~~408¢ net per KWH

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, occurring during the billing month under consideration and in no event less than sixty percent (60%) of the highest billing demand used in any of the preceding eleven (11) months, nor less than one hundred (100) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the energy charge by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

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Original No. 57

RATE PH (Continued)

POWER FACTOR: (Continued)

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and the computed charge for 120 hours use of the billing demand.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Three years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis Power & Light Company
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Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 58

RATE HL
(HIGH LOAD FACTOR -
PRIMARY DISTRIBUTION, SUB-TRANSMISSION AND TRANSMISSION VOLTAGES)

AVAILABILITY:
Available for power and lighting service at standard primary distribution, sub-transmission, or transmission line voltages. Delivery voltage to be determined by the Company. Minimum contract two thousand (2,000) kilowatts of demand. Not for resale.

CHARACTER OF SERVICE:
Standard Characteristics: Three phase, sixty cycle alternating current, delivered and metered at one point on Customer's premises, at primary distribution voltage (approximately 4,160 or 13,200 volts), sub-transmission voltage (approximately 34,500 volts), or transmission voltage (approximately 138,000 or 345,000 volts). All distribution transformers, lines and other equipment on the Customer's side of the point of delivery shall be installed, owned, operated and maintained by the Customer.

Non-Standard Characteristics: If the Customer desires service necessitating transformers (including circuit breakers, supporting structure and supplementary equipment) which do not conform to the standards of the Company as to design, voltage ratio or capacity, or if the Customer desires the exclusive use and/or control of the transformers (whether standard or non-standard), such transformers shall be installed, owned, operated and maintained by the Customer, and the point of delivery in either case shall be at the high voltage side of the transformers.

RATE:
The Customer Charge; plus the sum of the Demand Charge and the Energy Charge adjusted according to the "Power Factor" clause shown hereafter; plus the Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section.

Customer Charge

For service at primary distribution voltage	$135.00
For service at sub-transmission voltage	$140.00
For service at transmission voltage	$180.00

Demand Charge

For service at primary distribution voltage (4,160 or 13,200 volts)
All KW of billing demand per month @ $~~19.30~~8.82 net per KW

For service at sub-transmission voltage (34,500 volts)
All KW of billing demand per month @ $19.~~53~~18 net per KW

For service at transmission voltage (138,000 or 345,000 volts)
All KW of billing demand per month @ $~~20.50~~18.56 net per KW

Energy Charge

For service at primary distribution voltage	3.4~~288~~097¢ net per KWH
For service at sub-transmission voltage	3.39~~76~~58¢ net per KWH
For service at transmission voltage	3.35~~94~~33¢ net per KWH

Effective TBD

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Original No. 59

RATE HL (Continued)

DETERMINATION OF BILLING DEMAND:
The billing demand shall be the average of the three (3) highest fifteen (15) minute interval demands, expressed in kilowatts, established by the Customer during the billing month under consideration, but not less than seventy-five percent (75%) of the highest billing demand that has been established in any of the immediately preceding eleven (11) months, and in no case less than two thousand (2,000) kilowatts.

POWER FACTOR:
The Customer's bill will be adjusted by multiplying the sum of the demand and energy charges by the multiplier set out in the table below whenever the average monthly power factor of his operation varies from eighty-five percent (85%) lagging, as determined by suitable instruments connected at the point where the energy and the demand are measured for billing purposes. In determining the average power factor for the month, no credit will be given for leading power factor. Any equipment installed to control or to correct the power factor shall be of such design, and it shall be so controlled and operated at all times, that its use will not create any undesirable operating characteristics (including voltage rise) in the supply circuits, beyond the limits of good practice.

POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER	POWER FACTOR	MULTI-PLIER
1.00	.951	.87	.9919	.74	1.0563	.61	1.1661
.99	.9535	.86	.9958	.73	1.0627	.60	1.1785
.98	.9562	.85	1.0000	.72	1.0694	.59	1.1897
.97	.9590	.84	1.0041	.71	1.0764	.58	1.2025
.96	.9618	.83	1.0085	.70	1.0835	.57	1.2159
.95	.965	.82	1.0131	.69	1.0913	.56	1.2300
.94	.9677	.81	1.0178	.68	1.0992	.55	1.2455
.93	.9709	.80	1.0230	.67	1.1075	.54	1.2607
.92	.9741	.79	1.0277	.66	1.1161	.53	1.2773
.91	.9774	.78	1.0330	.65	1.1255	.52	1.2950
.90	.981	.77	1.0386	.64	1.1347	.51	1.3136
.89	.9844	.76	1.0442	.63	1.1447	.50	1.3335
.88	.9881	.75	1.0500	.62	1.1551		

MINIMUM CHARGE PER MONTH:
The sum of the Customer Charge and Demand Charge, which is to be in no case for less than two thousand (2,000) kilowatts.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171

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Original No. 60

RATE HL (Continued)

STANDARD CONTRACT RIDERS APPLICABLE:(Continued)

No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

STANDARD TERM:
Five years.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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I.U.R.C. No. E-17

Original No. 61

RATE CSC
CUSTOMER SPECIFIC CONTRACTS

PURPOSE:
To provide an appropriate response to non-standard or specialized Customer requests for electric services and/or meet competitive forces in the energy services markets in a manner that satisfies the needs of participating Customers while balancing the interests of the participating Customer, the non-participating Customers, and the Company.

AVAILABILITY:
Any Customer with a minimum contract demand of 2000 kilowatts, not for resale, can be considered for a Rate CSC, Customer Specific Contract, upon written application to the Company if one or more of the following conditions is shown to exist:

1) The Customer desires non-standard electric service for new or existing load;

2) The Customer desires specialized electric service for new or existing load;

3) The Customer has potential new load which will not materialize at the Company's standard tariff rates; and/or

4) The Customer intends to utilize a source other than the Company for electric service for new or existing load absent service under this rate by showing:

   (a) The Customer has a competitive alternative to the Company's standard tariff rates; and

   (b) The comparative economics, including but not limited to availability of capital, environmental impacts, and assessment of risk, of the alternative over the Company's standard tariff rates are material; and

   (c) The alternative is demonstrated to be technologically feasible and legally permissible; and

   (d) The Customer has taken substantial steps to fairly evaluate the alternative sufficient to establish the Customer's actual ability to utilize the alternative within a reasonable period of time.

Upon receipt of the Customer's written application, and such further information as the Company may require, the Company and the applying Customer may, at the sole discretion of either party, commence negotiation of rates, terms, and conditions of service under this tariff. If the parties reach a mutually acceptable agreement, it shall be reduced to writing and submitted to the Engineering Department of the Commission for approval pursuant to I.C. 8-1-2-24; 25. Such submission shall include, but not be limited to:

A) Full disclosure of all rates, terms and conditions of service and any and all agreements related thereto;

B) Evidence received by the Company showing the Customer's satisfaction of the condition(s) set forth above as 1 through 4 (a-d); and

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

Original No. 62

RATE CSC (Continued)

AVAILABILITY (Continued):

C) An analysis demonstrating that the compensation to be received under the contract during its term shall exceed the incremental cost to the Company from performance under the contract.

CHARACTER OF SERVICE:
Three phase, sixty cycle alternating current unless otherwise specified.

RATE:
All charges for service under this rate shall be the charges contained in the contract between the Company and the Customer.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 4	Additional Charges for Transformers and Other Facilities Furnished by Company to Customer	see Page 154
No. 6	Fuel Cost Adjustment	see Page 157
No. 8	Off-Peak Service	see Page 160
No. 9	Net Metering	see Page 161
No. 14	Interruptible Power	see Page 166
No. 15	Load Displacement	see Page 171
No. 17	Curtailment Energy	see Page 175
No. 18	Curtailment Energy II	see Page 178
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

CONTRACT TERMS:
The duration of the contract, and the terms and conditions of service shall be those contained in the contract between the Company and the Customer.

CONFIDENTIALITY
Upon request of the Company or the Customer, upon good cause shown by affidavit, all terms and conditions of any contract under this tariff, and any information contained in the submission set forth above at A) through C), shall be protected from disclosure as confidential, proprietary trade secrets pursuant to I.C. 8-1-2-29 and I.C. 5-14-3.

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I.U.R.C. No. E-17

Original No. 90

RATE MU-1 (VINTAGE)
MUNICIPAL LIGHTING AND OTHER DEVICES

APPLICABILITY:
For Street and Traffic Lighting of public streets, parkways, improved alleys, boulevards, drives, bridges, parking areas, or other public places by Cities or Towns or by individuals, groups of individuals, associations and other than incorporated municipalities; and lighting of public parks, drives, bridges, parking areas or other public places by only Cities or Towns where there is a prospect that the capital expenditure is warranted. The capital expenditure will be warranted if the amount of revenue received in sixty (60) months exceeds the estimated cost of installation for the lights as calculated by the Company. If the 60-month revenue does not exceed the cost of installation, the Customer must pay two and one-half (2½) times the difference of the cost of installation and the 60-month revenue prior to installation of the lighting. The terms, prices and provisions of this rate schedule shall be applicable to a consolidated city of the first class only to the extent not inconsistent with the specifications, terms, prices and provisions in contracts which may be entered into by such city pursuant to I.C. § 36-9-9-1, et. seq.

This rate is also available to municipalities for other municipal devices used for public purposes.

