

Indiana Utility Regulatory Commission
PNC Center
101 West Washington Street, Suite 1500 East
Indianapolis, Indiana 46204

October 1, 2012

Re: Proposal for the Extension of the Experimental Service For Electric Vehicle (EV) Charging on Public Premises (Rate EVP)

Dear Secretary:

Pursuant to 170 IAC 1-6 (Rule 6), the Thirty-Day Administrative Filing Procedures and Guidelines Rule, Indianapolis Power & Light Company (IPL) submits herewith for filing a request to extend the Experimental Rate for Public Charging of Electric Vehicles (Rate EVP).

Rate EVP was initially approved on January 17th, 2011, and provides for public Electric Vehicle Charging at the rate of \$2.50 per charge. IPL currently has 20 public charging stations available for public use on Rate EVP. These charging stations provide a positive customer experience, make Indianapolis an attractive option to those interested in EVs, and serve to reduce range anxiety¹.

IPL was the recipient of a Smart Grid Investment Grant through the US Department of Energy enacted through the American Recovery and Reinvestment Act (ARRA), a portion of which was used to partially fund an electric vehicle pilot. IPL was also chosen as a vendor in connection with an additional ARRA grant through the Indiana State Energy Program. Energy Systems Network (ESN), an initiative of the Central Indiana Corporate Partnership, administered this state grant to procure electric vehicle infrastructure and smart grid technologies.

IPL respectfully requests an extension of this tariff under the 30-day filing procedure with the extension effective beginning on January 1st, 2013 and continuing for two years. .

IPL's proposed renewal Rate EVP, both a clean and a redlined version, IPL's public charging locations and an updated EV report are included in Exhibits A, B, C and D, respectively. The Public Charging Locations Map (Exhibit C) includes all current locations and a proposed future location, City Way. The EV Report (Exhibit D) is an update from the one issued in March, with more current installation and usage data.

The following documents are attached:

Exhibit A – IPL's proposed Experimental Service for Electric Vehicle Charging on Public Premises (Rate EVP), 1st Revised Sheet No. 140

Exhibit B – IPL's proposed Experimental Service for Electric Vehicle Charging on Public Premises (Rate EVP), 1st Revised Sheet No. 140 redlined version

¹ Range anxiety is a hesitation to own electric vehicles due to the limited range of distance traveled on a full battery charge without the accessibility to re-charge the vehicle away from home. "Electrification Roadmap: Revolutionizing Transportation and Achieving Energy Security" by Electrification Coalition, November 16, 2009.

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Indiana Utility Regulatory Commission

Exhibit C – Public Charging Locations served by Rate EVP

Exhibit D – Updated Electric Vehicle Pilot Program Report

Please contact me with any questions regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Ken Flora". The signature is written in a cursive, flowing style.

Ken Flora
Director, Regulatory Affairs

Attachments

cc: Office of the Utility Consumer Counselor

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Indiana Utility Regulatory Commission
Indianapolis, Indiana

Indianapolis Power & Light Company
One Monument Circle

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

1st Revised No. 140
Superseding
Original No. 140

RATE EVP
EXPERIMENTAL SERVICE FOR 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.

Effective Pending

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One Monument Circle
Indianapolis, Indiana

Indianapolis Power & Light Company

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

~~Original~~ 1st Revised No. 140
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STANDARD CONTRACT RIDERS APPLICABLE:

NONE

PAYMENT:

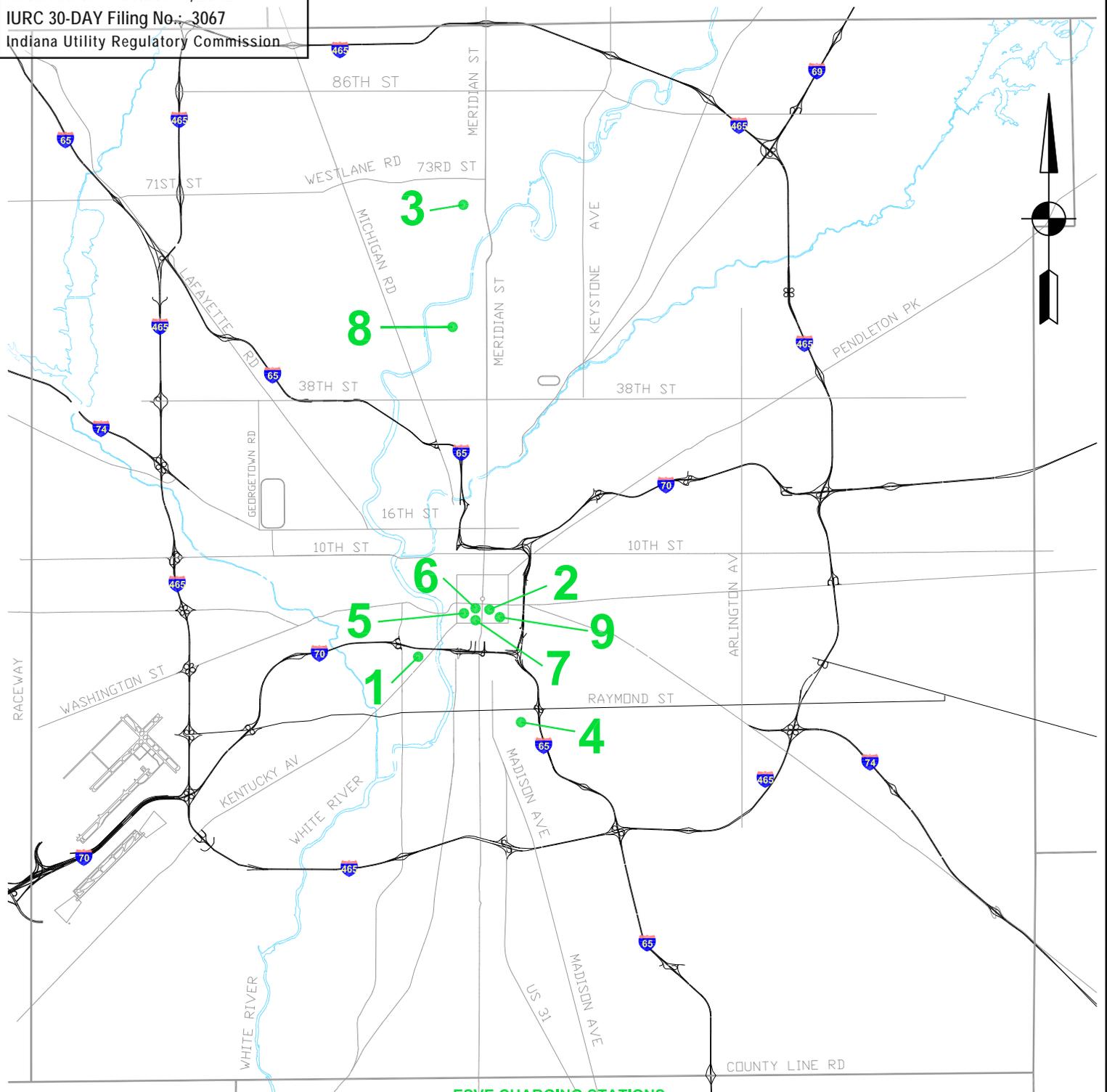
This rate requires Customers to prepay for the voluntary service provided pursuant to this tariff by means of credit, debit, or pre-paid cards only, as determined by the Company. Payment must be made before charging service is rendered.

TERM:

~~The term for this public charging rate is the date of Commission approval continuing for two (2) years. 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.



ESVE CHARGING STATIONS

- | | |
|--|---|
| 1. IPL MORRIS STREET
1230 W. MORRIS ST. | 6. DENISON PLAZA GARAGE
103 S. CAPITOL AVE. |
| 2. DENISON MERCHANTS GARAGE
31 S. MERIDIAN ST. | 7. GEORGIA ST. BOARDWALK
BETWEEN ILLINOIS & MERIDIAN ST.
IN FRONT OF THE OMNI HOTEL |
| 3. ARTHUR M. GLICK
JEWISH COMMUNITY CENTER
6701 HOOVER RD. | 8. BUTLER UNIVERSITY-
HINKLE FIELDHOUSE
510 W. 49TH ST. |
| 4. GARFIELD PARK LIBRARY
2502 SHELBY ST. | 9. CITY WAY
301 S. DELAWARE ST. |
| 5. INDIANA STATE GARAGE
401 W. MARYLAND ST. | |



INDIANAPOLIS POWER & LIGHT CO.

