October 13, 2017

INDIANA UTILITY

STATE OF INDIANA

REGULATORY COMMISSION

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE VERIFIED PETITION OF)	
INDIANAPOLIS POWER & LIGHT FOR APPROVAL)	
OF PUBLIC LIGHTING AND LED CONVERSION)	
CONTRACT WITH THE CONSOLIDATED CITY OF)	CAUSE NO. 44981
INDIANAPOLIS-MARION COUNTY, INDIANA)	

OUCC PREFILED TESTIMONY

OF

LAUREN M. AGUILAR - PUBLIC'S EXHIBIT NO. 1

ON BEHALF OF THE

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

OCTOBER 13, 2017

Respectfully Submitted,

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

Karol H. Krohn, Atty. No. 5566-82

Deputy Consumer Counselor

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Office of Utility Consumer Counselor*Prefiled Testimony of Lauren M. Aguilar has been served upon the following counsel of record in the captioned proceeding by electronic service on October 13, 2017.

Teresa Morton Nyhart Jeffrey M. Peabody BARNES & THORNBURG LLP 11 South Meridian Street

Indianapolis, Indiana 46204 Email: tnyhart@btlaw.com jpeabody@btlaw.com

Karol H. Krohn

Deputy Consumer Counselor

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

115 West Washington Street Suite 1500 South Indianapolis, IN 46204 infomgt@oucc.in.gov

317/232-2494 - Phone

317/232-5923 - Facsimile

DIRECT TESTIMONY OF LAUREN M. AGUILAR CAUSE NO. 44981 INDIANAPOLIS POWER & LIGHT PUBLIC LIGHTING LIGHT EMITTING DIODE CONVERSION PROJECT

I. <u>INTRODUCTION</u>

1	Q:	Please state your name and business address.
2	A:	My name is Lauren M. Aguilar, and my business address is 115 W. Washington
3		St., Suite 1500 South, Indianapolis, IN, 46204.
4	Q:	By whom are you employed and in what capacity?
5	A:	I am employed as a Utility Analyst in the Energy Resources Division for the Indiana
6		Office of Utility Consumer Counselor ("OUCC"). A summary of my qualifications
7		can be found in Appendix A.
8	Q:	What have you done to identify and investigate issues presented in this case?
9	A:	I read all materials presented in this docket associated with the Indianapolis Power
10		& Light ("IPL") Public Lighting and Light Emitting Diode ("LED") Conversion
11		Contract ("Agreement") with the Consolidated City of Indianapolis-Marion
12		County, Indiana ("the City"). I read the Petition, Petitioner's pre-filed direct
13		Testimony (and all attached Exhibits). I also read IPL's proposed Public Lighting
14		and LED Conversion Contract. I generated discovery requests and read IPL's
15		responses. I met with IPL witnesses and technical staff and representatives from the
16		City. I also read testimony Dr. Robert Kramer filed on behalf of the City in earlier
17		proceedings before the Indiana Utility Regulatory Commission ("Commission"),

see *Cause Nos.* 44576 and 44733. I read IPL's current Municipal Lighting and
Other Devices tariff, Rate MU-1 (New) and MU-1 (Vintage), and news stories
about street lighting and public safety. I also read about a similar LED street light
conversion effort in Ann Arbor, Michigan, started approximately 11 years ago.

What is the purpose of your testimony in this proceeding?

5

6

7

8

9

10

11

12

13

14

15

16

Q:

A: After providing an overview of IPL's proposed Agreement, I discuss the benefits IPL expects the City and its residents (all of which are electric utility customers of IPL) to realize under the proposed Agreement. On behalf of the OUCC, I also ask IPL to commit to filing for approval of any renewal request or successor contract sufficiently before the end of the contract term: (1) to allow the OUCC adequate time to analyze the proposal and, if necessary, prepare testimony supporting or opposing any future proposed contract regarding public street lighting for the City; (2) so a reasonable procedural schedule can be developed which includes enough time for the Commission to fully review and rule on any new provisions. Finally, I recommend the Commission approve the current proposed Agreement between IPL and the City and require informational reporting, as described in my testimony.