Rate MU-1 Vintage is no longer available for new installations after the effective date of this tariff. Specific rates on the Rate MU-1 Vintage tariff marked with a double asterisk (**) remain in effect for existing installations until the Company can no longer repair or support maintenance requirements for that particular light.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CHARACTER OF SERVICE:

a) Flat Rate Street Lighting Service:
   (1) Company to furnish, erect and maintain the necessary lamps, fixtures, poles, wiring, etc., and to operate them on a lighting schedule approximately 4100 hours per year.
   (2) Company to operate Customer-owned equipment on a lighting schedule approximately 4100 hours per year.

b) Flat Rate Service for Traffic Signals, Safety Lighting Fixtures and/or Other Municipal Devices:
   Optional flat rate unmetered service for the supply of energy only, 24 hours per day or less at the option of the Customer, for traffic signals, safety lighting fixtures and/or Other Municipal Devices. All equipment including fixtures, supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer. This service will be delivered and measured at Company's secondary distribution voltage.

c) Additional Facilities:
   If the Customer and Company agree to installations requiring additional facilities that are not addressed in other sections of this tariff, these facilities will be subject to an additional facilities charge of 1.65% of the installed cost per month.

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Original No. 91

RATE MU-1 (VINTAGE) (Continued)

BILLING:

Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying monthly KWH as shown in Lighting KWH table, plus one-twelfth (1/12) of the annual charges for flat rate service set out in Rate sections (a) and (b) which follow.

RATE:

Section (a) (1)

Prices in Section (a) (1) are for Company-owned equipment and include all maintenance costs associated with the equipment. Also included when an outage is due to failure of lamp, said lamp will be replaced within two (2) working days after such fact has been reported to or discovered by the Company. When failure or outage is due to reasons other than lamp failure, said repair will be completed within seven (7) working days after such fact has been reported to or discovered by the Company. Underground cable replacements will be completed within thirty (30) days of discovery by the Company. These time periods are barring natural disasters, acts of God, or the inability of the Company to gain access.

Section (a) (1) (a)

Lamps in enclosed fixtures, suspended from mast arms on wood poles and supplied from overhead circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$294.36**
400-watt Mercury Vapor Lamp	163.56**
175-watt Mercury Vapor Lamp	116.28**
400-watt High Pressure Sodium Lamp	194.76
250-watt High Pressure Sodium Lamp	159.96
150-watt High Pressure Sodium Lamp	127.20
100-watt High Pressure Sodium Lamp	109.08
400-watt Metal Halide Lamp	194.76**

Section (a) (1) (b)

Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$440.52**
400-watt Mercury Vapor Lamp	231.96**
175-watt Mercury Vapor Lamp	191.16**
175-watt Mercury Vapor - Fiberglass	181.92**
400-watt High Pressure Sodium Lamp	340.92
400-watt High Pressure Sodium - Fiberglass	316.08
400-watt High Pressure Sodium - Shoebox	281.88
2-400-watt High Pressure Sodium - Shoebox	378.24
250-watt High Pressure Sodium Lamp	229.68
250-watt High Pressure Sodium - Fiberglass	220.44
250-watt High Pressure Sodium - Shoebox	231.24
2-250-watt High Pressure Sodium - Shoebox	307.56
150-watt High Pressure Sodium Lamp	199.20

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RATE MU-1 (VINTAGE) (Continued)
Section (a) (1) (b)

150-watt High Pressure Sodium - Fiberglass	189.84
100-watt High Pressure Sodium Lamp	183.96
100-watt high Pressure Sodium - Fiberglass	174.60
400-watt High Pressure Sodium Painted Bronze Column	372.24
400-watt High Pressure Sodium Bronze Traffic Pole	199.92**
250-watt High Pressure Sodium Painted Bronze Column	261.00
250-watt High Pressure Sodium Lamp Bronze Traffic Pole	164.88**
400-watt Metal Halide - Shoebox	288.72**
2-400-watt Metal Halide - Shoebox	391.80**
400-watt Metal Halide Metal Column	340.92**
400-watt Metal Halide - Fiberglass	316.08**

Section (a) (1) (c)

Lamps in enclosed post top type fixtures, mounted on metal or fiberglass ornamental columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
175-watt Mercury Vapor Post Std.	$186.12**
175-watt Mercury Vapor Washington Post Std.	291.84**
150-watt High Pressure Sodium Washington Post Std.	327.72
150-watt High Pressure Sodium 18" Ball Globe Post Std.	220.44
100-watt High Pressure Sodium Post Std.	183.12
100-watt High Pressure Sodium Washington Post Std.	286.08
2-80-watt LED Washington Post Std.	781.92
80-watt LED Washington Post Std.	482.16
3-150-watt High Pressure Sodium Single Column	585.96**
3-150-watt High Pressure Sodium Twin Column	585.96**
1-150-watt High Pressure Sodium & 4-100-watt High Pressure Sodium Cluster	735.60

"Std." means Ornamental Standard.

Section (a) (1) (d)

Prices below apply to lighting for the City of Indianapolis in the downtown area.

Prices for Flat Rate Street Lighting Service	Price Per Year Per Each Unit
150-watt High Pressure Sodium Pedestrian Lamp	$787.20

Section (a) (1) (e)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
Lamps in enclosed fixtures mounted to underpasses or tunnels.	
175-watt Mercury Vapor Lamp	$163.56**
150-watt High Pressure Sodium Lamp	167.88

Effective TBD

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RATE MU-1 (VINTAGE) (Continued)

Section (a) (1) (e)

Lamps operated approximately 8760 hours per year.

175-watt Mercury Vapor Lamp	202.08**
400-watt High Pressure Sodium Lamp	349.32
150-watt High Pressure Sodium Lamp	213.72

Section (a) (2)
Lamps operated approximately 4100 hours per year

Section (a) (2) (a)

Prices below apply only to Customer-owned equipment which meets the Company's standards and upon inspection is acceptable to the Company and include only normal operating and minor maintenance costs which are: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. Should parts become not readily available, the Customer shall be required to supply IPL with the minor maintenance material. In the event Customer does not supply necessary material, the light would go out of service. The Customer is to furnish all other maintenance and repairs.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
1000-watt Mercury Vapor Lamp	$230.88**
400-watt Mercury Vapor Lamp	123.96**
250-watt Mercury Vapor Lamp	145.44**
175-watt Mercury Vapor Lamp	91.08**
5-100-watt Mercury Vapor Cluster	268.08**
100-watt Mercury Vapor Lamp	86.04**
400-watt High Pressure Sodium Lamp	135.48
250-watt High Pressure Sodium Lamp	109.56
150-watt High Pressure Sodium Lamp	84.72
1000-watt High Pressure Sodium Lamp	276.84
175-watt Mercury Vapor 15' Ornamental Standard	142.44**

Section (a) (2) (b)

Prices below apply only to Interstate Highway System lighting, which is owned by the State of Indiana, which equipment meets the Company's standards and upon inspection is acceptable to the Company. Available maintenance by the Company is: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. The Customer is to furnish all other maintenance and repairs. No new installations will be served and no additions to present installations will be permitted.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit	
	Without Maintenance	With Maintenance
1000-watt Mercury Vapor Lamp	$210.36**	$230.88**
400-watt Mercury Vapor Lamp	103.44**	123.96**
250-watt Mercury Vapor Lamp	124.92**	145.44**
175-watt Mercury Vapor Lamp	70.56**	91.08**
5-100-watt Mercury Vapor Cluster	247.56**	268.08**

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RATE MU-1 (VINATGE) (Continued)

Section (a) (2) (b)

100-watt Mercury Vapor Lamp	65.52**	86.04**
400-watt High Pressure Sodium Lamp	114.96	135.48
250-watt High Pressure Sodium Lamp	89.04	109.56
150-watt High Pressure Sodium Lamp	64.20	84.72
1000-watt High Pressure Sodium Lamp	256.32	276.84
175-watt Mercury Vapor 15' Ornamental Standard	121.92**	142.44**

Section (b)
Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices
Prices for furnishing unmetered electrical energy only, per each traffic signal, safety lighting fixture or other municipal device. All equipment, including the fixtures, their supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer.

Prices are per year per watt burning, based upon the average of the watts burning throughout the operating cycle of the fixture under consideration, but with the further condition, that for billing purposes no fixture or device will be considered as having a rating less than sixty (60) watts. New traffic signals, safety lighting fixtures, or other municipal lighting devices under Section (b) will no longer be installed under the Rate MU-1 Vintage tariff. At the discretion of the Company, a customer may make an addition to an existing circuit if the customer communicates the addition to the Company for billing purposes.

Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices (Continued)

Minimum charge is per year per each fixture or device

Price per watt	$ 0.63
Minimum per fixture or device	37.80

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

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RATE MU-1 (VINTAGE) (Continued)

TERM:
This service is available for a standard term of five (5) years, unless otherwise approved by the Company, and, if not terminated by at least a 60-day notice prior to the expiration of the initial five-year term, shall be continued on a monthly basis, terminable on a 15-day written notice prior to the end of any such monthly period. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. After the initial term, if a Customer's lighting account goes 30 days into arrears, the lighting facilities will be subject to disconnect. If the bill is still not paid 60 days from the initial due date, the Company may, at its discretion, remove its facilities. Customer remains obligated to pay all amounts due.

