COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2016 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	**)**	**CASE NO. 2016-00027**

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY

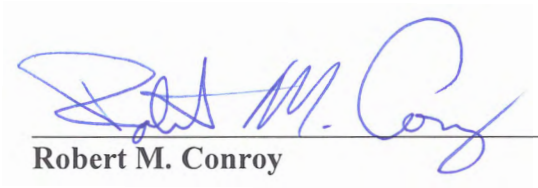
TO INFORMATION REQUESTED AT HEARING
HELD ON JUNE 14, 2016

FILED: JUNE 21, 2016

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Robert M. Conroy**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates, for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of LG&E and KU Services Company, and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.



Robert M. Conroy

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 21st day of June 2016.

Judy Schooler (SEAL)
Notary Public

My Commission Expires:

JUDY SCHOOLER
Notary Public, State at Large, KY
My commission expires July 11, 2018
Notary ID # 512743

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Information Requested at Hearing Held on June 14, 2016

Case No. 2016-00027

Question No. 1

Witness: Robert M. Conroy

Q-1. Provide a copy of the Order in Indianapolis Power & Light Company's ("IPL") most recent rate case.

A-1. See attached. Pages 42-43 of the order support Robert M. Conroy's testimony at hearing concerning the IURC's finding that a 10.00% return on equity would be reasonable absent levying a 15-basis-point penalty for IPL's poor management practices. For ease of reference, the relevant excerpt from those pages is below (emphases added):

> Based on our discussion above, we find that a reasonable range for Petitioner's cost of equity is 9.7% to 10.30%, and conclude that the mid-point, a 10.0% COE [cost of equity], would be appropriate absent other considerations.
>
> However, as we noted in Cause No. 43526,
>
> > a utility's operational and financial performance were appropriate considerations in determining a utility's cost of equity .... The Commission has a unique role in regulating its jurisdictional utilities, which at times requires us to send a clear and direct message to utility management concerning the need for improvement in the provision of its utility service. Our determination of the authorized cost of common equity capital can be a very direct means to incent improved service.
>
> NIPSCO, Cause No. 43526, at 32 (IURC Aug. 25, 2010).
>
> We have been critical of IPL's management decisions over the past several years, as noted in Cause Nos. 44242 and 44339. In Cause No. 44242, we expressed disappointment in the manner in which IPL presented its cost-benefit analysis supporting its proposed environmental compliance strategy "and how it represented a poor management decision and demonstrated a lack of due regard for the regulatory process." While the Commission ultimately approved the proposed settlement, the Commission modified the settlement to increase the depreciation credit in order to send an appropriate "message to provide feedback in a manner that provides an incentive for improvement" to management. In Cause No. 44339, the Commission again

criticized IPL's management for the bid process it used to determine the best estimate for constructing the Eagle Valley CCGT.

In this consolidated case, we are again faced with questions over IPL management relating to the maintenance and operation of IPL's downtown network, and we have addressed a path forward through the collaborative process in our earlier discussion. However, while the Commission's establishment of a collaborative process to address IPL's asset management is a positive step, the establishment of that process alone does not reflect the importance the Commission places on IPL's provision of safe and reliable service. As noted in our earlier discussion, IPL's suggestions that the public safety concerns related to the March 2015 network events are essentially a media-driven reaction and that the issues related to manhole covers did not pose a risk to public safety fail to reflect the seriousness that the Commission places on these events and the need to improve the utility's asset management process.

In order to provide an appropriate message to IPL management, the Commission finds that the use of an incentive linked to IPL's constructive participation in the collaborative process is warranted and that an adjustment to the COE used for ratemaking provides a reasonable mechanism to review IPL's participation. As noted above, the unadjusted cost of equity of 10.0% represents the midpoint of the appropriate range of cost of equity for IPL. The midpoint between 10.0% and the low end of the range of 9.7% is 9.85%, which we find to be representative of an appropriate adjustment. We recognize that this adjustment will be reconsidered in IPL's next rate case review in the context of its participation in the collaborative, and expect that IPL will respond accordingly. In conclusion, we find that the appropriate authorized COE for IPL is 9.85%, which we note is higher than the cost of equity Dr. Avera considered insufficient.[1]

As Staff Counsel noted at hearing, the Commission, unlike the IURC, does not have authority to penalize utilities or their management through return-on-equity reductions.[2]

[1] IPL, IURC Cause Nos. 44576 and 44602, Order at 42-43 (Mar. 16, 2016).

[2] *See, e.g.*, South Central Bell v. Utility Reg. Com'n, 637 SW 2d 649, 654 (Ky. 1982) ("We therefore conclude that the Commission acted beyond the scope of its statutory authority when, in a rate hearing, it imposed a rate reduction penalty against Bell for alleged poor service.").

ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT COMPANY ("IPL") FOR AUTHORITY TO INCREASE RATES AND CHARGES FOR ELECTRIC UTILITY SERVICE AND FOR APPROVAL OF: (1) ACCOUNTING RELIEF, INCLUDING IMPLEMENTATION OF MAJOR STORM DAMAGE RESTORATION RESERVE ACCOUNT; (2) REVISED DEPRECIATION RATES; (3) THE INCLUSION IN BASIC RATES AND CHARGES OF THE COSTS OF CERTAIN PREVIOUSLY APPROVED QUALIFIED POLLUTION CONTROL PROPERTY; (4) IMPLEMENTATION OF NEW OR MODIFIED RATE ADJUSTMENT MECHANISMS TO TIMELY RECOGNIZE FOR RATEMAKING PURPOSES LOST REVENUES FROM DEMAND-SIDE MANAGEMENT PROGRAMS AND CHANGES IN (A) CAPACITY PURCHASE COSTS; (B) REGIONAL TRANSMISSION ORGANIZATION COSTS; AND (C) OFF SYSTEM SALES MARGINS; AND (5) NEW SCHEDULES OF RATES, RULES AND REGULATIONS FOR SERVICE.	)	CAUSE NO. 44576
IN THE MATTER OF THE INDIANA UTILITY REGULATORY COMMISSION'S INVESTIGATION INTO INDIANAPOLIS POWER & LIGHT COMPANY'S ONGOING INVESTMENT IN, AND OPERATION AND MAINTENANCE OF, ITS NETWORK FACILITIES	)	CAUSE NO. 44602
	)	APPROVED: MAR 16 2016

ORDER OF THE COMMISSION

Presiding Officers:
Carol A. Stephan, Commission Chair
Aaron A. Schmoll, Senior Administrative Law Judge

On December 29, 2014, Indianapolis Power & Light Company ("IPL") filed its Verified Petition initiating Cause No. 44576. On December 29, 2014, Petitioner also filed its case-in-chief, workpapers, and information required by the minimum standard filing requirements ("MSFRs") set forth at 170 IAC 1-5-1 and a request for administrative notice. IPL provided testimony and exhibits from the following witnesses:

- William H. Henley, IPL Vice President, Regulatory and Government Affairs
- Michael L. Holtsclaw, IPL Director, Transmission & Distribution Engineering
- James A. Sadtler, IPL Director, Transmission Field Operations
- Craig L. Jackson, Chief Financial Officer of IPL, and Director, Vice President, and Chief Financial Officer of AES U.S. Services, LLC ("AES Services")