II. PETITIONER'S REQUEST FOR APPROVAL OF THE PROPOSED AGREEMENT

17 Q: What relief is the Petitioner requesting in this case?

18 A: IPL is requesting Commission approval of its Agreement with the City concerning 19 a LED street light conversion project. In its petition for relief, IPL indicates "time

Indianapolis Power & Light Company ("IPL") rate case, IURC Cause No 44576, Order dated March 16, 2016; and Northern Indiana Public Service Company ("NIPSCO"), 7-Year Electric TDSIC Plan, IURC Cause No. 44733, Order dated July 12, 2016.

is of the essence" in gaining Commission approval and requests the Commission enter an order by December 1, 2017.²

3 Q: Please provide a high level overview of the Agreement.

12

13

14

15

16

17

18

4 A: As described fully in IPL Witness Henley's testimony, the Agreement is a six (6) 5 year term contract. In the first three (3) years, the City will pay contributions in aid of construction ("CIAC") to convert 27,240 current IPL street lights to LEDs while 6 taking advantage of volume pricing discounts.³ Further Witness Henley describes 7 8 how IPL and the City expect the LED technology to have lower operation and 9 maintenance ("O&M") costs and to use less energy than the City's current public 10 lighting system. Based on those projected cost savings, the City expects to be able 11 to purchase at least four thousand (4,000) additional LED street lights.

Q: From your review and analysis, do you believe the Agreement was negotiated in good faith and at arms-length?

A: Yes. IPL's Witness Henley described the process, indicating both the City and IPL received compromised benefits under the settlement, while avoiding the further risk, delay and expense of litigation.⁴ The OUCC met with both IPL and the City and found nothing to suggest the negotiations were conducted in any manner other than at arms-length.

² Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 18, lines 3-8.

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, Attachment WHH-2, Article 5 of the Agreement.

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 4, Question and Answer 10.

III. EXPECTED BENEFITS OF LED STREET LIGHT CONVERSION

1 Q: What benefits are IPL expecting the City to realize from the planned LED conversions?

3 A: Witness Henley's testimony and various news releases from the City and from IPL outlined expected benefits to area residents, such as increased visibility and 4 5 improved public safety. 5 Witness Henley explains IPL expects LED street lights to further reduce its operating costs through reduced O&M expenses. Additionally, 6 7 IPL expects lower energy consumption to reduce the City's electric utility bills, 8 allowing investment in additional LED street lights. Schedule 1.1 shows 99% of the lights to be converted are High Pressure Sodium. 6 IPL predicts a 33% reduction 9 10 in its current average O&M costs per light due to the planned LED conversions (dropping from \$44.86⁷ to \$30.06⁸ per light after conversion to LEDs). Further, 11 12 Schedule 1.1 shows the rates the City currently pays for street lighting service for the 27,240 street lights being converted to LEDs. 10 Mr. Henley explained the City 13 14 expects to realize even greater cost savings, so the Agreement includes a true-up 15 process to guard against over or under collection described in Sections 8.3 and 8.4 16 of the Agreement.

⁵ See

https://www.iplpower.com/Our Company/Newsroom/2017/IPL, City of Indianapolis announce part nership for innovative_street_lights_conversion_plan/ and http://fox59.com/2017/08/23/city-ipl-aim-to-install-4000-new-streetlights-across-indy-over-six-years-convert-older-lights-to-leds/

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, Attachment WHH-2, Schedule 1.1, page 19.

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, Attachment WHH-4.

Subject to change after the true-up process in the Agreement, Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley Attachment WHH-2, Section 8.3 of the Agreement.

⁹ Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 7, footnote 2.

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, Attachment WHH-2, Schedule 1.1.