CONDITIONS OF SERVICE:
The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

A Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on the Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

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RATE MU-1 (VINTAGE) (Continued)

ROADWAY IMPROVEMENT / CONSTRUCTION PROJECTS:
A streetlight shall be eligible for relocation if the majority of the supporting infrastructure (wiring, ducts, risers, and so forth) can remain in place and the street light pole/column is moved no more than 15 feet. Furthermore, light relocation work must be able to be completed prior to Customer construction. The Customer shall notify the Company a minimum of six weeks before the start of a scheduled construction project; for emergency work, the Company shall be notified as soon as practical. The Customer will be billed by the Company for the actual cost incurred: includes labor, materials, engineering and overhead. Also, the Customer will be billed actual costs for lights that are required to be removed from the field for a Customer project, during the initial five (5) year term; the Company may, at its option, declare the service charges for the remaining months of a term immediately due.

Lights that have been in the field for the full initial five (5) year term will be removed at no charge. Should the Customer want Company owned lights to be placed back into service, after ordering their removal, the installation shall be treated as new construction.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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RATE MU-1 (VINTAGE) (Continued)

MONTHLY LIGHTING KWH TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

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RATE MU-1 (NEW)
MUNICIPAL LIGHTING AND OTHER DEVICES

APPLICABILITY:
For Street and Traffic Lighting of public streets, parkways, improved alleys, boulevards, drives, bridges, parking areas, or other public places by Cities or Towns or by individuals, groups of individuals, associations and other than incorporated municipalities; and lighting of public parks, drives, bridges, parking areas or other public places by only Cities or Towns where there is a prospect that the capital expenditure is warranted. The capital expenditure will be warranted if the amount of revenue received in sixty (60) months exceeds the estimated cost of installation for the lights as calculated by the Company. If the 60-month revenue does not exceed the cost of installation, the Customer must pay two and one-half (2½) times the difference of the cost of installation and the 60-month revenue prior to installation of the lighting. The terms, prices and provisions of this rate schedule shall be applicable to a consolidated city of the first class only to the extent not inconsistent with the specifications, terms, prices and provisions in contracts which may be entered into by such city pursuant to I.C. § 36-9-9-1, et. seq.

This rate is also available to municipalities for other municipal devices used for public purposes.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CHARACTER OF SERVICE:
a) Flat Rate Street Lighting Service:
   (1) Company to furnish, erect and maintain the necessary lamps, fixtures, poles, wiring, etc., and to operate them on a lighting schedule approximately 4100 hours per year.
   (2) Company to operate Customer-owned equipment on a lighting schedule approximately 4100 hours per year.

b) Flat Rate Service for Traffic Signals, Safety Lighting Fixtures and/or Other Municipal Devices:
   Optional flat rate unmetered service for the supply of energy only, 24 hours per day or less at the option of the Customer, for traffic signals, safety lighting fixtures and/or Other Municipal Devices. All equipment including fixtures, supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer. This service will be delivered and measured at Company's secondary distribution voltage.

d) Additional Facilities:
   If the Customer and Company agree to installations requiring additional facilities that are not addressed in other sections of this tariff, these facilities will be subject to an additional facilities charge of 1.65% of the installed cost per month.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying monthly KWH as shown in Lighting KWH table, plus one-twelfth (1/12) of the annual charges for flat rate service set out in Rate sections (a) and (b) which follow.

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RATE MU-1 (NEW) (Continued)

RATE:
Section (a) (1)
Prices in Section (a) (1) are for Company-owned equipment and include all maintenance costs associated with the equipment. Also included when an outage is due to failure of lamp, said lamp will be replaced within two (2) working days after such fact has been reported to or discovered by the Company. When failure or outage is due to reasons other than lamp failure, said repair will be completed within seven (7) working days after such fact has been reported to or discovered by the Company. Underground cable replacements will be completed within thirty (30) days of discovery by the Company. These time periods are barring natural disasters, acts of God, or the inability of the Company to gain access.

Section (a) (1) (a)

Lamps in enclosed fixtures, suspended from mast arms on wood poles and supplied from overhead circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$392.373~~.16~~
250-watt High Pressure Sodium Lamp	353.984~~.69~~
150-watt High Pressure Sodium Lamp	329.6730~~.33~~
100-watt High Pressure Sodium Lamp	307.618~~.24~~
400-watt High Pressure Sodium Lamp - Traffic Column	366.397~~.19~~
250-watt High Pressure Sodium Lamp - Traffic Column	328.0172
150-watt High Pressure Sodium Lamp - Traffic Column	303.704~~.36~~
100-watt High Pressure Sodium Lamp - Traffic Column	281.642~~.27~~

Section (a) (1) (b)

Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$581.762~~.55~~
400-watt High Pressure Sodium - Fiberglass	432.373~~.17~~
400-watt High Pressure Sodium - Shoebox	463.294~~.08~~
2-400-watt High Pressure Sodium - Shoebox	590.031~~.04~~
250-watt High Pressure Sodium Lamp	543.374~~.08~~
250-watt High Pressure Sodium - Fiberglass	393.984~~.70~~
250-watt High Pressure Sodium - Shoebox	423.864~~.58~~
2-250-watt High Pressure Sodium - Shoebox	560.651~~.50~~
150-watt High Pressure Sodium Lamp	475.426~~.08~~
150-watt High Pressure Sodium - Fiberglass	359.0470
100-watt High Pressure Sodium Lamp	464.0063
100-watt high Pressure Sodium - Fiberglass	347.628~~.25~~
400-watt High Pressure Sodium Painted Bronze Column	584.0483
250-watt High Pressure Sodium Painted Bronze Column	548.899~~.61~~

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RATE MU-1 (NEW) (Continued)

Section (a) (1) (c)

Lamps in enclosed post top type fixtures, mounted on metal or fiberglass ornamental columns and supplied from underground circuits.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
150-watt High Pressure Sodium Washington Post Std.	$461.952~~.61~~
150-watt High Pressure Sodium 18" Ball Globe Post Std.	354.895~~.55~~
100-watt High Pressure Sodium Post Std.	263.404~~.03~~
100-watt High Pressure Sodium Washington Post Std.	400.0972
2-80-watt LED Washington Post Std.	967.978~~.64~~
80-watt LED Washington Post Std.	646.427~~.04~~
1-150-watt High Pressure Sodium & 4-100-watt High Pressure Sodium Cluster	1,007.798~~.69~~

"Std." means Ornamental Standard.

Section (a) (1) (d)

Prices below apply to lighting for the City of Indianapolis in the downtown area.

Prices for Flat Rate Street Lighting Service	Price Per Year Per Each Unit
150-watt High Pressure Sodium Pedestrian Lamp	$464.1379

Section (a) (1) (e)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
Lamps in enclosed fixtures mounted to underpasses or tunnels.	
150-watt High Pressure Sodium Lamp	$248.379~~.03~~
Lamps operated approximately 8760 hours per year.	
400-watt High Pressure Sodium Lamp	417.748~~.55~~
150-watt High Pressure Sodium Lamp	277.748~~.41~~

Section (a) (2)

Lamps operated approximately 4100 hours per year

Section (a) (2) (a)

Prices below apply only to Customer-owned equipment which meets the Company's standards and upon inspection is acceptable to the Company and include only normal operating and minor maintenance costs which are: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. Should parts become not readily available, the Customer shall be required to supply IPL with the minor maintenance material. In the event Customer does not supply necessary material, the light would go out of service. The Customer is to furnish all other maintenance and repairs.

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RATE MU-1 (NEW) (Continued)

Section (a) (2) (a) (continued)

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit
400-watt High Pressure Sodium Lamp	$191.462.26
250-watt High Pressure Sodium Lamp	154.795.51
150-watt High Pressure Sodium Lamp	128.949.61
1000-watt High Pressure Sodium Lamp	331.973.06

Section (a) (2) (b)

Prices below apply only to Interstate Highway System lighting, which is owned by the State of Indiana, which equipment meets the Company's standards and upon inspection is acceptable to the Company. Available maintenance by the Company is: the replacement of the lamp, ballast, glassware, photocell, and fuses as required; and the repair, but not replacement, of the cable. The Customer is to furnish all other maintenance and repairs.

Prices for Flat Rate Street Lighting Services:	Price Per Year Per Each Unit	
	Without Maintenance	With Maintenance
400-watt High Pressure Sodium Lamp	$158.909.69	
$191.462.26		
250-watt High Pressure Sodium Lamp	122.2395	154.795.51
150-watt High Pressure Sodium Lamp	96.387.04	
128.949.61		
1000-watt High Pressure Sodium Lamp	299.40300.49	
331.973.06		

Section (b)

Price for Flat Rate Traffic Signal, Safety Lighting Service and/or Other Municipal Devices

Prices for furnishing unmetered electrical energy only, per each traffic signal, safety lighting fixture or other municipal device. All equipment, including the fixtures, their supporting structures and electrical apparatus that is beyond the point of supply to be owned, operated and maintained by the Customer.

Prices are per year per watt burning, based upon the average of the watts burning throughout the operating cycle of the fixture under consideration, but with the further condition, that for billing purposes no fixture or device will be considered as having a rating less than sixty (60) watts.

Minimum charge is per year per each fixture or device

Price per watt	$ 0.63
Minimum per fixture or device	37.80

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

Effective TBD

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RATE MU-1 (NEW) (Continued)

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess of Three Dollars ($3.00).

TERM:
This service is available for a standard term of five (5) years, unless otherwise approved by the Company, and, if not terminated by at least a 60-day notice prior to the expiration of the initial five-year term, shall be continued on a monthly basis, terminable on a 15-day written notice prior to the end of any such monthly period. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. After the initial term, if a Customer's lighting account goes 30 days into arrears, the lighting facilities will be subject to disconnect. If the bill is still not paid 60 days from the initial due date, the Company may, at its discretion, remove its facilities. Customer remains obligated to pay all amounts due.