- Barry J. Feldman, IPL Director, T&D Asset Management
- Jeffrey W. Cummings, Senior Vice President, UMS Group Inc.
- John J. Reed, Chairman and Chief Executive Officer of Concentric Energy Advisors, Inc. and CE Capital Advisors, Inc. (together "Concentric")
- Edward J. Kunz, IPL Manager, Retirement Services
- Alan Felsenthal, a certified public accountant and a Managing Director at PricewaterhouseCoopers LLP
- Harold E. Leitze, IPL Manager, Coal and Transportation
- John P. Kelly, Executive Advisor for Concentric
- Ann E. Bulkley, a Vice President of Concentric
- William E. Avera, Ph.D., CFA, a Principal with FINCAP, Inc.
- Elaine K. Chambers, IPL Manager, Rates and Regulations
- Eric Fox, Director, Forecast Solutions at Itron, Inc.
- James L. Cutshaw, IPL Manager, Revenue Requirements
- Yvonna K. Steadman, Senior Accountant of Regulatory Accounting of AES Services
- Craig A. Forestal, Director of Regulatory Accounting for AES Services
- Stephen A. Allamanno, Tax Director with AES Services
- John J. Spanos, Senior Vice President, Gannett Fleming Valuation and Rate Consultants, LLC
- Kurt A. Tornquist, Controller for IPL and AES Services
- Dr. J. Stephen Gaske, Senior Vice President with Concentric
- Dennis C. Dininger, IPL Director, Commercial Operations
- Lester H. Allen, IPL Manager, Demand Side Management Program Development
- David R. Farris, IPL Manager, Customer Service
- Bradley D. Scott, IPL Senior Vice President, Power Supply
- Danielle M. Tushchong, IPL Director, Total Rewards
- Paula M. Guletsky, Vice President, Sargent & Lundy, L.L.C.

Petitions to intervene were granted to the following parties, without objection:

- Citizens Action Coalition of Indiana, Inc. ("CAC")
- IPL Industrial Group ("Industrial Group")
- The Kroger Company ("Kroger")
- The City of Indianapolis ("City")
- Indiana Community Action Association ("INCAA")
- Indiana Coalition for Human Services ("ICHS")
- Indiana Association for Community Economic Development ("IACED")
- National Association of Social Workers Indiana Chapter ("NASW")
- Indiana State Conference of the National Association for the Advancement of Colored People ("NAACP" and collectively with CAC, INCAA, ICHS, IACED, and NASW, "Joint Intervenors").

On January 28, 2015, the Presiding Officers established a procedural schedule for Cause No. 44576. The Commission conducted a public field hearing under Cause No. 44576 at Crispus Attucks High School on March 16, 2015. At the field hearing, members of the public offered comments to the Commission.

On March 20, 2015, following two downtown incidents involving IPL's network facilities on March 16 and March 19, 2015, the Commission, under Cause No. 44602, initiated an investigation into the ongoing investment in, and operation and maintenance of, the network facilities of IPL. The Commission designated Dr. Bradley K. Borum and Mr. Bob Pauley as testimonial staff, along with Dr. Daniel O'Neill and Charles Fijnvandraat from O'Neill Management Consulting Group, LLC (collectively "Staff").

On April 2, 2015, the Commission conducted a Technical Conference and Prehearing Conference in Cause No. 44602 in Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana at 10:00 a.m. Following the prehearing conference, on April 9, 2015, the Presiding Officers issued a Docket Entry establishing the Commission's final issues list for consideration in Cause No. 44602. On April 10, 2015, the Presiding Officers issued a Docket Entry in each respective Cause formally consolidating Cause Nos. 44576 and 44602.

Staff provided testimony and exhibits from the following witnesses:

- Morgan Robert Pauley, Commission Chief Technical Advisor
- Dr. Daniel E. O'Neill, President, O'Neill Management Consulting Group, LLC

The Indiana Office of Utility Consumer Counselor ("OUCC") provided testimony and exhibits from the following witnesses:

- Barbara A. Smith, Executive Director, Technical Operations
- Ray L. Snyder, Utility Analyst
- Leon A. Golden, Utility Analyst
- Anthony A. Alvarez, Utility Analyst
- Edward T. Rutter, Utility Analyst
- Margaret A. Stull, Senior Utility Analyst
- Edward R. Kaufman, Chief Technical Advisor
- Bradley E. Lorton, Utility Analyst
- Lafayette K. Morgan, Jr., Public Utilities Consultant with Exeter Associates, Inc.
- Wes R. Blakley, Senior Utility Analyst
- Michael D. Eckert, Senior Utility Analyst
- Cynthia M. Armstrong, Senior Utility Analyst
- Stacie R. Gruca, Senior Utility Analyst
- Glenn A. Watkins, Principal and Senior Economist with Technical Associates, Inc.

The IPL Industrial Group provided testimony and exhibits from the following witnesses:

- James R. Dauphinais, Consultant and Managing Principal of Brubaker & Associates, Inc. ("Brubaker")
- Nicholas Phillips, Jr., Consultant and Managing Principal of Brubaker
- Michael P. Gorman, Managing Principal of Brubaker

The Joint Intervenors provided testimony and exhibits from the following witnesses:

- John Howat, Senior Policy Analyst at the National Consumer Law Center

- Jessica Frazier, Program Manager for the Indiana Institute for Working Families

The City provided testimony and exhibits from the following witnesses:

- Theodore Sommer, a Partner with London Witte Group, LLC
- Dr. Robert Kramer, Purdue University, Professor of Physics, NiSource Charitable Foundation Professor of Energy and the Environment, and Director of the Energy Efficiency and Reliability Center
- Melody Park, Chief Engineer and Director of Sustainability for the City, Department of Public Works

Kroger provided testimony and exhibits from the following witness:

- Kevin C. Higgins, Principal in the firm of Energy Strategies, LLC

On May 6, 2015, IPL filed the Root Cause Analysis ("RCA") for the 428 Massachusetts Avenue Network Event that occurred on March 16, 2015. On June 1, 2015, IPL filed its supplemental direct testimony. On June 22, 2015, Staff filed the Investigation Report of O'Neill Consulting Group, LLC ("2015 O'Neill Report"). On July 27, 2015, the OUCC, Staff, and Intervenors filed their respective cases-in-chief. On September 4, 2015, IPL filed its rebuttal testimony.

The Commission conducted an evidentiary hearing in Room 222 beginning at 9:00 a.m. on September 21, 2015, and continuing through October 1, 2015. IPL, OUCC, Staff and Intervenors presented their evidence and offered their witnesses for cross-examination and IPL's request for administrative notice was granted.

The Commission, based upon the applicable law and evidence presented, now finds:

1. **Notice and Jurisdiction.** Due, legal, and timely notices of all public hearings in these Causes were given and published as required by law. IPL is a public utility as defined in Ind. Code § 8-1-2-1(a). Pursuant to Ind. Code §§ 8-1-2-42, 42.7, 58, and 59, the Commission has jurisdiction over IPL's rates and charges for utility service, as well as the jurisdiction to conduct an investigation on "any matters relating to any public utility."

2. **Petitioner's Organization and Business.** IPL is a public utility with its principal place of business located at One Monument Circle, Indianapolis, Indiana. IPL renders retail electric utility service to approximately 470,000 retail customers located principally in and near the City of Indianapolis, Indiana, and in portions of the following Indiana counties: Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, Owen, Putnam, and Shelby Counties. IPL is also subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC"). IPL is a member of the Midcontinent Independent System Operator, Inc. ("MISO"), a regional transmission organization ("RTO") operated under the authority of FERC which controls the use of IPL's transmission system and the dispatching of IPL's generating units.

IPL owns, operates, manages and controls electric generating, transmission and distribution plant, property, equipment, and related facilities (collectively referred to as "Utility Property") which are used and useful for the convenience of the public in the production, transmission,

delivery and furnishing of electric energy, heat, light, and power. IPL's Utility Property is classified in accordance with the Uniform System of Accounts ("USOA") as prescribed by FERC and approved and adopted by this Commission.

3. **Existing Rates.** IPL's current basic rates and charges were approved by the Commission in its Order dated August 24, 1995 in Cause No. 39938. Those basic rates and charges remain in effect today, as modified by various riders approved by the Commission from time to time.