IPL also provided system load information, attached as OUCC Attachment LMA-1, to support the projected reduction in energy usage. Subject to slight seasonal variations, IPL's total system load is approximately 2,500 Megawatts ("MW"), the 27,240 lights in the conversion currently use approximately 5 MW. IPL expects this to drop to approximately 2.8 MW after the LED conversion, for an energy savings of 2.2 MW or 44%, ¹¹ as shown below in Table 1:

Table 1- Costs Before and After Conversion

	Before LED Conversion	After LED Conversion
Average Annual O&M Expense (per Street Light)	\$44.86	\$30.06
City Street Lighting Average Annual Energy Consumption	5 MW	2.8 MW

7 Q: Is it reasonable for IPL or the City to associate the conversion to LED lights with improved public safety?

Yes. LED provides increased visibility for drivers, and can reduce crime in unlit areas. Indianapolis residents frequently call for additional street lights as a way to reduce area crime. News agency reports in Indianapolis frequently describe crime scenes as "unlit areas." Other large cities, such as Detroit, Michigan, have similar news stories where residents call for additional street lighting. The benefits of LED street lights were also the subject of testimony from Dr. Robert Kramer in

1

2

3

4

5

6

9

10

11

12

13

14

A:

OUCC Attachment LMA-1.

See, e.g., the following linked report presented by WRTV 6 in February, 2017: http://www.theindychannel.com/news/call-6-investigators/call-6-crimes-rise-when-streetlights-go-out.

See, e.g., the following linked open letter from a Detroit Michigan resident: https://nextcity.org/daily/entry/an-open-letter-on-street-lighting-and-public-safety-in-detroit.

1		IPL's last base rate case and in a recent NIPSCO TDSIC case. ¹⁴ In the NIPSCO
2		case, Dr. Kramer testified as follows:
3 4 5 6		Good lighting is essential to assure a high level of performance when driving at night. A direct link has been established between visual performance under different lighting types at intersections in Minnesota and a reduction in night time traffic accidents. ¹⁵
7		Dr. Kramer also discussed LED's ability to allow for better reaction time due to
8		increased recognition of objects:
9 10 11 12		For example the time it takes to recognize a child in the roadway and apply your car brakes is materially reduced with LED lighting, as is the ability to see a potential attacker looming near your walkway. ¹⁶
13 14	Q:	Is it reasonable for IPL or the City to associate the conversion to LED lights with reduced O&M expenses and energy consumption?
15	A:	Yes. LED lights have a longer useful life and a reduced failure rate. They need less
16		maintenance than high pressure sodium ("HPS") lights. LED lights also use less
17		energy. As Dr. Kramer testified in I&M's last rate case:
18 19 20 21 22		LEDs provide improved visibility for a longer useful life and significantly improved reliability over old technology such as HPS. [] This extended life will reduce the frequency of lighting maintenance and consequently materially reduce maintenance costs and the exposure of employees to associated maintenance hazards. Recent industry data
23242526		indicates that maintenance costs should be reduced by approximately 80% for LED luminaires as compared to HPS. ¹⁷

See Dr. Kramer's prefiled testimony in Cause No. 44576, page 12, line 11 through page 18, line 9, and Dr. Kramer's prefiled testimony in Cause No. 44733, page 14, line 17 through page 20, line 12.

Intervenor IMUG Exhibit 1, (Filed April 5, 2016), NIPSCO TDSIC, IURC Cause No. 44733, page15, lines 2 through 5.

¹⁶ Intervenor IMUG Exhibit 1, NIPSCO TDSIC, IURC Cause No. 44733, page 18, lines 6 through 8.

Intervenor City of Indianapolis, IURC Consolidated Cause Nos. 44576 and 44602, Exhibit 1, page 18, lines 11 through 23. See also NIPSCO TDSIC, IURC Cause No. 44733, page 20, line 14 through page 25, line 8.

As to energy consumption, Dr. Kramer testified as follows in previous IPL cases:

LEDs can reduce both direct and indirect electric consumption. LEDs have a significant direct reduction in the amount of electricity used, by up to 60% or more, depending on the design. My preliminary estimates indicate a 49% reduction in the electric usage for 100W HPS equivalent street lights. 18

Dr. Kramer supports this conclusion through his research, including (1) a comparison of different LED technologies to older HPS and other currently used street lights, and (2) his analysis of efforts other cities and municipalities have made to convert to LED street lighting technology. Dr. Kramer's research confirmed a projected 33% reduction in O&M expenses is reasonable 19, as is a projected 55% reduction in energy usage. 20 Furthermore, reductions in O&M expenses and energy consumption as a result of street lamp conversion is supported by the results of other street light conversion projects. For example, Ann Arbor, Michigan, converted its city street lights to LEDs beginning in 2006, reporting 70%-85% of the overall savings coming from a reduction in maintenance costs and 15% to 30% from a reduction in energy consumption. 21

IV. RECOMMENDATIONS AS END OF CONTRACT TERM APPROACHES

Q: Does the Agreement between IPL and the City address what will happen as the end of the Agreement approaches?