CONDITIONS OF SERVICE:
The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

A Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on the Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting

equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

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RATE MU-1 (NEW) (Continued)

ROADWAY IMPROVEMENT / CONSTRUCTION PROJECTS:

A streetlight shall be eligible for relocation if the majority of the supporting infrastructure (wiring, ducts, risers, and so forth) can remain in place and the street light pole/column is moved no more than 15 feet. Furthermore, light relocation work must be able to be completed prior to Customer construction. The Customer shall notify the Company a minimum of six weeks before the start of a scheduled construction project; for emergency work, the Company shall be notified as soon as practical. The Customer will be billed by the Company for the actual cost incurred: includes labor, materials, engineering and overhead. Also, the Customer will be billed actual costs for lights that are required to be removed from the field for a Customer project, during the initial five (5) year term; the Company may, at its option, declare the service charges for the remaining months of a term immediately due.

Lights that have been in the field for the full initial five (5) year term will be removed at no charge. Should the Customer want Company owned lights to be placed back into service, after ordering their removal, the installation shall be treated as new construction.

RULES:

Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

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RATE MU-1 (NEW) (Continued)

MONTHLY LIGHTING KWH
TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

Effective TBD

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RATE APL (VINTAGE)
AUTOMATIC PROTECTIVE LIGHTING SERVICE

AVAILABILITY:
Available to any Customer for outdoor area lighting, provided that: (1) adequate facilities are available to serve the premises or location; and (2) the capital expenditure for installation of such outdoor lighting facilities is warranted. The determination that such capital expenditure is warranted shall be established if the amount of revenue projected to be received from the Customer in the thirty-six (36) month-period following installation of the outdoor lighting facilities exceeds the estimated cost of installation for the lights, as calculated by the Company. If the projected thirty-six (36) month revenue does not exceed the estimated cost of installation, the Customer must pay two and one half (2½) times the difference of the estimated cost of installation and the projected thirty-six (36) month revenue prior to installation of the outdoor lighting facilities. Notwithstanding the foregoing, IPL reserves the right to refuse service under the provisions of this Rate APL, consistent with applicable laws, rules, and regulations.

Rate APL Vintage is no longer available for new installations after the effective date of this tariff. Specific rates on the Rate APL Vintage tariff marked with a double asterisk (**) remain in effect for existing installations until the Company can no longer repair or support maintenance requirements for that particular light.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CONDITIONS OF SERVICE:
Customer shall secure all permits, licenses and authority necessary for the installation and maintenance of facilities upon and over public property.

The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer.

If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs

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RATE APL (VINTAGE) (continued)

CONDITIONS OF SERVICE (continued):
and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the Company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

All lighting fixtures and other materials, including wiring must comply with the Company's specifications and will be subject to Company's approval.

A. Company installs, owns, and maintains unit or units.

Company shall own, operate, and maintain the lighting unit or units, including the fixtures, lamps, ballasts, photoelectric controls, mounting brackets and all necessary wiring. Company shall furnish all electric energy required for operation of the unit.

The units shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half (½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4,100 hours per annum.

The Company reserves the right to shield, re-angle, or relocate a light to prevent light projection on adjacent properties at the request of the adjacent property owner. If shielding, re-angling, or relocating the light does not resolve the light trespass complaint, the Company reserves the right to remove the offending light.

Barring circumstances beyond its control, the Company will replace burned out lamps within 48 hours after notification of Company by Customer.

B. Customer installs, owns and maintains unit or units.

The Customer may install, own and maintain the lighting unit or units, including all fixtures, lamps, standards or poles and mounting brackets, ballasts, cable and necessary wiring. The Customer's wiring, serving the lighting units contracted for under this Clause B must be brought by the Customer to an existing Company pole selected by the Company and upon which Company's 120 volt lines are presently attached. In the case of underground service installed by the Customer, the Customer shall install the wiring, conduit riser and weatherhead on a pole approved by the Company and terminating at a point designated by the Company. The units shall be direct connected by the Company to the Company's 120 volt lines and shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half

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RATE APL (VINTAGE) (continued)

CONDITIONS OF SERVICE (continued)
(½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4100 hours per annum.

Burned out lamps will not be replaced by the Company under Clause B.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying the monthly KWH as shown in Lighting KWH table, plus the flat rates set out in the Rate sections which follow.

RATE:
For service under Conditions of Service, Clause A above. The rates are monthly.

a) For bracket arm supported units on existing wood pole:

	Each Luminaire
175-watt Mercury Vapor Lamp	$ 7.3441**
400-watt Mercury Vapor Lamp	13.7285**
1000-watt Mercury Vapor Lamp	23.794.01**
100-watt High Pressure Sodium Lamp	6.606
150-watt High Pressure Sodium Lamp	14.0821
250-watt High Pressure Sodium Lamp	18.5976
400-watt High Pressure Sodium Lamp	21.3554
400-watt Mercury Vapor Flood	13.7487**
150-watt High Pressure Sodium Flood	14.1226
250-watt High Pressure Sodium Flood	18.6077
400-watt High Pressure Sodium Flood	21.3656
400-watt Metal Halide Lamp	21.3656**
For additional facilities when required:	
one wood pole (overhead only)	3.7680
one wood or fiberglass pole (underground only)	9.2837

b) Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

	First Luminaire	Each Additional Luminaire on Same Column
1000-watt Mercury Vapor Lamp	$39.2258**	$23.794.01**
400-watt Mercury Vapor Lamp	20.6584**	13.7285**
175-watt Mercury Vapor Lamp	17.0218**	7.3441**
400-watt High Pressure Sodium Lamp	30.3563	21.3554
250-watt High Pressure Sodium Lamp	20.4564	18.5976

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RATE APL (VINTAGE) (continued)

RATE, Clause A (continued)

150-watt High Pressure Sodium Lamp	17.7390	14.0821
100-watt High Pressure Sodium Lamp	16.3853	6.606
400-watt High Pressure Sodium Painted Bronze Column	33.1445	21.3454
250-watt High Pressure Sodium Painted Bronze Column	23.245.33	18.5976
400-watt High Pressure Sodium - Shoebox	25.1033	8.5866
250-watt High Pressure Sodium - Shoebox	20.5978	6.7986
400-watt Metal Halide - Shoebox	25.1033**	8.5866**

c) For a post top fixture on a fiberglass, metal or ornamental column and containing one:

175-watt Mercury Vapor Washington Post Std.	$25.986.22**
175-watt Mercury Vapor Post Std.	16.5772**
100-watt High Pressure Sodium Washington Post Std.	25.4771
100-watt High Pressure Sodium Post Std.	16.3046
150-watt High Pressure Sodium Washington Post Std.	29.1854
150-watt High Pressure Sodium Post Std.	20.0120

"Std." means Ornamental Standard.

d) Charges in addition to Energy Charge as Registered through Customer's Meter For Units Containing One:

	Each Luminaire
175-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	$ 5.5863**
400-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	10.8191**
1000-watt Mercury Vapor Lamp on Company's existing wood pole and connected to Customer's metered secondary	16.7490**
100-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	5.7782**
150-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	$13.2234**
250-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	16.7085**
400-watt High Pressure Sodium Lamp on Company's existing wood pole and connected to Customer's metered secondary	18.4259**
400-watt Metal Halide Lamp on Company's existing wood pole and connected to Customer's metered secondary	18.4259**

Indianapolis, Indiana

RATE APL (VINTAGE) (continued)

RATE, Clause A (continued)

e) Prices below apply to University of Indianapolis Lighting.

	Each Luminaire
250-watt Metal Halide 18' Direct Embedded	$ 47.918~~.36~~
250-watt Metal Halide 12' Anchor Based	52.603~~.10~~
2-250-watt Metal Halide 18' Direct Embedded	65.946~~.55~~
2-250-watt Metal Halide 12' Anchor Based	70.631~~.29~~

For service under Conditions of Service, Clause B above. The rates are monthly.
Up to and including 150-watt incandescent lamp or equivalent - $3.269**
per month per lamp

TERM:
This service is available for a standard term of three (3) years and, if not terminated by at least thirty (30) days' notice prior to the expiration of the initial 3-year term, shall be continued on a yearly basis, terminable on a thirty (30) days' notice prior to the end of any such one-year term. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. If, prior to expiration of the initial term, the service contracted for under this Rate is supplanted by municipal lighting service, the Company may remove its facilities and no charge will be made for the remaining months of such initial term.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
Charges under this Rate are net and will be a part of the Customer's regular service bill and subject to the same charges as any other item on the Customer's bill.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

RATE APL (VINTAGE) (continued)

MONTHLY LIGHTING KWH TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 112

RATE APL (NEW)
AUTOMATIC PROTECTIVE LIGHTING SERVICE

AVAILABILITY:
Available to any Customer for outdoor area lighting, provided that: (1) adequate facilities are available to serve the premises or location; and (2) the capital expenditure for installation of such outdoor lighting facilities is warranted. The determination that such capital expenditure is warranted shall be established if the amount of revenue projected to be received from the Customer in the thirty-six (36) month-period following installation of the outdoor lighting facilities exceeds the estimated cost of installation for the lights, as calculated by the Company. If the projected thirty-six (36) month revenue does not exceed the estimated cost of installation, the Customer must pay two and one half (2½) times the difference of the estimated cost of installation and the projected thirty-six (36) month revenue prior to installation of the outdoor lighting facilities. Notwithstanding the foregoing, IPL reserves the right to refuse service under the provisions of this Rate APL, consistent with applicable laws, rules, and regulations.