**ESVE
CHARGING STATIONS**

DRAWN BY: RLW
5-25-12

ESVE-charging-locations.dwg

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Indiana Utility Regulatory Commission

Cause No. 43960

INDIANAPOLIS POWER & LIGHT COMPANY

Electric Vehicle Pilot Program

Updated Status Report

October 1, 2012

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IPL EV Pilot Program

Background

Indianapolis Power & Light Company (IPL) finalized its electric vehicle (EV) pilot program plans following the receipt of a Smart Grid Investment Grant award from the US Department of Energy in April 2010. Additional funding was secured through the Indiana Office of Energy and Development through the Energy Systems Network in the third quarter of 2010. In December 2010, IPL supplemented its testimony in a demand side management proceeding before the Indiana Utility Regulatory Commission (IURC Cause No. 43960), to include a request for timely cost recovery of the non-grant funded portion of the EV program. In its order issued in November 2011, the IURC granted IPL permission to defer expenses totaling up to \$1,053,000, for recovery in its next rate case proceeding.¹

This report is an update of the status report provided to the commission on March 16, 2012. It provides a description of the project objectives, participation from August 2011 through August 2012, current status, challenges, and expected next steps.

Project Objectives

IPL's EV program objectives include:

- Accommodate the use of EVs in IPL's service territory by offering charging equipment and time-of-use (TOU) rates to EV customers, which are designed to promote charging during off-peak periods.
- Foster EV adoption by installing public charging stations at convenient locations in order to reduce range anxiety.
- Gain further insight into the potential system impact from the use of EVs
- Educate public about electric transportation.
- Understand customer expectations.

Current Status

The first year of the EV pilot has been successful. The initial program objectives have been achieved. IPL has successfully accommodated the use of EVs by offering charging equipment in residential and public locations, and offering a TOU rate structure that incentivizes EV owners to charge during off-peak hours at a reduced rate. At this time,

¹The IURC previously approved EV tariffs including a time of use customer premise rate, EVX, and public rate of \$2.50 per charge, EVP, through an administrative filing approved in January 2011 for a 2 year period.

the limited number of electric vehicles deployed has not necessitated upgrading IPL generation, transmission, or distribution facilities. IPL will continue to monitor and analyze the information gathered from the pilot program in order to better understand the continuing impact EVs may have on the electric grid.

Overall, customers have been satisfied with the program. IPL regularly receives email communication from participants and monitors local EV blogs in which customers share information. In the first quarter of 2012, IPL surveyed the 30 initial customers participating in the residential EV program. These customers were given the opportunity to anonymously answer questions ranging from charging habits to overall customer satisfaction. Of the 30 customers invited to participate, 23 responded. Of those 23, 96% fell into the four “satisfied” categories (extremely—16, very—4, moderately—2, and slightly—0).

Significant Milestones

In its inaugural year, IPL successfully launched the EV program, coordinated the deployment of software products that support Electric Vehicle Supply Equipment (EVSE)² in central Indiana, participated in a significant number of seminars and public outreach events and installed approximately 57% of the expected two-year total EVSE program volumes in residential, fleet, and public venues. IPL was one of the first investor owned utilities to install public EVSEs in the United States. Specific accomplishments are highlighted below.