4. **Relief Requested.** IPL requests authority to increase its rates and charges for electric utility service and approval of (1) accounting relief, including implementation of a Major Storm Damage Restoration Reserve Account; (2) revised depreciation rates; (3) the inclusion in basic rates and charges of the cost of certain previously approved Qualified Pollution Control Property ("QPCP"); (4) implementation of new or revised rate adjustment mechanisms to timely recognize for ratemaking purposes Lost Revenues from Commission-approved Demand-Side Management ("DSM") Programs and changes in (A) Capacity Purchase Costs ("CAP"); (B) RTO Costs; and (C) Off-System Sales ("OSS") Margins; and (5) new schedules of rates, rules and regulations for service. IPL originally requested approval of an annual increase in revenues of approximately $67.8 million. At the conclusion of the case, IPL has modified its requested rate increase so as to seek an annual increase in revenues of approximately $63.276 million. See Pet. Ex. 30-R (IPL REVREQ1-R).

5. **Test Year and Rate Base Cutoff.** As provided in the Prehearing Conference Order, the test year to be used for determining IPL's actual and pro forma operating revenues, expenses and operating income under present and proposed rates is the 12 months ended June 30, 2014, adjusted for changes that are fixed, known, and measurable for ratemaking purposes and that occur within twelve months following the end of the test year. The financial data for this adjusted test year is a proper basis for fixing new rates for IPL. The general rate base cutoff shall reflect used and useful property at the end of the test year.

6. **Commission Investigation.** On March 20, 2015, the Commission, under Cause No. 44602, initiated an investigation into the ongoing investment in, and operation and maintenance of, the network facilities of IPL. The Commission identified three general areas to address in the investigation: 1) Network Safety; 2) Network Maintenance; and 3) Network Investment.

A. **Evidence.**

(1) IPL. IPL witness Holtsclaw stated that because of the design of IPL's Network, the failure of multiple components must occur before interruptions to customers can occur. Mr. Holtsclaw's testimony explained how IPL interfaces to Customer-Owned Equipment on the IPL Network; discussed the safety of the Network; provided data regarding system design; and discussed the impact of externalities, such as the water, steam and other facilities that share the limited right-of-way space in downtown Indianapolis and road salts and other ice melting chemicals that can cause corrosion and deterioration of the electrical components as well. Mr. Holtsclaw also discussed Network maintenance, IPL's efforts to predict or prevent potential Network problems, Network investment, IPL's use of technology to help mitigate Network events and minimize the possibility of their occurrence, and IPL's use of key performance indicators ("KPIs") and asset management to monitor and evaluate the progress and performance of the Downtown Network

system. Mr. Holtsclaw concluded that IPL's Network is safe and reliable, and the design of the system is consistent with the design of secondary network systems of other utilities around the country. He added that while the redundancy in IPL's Secondary Network system already provides significant reliability, IPL has and will continue to maintain and upgrade the Network to maintain a safe and reliable system.

IPL witness Sadtler presented the Root Cause Analyses for the two March 2015 incidents. Mr. Sadtler discussed the mitigation measures each event suggests IPL should consider. Mr. Sadtler also presented information regarding the age of network system components and IPL's inspection practices.

IPL witness Jackson discussed Network investment and explained how IPL funds its ongoing and recurring investment as well as non-recurring investments.

(2) Staff. Staff witness O'Neill offered and the Commission admitted a report of his investigation and findings ("2015 O'Neill Report"). Dr. O'Neill discussed his prior Network assessment ("2011 O'Neill Report") and subsequent monitoring. Dr. O'Neill summarized his findings as follows:

1) The basic design, maintenance, and operation of IPL's downtown electrical network are sound and that the risk to the citizens of Indianapolis is low.

2) IPL has been very responsive to the situation, and has not hesitated to expend resources to investigate the incidents and their possible root cause and to commit to action plans that will address concerns that they had and which he shared.

3) The root cause of the most recent incidents (five from March 2014 through March 2015) is not any single problem, but rather four separate problems involving separate aspects of the underground network.

4) The solutions to the root causes of the recent incidents lie in programs to which IPL has already committed to implementing with reasonable speed.

5) In the area of asset management, while he has seen considerable improvement since his firm's 2011 assessment, he feels a further step is needed to make it clearer to the IURC and the public as to which aspects of IPL's asset management process are currently operational, and with what limitations, versus which aspects are more aspirational, requiring further development or integration.

6) In the area of regulatory oversight, he feels that there needs to be a better system of communication between IPL and the Commission so that the Commission can have confidence in the Company's processes even when incidents occur that raise questions about performance. Dr. O'Neill believes that such improvement might be achieved through a dialog around the development of performance metrics and decision criteria that might become part of a regular communication between the IURC and IPL.

Dr. O'Neill made three recommendations:

1) IPL and the IURC should continue to document and monitor IPL's commitments to implement actions intended to address the concerns of this investigation.

2) The IURC should order that a further investigation be done of IPL's asset management process in order to clearly document which aspects of that process are fully developed and operational versus which aspects are still in progress. For those items in progress, a schedule of intended implementation should be obtained.

3) The IURC should order that IPL enter into discussions with the IURC Staff concerning the design of a set of performance metrics which could be used to avoid the process of opening new investigations with every incident of perceived poor performance.

Dr. O'Neill stated that such metrics could ultimately be part of an explicit incentive mechanism, although he suspected that a certain amount of reporting and revision may be necessary before the metrics would be stable enough to become part of such a mechanism, and in any event the mechanism itself should be open to modification and revision over time as experience is gained with it.

Dr. O'Neill additionally recommended that a network incident rate of less than two events per year is appropriate.

Staff witness Pauley discussed his recommendation for a process to develop transparent, objective measures for IPL to enable the Commission to be better able to review IPL's ongoing performance. He recommended the Commission order a "Phase II" O'Neill Report to ensure Dr. O'Neill's recommendations are implemented in a timely and cost-effective manner. Mr. Pauley also recommended the implementation of a collaborative process to develop a reasonably comprehensive set of benchmarks and performance measures. For economy and efficiency, he said the "Phase II" implementation of the O'Neill Report recommendations and the effort of developing other performance metrics should be combined.

As to the performance benchmarks, Mr. Pauley offered some general ideas for performance metrics but said he would prefer to leave the enumeration and specific recommendations for performance measures to a collaborative process. He said it is to IPL's credit that it tracks specific metrics in addition to those required by governmental entities. Mr. Pauley elaborated on how his recommendations would be carried out and provided an initial list of metrics to be considered by the collaborative, including reliability and resiliency, customer satisfaction, asset management, staffing, and new technologies and innovations. He supported Dr. O'Neill's performance standard of less than two significant incidents on average in the Downtown Network in any given year. He said this recognizes that perfect reliability is unattainable and efforts to achieve perfection would be extraordinarily costly but that more than two incidents is probably unacceptable to the public, business in the Central Business District, and to policymakers. He said Staff also believes more than two incidents would be unacceptable to IPL. After providing some additional observations about the long term process he had in mind, Mr. Pauley concluded that the task he recommended will be a substantial commitment.

(3) OUCC. OUCC witness Smith stated both IPL's rate case and the facts surrounding the investigation are a story of misguided leadership and IPL's unwillingness to be accountable – managerially, financially, and technically. Ms. Smith summarized the history of explosions and other events on the Network, explaining that there have been 14 fires and/or explosions in IPL's downtown underground network and many of these resulted in manhole covers being catapulted into the air. She explained that a closer look at the statistics reveal that between March 1, 2003 and April 1, 2015 there have been hundreds of network failures with the vast majority a result of cable failures – an indication that IPL has not properly maintained its underground distribution system. Ms. Smith stated prior to and since the 2011 O'Neill Report, there is no evidence that IPL has taken any proactive initiative to resolve the problems in an appropriately expedited manner. Ms. Smith also stated there is no evidence that IPL has expended any funds above the level it typically has spent in routine maintenance in order to mitigate remaining safety and reliability concerns.