The National Energy Policy Act of 2005 requires that Mercury Vapor (MV) lamp ballasts shall not be manufactured or imported after January 1, 2008. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MV lamp installations in accordance with this tariff.

The Energy Independence and Security Act of 2007 mandated pulse start ballasts; therefore Metal Halide (MH) lamps are no longer offered for new construction. To the extent that the Company has the necessary materials, the Company will continue to maintain existing MH lamp installations in accordance with this tariff.

CONDITIONS OF SERVICE:
Customer shall secure all permits, licenses and authority necessary for the installation and maintenance of facilities upon and over public property.

The final decision concerning the location and design of outdoor lighting equipment, including the selection by Customer of the IPL-owned equipment for installation on Customer's premises, is the sole responsibility of Customer. Customer is responsible for all design and layout work to achieve any specific design criteria, footcandle levels and/or uniformity standards, including but not limited to, location of pole(s) and any associated equipment, number of lights installed, and type and configuration of lights. Notwithstanding the foregoing, IPL retains the right to require modification to the Customer's decision concerning location and design of the outdoor lighting equipment based upon safety issues, IPL system operations or other reason(s) identified by IPL. Customer is solely responsible for compliance with all applicable regulations, ordinances, standards and/or industry practices associated with such design and layout and IPL has installed such facilities in accordance with the specifications provided by Customer. If required by a governing authority or if Customer elects, Customer shall retain a professional Lighting Designer or Engineer to ensure Customer's lighting system design and layout meets applicable Ordinances, Standards, Regulations and/or Industry Practices concerning design criteria, footcandle levels and/or uniformity standards and Customer shall bear all costs associated with the same, including costs to modify the lighting system design and layout. Customer shall release, indemnify and hold harmless IPL from and against all claims, liability, damages and/or expenses or the same that may be so alleged, including but not limited to court costs and attorneys fees, based on any injury to any person, including the loss of life, or damage to any property, including the loss of use thereof, arising out of, resulting from, or connected with an act or omission associated with or resulting from the lighting design and/or layout of the outdoor lighting facilities.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 113
One Monument Circle
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RATE APL (NEW) (continued)

CONDITIONS OF SERVICE (continued)
Customer shall render reasonable care in protecting Company lighting equipment installed within Customer's jurisdiction. Reasonable care may include, but not be limited to, the installation of protective posts and guard rails, or the locating of underground cable before digging. Should a lighting facility or its supporting infrastructure be damaged due to a lack of reasonable care by the Customer or those acting on Customer's behalf, this may result in cancellation of service for that location or the Customer being billed the full cost (material, labor, engineering, and overhead) of all repairs, as well as, being charged the monthly lighting fee while the facilities were out of service (the Company will make every reasonable effort to perform such repairs in a timely fashion). Furthermore, the full repair costs associated with vandalism damage to Company lighting equipment shall be passed on to the Customer and may result in the removal of those facilities if they cannot be protected from ongoing harm.

All lighting fixtures and other materials, including wiring must comply with the Company's specifications and will be subject to Company's approval. Company shall own, operate, and maintain the lighting unit or units, including the fixtures, lamps, ballasts, photoelectric controls, mounting brackets and all necessary wiring. Company shall furnish all electric energy required for operation of the unit.

The units shall be lighted and extinguished by a photoelectric control furnished by the Company. The hours of burning shall be from approximately one-half (½) hour after sunset until one-half (½) hour before sunrise, every night or approximately 4,100 hours per annum. Barring circumstances beyond its control, the Company will replace burned out lamps within 48 hours after notification of Company by Customer.

The Company reserves the right to shield, re-angle, or relocate a light to prevent light projection on adjacent properties at the request of the adjacent property owner. If shielding, re-angling, or relocating the light does not resolve the light trespass complaint, the Company reserves the right to remove the offending light.

BILLING:
Bills will be rendered monthly for Standard Contract Riders shown hereafter in the Standard Contract Riders Applicable section, applying the monthly KWH as shown in Lighting KWH table, plus the flat rates set out in the Rate sections which follow.

RATE:
For service under Conditions of Service above. The rates are monthly.

a) For bracket arm supported units on existing wood pole:	Each Luminaire
100-watt High Pressure Sodium Lamp	$19.39~~51~~
150-watt High Pressure Sodium Lamp	21.06~~20~~
250-watt High Pressure Sodium Lamp	22.95~~3.09~~
400-watt High Pressure Sodium Lamp	25.98~~6.12~~
150-watt High Pressure Sodium Flood	26.89~~7.03~~
250-watt High Pressure Sodium Flood	24.28~~42~~
400-watt High Pressure Sodium Flood	27.11~~25~~
For additional facilities when required:	
one wood pole (overhead only)	20.68~~81~~
one wood or fiberglass pole (underground only)	25.15~~27~~

Indianapolis, Indiana

RATE APL (NEW) (continued)

RATE (continued)

b) Lamps in enclosed fixtures, mounted on metal or fiberglass columns and supplied from underground circuits.

	First Luminaire	Each Additional Luminaire on Same Column
400-watt High Pressure Sodium Lamp	$43.4357	$27.878.01
250-watt High Pressure Sodium Lamp	40.4154	24.8598
150-watt High Pressure Sodium Lamp	38.5265	22.963.09
100-watt High Pressure Sodium Lamp	36.7285	21.1629
400-watt High Pressure Sodium Lamp - Flood	42.4357	29.4660
250-watt High Pressure Sodium Lamp - Flood	39.6175	26.6377
150-watt High Pressure Sodium Lamp - Flood	37.3346	24.3548
400-watt High Pressure Sodium Painted Bronze Column	43.4357	26.6881
250-watt High Pressure Sodium Painted Bronze Column	40.4154	23.934.06
400-watt High Pressure Sodium - Shoebox	43.1024	27.1125
250-watt High Pressure Sodium - Shoebox	39.9940.12	24.0013

c) For a post top fixture on a fiberglass, metal or ornamental column and containing one:

100-watt High Pressure Sodium Washington Post Std.	$38.4861
100-watt High Pressure Sodium Post Std.	26.3750
150-watt High Pressure Sodium Washington Post Std.	43.7588
150-watt High Pressure Sodium Post Std.	34.2134

"Std." means Ornamental Standard.

d) Prices below apply to University of Indianapolis Lighting.

	Each Luminaire
250-watt Metal Halide 18' Direct Embedded	$ 50.0417
250-watt Metal Halide 12' Anchor Based	52.7083
2-250-watt Metal Halide 18' Direct Embedded	69.2135
2-250-watt Metal Halide 12' Anchor Based	71.8195

TERM:
This service is available for a standard term of three (3) years and, if not terminated by at least thirty (30) days' notice prior to the expiration of the initial 3-year term, shall be continued on a yearly basis, terminable on a thirty (30) days' notice prior to the end of any such one-year term. If the Customer fails to pay the bill for service in any month of the initial term when due, the Company may, at its option, declare the service charges for the remaining months of such term immediately due and payable and may remove its facilities if the bill for such remaining months of service is not paid within thirty (30) days after such bill is rendered. If, prior to expiration of the initial term, the service contracted for under this Rate is supplanted by municipal lighting service, the Company may remove its facilities and no charge will be made for the remaining months of such initial term.

RATE APL (NEW) (continued)

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
Charges under this Rate are net and will be a part of the Customer's regular service bill and subject to the same charges as any other item on the Customer's bill.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

MONTHLY LIGHTING KWH TABLE

	Monthly KWh												Annual
Lamp	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	KWh
80-watt LED	41	34	34	29	27	24	26	29	32	37	39	42	394
100-watt High Pressure Sodium	51	42	42	36	33	30	32	36	39	45	48	52	485
150-watt High Pressure Sodium	76	64	64	54	50	45	48	54	59	68	73	78	733
150-watt High Pressure Sodium - 4100 hrs	80	67	66	56	52	47	50	56	61	71	75	81	763
2- 80-watt LED	82	69	68	58	53	48	52	58	63	74	78	84	788
175-watt Mercury Vapor	87	73	72	61	56	51	55	61	67	78	82	89	832
250-watt Metal Halide	121	101	101	86	79	71	76	85	93	108	115	124	1159
250-watt High Pressure Sodium	125	104	104	88	81	73	78	88	96	112	118	128	1194
250-watt Mercury Vapor	126	106	105	89	82	74	80	89	97	113	120	129	1210
150-watt High Pressure Sodium - 8760 hrs	170	142	141	120	110	100	107	119	131	152	161	174	1629
400-watt Metal Halide	185	155	154	131	120	109	117	130	143	166	176	189	1774
400-watt High Pressure Sodium	193	161	160	136	125	113	121	136	149	173	183	197	1848
400-watt Mercury Vapor	196	164	163	139	127	115	124	138	151	176	186	201	1880
2- 250-watt Metal Halide Cluster	242	202	201	171	157	142	152	170	186	216	229	248	2317
2- 250-watt High Pressure Sodium Cluster	249	208	207	176	162	147	157	175	192	223	236	255	2388
150-watt High Pressure Sodium and 4- 100-watt High Pressure Sodium Cluster	279	233	232	197	181	164	176	196	215	250	264	285	2672
2- 400-watt Metal Halide Cluster	370	310	308	262	240	218	233	260	285	331	351	379	3547
2- 400-watt High Pressure Sodium Cluster	386	323	321	273	250	227	243	271	297	345	366	395	3697
400-watt High Pressure Sodium - 8760 hrs	428	359	357	303	278	252	270	301	330	384	407	439	4108
1000-watt Mercury Vapor	450	377	374	319	292	265	284	316	347	403	427	461	4315
1000-watt High Pressure Sodium	454	380	378	322	295	267	286	319	350	407	431	465	4355

Effective TBD

Indianapolis Power & Light Company
One Monument Circle
Indianapolis, Indiana

I.U.R.C. No. E-17

Original No. 120

RATE CGS
COGENERATION & SMALL POWER PRODUCTION

AVAILABILITY:

Available to any Customer of Indianapolis Power & Light Company (the "Company") that operates within the Company's service territory a Qualifying Cogeneration Facility or a Qualifying Small Power Production Facility subject to the Company's rules and regulations and, any terms, conditions and restrictions imposed by any valid and applicable law or regulation. This tariff is submitted pursuant to the requirements of the Commission's regulations and shall cease to be effective if such regulations are set aside, withdrawn or for any reason cease to be applicable to the Company. An Existing Qualifying Facility is not subject to, or entitled to the benefits of this Rate CGS except as otherwise expressly provided by law.