- IPL worked with AeroVironment to install software to enable customers to see where chargers are installed on a web-based app and activate the use of key fobs for payment processing at public locations³.
 - AeroVironment supports a 24/7 customer call center as part of the project terms.
 - The parties cooperated to initiate the use of General Packet Radio Service (GPRS) communications (which are similar to cell-phone communication) in fleet, public and some residential EVSEs
 - Extensive testing of Wi-Fi enabled EVSEs was completed with limited success. This is further discussed in the challenges section of this report.
- As of August 31, 2012, IPL has installed 112 chargers in 76 locations. The locations consist of 55 residential; 11 fleet; 7 public; and locations at Tom Wood Ford, the Indianapolis Zoo, and Eli Lilly & Company that use chargers previously installed as residential units (“secondary use units”).
- IPL has installed 20 public chargers at seven public locations that allow electric vehicle users to charge vehicles at a flat fee of \$2.50 per charge for an unlimited amount of time through the approved Rate EVP tariff. The public locations include:

1. Denison Merchant’s Garage; 31 S Meridian St. (4 chargers)

² The terms “EVSE,” “chargers,” and “charging stations” are used interchangeably in this report

³ IPL’s website is <http://www.iplpower.com>

2. Arthur M. Glick Jewish Community Center; 6701 Hoover Rd. (2 chargers)
3. Garfield Park Public Library; 2502 Shelby St. (2 chargers)
4. Indiana State Garage; 401 W Washington St. (6 chargers)
5. Georgia St Boardwalk; 201 McCrea St. (2 chargers)
6. Denison Plaza Garage; 103 S Capitol Ave. (2 Chargers)
7. Butler University Hinkle Fieldhouse; 510 W 49th St. (2 Chargers)

Educational Outreach Activities

- IPL has hosted approximately 30 stakeholder events regarding EVs and Smart Grid technology, supported 15 specifically focused ride and drive events for Think North America, supported events for Nissan, Ford, and GM, and attended multiple Department of Energy Clean Cities events.
- IPL, in partnership with Purdue, hosted an EV 101 workshop with panelists from Nissan and General Motors that had 54 participants.

EV Usage

Detailed energy usage for EV charging comprises Appendices B and C which are summarized in the following points.

- Forty-seven (47) residential customers participated in Rate EVX from August 1, 2011, to July 31, 2012. These customers have collectively averaged consumption of 4,591 kWh per month to charge their EVs. In May 2012, the thirty-eight (38) customers averaged 161 kWh per EV and in July, the forty-seven (47) customers averaged 168 kWh per EV.
- Approximately 79% of the electricity used for residential EV charging occurred off-peak, an additional 5% occurred mid-peak, and the balance (or 17%) occurred in peak periods.
- Public units on Rate EVP indicate a total of 3,941 kWh used from August 1, 2011, to July 31, 2012, with an average of 231 kWh consumed per month. This is a 250% increase of total kWh per month over the initial EV report which only presented data through December 31st 2011.



The pictures above include a customer key fob (above) and a public charger, located on Georgia Street.

EV Industry Challenges

EV OEMs including Think, Nissan and General Motors deployed fewer vehicles in 2011 and 2012 than originally forecasted. Ener1 and Think North America have experienced corporate restructuring due to financial challenges which reduced the number of Think EVs available throughout the United States including Indianapolis.

Program Specific Challenges

IPL's EV program is intended to provide customers with near real-time information through their home computer which would allow them to program their EV and EVSE to charge at the desired times. Communicating through customers' Wi-Fi enabled EVSEs has proven to be unstable and IPL has only successfully established communication with three out of seven units. Due to the issues encountered, IPL has opted not to install any more Wi-Fi enabled units at

this time while the technology continues to develop.⁴ GPRS has proven to be more effective but includes monthly data communication fees. Twenty-seven (27) units have GPRS enabled for fleet use, and twenty (20) units have GPRS enabled for public use.

Expected Next Steps

- Continue to keep partners and customers informed on the status of Rate EVX and Rate EVP.
- Request approval for a revision to Rate EVX and extension of Rate EVP beyond the initial two year period.
- Continue to encourage adoption of electric vehicles through customer awareness and education.
- Continue to provide excellent customer service to EVX and EVP customers.

⁴ The more prevalent electric vehicle designs include a user interface on the dashboard that accesses programming tools and consumption data and would potentially make similar functionality on EVSEs redundant.