20 A: No, it does not.

¹⁸ Intervenor City of Indianapolis, IURC Consolidated Cause Nos. 44576 and 44602, Exhibit 1, page 21, lines 7 through 10.

Intervenor IMUG Exhibit 1, NIPSCO TDSIC, IURC Cause No. 44733, page 23, lines 14 through 15
 Intervenor City of Indianapolis, Consolidated Cause Nos. 44576 and 44602, Exhibit 1, page 22, lines 3

See https://www.a2gov.org/departments/systems-planning/planning-areas/energy/LED/Pages/default.aspx

Q: What does the OUCC recommend?

1

2

3

4

5

6

7

8

9

10

A:

Since the Agreement does not address how far in advance of the end of the contract term IPL should petition for Commission approval of an agreed extension or replacement contract, the OUCC recommends IPL file a request for approval of subsequent service terms at least six (6) months before the end of the contract term (i.e., by June 30 of the sixth (6th) calendar year following IURC approval of the contract, which would end on December 31 of that year, as provided in Section 9.1 of the Agreement). IPL shall file a notice with the Commission informing the Commission whether the contract will be extended or terminated. If the contract is to be extended, IPL shall include the terms of the extended contract.

V. OTHER MUNICIPALITIES

11 Q: Does IPL provide municipal street lighting service to any municipalities other 12 than the City? 13 A: Yes. IPL also provides street lighting service to the following communities: Beech 14 Grove, Cumberland, Lawrence, Mooresville and Speedway. (IPL's service territory 15 map is included in this testimony as "OUCC Attachment LMA-2.") 16 Are any of those other municipalities also parties to this proposed Agreement? **O**: 17 A: No. However, IPL and the City have informed several smaller communities also 18 served by IPL volume discounts might be available if those communities coordinate 19 with IPL and the City in purchasing new LED street lights or other LED conversion 20 facilities to contemporaneously begin to move forward with their own LED 21 conversion projects at this time. The OUCC appreciates the voluntary efforts made 22 to extend potential product discounts to smaller communities who may be interested

in deploying LED street lights on a similar schedule. If those communities follow the City's lead and arrange LED street light conversions, such arrangements should be documented in separate, individual contracts to facilitate continued monitoring of progress made in each community's LED conversion project and to be able to determine whether each community's LED illumination goals and cost savings expectations were met.

7 Q: How should other municipalities be treated if they wish to convert existing street lights to LEDs?

A:

The OUCC understands, under the Agreement, the City of Indianapolis is funding the bulk purchase of LED facilities at a volume discount expected in response to a jointly-issued Request for Proposal ("RFP"), as described in Article 3 of the Agreement, to be negotiated by the City and IPL. Access to the City's negotiated volume discount could significantly reduce LED conversion costs for those communities. ²² Each municipality's circumstances will differ as to project scope, timing, funding sources, methodology, and other factors, such as leverage and ability to negotiate LED street light conversion rates most favorable to their uniquely situated communities. Therefore, the OUCC recommends IPL seek approval of separate, individual agreements with any of the smaller municipalities moving forward with LED conversion projects to take advantage of available volume discounts.

VI. RATEPAYER IMPACT

Q: How will the City's LED conversion project affect the City's monthly street lighting service bill from IPL?

²² Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 20, lines 12-14.