Ms. Smith stated IPL should have proactively and aggressively implemented an enhanced, high priority effort to eliminate these hazardous conditions given the gravity of the situation. She stated that rather than taking a more proactive approach to these problems, IPL paid $507 million in dividends between 2010 and 2014 and $2.6 billion between 1994 and 2014. She stated that this demonstrates IPL has not appropriately prioritized its critical downtown infrastructure needs, especially given IPL's intent to pay IPALCO a high percentage of its net income each of the next three years.

Ms. Smith pointed out that the 2011 O'Neill Report recommended IPL implement an Asset Management Standard. IPL's parent company AES Corp. has a thorough and transparent Asset Management Standard, and for those subsidiaries that adopt the standard, AES requires those companies to document and maintain a long term asset management strategy. Ms. Smith stated that although IPL claims to have adopted the AES standard, IPL's strategy is not documented, but in IPL's words, is just a "philosophy," making it virtually impossible for the Commission and other interested stakeholders to evaluate IPL's asset management system's effectiveness or lack thereof. Ms. Smith stated that this is a concern since IPL is a regulated investor-owned utility subject to the precepts of Indiana law. The "Regulatory Compact" is one such precept, where in exchange for an exclusive territory and the right to earn a reasonable return on its investment, the public expects the utility to provide "safe and reliable" service. Ms. Smith explained that downtown Indianapolis is a nerve center of commercial and tourist-related activity, and therefore the idea of "safe and reliable" service is critically meaningful to the residents of and visitors to Indianapolis.

Ms. Smith recommended that IPL be required to perform a management audit. She recommended the IPL management audit mirror the Management Structure Review the Commission ordered the troubled Department of Waterworks of the City of Indianapolis to perform. She added that IPL should also be required to initiate and maintain a performance benchmarking program in order to measure and, more importantly, improve, IPL's performance. Ms. Smith stated that IPL should retain an independent third party to audit its asset management system, since neither the accuracy level of the system data nor how that data is used by field personnel to make critical decisions is transparent. She said the Commission has, on occasion, used a number at the lower end of the return on equity range to reflect the Commission's displeasure with the utility's management and to encourage improved performance in the future. She said IPL has indicated it intends to file another base rate case in the near future. She said this future rate case filing provides the

Commission an opportunity to evaluate whether IPL has made the necessary adjustments that Ms. Smith believes this investigation demands be imposed on IPL.

OUCC witness Snyder examined the details of the "fault events" or system component failures in the Downtown Network. Mr. Snyder explained the importance of taking all network asset failures into account, and not just the publicly visible failures, to gain a greater understanding of what problems need to be addressed. Mr. Snyder also described the lack of evidence that IPL has implemented its commitment to utilize CTE thermal anomaly data to identify locations subject to failure as a result of thermal issues. Pub. Ex. 2 at 6-10. He concluded: 1) IPL's plan for replacement of transformers should be reviewed for acceleration in conjunction with network protector replacements; 2) IPL's replacement of all manhole covers with Swiveloc covers is long overdue and IPL's commitment to complete this replacement by December 31, 2015 must be implemented, for the safety of the public; and 3) IPL's gathering and reporting of information on network condition, issues, repairs, and proactive activities should be improved in order to assure the Commission and the public of network system safety and reliability. Mr. Snyder recommended the Commission require IPL to implement the three recommendations as stated on page 55 of the 2015 O'Neill Report: 1) document and monitor the ongoing status of IPL's commitments to implementation of remedial actions; 2) audit IPL's asset management implementations; and 3) design performance metrics to avoid the necessity of extensive investigations of perceived poor performance.

OUCC witness Golden provided a brief overview of IPL's asset management program. Mr. Golden stated that the OUCC is concerned IPL's asset management program does not evaluate the network's underground cables, particularly since a majority of downtown network events are a result of cable faults. Mr. Golden raised concerns as to the effectiveness of IPL's asset management program, highlighting a number of gaps identified by IPL in its data gathering and software programs as a result of many disparate systems. Mr. Golden also expressed concern regarding IPL's assertion that its Asset Management Strategy is a philosophy and not a written document, in contradiction to the AES Asset Management Global Standards. Mr. Golden stated the OUCC agrees with Dr. O'Neill's recommendation for an audit of IPL's asset management processes. Mr. Golden said an audit would provide a final report to identify existing gaps within IPL's processes, as well as recommendations on areas for IPL to improve upon. He said the final report will be a tool the Commission and the OUCC can use to determine if IPL's spending on asset management delivers measurable value to ratepayers. Mr. Golden also recommended that IPL investigate methods to include its downtown network underground cable in its Asset Management Plan and report its findings and action plan within six months after a final order in this Cause.

OUCC witness Alvarez provided an overview of the underground distribution system and presented the OUCC's concerns regarding IPL's lack of specific implementation plans to address and eliminate the risks of arc flashing and combustible gases generated from underground fiber conduits. Mr. Alvarez testified that without specific implementation plans, IPL's underground distribution and secondary network systems would continue to experience the network events that gave rise to this investigation. It is IPL's responsibility to initiate and carry out the necessary assessments, engineering studies, and implementation plans with established objectives and goals of eliminating and mitigating these risks.

Mr. Alvarez recommended that within 12 months after the issuance of a final order in this Cause, IPL should:

1. Conduct assessments, analyses, and engineering studies necessary to identify, address, mitigate, and eliminate the risk of arc flash from primary termination degradation.

2. Create a detailed plan for primary termination replacements, prioritized according to risk and consequence of failure. This plan should include an analysis of possible interim improvements that can address arc flashing for transformers not scheduled for immediate replacement.

3. Conduct assessments, analyses, and engineering studies necessary to identify, address, mitigate, and eliminate the risk of combustible gases generated from the thermal degradation of fiber conduits. These should include, at least, data and information regarding ignition temperature, melting point, and flash point of IPL's fiber conduit; and identify any decomposition products, chemical, or physical properties of substances from fiber conduit thermal decomposition.

4. Create a detailed plan to address, mitigate, and eliminate risks of the generation of combustible gases from the thermal degradation of the fiber conduits.

5. Prepare detailed implementation plans with deadlines and specific objectives designed to mitigate and ultimately eliminate these risks.

6. Submit such analyses and implementation plans with supporting documentation to the Commission and the OUCC.

OUCC witness Rutter discussed the level of operation and maintenance expenses incurred by IPL from 1994 through 2014 recorded in FERC account 584 Underground Line Expenses and account 594 Maintenance of Underground lines. He also presented information from a North Carolina report regarding underground urban networks. He stated that no firm conclusions or opinions can be completely developed based on the cost information he discussed. He recommended the Commission require IPL to document how and why the 1.6% increase in maintenance cost per mile (over 20 years) that he calculated is sufficient to maintain IPL's underground network.