Appendix A: Electric Vehicle Supply Equipment

By Classification

Residential	Fleet	Public	Secondary Use Units*	Total
55	25	20	12	112

Locations

Residential	Fleet	Public	Secondary Use Units*	Total
55	11	7	3	76

* These units were redeployed to commercial customers

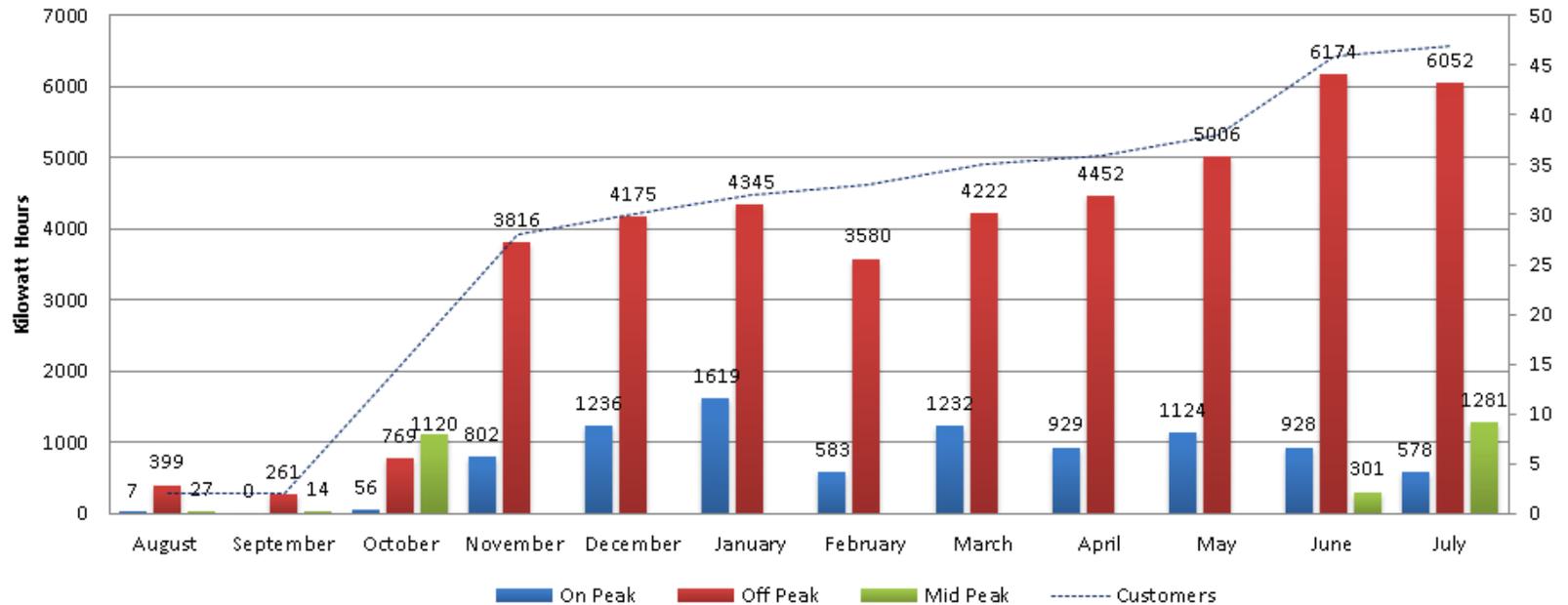
Appendix B: IPL Electric Vehicle Program Costs

Project Costs			
IPL EV Program Summary	3 Year Budget	Actual Costs	Remaining
Estimated Total Expenses	\$1,663,000	\$657,322	\$1,005,678
Grant Funding	(\$610,000)	(\$324,241)	(\$285,759)
Net Totals	\$1,053,000	\$333,082	\$719,919

Project costs are through July 31, 2012.

Appendix C: Residential Charging by Period

Residential Charging Totals by Period



These totals are reflective of the usage billed during a given billing period, which can include usage from two calendar months.