DEFINITIONS:

(a) Qualifying Facility is either a Cogeneration Facility or Small Power Production Facility, but does not include any facility substantial construction of which was not begun on or after November 9, 1978, or any facility not meeting applicable ownership requirements.

(b) Existing Qualifying Facility means a Qualifying Facility which was in operation before July 1, 1983.

(c) Cogeneration Facility means a facility that simultaneously generates electricity and useful thermal energy; and meets the energy efficiency standards established for cogeneration facilities by the FERC pursuant to 16 U.S.C. 824a-3.

(d) Small Power Production Facility means an arrangement of equipment for the production of electricity with capacity no greater than eighty megawatts, all of which equipment is located within a site one mile in radius from the generating equipment or, for hydroelectric facilities, at the same impoundment of water, and which equipment must be powered at least seventy-five percent (75%) by biomass, waste, renewable resources, geothermal resources, or any combination thereof, and not more than twenty-five percent (25%) by oil, natural gas, and coal or any combination thereof.

(e) Purchase means the purchase of electric energy or capacity or both from a Qualifying Facility by the Company.

(f) Sale means the sale of electric energy or capacity or both by the Company to a Qualifying Facility.

(g) Avoided Costs means the incremental costs to the Company of electric energy or capacity or both which, but for the purchase from a Qualifying Facility or Facilities, the Company would generate itself or purchase from another source.

(h) Interconnection Costs means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with a Qualifying Facility, to the extent such costs are in excess of the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection Costs do not include any costs included in the calculation of Avoided Costs.

(i) Supplementary Power means electric energy or capacity supplied by the Company, regularly used by a Qualifying Facility in addition to that which the facility generates itself.

(j) Back-up Power means electric energy or capacity supplied by the Company to replace energy ordinarily generated by a facility's own generation equipment during an unscheduled outage of the facility.

(k) Interruptible Power means electric energy or capacity supplied by the Company subject to interruption by the Company under specified conditions.

(l) Maintenance Power means electric energy or capacity supplied by the Company during scheduled outages of the Qualifying Facility.

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 121
One Monument Circle
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RATE CGS (Continued)

DEFINITIONS: (Continued)

(m) System Emergency means a condition on the Company's system which is liable to result in imminent significant disruption of service to Customers or in substantial deviation from normal service standards or which is imminently liable to endanger life or property.

(n) Commission means the Indiana Utility Regulatory Commission.

(o) FERC means the Federal Energy Regulatory Commission.

(p) Peak Period means the time between 6 a.m. and 10 p.m. (April through September) or between 7 a.m. and 11 p.m. (October through March) on all days except Saturdays and Sundays, which daily time period will be subject to change from time to time at the Company's option. This change would occur after no less than ten (10) days notice has been given to all Customers who would be affected, and to the Commission.

(q) Off Peak Period means the time not included in the Peak Period.

PURCHASE AND SALE:

The Company shall purchase energy or capacity which is made available by a Qualifying Facility and shall sell energy or capacity to a Qualifying Facility only in accordance with the terms and conditions set forth herein, but subject to all applicable requirements of Federal law or regulation, court decisions or orders from courts of competent jurisdiction and the continuing jurisdiction of the Commission and FERC. A written contract shall be required between the Company and each Qualifying Facility incorporating specific provisions governing the interconnection and each purchase and sale.

Purchases and sales shall also be subject to the following general terms and conditions:

(a) Purchases and sales may occur simultaneously.

(b) The Company need not purchase or sell at the time of a System Emergency.

INTERCONNECTION CONDITIONS AND COSTS:

(a) The Company, subject to prior compliance by the Qualifying Facility with all applicable Federal and State laws and regulations, shall make parallel interconnection with the Qualifying Facility in such a way as to accomplish purchases and sales as described in Sections (b) through (f).

(b) The Qualifying Facility shall comply with the National Electrical Safety Code, as supplemented, the applicable requirements of 170 IAC 4-4.3, and the Company's rules and regulations for electric service.

(c) Interconnection Costs from the Qualifying Facility to the Company's distribution or transmission system, including those costs of (d) and (e) below, shall be borne by the Qualifying Facility. There shall be no obligation on the Company to finance such interconnection.

(d) The Qualifying Facility shall install, operate, and maintain in good order such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the Company for operation parallel to its system. The Qualifying Facility shall bear full responsibility for the installation and safe operation of this equipment.

(e) Breakers capable of isolating the Qualifying Facility from the Company shall at all times be immediately accessible to the Company. The Company may isolate the Qualifying Facility at its own discretion if the Company believes continued parallel operation with the Qualifying Facility creates or contributes to a System Emergency. System Emergencies causing discontinuance of parallel operation are subject to verification by the Commission.

(f) To properly record numbers of kilowatthours for, respectively, purchase and sale, the following configurations shall be the basis for metering:

Indianapolis, Indiana

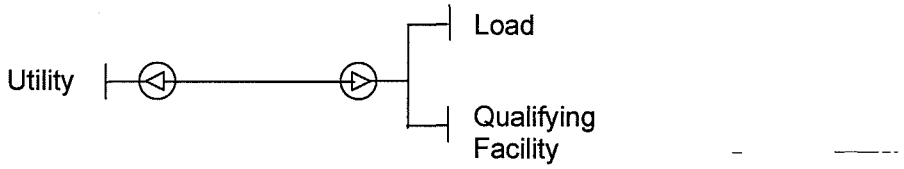
RATE CGS (Continued)

INTERCONNECTION CONDITIONS AND COSTS: (Continued)

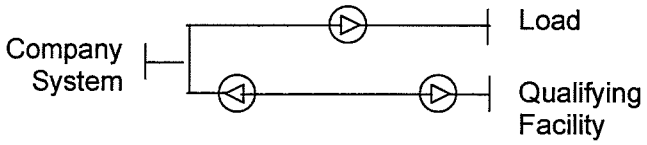
(f) (Continued)

(1) Where purchases are intended to be less than 1000 kilowatthours per month, and the Company and Qualifying Facility mutually agree, a single bidirectional meter may be placed between, at one side, the Company system and, on the other side, the Qualifying Facility and any load associated with it.

(2) Where such measurement is appropriate for measurement of energy, the circuit shall include at minimum two monodirectional meters in a series arrangement between, at one side, the Company system and, on the other side, the Qualifying Facility and any load associated with it:



(3) Where such is appropriate for measurement of energy, the circuit shall include a monodirectional meter between the on-site load and the Company and, in a series arrangement, two monodirectional meters between the Qualifying Facility and the Company system:



(4) The meter measuring purchases by the Company shall be of a design to record time periods, and shall be capable of electronically transmitting instantaneous readings.

(5) Other metering arrangements shall be the subject of negotiations between the Company and the Qualifying Facility.

RATE FOR PURCHASE:
The rate the Company will pay each Qualifying Facility for energy and capacity purchased will be established in advance by written contract with the Company as filed and approved by the Commission and will be based on the RATE FOR PURCHASE on file from time to time with the Commission, adjusted as outlined in the remaining parts of this section. Unless otherwise agreed the RATES FOR PURCHASE shall be:

(1)	Capacity	$7.39 per KW per month
(2)	Energy - Peak Period	3.02¢ per KWH
	- Off Peak Period	2.65¢ per KWH

RATE FOR PURCHASE: (Continued)

In the event of an impasse in negotiations concerning RATES FOR PURCHASE of energy or capacity, either party may petition the Commission for a determination naming the other party as respondent.

The monthly capacity payment shall be adjusted by the following factor:

$$F = \frac{Ep}{(K)\ (Tp)}$$

Where:
F = Capacity payment adjustment factor.
Ep = Kilowatt-hours delivered to the Company during the Peak Period.
K = Kilowatts of capacity the Qualifying Facility contracts to provide.
Tp = Number of hours in the peak period.

The KW capacity available and the kilowatthours in the peak period shall be determined by a suitable recording type instrument.

For intended purchases of 72,000 kilowatthours or more per month of energy from a Qualifying Facility, the Company and the Qualifying Facility may agree to increase or decrease the rate in recognition of the following factors:

(1) The extent to which scheduled outages of the Qualifying Facility can be usefully coordinated with scheduled outages of the Company's generation facilities;
(2) The relationship of the availability of energy from the Qualifying Facility to the ability of the Company to avoid costs, particularly as is evidenced by the Company's ability to dispatch the Qualifying Facility;
(3) The usefulness of energy from the Qualifying Facility during System Emergencies, including the ability of the Qualifying Facility to separate its load from its generation.