(4) IPL Rebuttal. IPL witnesses Holtsclaw, Sadtler, Henley, Jackson, Cutshaw, Reed, Feldman and Cummings responded to the 2015 O'Neill Report and/or to the OUCC Testimony. Mr. Holtsclaw discussed the findings in the 2015 O'Neill Report. With respect to reliability, he said he appreciated Dr. O'Neill's recognition that IPL's performance is admirable, but disagreed with the suggestion that IPL's top decile reliability has been easier to achieve than for other measured utilities. Mr. Holtsclaw explained that for any utility to achieve top decile performance requires a commitment by the utility and a dedicated work force; the size of the service territory is not the single driving factor. Mr. Holtsclaw explained that IPL has seen a decrease in network events on an annual basis since 2011 and that while there are many aspects of the Network that are beyond IPL's control, he said he agreed with Dr. O'Neill that an average of two reportable network events per year is an appropriate and realistic goal. He believed it would appropriate, however, to calculate the reportable network events on a rolling five-year period. Mr. Holtsclaw stated that IPL continues to strive to have no reportable network events. Mr. Holtsclaw clarified that IPL has long had a detailed written emergency response plan that focused on storm response which was used to respond to Network events, and noted that the 2015 O'Neill Report confirms that a

formal written plan for Network events exists. Mr. Holtsclaw appreciated Dr. O'Neill's praise for IPL's analyses but clarified that IPL was performing root cause analyses investigations and taking appropriate action prior to 2011. In his review, the 2015 O'Neill Report confirms that IPL is doing a good job in this regard. Mr. Holtsclaw also clarified certain matters related to the 2015 O'Neill Report discussion of technology, including the SCADA system, CYMEDIST model and the geographic information systems. Mr. Holtsclaw presented a Gantt chart that contains all of the commitments IPL has made and explained from IPL's standpoint the list Dr. O'Neill referenced already exists.

Mr. Holtsclaw responded to the OUCC discussion of the manhole issues and refuted the idea that IPL has been slow in deploying locking manhole covers. Mr. Holtsclaw also explained the difference between a reportable network event and a network component failure. He explained that the classification of all fault events as a reportable network event is misleading. He stated that the vast majority of cable and splice failures that occur do not meet the established definition of a network event. Furthermore, when they occur there is rarely visible indication to the public or IPL that anything has taken place and they pose no danger or risk to the public. Mr. Holtsclaw disagreed with Ms. Smith's view that the network component failures in any way are an indication that the Network system was not properly maintained. He showed that IPL has performed better than the target of 30 network component failures per year and this refutes the assertion that IPL has failed to properly maintain its Downtown Underground Network system. Mr. Holtsclaw also rebutted the OUCC contention that IPL is not replacing primary terminations with elbow connectors with sufficient speed and responded to the suggestion that IPL has no plans to address combustible gases generated from the fiber conduit thermal degradation. In response to the OUCC recommendation that IPL review its schedule for transformer replacement, Mr. Holtsclaw explained that IPL has not experienced a transformer failure in the last 30 years; that IPL has addressed this termination chamber issue by replacing the insulating fluid in the primary termination chamber with the FR3 insulating fluid that will not support combustion in the event of a termination chamber failure; that the replacement of network transformers is based on criteria established under the Asset Management Life Cycle Plan; and that IPL's actions are consistent with the 2011 and 2015 O'Neill Reports. Mr. Holtsclaw responded to the concerns raised by the OUCC regarding CTE and explained why he believes based on personal involvement IPL and CTE are working together well to address the issues in the downtown area.

Mr. Sadtler commented on the discussion of Organization and Staffing in the 2015 O'Neill Report and testified that the staffing level is sufficient to perform the additional inspections and repairs associated with reducing the mean time between inspection cycles. Mr. Sadtler added that IPL is on schedule to meet its commitment to provide a summary of the updated Customer Operations succession plan by January 2016.

Mr. Henley, Mr. Jackson and Mr. Reed disagreed with the OUCC position that IPL leadership is misguided and the OUCC recommendation that a management audit be ordered. Mr. Henley explained that IPL's track record for leadership in the utility industry and in the community in which it serves demonstrates that the picture of IPL the OUCC paints is not accurate. Mr. Jackson explained that there is no basis for Ms. Smith's complaints about IPL's dividend payments. IPL has not had a shortage of funds to invest in capital projects. He explained: 1) IPL's dividend practice was previously approved by the Commission from 2003-2006 and remains the same today as it was then; 2) per Mr. Reed, the 70% average cited by the OUCC does not represent the average utility operating company payout ratio and IPL's payout ratio is consistent with other utilities; 3) IPL does

not pay any dividends until after the working capital, cash reserves and other needs of the business have been met; 4) while the OUCC stated that the dividend payout ratio has increased since the AES/IPALCO transaction in 2001, that is not true. During the period from 1995 to 2000 (pre-AES acquisition), the average dividend payout ratio was higher than any other timeframe mentioned by the OUCC; and 5) the testimony of the OUCC implies wrongly that dividends are somehow contrary to the prudent management of a utility. Mr. Jackson stated that is not so and explained that by targeting dividends at 100% of net income, IPL is able to maintain a balanced capital structure. He added that if IPL retained earnings as identified by the OUCC, the cost of capital for IPL would increase since equity is a higher cost component of the capital structure than debt. He said a higher cost of capital would lead to higher rates for IPL's customers.

Mr. Henley stated that conceptually, IPL does not object to working to facilitate the Commission's (and other parties') understanding of the Network, the electric industry or other regulatory issues. Mr. Henley explained IPL's perspective that it is important to recognize that regulatory mandates impose resource and other costs and added that if the Commission concludes there is a need to proceed with the Staff's proposals, the Commission should structure these regulatory requirements so as to mitigate the cost. Mr. Henley said Mr. Cummings provides a recommended path forward if the Commission decides to adopt Staff's recommendations regarding the collaborative. Mr. Cutshaw proposed that IPL be authorized to defer (with carrying charges) for recovery in a future rate case any incremental costs that it incurs from the recommendations by Staff or any similar mandate imposed by the Commission.

Mr. Reed explained that the findings in the 2015 O'Neill Report do not support a Commission decision to order a management audit as proposed by Ms. Smith and that the circumstances presented here are not analogous to those that existed in the cases identified by Ms. Smith where the IURC ordered a management audit.

Mr. Feldman and Mr. Cummings presented IPL's Downtown Underground Network Asset Life Cycle Plan, Asset Management Strategy and Monthly Asset Management KPI Report. Mr. Feldman responded to certain aspects of the discussion of asset management in the 2015 O'Neill Report and to the OUCC testimony that IPL has a number of "gaps" in some of its asset management processes related to software programs. Mr. Feldman explained that the OUCC statements regarding IPL's evaluation, inspection and maintenance data for the downtown network cable do not accurately reflect the information provided in the discovery process to the OUCC. He explained how asset cable condition is assessed and any follow up work implemented.

Mr. Cummings provided a third-party review of the recommendations emanating from the 2015 O'Neill Report, the IURC Staff and the OUCC regarding asset management, reporting and performance metrics. Mr. Cummings stated that all of IPL's Asset Management processes are functional and continuing to improve, and that the rate of improvement compares favorably to other asset management transformation efforts which UMS has seen in the U.S. electric utility industry.

Mr. Cummings explained that the basis for the level of transparency called for in the 2015 O'Neill Report is already established and given this, an "audit", which in his experience means an assessment to establish the baseline, is not necessary. He discussed how a reporting and periodic self-assessment process which includes independent verification might better achieve the transparency Dr. O'Neill recommends. Mr. Cummings noted that the term "asset management audit" is not defined in the O'Neill Report and acknowledged that the assessment process which he

recommends may be analogous to what Dr. O'Neill had in mind. Mr. Cummings stated that in comparison to other U.S. electric utilities, IPL is on a par, if not slightly better across each of the asset management domains.