Appendix D: Electric Vehicle Usage kWh

Electric Vehicle Usage (kWh)																		
	March '11	April '11	May '11	June '11	July '11	August '11	September '11	October '11	November '11	December '11	January '12	February '12	March '12	April '12	May '12	June '12	July '12	Total kWh
Residential locations																		
Residential EV Usage	-	-	-	-	-	433	275	1,939	4,624	5,411	5,964	4,163	5,454	5,381	6,130	7,403	7,911	55,088
Fleet locations																		
C&I EV Usage	-	650	673	570	568	413	605	612	1,194	1,615	1,487	1,292	1,417	1,479	1,499	1,846	1,708	17,628
Public Locations																		
Indiana State Garage	44	139	60	153	236	139	190	65	57	13	59	81	59	-	159	70	59	1,583
Denison Merchant's Garage	-	-	-	-	-	190	171	157	149	175	133	153	97	160	96	64	94	1,638
Garfield Park Public Library	-	-	-	-	-	-	-	-	25	29	32	37	27	32	23	27	23	255
Jewish Community Center	-	-	-	-	-	-	-	-	24	27	27	36	26	27	29	28	27	251
Georgia Street	-	-	-	-	-	-	-	-	-	-	-	13	18	42	42	34	25	174
Butler- Hinkle Fieldhouse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	40
Denison Plaza Garage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-

These totals are reflective of usage during a calendar month and may vary from calculations based on billing cycle.

Verified Statement of Indianapolis Power & Light Company (IPL)

**Concerning Notification of Customers Affected by the Experimental Service for
Electric Vehicle Charging on Public Premises**

Indianapolis Power & Light Company complied with the Notice Requirements under 170 IAC 1-6-6 in the following manner:

- beginning on September 24, 2012 and continuing through the filing date, the attached notice was posted in the Customer Service Office at 2102 N. Illinois Street
- beginning on September 24, 2012 and continuing through the filing date, the same notice was posted on IPL's website under the Pending section of the Rates, Rules and Regulations area
- a legal notice placed in the Indianapolis Star on September 24, 2012 as evidenced by the attached Publishers Affidavit; and
- beginning on the filing date, a copy of the Experimental Electric Vehicle Charging 30 day filing will be included on IPL's website under the Pending section of the Rates, Rules and Regulations area

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

Dated this 1st day of October, 2012.



Ken Flora
Director, Regulatory Affairs

Received On: October 1, 2012

IURC 30-DAY Filing No.: 3067

Indiana Utility Regulatory Commission

LEGAL NOTICE

Notice is hereby given that on or about September 27, 2012, Indianapolis Power & Light Company expects to file a request for approval of a revised Experimental Tariff, entitled Rate EVP—Experimental Service For Electric Vehicle Charging on Public Premises, with the IURC. The revised Rate EVP will affect only those members of the public who voluntarily pre-pay for public vehicle charging. IPL anticipates approval of the filing on or before December 31, 2012. The experimental rate will be in place for two years.

This notice is provided to the public pursuant to 170 IAC 1-6-6. The contact information, to which an objection should be made, is as follows:

Secretary
Indiana Utility Regulatory Commission
101 W. Washington Street, Suite 1500 East
Indianapolis, Indiana 46204
Telephone: (317) 232-2700
Fax: (317) 232-6758
Email: info@urc.in.gov

Office of Utility Consumer Counselor
115 W. Washington Street, Suite 1500 South
Indianapolis, Indiana 46204
Telephone: (317) 232-2484
Toll Free: 1-888-441-2494
Fax: (317) 232-5923
Email: uccinfo@oucc.in.gov
Dated September 20, 2012.

(S - 9/24/12 - 5994463)

PUBLISHER'S AFFIDAVIT

State of Indiana SS:
MARION County

Personally appeared before me, a notary public in and for said county and state,

the undersigned **Kerry Dodson** who, being duly sworn, says that SHE is clerk

of the INDIANAPOLIS NEWSPAPERS a DAILY STAR newspaper of general circulation

printed and published in the English language in the city of INDIANAPOLIS in state

and county aforesaid, and that the printed matter attached hereto is a true copy,

which was duly published in said paper for **1** time(s), between the dates of:

09/24/2012 and 09/24/2012

Kerry Dodson

Clerk
Title

Subscribed and sworn to before me on **09/24/2012**

Louise M. Powell

LOUISE M. POWELL

Notary Public

NOTARY PUBLIC

SEAL

STATE OF INDIANA

MY COMMISSION EXPIRES February 28, 2016

My commission expires: _____