The Company and a Qualifying Facility may negotiate a rate for energy or capacity purchase which differs from the filed rate of Rate CGS.

RATES FOR SALE BY COMPANY:
Back-up Power shall be provided under Standard Contract Rider No. 10. Maintenance Power shall be provided under Standard Contract Rider No. 11. Supplementary Power shall be provided under Standard Contract Rider No. 12. A Customer may not simultaneously qualify for Rate CGS, Rate REP Renewable Energy Production, Standard Contract Rider No. 9 Net Metering, and Standard Contract Rider No. 8 for off-peak service.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 10	Back-up Power	see Page 162
No. 11	Maintenance Power	see Page 163
No. 12	Supplementary Power	see Page 164

Indianapolis Power & Light Company I.U.R.C. No. E-17 Original No. 124
One Monument Circle
Indianapolis, Indiana

RATE REP
RENEWABLE ENERGY PRODUCTION

AVAILABILITY:
Available to any Customer of Indianapolis Power & Light Company (the "Company") that operates within the Company's service territory a Qualifying Renewable Energy Power Production Facility subject to the Company's rules and regulations and, any terms, conditions and restrictions imposed by any valid and applicable law or regulation. This tariff is submitted pursuant to the requirements of the Commission's regulations and shall cease to be effective if such regulations are set aside, withdrawn or for any reason cease to be applicable to the Company. An Existing Qualifying Renewable Energy Power Production Facility is eligible to the benefits of this Rate REP except as otherwise expressly forbidden by law.

DEFINITIONS:

(a) Qualifying Renewable Energy Power Production Facility (the "Facility") means an arrangement of equipment for the production of electricity with capacity no less than 50 kW (20 kW for solar) and no greater than 10 MW. The Facility shall be located at one site and is not the aggregation of more than one site each less than 50 kW (20 kW for solar) and which produces electric power through the use of 100% renewable resources or fuel. Such resources or fuels include:
   a. Solar photovoltaic cells and panels
   b. Wind
   c. Dedicated crops grown for energy production
   d. Organic waste biomass
   e. Biomass will be consistent with the State's definition in IC 8-1-8.8-10.

(b) Purchase means the purchase of electric energy or capacity or both from the Facility by the Company and is also inclusive of all environmental attributes.

(c) Sale means the sale of electric energy or capacity or both by the Facility to the Company and is also inclusive of all environmental attributes.

(d) Environmental Attributes means Renewable Energy Credits ("REC"), carbon credits, greenhouse gas offsets or any other environmental credit, commodity or classification that may be associated with the production of renewable energy from the Facility.

(e) Interconnection Costs means the reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company directly related to the installation and maintenance of the physical facilities necessary to permit interconnected operations with a Facility, to the extent such costs are in excess of the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated an equivalent amount of electric energy itself or purchased an equivalent amount of electric energy or capacity from other sources. Interconnection Costs do not include any costs included in the calculation of Avoided Costs.

(f) System Emergency means a condition on the Company's system which is liable to result in imminent significant disruption of service to Customers or in substantial deviation from normal service standards or which is imminently liable to endanger life or property.

(g) Commission means the Indiana Utility Regulatory Commission.

(h) FERC means Federal Energy Regulatory Commission.

(i) Peak Period means the time between 6 a.m. and 10 p.m. (April through September) or between 7 a.m. and 11 p.m. (October through March) on all days except Saturdays and Sundays, which daily time period will be subject to change from time to time at the Company's option. This change would occur after no less than ten (10) days notice has been given to all Customers who would be affected, and to the Commission.

(j) Off Peak Period means the time not included in the Peak Period.

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RATE REP (Continued)

PURCHASE AND SALE:

Purchases and sales shall also be subject to the following general terms and conditions:

a. The Company shall not be obligated to purchase or sell at a time of System Emergency.
b. The Customer shall sell the total production of the Facility to the Company.
c. The Customer shall receive service for their load at the appropriate retail rate from the Company. The applicable rate is not impacted by the Customer's participation in Rate REP.
d. The Company may limit total participation under this Rate REP to 1% of the Company's retail electric kWh sales from the prior calendar year.

INTERCONNECTION CONDITIONS AND COSTS:

(a) The Company, subject to prior compliance by the Facility with all applicable Federal and State laws and regulations, shall make parallel interconnection with the Facility in such a way as to accomplish purchases and sales as described in Sections (b) through (f).

(b) The Facility shall comply with the National Electrical Safety Code, as supplemented, the applicable requirements of 170 IAC 4-4.3, and the Company's rules and regulations for electric service.

(c) Interconnection Costs from the Facility to the Company's distribution or transmission system, including those costs of (d) and (e) below, shall be borne by the Facility. There shall be no obligation on the Company to finance such interconnection.

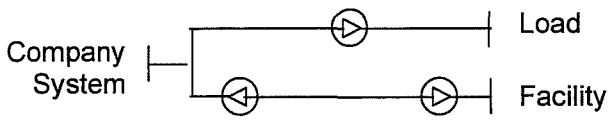
(d) The Facility shall install, operate, and maintain in good order such relays, locks and seals, breakers, automatic synchronizer, and other control and protective apparatus as shall be designated by the Company for operation parallel to its system. The Facility shall bear full responsibility for the installation and safe operation of this equipment.

(e) Breakers capable of isolating the Facility from the Company shall at all times be immediately accessible to the Company. The Company may isolate the Facility at its own discretion if the Company believes continued parallel operation with the Facility creates or contributes to a System Emergency. System Emergencies causing discontinuance of parallel operation are subject to verification by the Commission.

(f) To properly record numbers of kilowatthours for, respectively, purchase and sale, the following configurations shall be the basis for metering.

(1) Where such measurement is appropriate for measurement of energy, the circuit shall include at minimum one monodirectional meter between, at one side, the Company system and, on the other side, the load and a bidirectional meter between, at one side, the Company system and on the other side, the Facility and any load associated with it

(2) Where such measurement is appropriate for measurement of energy, the circuit shall include a monodirectional meter between the on-site load and the Company and, in a series arrangement, two monodirectional meters between the Facility and the Company system:



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RATE REP (Continued)

(3) The meter measuring purchases by the Company shall be of a design to record time periods, and shall be capable of electronically transmitting instantaneous readings.

(4) Other metering arrangements shall be the subject of negotiations between the Company and the Customer.

RATE REP PURCHASE RATES:

The rate the Company will pay each Customer for energy and capacity purchased from their Facility will be established in advance by written contract with the Company as filed and approved by the Commission and will be based on the RATE REP PURCHASE RATES. the RATE REP PURCHASE RATES may be adjusted by the Company as circumstances warrant through the IURC's 30-day administrative filing process. Unless otherwise agreed, the RATE REP PURCHASE RATES shall be:

(a)	Solar			
	a. Capacity		None	
	b. Energy			
		(a)	For Facilities generating 20 kW to 100 kW:	24.0¢ per KWH
		(b)	For Facilities generating more than 100 kW:	20.0¢ per KWH
(b)	Wind			
	a. Capacity		None	
	b. Energy			
		(a)	For Facilities generating 50 kW to 100 kW:	14.0¢ per KWH
		(b)	For Facilities generating 100 kW to 1 MW:	10.5¢ per KWH
		(c)	For Facilities generating more than 1 MW:	7.5¢ per KWH
(c)	Biomass			
	a. Capacity		$6.18 per KW per month	
	b. Energy		8.5¢ per KWH	

The Company and the Customer may negotiate terms and a rate for energy or capacity which differs from the filed rates by the Company. The length of any contract shall not exceed ten (10) years. The Company and the Customer may agree to increase or decrease the rate in recognition of the following factors:

(1) The extent to which scheduled outages of the Facility can be usefully coordinated with scheduled outages of the Company's generation facilities;
(2) The relationship of the availability of energy from the Facility to the ability of the Company to avoid costs, particularly as is evidenced by the Company's ability to dispatch the Facility;
(3) The usefulness of the Facility during System Emergencies, including the ability of the Facility to separate its load from its generation;
(4) The impact of tax credits, grants and other financial incentives that when combined with the rate would produce excessive profits for the Facility.
(5) Rates and adjustments prescribed in the contract shall remain in effect notwithstanding changes made to the RATE REP PURCHASE RATES from time to time.

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RATE REP (Continued)

RATES FOR SALE BY COMPANY:
Back-up Power shall be provided under Standard Contract Rider No. 10. Maintenance Power shall be provided under Standard Contract Rider No. 11. Supplementary Power shall be provided under Standard Contract Rider No. 12. A Customer may not simultaneously qualify for Rate REP, Rate CGS Cogeneration and Small Power Production, Standard Contract Rider No. 9, Net Metering, and Standard Contract Rider No. 8 for off-peak service.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 10	Back-Up Power	see Page 162
No. 11	Maintenance Power	see Page 163
No. 12	Supplementary Power	see Page 164

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I.U.R.C. No.E-17

Original No. 130

RATE EVX
TIME OF USE SERVICE
FOR ELECTRIC VEHICLE CHARGING ON CUSTOMER PREMISES

AVAILABILITY:
Available to Customers concurrently served under any of the following retail electric rates: Rate RS, Rate SS, Rate SH, or Rate SL, exclusively for charging of such Customers' licensed electric vehicles (EVs) using electricity provided by the Company at locations on such Customers' premises within the Company's assigned utility service area. Participation is voluntary. Energy consumption metered and billed under this tariff shall be used exclusively for charging electric vehicles.