Mr. Cummings did not read the 2015 O'Neill Report as claiming that IPL is lagging or deficient with regard to asset management, nor to indicate that some kind of punitive action is warranted. He said the tone of the OUCC testimony appears to indicate otherwise and he explained why that perception of IPL is not accurate and otherwise responded to the OUCC testimony and certain aspects of the 2015 O'Neill Report. Mr. Cummings stated that IPL's Asset Management process is substantive (i.e., not merely "aspirational") and the existence of a comprehensive monthly asset management KPI report adds to this point. Mr. Cummings explained that the need for further development of an "Asset Management" program does not mean that IPL has not been managing its facilities and service and disagreed with the OUCC that spending on the network has not been adequate. He explained why spending comparisons do not account for varying accounting practices for what constitutes a capital investment for O&M and stated that IPL's capital maintenance investment in the Network has been substantial. In response to the OUCC statement as to whether IPL should have taken a more proactive approach, Mr. Cummings explained that the decision to invest or not invest in the Downtown Network is based on a prudent risk assessment methodology as evidenced by the ongoing capital maintenance investments. In his view, the decisions made during the time frame referenced in the OUCC witnesses' statements were prudent (i.e., the actions taken were reasonable and appropriate given the information known or that should have been known at the time the funding decisions were made), and not indicative of a shortcoming in Asset Management, keeping in mind that Asset Management as it is practiced by IPL today was in its infancy during the events leading up to the Downtown Network events. In response to Mr. Golden's concerns regarding the technologies used to enable Asset Management, Mr. Cummings testified that IPL, like most other electric utilities, has a number of separate IT platforms and systems with individual data repositories. He said any system can be prone to human error or other glitches/redundancies and pointed out that while Mr. Golden raises a general concern as to what potentially "could be," Mr. Golden does not contend nor provide any evidence that an unreasonable situation exists today. He said any decision to invest in more robust IT solutions should be made, based on a sound business case that puts at the forefront the need to improve the effectiveness and increase the efficiencies of pre-established processes and practices.

Mr. Cummings recommended that IPL and Staff (and additional parties as deemed appropriate) should meet to collaborate on a path moving forward within six weeks of IPL receiving the Order to do so. He said the objective of these meetings would be to determine how best to track, report and verify IPL's progress in further improving its Asset Management process and executing the CBD Underground Network Lifecycle Plan. Mr. Cummings suggested that the most recent self-assessment of IPL's Asset Management process and the CBD Underground Network Lifecycle Plan be used as baselines against which to measure progress and he further outlined a path forward for the collaboration.

While Mr. Cummings agreed with the desire stated in the 2015 O'Neill Report to design a set of performance metrics to avoid the opening of a new investigation with every incident that occurs in the Downtown Network, he took exception to the scope and process envisioned by the Staff and OUCC testimony. He explained his concern about the lack of precision in the language used by the other parties to describe this recommendation, cautioning against a broader process.

B. Discussion and Findings. This investigation stemmed from two recent underground network events in downtown Indianapolis on March 16, 2015, and March 19, 2015, in combination with previous incidents that the Commission has investigated informally. In regard to the past incidents, the Commission has taken administrative notice of previous information received from both IPL and Dr. O'Neill. The 2015 O'Neill Report references the past incidents and responsive measures taken by IPL, discusses the recent incidents and IPL's response to those incidents, and makes a number of recommendations to address IPL's network management transparency and regulatory responsiveness. In general, the parties agreed with the findings of the 2015 O'Neill Report, although the OUCC made additional recommendations beyond those in the Report. The executive summary of the 2015 O'Neill Report states:

> In September, 2011, in response to a recent (at that time) increase in network incidents, our firm, O'Neill Management Consulting, LLC, was engaged by the Indiana Utility Regulatory Commission (IURC) to audit the electrical network in downtown Indianapolis, which is owned and operated by Indianapolis Power & Light (IPL), a subsidiary of AES Corporation (AES). We delivered our report in December, 2011; then we helped develop an action plan that was finalized in January, 2012; and then assisted the IURC in monitoring IPL's implementation of the recommendations over the first year of the action plan, 2012. During the rest of 2012 there were two network incidents in the Central Business District (CBD) in July, then none the rest of the year, and none in 2013.
>
> In the period from March, 2014 through March, 2015, however, there were five incidents, including four that involved significant amounts of fire and/or smoke, and in one case a complete shutdown of one of the four downtown secondary networks. Moreover, two of the five occurred in mid-March, 2015, only two weeks before Indianapolis was to host the NCAA Final Four Basketball Tournament in Lucas Oil Stadium, April 4-6, with visitors concentrated in the CBD. Thus, the IURC opened a new docket, Cause 44602, and we were asked to assist the IURC testimonial staff in the investigation.
>
> Our work included a visit to the site of the recent (2015) incidents and meetings with IPL operating and regulatory personnel and their outside counsel, as well as six rounds of formal data requests. We analyzed the data, followed up with additional questions and data requests, and formed our independent conclusions. Our six Findings and three Recommendations are detailed below in Section 9, where the interested reader may want to go next to get a deeper overview before delving into each section that precedes it. Here we summarize that section as follows:
>
> 1. The design, maintenance, and operation of IPL's downtown electrical network are basically sound, needing only incremental improvements to bring them to the next level. The risk to the citizens of Indianapolis is low, and will remain low as IPL follows through on its commitments to improve the system.
>
> 2. IPL has been very responsive to the events from 2011 through the recent spate from March 2014 through March 2015, and has not hesitated to expend resources on discovering the causes and committing to, and (to date) following through on, programs to remediate any perceived deficiencies. See Section 3.2 for details of the commitments and actions which IPL has undertaken. See Section 9.1, Finding 5 below for how that responsiveness may need to be better grounded in IPL's asset management processes.

3. The root cause of recent incidents is not any one cause, but four separate causes associated with four separate categories of equipment, and within each category the root causes are not generalized, such as age or wear, but specific problems with specific models or situations, each pointing to specific programs of risk mitigation. Again, we refer the reader to Section 9.1, Finding 3, and also to Section 3.1 Recent history of incidents in downtown Indianapolis, and Section 5.4 Failure Analysis.

4. IPL has committed to the programs which address the root causes of such incidents, either as part of IPL's response to our December, 2011 Report or as part of the response to IPL's root cause analyses of subsequent events. In many cases the actions have already been completed or are scheduled for completion in a reasonably timely manner. See Section 9.1, Finding 4, and also Section 3.2 IPL's Response to the Incidents and Public Concern.

5. In the area of asset management, we note IPL's significant improvement in asset management methods and procedures since implementing our fifth recommendation of the December, 2011 Report (see Section 5.1 for that recommendation and further details). Nevertheless, we feel there is not sufficient transparency in IPL's process of asset management to allow the IURC and the concerned public to see how IPL's responsiveness is reflective of a systematic program of asset management. We recognize that IPL continues to improve its asset management process[1], yet we think the time has come to also document to the outside in some detail the process by which the asset management function serves to address the risk and performance of the system, all in the context of cost effectiveness. To that end, we recommend an audit of the asset management process. (See Section 9,1, Finding 5 and Section 9.3, Recommendation 2).

6. Notwithstanding the merit of IPL's responsiveness to network incidents, the process whereby IPL responds to regulatory pressure every time that CBD network incidents raise public awareness is not a good long-term solution. We encourage IPL and the IURC to develop a system of reporting, with specific metrics, such as the system of Service Quality Metrics that has been developed in Massachusetts, and with which we have direct experience in optimizing. If, through such a system, IPL executes an agreed-upon process in a transparent way, it can give the IURC confidence that the risk to the citizens of Indianapolis is being effectively managed to an acceptably low level. (See Section 9.1, Finding 6 and Section 9.3, Recommendation 3)

Finally, as we did in December, 2011, we advise that the IURC and IPL agree on a specific, monitored action plan. (See Section 9.2 and Section 9.3, Recommendation 1).

We also thank IPL for its full cooperation in responding to our requests for information and in making available to us in a timely way its staff and its facilities for our interview and inspection.

[1] In the December, 2011 public meeting in which we delivered our December, 2011 Report, we described IPL's asset management process as more 'aspirational' than operational. With the progress since 2011, much more of the process is now operational, although IPL admits that there are still some aspects that are conceptually envisioned but not yet fully developed, i.e., what we would call aspirational.