1	A:	IPL claims the City will pay no more per month then it previously paid, since IPL's
2		LED street lighting rates reflect a reduction in O&M expenses and energy
3		consumption costs, as previously discussed in this testimony. ²³
4 5 6	Q:	Is it reasonable to expect the City's monthly street lighting service bill to be maintained at the current average amount after its LED conversion project has been completed?
7	A:	Yes. As discussed above, LED street lights can significantly reduce the costs
8		utilities would otherwise have to recover from their ratepayers for higher O&M
9		expenses and higher levels of energy consumption. However, IPL's analysis is
10		based on projections. After the true-up process described in Sections 8.3 and 8.4 of
11		the Agreement is completed, the actual impact on the City's monthly bills for public
12		street lighting service will be known.
13 14 15	Q:	What, if any, assurances are in the Agreement to prevent other IPL ratepayers who are not parties to the Agreement from having to bear additional cost from the City's LED street lighting project?
16	A:	The Agreement indicates the City has committed to pay all capital costs associated
17		with the LED street light conversion project, with IPL booking the new contributed
18		capital items as contributions in aid of construction ("CIAC"), as described in
19		Article 5 of the Agreement. The Agreement provides IPL will not convert street
20		lights to LEDs unless the CIAC payments are made on time, in accordance with
21		Section 5.2 of the Agreement. Additional LED street lighting will not be added
22		unless funds are available in the City's Additional Light Balance, as described in

²³ Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 8, lines 6-8.

Article 6 of the Agreement. If funds are not available, the City cannot require IPL to install additional LEDs, as discussed in Section 6.4 of the Agreement.

In its Response to OUCC DR 1.10, IPL confirmed no project costs will be billed to any other IPL ratepayers. ²⁴ IPL is not seeking recovery of any project costs, lost revenue or shareholder incentives for this customer-funded capital improvement project by claiming the project should be treated as a Demand Side Management (DSM) program or by claiming recovery under any other theory or statute. The funding arrangement is fully defined in the underlying Agreement.

Q: Does the OUCC recommend anything further to assure no other IPL ratepayers will be responsible for additional utility costs associated with this Agreement?

Other ratepayers' interests will be protected as long as IPL follows the language in the Agreement. The OUCC's position in this case does not constitute consent or waiver of possible future objections to cost recovery for LED street light conversions or additions not specifically funded by the City under the Agreement. Rather, the OUCC specifically reserves its right to object to any other type of financial recovery IPL might seek related to or arising from the use of these customer-funded facilities for public utility purposes.

A:

²⁴ See OUCC Attachment LMA-3.

VII. RECOMMENDED REPORTING REQUIREMENTS

1 2	Q:	What compliance filings has IPL agreed to make concerning the installation and operation of LED street lights under the Agreement with the City?
3	A:	IPL has agreed to "provide the updated rates to the Commission via compliance
4		filings" since the LED Rates for the Additional Street Lights in Schedule 8.1 are
5		currently estimated. ²⁵
6 7 8 9	Q:	Is there any other information the OUCC recommends IPL file in this proceeding to keep the Commission and OUCC informed of the progress of the agreed LED conversions and any new LED street light deployments made under the Agreement?
10	A:	Yes. The OUCC recommends IPL be required to file annual project reports in this
11		Cause with the following information:
12 13		 Results of the true-up process required under Sections 8.3 and 8.4 of the Agreement;
14 15 16		2. The number of LED conversions and the number of new LED additions completed under the Agreement (i) during the preceding year, and (ii) the cumulative total to date;
17 18 19 20		3. Copies of reports regarding the Additional Light Balance discussed in Section 6.1 of the Agreement showing any savings realized by reducing O&M costs and energy consumption (a) during the preceding year; and (b) the cumulative savings to date.
21		4. IPL's Annual Project Reports should also include:
22 23 24		 a. A detailed breakdown of O&M cost reductions achieved under the Agreement (i) during the preceding year; and (ii) the cumulative total reductions to date;
25 26 27		b. Updated actual reductions in energy consumption as a result of converting street lights to LEDs under the Agreement (i) during the preceding year; and (ii) the cumulative total reductions to date; and

²⁵ Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, page 9, line 21.