The Company reserves the right to periodically interrupt service to test demand response strategies and system results. The Company does not anticipate receiving demand response revenues or providing monetary credits to Customers at this time.

EQUIPMENT-NEW CUSTOMERS:
Customers who receive service under this rate on or after January 1, 2013 are New Customers.

New Customers shall be responsible for procuring, paying for, installing, and owning the EV charging equipment, a meter base, a dedicated 40 amp circuit, and any additional necessary equipment. New Customer procured EV charging equipment must meet UL listing standards. Meter base must be installed outside of premise with 4 ft. of clearance and unrestricted access. Such installations must conform to current National Electric Code (NEC) specifications. Charging may only be accomplished using an SAE approved J1772 plug.

The Company will procure, pay for, install, own and maintain a meter.

EQUIPMENT-EXISTING CUSTOMERS:
Customers who received service under this rate prior to January 1, 2013 are Existing Customers.

The Company maintains ownership of EV charging equipment and separate metering equipment that the Company installed in Customer Premises for Existing Customers.

If, during the term of this rate, the Existing Customer requests removal and relocation of the charging equipment and meter within the Company's service territory, the Existing Customer shall pay all costs associated with removal and relocation of the charging equipment.

METERING AND BILLING:
EV charging service will be separately metered and identified on the bill in accordance with the Company's applicable rate schedule. Should interval gaps occur, consumption will be billed at the appropriate off-peak rate.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company.

RATE:
The Energy Charge shown hereafter plus the Fuel Cost Adjustment, the Environment Compliance Cost Recovery Adjustment, and the Core and Core Plus Demand-Side Management Adjustment calculated in accordance with Rider No. 6, Rider No. 20 and Rider No. 22, respectively.

Indianapolis Power & Light Company I.U.R.C. No.E-16 Original No. 131
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RATE EVX (Continued)

Energy Charge June through September (Summer Months)

For all Peak kWh	12.150¢ per kWh
For all Mid-Peak kWh	5.507¢ per kWh
For all Off-Peak kWh	2.331¢ per kWh

Summer Months

	Peak	Mid-Peak	Off-Peak
Non-Holiday Weekdays (Monday—Friday)	2 p.m. to 7 p.m.	10 a.m. to 2 p.m. 7 p.m. to 10 p.m.	Midnight to 10 a.m. 10 p.m. to Midnight
Weekends and Observed Holidays*	N/A	10 a.m. to 10 p.m.	Midnight to 10 a.m. 10 p.m. to Midnight

*Observed Holidays include: Independence Day and Labor Day

Energy Charge January through May & October through December (Non-Summer Months)

For all Peak kWh	6.910¢ per kWh
For all Off-Peak kWh	2.764¢ per kWh

Non-Summer Months

	Peak	Off-Peak
All Days	8 a.m. to 8 p.m.	Midnight to 8 a.m. 8 p.m. to Midnight

PARTICIPATING CUSTOMER OBLIGATIONS: In addition to Customer obligations outlined in the Company's Rules and Regulations for Electric Service and in the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter, Customers taking service under this rate shall:

(1) Supply the Company with suitable locations for installation of metering and other necessary equipment;
(2) Provide sufficient access to their premises to install metering and other necessary equipment;
(3) Be responsible for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of electrical wiring and electrical system on Customer premises, and ensure that such wiring and system meet, at a minimum, the provisions of the NEC, the governmental authorities having jurisdiction, and the reasonable requirements of the Company; and
(4) Take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of Customer-owned EV charging equipment.

STANDARD CONTRACT RIDERS APPLICABLE:

No. 1	Customer Load Characteristics	see Page 150
No. 6	Fuel Cost Adjustment	see Page 157
No. 7	Employee Billing	see Page 159
No. 9	Net Metering	see Page 161

Indianapolis, Indiana

RATE EVX (Continued)

No. 20	Environmental Compliance Cost Recovery Adjustment	see Page 179.2
No. 21	Green Power Initiative	see Page 179.3
No. 22	Demand-Side Management Adjustment	see Page 179.5
No. 24	Capacity Adjustment	see Page 179.7
No. 25	Off-System Sales Margin Sharing	see Page 179.8
No. 26	Regional Transmission Organization Adjustment	see Page 179.9

PAYMENT:
The above rates and charges are net. If the net bill is not paid within seventeen (17) days after its date of issue, a charge will be added in the amount of ten percent (10%) of the first Three Dollars ($3.00) plus three percent (3%) of the excess over Three Dollars ($3.00).

TERM:
The anticipated term for this rate is two (2) years beginning with the date of approval by the Commission. Participating Customers shall be required to participate for a minimum term equal to the shorter of twelve (12) months, or through the end of the term.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Indianapolis, Indiana

RATE EVP
ELECTRIC VEHICLE CHARGING ON PUBLIC PREMISES

AVAILABILITY:
Available to Customers charging their electric vehicles (EVs) at certain public charging facilities located within the Company's assigned utility service area. Such public charging facilities may be located at hotels, museums, public parking facilities, etc. Participation is voluntary. Energy consumption billed under this rate shall be used exclusively for charging licensed electric vehicles.

EQUIPMENT:
The Company will own and operate the public charging equipment and will install, own and operate any necessary metering equipment subject to a lease agreement with the owners of the property on which public charging equipment is located. Customer's charging system in the electric vehicle must meet applicable standards. Further, Customers must take responsibility for (and indemnify and hold the Company harmless with respect to) the adequacy, condition and operation of the Customers' charging system in the electric vehicle.

METERING AND BILLING:
EV charging service will be billed and paid for at the point of service prior to charging by means of credit, debit, or pre-paid cards, as determined by the Company, at rates specified in this rate schedule. The charging service will be metered separately.

CHARACTER OF SERVICE:
Sixty cycle alternating current energy, ordinarily delivered and measured at 120/240 volts single phase three wire, 120/240 volts three phase four wire, or 120/208 volts three phase four wire, at the option of the Company. Service provided includes use of the charging equipment, electricity needed per session, and the convenience of charging in a public location.

RATE:
During the term of this rate, the initial service charge is a flat fee of $2.50 per charging session. The Company may seek authority to change this rate, if approved by the Indiana Utility Regulatory Commission.

STANDARD CONTRACT RIDERS APPLICABLE:
NONE

PAYMENT:
This rate requires Customers to prepay for the voluntary service provided pursuant to this tariff by means of credit, debit, or pre-paid cards only, as determined by the Company. Payment must be made before charging service is rendered.

TERM:
The anticipated term for this rate is two (2) years beginning with the Commission approved effective date.

RULES:
Service hereunder shall be subject to the Company's Rules and Regulations for Electric Service, and to the Rules and Standards of Service for the Electrical Public Utilities of Indiana prescribed by the Indiana Utility Regulatory Commission, as the same are now in effect, and as they may be changed from time to time hereafter.

Q1. After the filing of your rebuttal testimony, did any parties file additional testimony to which you are responding in this supplemental rebuttal testimony?

A1. Yes. Subsequent to filing my rebuttal testimony, City of Indianapolis witness Mr. Sommer filed revised testimony on September 15, 2015 which raised two additional issues.

First, in response to my rebuttal testimony which pointed out that Mr. Sommer had omitted IPL engineering and overhead costs from his calculation of LED installation costs, at page 25 of his revised testimony Mr. Sommer added an argument that IPL engineering plus overheads will not be required for a large LED change out program because the work might be performed by an outside contractor.

Second, at page 31 of his revised testimony Mr. Sommer added an argument that if LED's require less direct labor for operating and maintenance than existing lights, those items of management, administrative and general costs that have been allocated to lights on the basis of direct costs should be reduced to reflect reduced direct labor.

Q2. Is Mr. Sommer correct in arguing that IPL engineering and overheads related to a bulk LED retrofit program will be zero or minimal?

A2. No. Regardless of whether the retrofits are performed by IPL personnel or an outside contractor, there are still IPL tasks that must be completed requiring engineering labor that cannot be done by contractors. IPL engineering labor includes preparing work orders, preparation of GIS maps and verification of locations prior to replacement, recording of types of equipment removed and types installed at each location, and verification that new records are accurate after replacement is completed. The time and

cost of these engineering activities would be recorded and capitalized as part of the bulk LED replacement program and are a real cost of such a program. Thus, Mr. Sommer is incorrect in omitting these costs from his LED rate calculations.

Q3. Is it appropriate to allocate a reduced portion of overhead such as management, administrative and general costs to LED lights at this time?

A3. No. It is unclear whether, or how much, LED retrofits will reduce the direct labor required to maintain street lights. More importantly, even if an LED retrofit program is assumed to reduce the amount of direct labor required for maintaining street lights, the allocated costs of essentially fixed overheads such as management, administrative and general costs would not be reduced. Thus, a cost recovery problem would be created if one were to design LED rates to recover a lower level of overhead costs than HPS rates at this time. For example, if an HPS light is replaced by an LED light and the customer were to be charged a lower share of the essentially fixed overhead costs after that replacement, IPL would be unable to recover the overhead costs allocated to street lighting unless a mechanism is in place that would reallocate these overhead costs to other rate classes.

If a bulk replacement program is undertaken, and if it causes a measureable reduction in direct labor for lighting maintenance, the lighting rates could receive a reduced allocation of overhead costs associated with management, administrative and general activities in the next rate case. However, the amount of such reduction is speculative and should not be reflected in rates at this time.