> We have attached to this report those IPL responses to the IURC Testimonial Staff's data requests which are cited in this report (Appendix D).

2015 O'Neill Report at 4-6 (internal citations omitted).

Public safety was the first and foremost concern when the Commission initiated this investigation. The findings of the 2015 O'Neill Report indicate that the downtown network is reasonably safe, although all of the parties, including IPL, recognize that no electric system has zero risk. Nevertheless, the 2015 O'Neill Report states, "The risk to the citizens of Indianapolis is low, and will remain low as IPL follows through on its commitments to improve the system." *Id.* at 4.

One of those commitments was the installation of Swiveloc covers on all manholes in the downtown network by the end of 2015. While IPL should be commended for taking this safety effort, this also presents an example of one of the criticisms raised by Dr. O'Neill: that IPL appears to respond to regulatory pressure, versus taking action proactively. In this instance, following the March 2015 explosions, on March 24, 2015, the Commission requested information concerning Swivelocs and whether remaining manhole covers could be replaced with Swivelocs by the end of 2015. Only six days later, IPL responded and stated that it was planning to have all covers replaced by year end. IPL did not provide a date when this plan was initiated, but the inventory information IPL did provide suggests that prior to the March 2015 explosions, there was no plan to replace the covers in an expedited manner. For instance, IPL indicated that it only had 16 covers in inventory and had 50 covers on order as of the March 19, 2015 explosion. While IPL witness Holtsclaw stated that delay in a widespread cover replacement program was due to issues with the design of the Swiveloc mechanism, there was no suggestion that timing of the post-explosion plan coincided with the improved Swiveloc design.

Additionally, we take issue with IPL's apparent characterization of this investigation as a media-driven event, as stated by Mr. Holtsclaw at the hearing:

> Q Okay. So you must have been puzzled, then, when the Commission opened this investigation discussing IPL failures and safety concerns?
>
> A No. Given the media attention surrounding the network events, I don't know that I would say I was surprised.

Tr. at A-18. Mr. Holtsclaw's response, coupled with Dr. O'Neill's criticism relating to regulatory pressure, suggests that if Commission oversight is based on media coverage, then IPL's reactions are similarly based on media coverage of network events. Mr. Holtsclaw later confirmed that media coverage is a factor in defining a network event:

> Q And a network event has to do with the amount of media a particular failure has caused?
>
> A No, no. It's a factor, but it's not the driving factor.

Tr. at A-31-32.

Coupled with the assertion that the call to investigate the March 2015 network events was media-driven, Mr. Holtsclaw was unable to agree with the OUCC that manhole events constituted a safety issue:

> Q And that agreement to or commitment to [complete the installation of Swiveloc covers] was out of a need for security of the system and not safety.
>
> A At that point, it was a way to address concerns being expressed by the Commission and by the public and by the media, and as I said, we saw no reason at that point not to go ahead and proceed with the project.
>
> Q You really don't want to admit that these exploding manhole covers cause safety concerns, do you?
>
> A I would say as a registered Professional Engineer in the State of Indiana and the State of Ohio, we take the safety of the public very seriously as I'm required to under my license. I would also say that the 2011 O'Neill report that evaluated our system, that report said that the IPL system was safe. That was reiterated again in their report in 2015 that they said again that they had no concerns with the safety and the reliability of IPL's network system. So I think my belief has been corroborated by what Mr. O'Neill has said in his reports.
>
> * * * * *
>
> Q You don't believe that these exploding manhole covers cause safety concerns, do you?
>
> A As I said earlier, I don't believe -- It's not exploding manhole covers. The cover is coming dislodged from pressure inside the manhole. In the vast majority of the events, the cover has only come up a few inches to a couple feet, and that issue has now been addressed with the installation of those Swiveloc covers that will keep the covers restrained should a pressure event occur. So, no, I -- I don't have concerns with our manholes downtown right now.

Tr. at A-20 to A-22.

While we strongly disagree with Mr. Holtsclaw's mischaracterization of our investigation, his statements do stress the importance of IPL taking command of its role in its asset management, rather than responding to outside pressures. Further, it is not clear to the Commission why IPL could not objectively admit that the network events raised a safety concern with respect to the manhole covers. Certainly, Dr. O'Neill was not reluctant to classify certain events as "explosions" (2015 O'Neill Report at 17-18) and that the expedited Swiveloc replacements were a "safety-related program" (2015 O'Neill Report at 49). As discussed below, we are hopeful that the collaborative process involving IPL and interested stakeholders will help IPL improve its asset management processes so that IPL's focus will be more proactive.

The 2015 O'Neill Report reflects that the root causes of the events have been varied, and therefore, indicates that a multipronged approach to solutions is appropriate. In addition to the

installation of Swiveloc covers, IPL has made other commitments such as the use of FR3 fluid in primary termination chambers, a change in the technical specifications for new transformer primary terminations, the replacement of transformers based on the criteria set forth in the Asset Life Cycle Plan, the piloting of a change in the cable jacket standard for secondary cables in the Network, the piloting of cable limiters on all new secondary cable installations, the development of steam temperature monitoring, and the other actions outlined in the Asset Life Cycle Plan and IPL's testimony and prior responses to the Commission on these issues. 2015 O'Neill Report, at 4-5.

We believe these commitments are appropriate to address many of the causes of the events in recent years. Nevertheless, absent the evidence presented by IPL in this consolidated Cause, there was no formal process for the Commission to be apprised of the implementations of these commitments, or to assess their current progress. As the commitments progress and show merit, or when certain pilot programs are terminated or prove unworkable, IPL shall provide updates to the Commission. The Gantt chart submitted with Mr. Holtsclaw's rebuttal testimony delineates the commitments and the schedule for implementing Dr. O'Neill's remaining recommendations. In order to keep the Commission apprised of its progress, IPL's compliance filings described below shall include an updated quarterly Gantt chart, along with a narrative detailing progress made in implementing each commitment IPL has made.

Although the record shows that it is not possible to prevent all incidents, the 2015 O'Neill Report is credible in determining "the design, maintenance and operation of IPL's Network are basically sound." *Id.* at 4. We also find, consistent with Dr. O'Neill's analysis that IPL has been responsive to the investigation and concerns surrounding the incidents, and that the solutions to the more recent incidents lie in actions IPL has already committed to undertake. Nevertheless, the process overall as it stands today lacks transparency to the Commission and the public, especially with respect to how key asset decisions are made and documented. For example, OUCC witness Alavarez was critical of IPL's lack of written protocol to address arc flashing and combustible gases generated from the underground fiber conduits. We feel many drivers of decisions were developed in a series of ad-hoc improvements that respond to current needs or are required by the Commission rather than from a well-developed and well-documented internal process. Again, the collaborative outlined below should address areas in which additional written processes may be appropriate.

With respect to the concerns raised over payments of dividends by IPL and the claims that those payments limited IPL's financial ability to adequately maintain the downtown network, the 2015 O'Neill Report indicated that "IPL has shown little to no reticence to spend money on addressing the causes of public events on the downtown network...." *Id.* at 35. The 2015 O'Neill Report also addressed the capital spending of IPL on the downtown network, and confirmed that "the current level of capital spending seems quite adequate for a network of this size." *Id.* at 36 (reaffirming statement made in 2011). While the historic dividend payments were significant amounts, it does not appear that the payment of dividends by IPL limited the funding that was used or available for improving and maintaining the downtown network or IPL's network infrastructure. Further, as noted by IPL witness Jackson, payments of dividends lowered the equity component of IPL's capital structure, which effectively reduced the impact that higher equity costs have on base rates. While the Commission is critical of the timing and progress of IPL's asset management process, IPL's recent funding of its infrastructure maintenance does not appear to have been restricted by its decisions to issue dividends.