1 2 3		c. Updated actual reductions in energy consumption as a result of additional LED street light installations made under the Agreement (i) during the preceding year; and (ii) the cumulative total to date.
4 5		 d. Any additional costs not contemplated under the Agreement, as defined in Section 8.5 of the Agreement.²⁶
6	Q:	When should these Annual Project Reports be submitted?
7	A:	The OUCC recommends the IURC order the reports be submitted within sixty (60)
8		days of the end of each true up period described in Section 8.3 of the Agreement,
9		unless otherwise agreed:
10 11 12 13 14 15		The true up shall commence with the period ending December 31, 2018, and shall be provided for the period ending June 30 and December 31 annually during the first three (3) years of this Agreement, thereafter, the true up shall be provided for the period ending December 31 for years four (4) through six (6) of this Agreement. ²⁷
		VIII. <u>RECOMMENDATIONS</u>
16	Q:	What Commission action does the OUCC recommend in this proceeding?
17	A:	The OUCC recommends the Commission:
18 19 20		 Approve the IPL Lighting and LED Conversion Contract with the Consolidated City of Indianapolis-Marion County, Indiana (referred to herein as the "Agreement");
21 22 23 24		2. Require IPL to file a request for Commission approval of an agreed extension, termination or replacement of the Agreement no later than June 30 of the sixth calendar year following Commission approval of the Agreement (i.e., at least one hundred eighty (180) days before the end of the contract term, which

In Petitioner's Exhibit 1-Verified Direct Testimony of William H. Henley, page 11, Line 5, Mr. Henley states: "If compensation for any service is not specified by the Agreement or by IPL's tariff, IPL and the City will work in good faith to reach a mutual agreement on the compensation before the services are performed."

Petitioner's Exhibit 1- Verified Direct Testimony of William H. Henley, Attachment WHH-2, "PUBLIC LIGHTING AND LED CONVERSION CONTRACT."

- expires on December 31 of the sixth calendar year following Commission approval of the Agreement.). 28
- 3 3. Require IPL to comply with the annual project reporting requirements I recommended above.
- 5 Q. Does this conclude your testimony?
- 6 A. Yes.

²⁸ Section 9.1 of the Agreement.

APPENDIX A

() :	Please summarize	vour pi	rofessional	backgroun	d and ex	xperience.
`	. •	i icase summatiza	your pr	orcoolollar	Ducissioun	u unu c	sperience.

A:

A:

I graduated from Michigan State University in 2008 with a Bachelor of Science degree in Environmental Science and Management. I graduated from Florida State University College of Law, in May 2011 with a Juris Doctorate and Environmental Law certificate. I spent over 2 years while in law school as a certified legal intern, providing pro bono legal services to poverty level residents of Tallahassee. I worked in the legal department of Depuy Synthes, a Johnson & Johnson Company, where I assisted with patent filings and nondisclosure agreements. Starting in 2013, I worked for the Indiana Department of Environmental Management as a rule writer, I worked extensively with the public at large, special interests groups, and affected regulated entities to understand the rulemaking process and to respond to their comments in ongoing rulemaking proceedings. I joined the OUCC in July of 2017.

Q: Please describe your main duties at the OUCC.

I review and analyze utilities' requests and file recommendations on behalf of consumers in utility proceedings. As applicable to a case, my duties may also include analyzing state and federal regulations, evaluating rate design and tariffs, examining books and records, inspecting facilities, and preparing various studies. The majority of my expertise is in environmental science, environmental state and federal regulation, and state agency administration.

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

Lauren M. Aguilar

Utility Analyst

Indiana Office of Utility Consumer Counselor

10/13/2017

Date

From: Nyhart, Teresa Morton [mailto:Teresa.Nyhart@btlaw.com]

Sent: Tuesday, October 03, 2017 2:52 PM **To:** Krohn, Karol < kkrohn@oucc.IN.gov>

Cc: 'Ken Flora (Ken.Flora@AES.com)' <Ken.Flora@AES.com>; Andrew Wells (andrew.wells@aes.com)

<andrew.wells@aes.com>

Subject: RE: 44981 IPL LED Street Light Case - Discovery issue re IPL Response to OUCC DR 1-05

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Dear Karol,

The IPL team asked me to provide the attached spreadsheet which compiles the IPL winter peak for 2013-2017. Also, Ken Flora confirmed that the City's current winter load for lighting is the same 5 MW before and 2.8 MW after the conversion referenced in Ken's 9/18 email. We hope we interpreted your questions correctly. We remain willing to discuss this with you. If a call between your technical staff and Ken's team makes sense, let's make it so. Finally, IPL has no objection to OUCC attaching the email responses to your testimony.

Kind regards,

Terry

Teresa Morton Nyhart | Partner

Barnes & Thornburg LLP

11 South Meridian Street, Indianapolis, IN, 46204-3535

Direct: (317) 231-7716 | Mobile: (317) 445-1322 | Fax: (317) 231-7433



Atlanta | Chicago | Dallas | Delaware | Indiana | Los Angeles | Michigan | Minneapolis | Ohio | Washington, D.C.

On Sep 18, 2017, at 5:19 PM, Ken Flora <ken.flora@aes.com> wrote:

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Thanks again for the opportunity to discuss the street light filing with you this morning. Here are the follow-ups Elaine tracked down.

- Life of pole assumption? The 2013 Depreciation Study (last approved depreciation study) has the survivor curve set at:
 - o Transmission Poles FERC Acct. 355.00 65 yr. life (composite remaining life is 39.9 yrs.)
 - o Distribution Poles FERC Acct. 364.00 50 yr. life (composite remaining life is 35.0 yrs.)
- Maintenance opportunities/synergies during the conversion? The contractor will be given a list
 of the light fixtures to be converted. Before conversion, what is on the list to be converted will
 be verified by the contractor. For example, if IPL says the light to be converted is a 250-watt
 High Pressure Sodium, the contractor will verify that it is a 250-watt High Pressure Sodium
 before the fixture is converted. If something is wrong, such as a broken arm, that will be fixed,
 but under a different project code, as the repair is not a cost of the conversion.
- IPL system load info?
 - o IPL System load at night approximately 2,000 MW in July around midnight (peak month)
 - o City lighting load at night for the 27,240 lights in the conversion, approximately 5 MW before conversion and approximately 2.8 MW after conversion

Feel free to give me a call if you have any questions. Terry will contact Andy Mallon at the City to find some possible dates to meet and follow up with you.

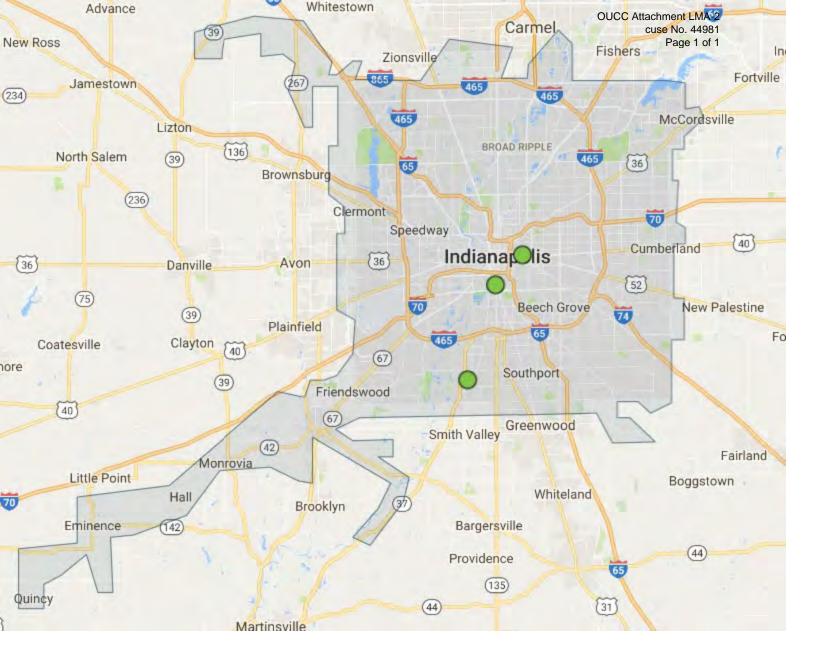
Ken

317-261-6713

IPL Indianapolis Net System Winter Peak Loads

Date, Hour Ending & Hourly MW Load

Date, 11	, IVIVI LOC		
Year	Month	Day/Hour	MW
2013	January	22nd/8:00	2,600
2014	January	28th/8:00	2,850
2015	February	20th/8:00	2,798
2016	December	19th/8:00	2,649
2017	Januarv	6th/9:00	2.495



Data Request OUCC DR 1 - 10

Please confirm that no IPL costs or City of Indianapolis costs associated with or arising from this LED Contract will be billed to IPL customers other than the City of Indianapolis.

Objection:

Response:

Confirmed. For the conversion, the City will pay a Contribution in Aid of Construction, as explained in Witness Henley's testimony.