The 2015 O'Neill Report noted considerable progress from its review of IPL's asset management program in 2011. However, Dr. O'Neill still considers IPL's application of asset management a "considerable opportunity for improvement." 2015 O'Neill Report at 32. We concur. Dr. O'Neill notes that the asset management process for IPL's CBD is not mature, despite IPL's assessment of it in 2013, and that the Commission is left with questions as to what part of the process is mature and solid versus what is still aspirational. *Id.* at 34. Indeed, several new pilot programs were initiated and documented for the first time in IPL's August 31, 2015 Asset Life Cycle Plan, which was introduced in this proceeding in IPL's rebuttal filing. Tr. at 86. The results of these pilot programs will not be made known to the Commission or the consumer parties to this case without some kind of compliance filing directive to provide transparency to their implementation, results, and overall strategy.

Asset management is an iterative process that should be periodically reviewed and approved. We note that IPL did not have a written asset management strategy until August 31, 2015, despite the explicit requirement to develop such a document in the AES Asset Management Global Standards, finalized in 2013. IPL witness Feldman stated that IPL chose to prioritize other activities over the development of this document as they saw those to be more important. Tr. at R-84-85. Further, the 2015 O'Neill Report highlighted the lack of detail or analysis in IPL's March 23, 2015 draft Asset Life Cycle Plan (page 33), and Mr. Feldman stated that the August 31, 2015 Asset Life Cycle Plan included with IPL's rebuttal testimony had already been edited by the date of the evidentiary hearing in this Cause to include both IPL and Dayton Power and Light ("DPL") assets. Tr. at R-69–71. This suggests to the Commission that IPL has a poorly defined direction in moving forward with its asset management strategy, and it is our hope that the collaborative process will help IPL focus on taking a leadership role over its asset management, rather than waiting on AES corporate-wide directives to flow down to it.

Dr. O'Neill and the OUCC recommended a follow-up audit of IPL's asset management system, which we see as an opportunity for further review of IPL's asset management program, including its Asset Life Cycle Plan.[2] We agree with Dr. O'Neill's recommendation to require IPL to "document in some detail, the process by which the asset management function serves to address the risk and performance of the system." (2015 O'Neill Report, 53). While we find an assessment of IPL's asset management should be conducted, at this juncture, we believe the implementation details are best explored through collaboration. We expect, however, an initial assessment and recommendation within six months of the first meeting of the collaborative and in follow-up annual reports to the Commission, as outlined below.

Mr. Pauley included as part of the collaborative effort the recommendation to establish performance metrics for IPL, the details of which would be developed through the collaborative approach. We find the establishment of a collaborative process to assess and document IPL's asset management program and establish performance metrics, as outlined by Dr. O'Neill, Mr. Pauley, and Mr. Cummings, is reasonable. Although this process is combined with the investigation of IPL's Network, the development of comprehensive performance metrics should not be confined to the downtown Network. The record shows that IPL already tracks specific metrics, such as SAIDI (System Average Interruption Duration Index), SAIFI (System Average Interruption Frequency

[2] In its case-in-chief, the OUCC also recommended a full management audit with a broader scope, similar to the management audit ordered by the Commission in Cause No. 43645. This recommendation was not included in the OUCC's proposed order, or supported by any other party, and we decline to include it here.

Index), and CAIDI (Customer Average Interruption Duration Index). While these may serve as the starting base in the collaborative process we now order, we note that the Staff proposed order identified additional metrics that the collaborative should consider, such as MAIFI (the Momentary Average Interruptions Index), CKAIDI (Circuit Average Interruption Duration Index), CKAIFI (Circuit Average Interruption Frequency Index), CEMI (Customers Experiencing Multiple Interruptions), and CELID (Customers Experiencing Long Interruption Duration). Rather than ordering the establishment of specific metrics, we believe the collaborative should discuss the appropriate metrics for IPL and determine a final list of metrics through the collaborative process. We agree with Mr. Pauley's comments regarding the difficulty of this undertaking, and hope that this process may become a model to assist the Commission in obtaining useful performance information for utilities in the future.

The Commission understands this is a multi-year effort to assess the efficacy of existing performance indices, enhancements to current metrics, and evaluation of new performance measures going forward. We appreciate that this is a significant undertaking requiring a substantial commitment of time and resources. While finding it inappropriate to establish an end date in advance of the work of the collaborative process, we are mindful of Mr. Henley's concern that the collaborative process should not merely be for the sake of holding meetings without continual reports on progress and actionable recommendations for IPL and this Commission. As to Mr. Henley's concern regarding the possible scope of this process, we will consider the recommendations of the collaborative as to whether and how the scope should be enlarged. We expect that the collaborative process will act quickly to develop a proposed set of metrics within a year, so that they can begin to be piloted and refinements can begin to be envisioned, researched, and developed. Those refinements and the transition from a piloted set of measures to a more permanent set will, we expect, take longer.

Accordingly, we find that IPL, Commission technical staff,[3] the OUCC, and any Intervenors that desire, should meet within six weeks of the effective date of the Order in this Cause to collaborate on a path for moving forward for the asset management assessment and performance metrics initiative. We believe the following milestones are appropriate expectations for the collaborative:

1. Within three months of the initial meeting, submit a strawman of the oversight process (including the categories of metrics that progress will be measured against and the present condition against that metric);

2. Within six months, submit a draft version of the oversight process, which incorporates stakeholder feedback (including a narrative of the stakeholder discussions and any consideration of alternative proposals);

3. Within 12 months, submittal of an oversight plan to the Commission.

To the extent the collaborative concludes a different schedule is more appropriate, any proposed change should be reflected in the quarterly updates.

[3] Because the ongoing collaborative effort will not be occurring in the context of an open docket, we direct the Commission's technical staff, i.e. advisory and testimonial staff, to actively participate in the process. For purposes of 170 IAC 1-1.5, Commission technical staff shall be authorized to participate in the collaborative without being subject to 170 IAC 1-1.5-3 and 4.

The objective of the collaborative process should be three-fold. The first objective is to ensure Dr. O'Neill's recommendations are implemented in a timely and cost-effective manner, including how best to track, report, and verify IPL's progress in further improving its Asset Management process and executing the CBD Underground Network Asset Life Cycle Plan. We expect the collaborative to review IPL's existing metrics and make recommendations as to whether enhancements may be meritorious. These assessments and recommendations should be made to the Commission in the first report to the Commission and in the annual reports.

The second objective is to set an agenda for collaboration on a set of metrics to measure IPL's performance over time and in comparison to other utilities and in other jurisdictions to better foster continual improvements. To enable comparisons of IPL with other utilities, we expect the collaborative will review performance metrics used by utilities in other jurisdictions and assess their applicability for IPL as a means of setting expectations for continual improvement. We expect this would include enhancements of the numerous existing metrics currently utilized by IPL, such as SAIDI, SAIFI, and CAIDI, as well as other metrics the collaborative finds appropriate.

The third objective is to develop a process that is cost-effective and efficient and note Mr. Pauley's concern that this process expand upon, and not shift, IPL's focus on the performance of its entire distribution system. We expect the collaborative to assess and report on IPL's financial, material, and staffing commitment to improvement in a cost-effective manner.

We direct IPL to make its first progress update compliance filing with the Commission within 90 days of the initial meeting of the collaborative. Initially, we also order quarterly updates for the first year and an annual report by March 31, 2017, and for each year thereafter until further addressed by the Commission. The updates and annual reports should include not only a progress report but also an on-going assessment of the performance measures and recommendations.

The Commission hopes that all matters will be resolved collegially and by consensus as envisioned by the Staff and IPL. However, to ensure the Commission receives all relevant information and positions, any participant in the collaborative should be free to file their own report, objections or clarifications to reports with the Commission within 15 days of any IPL compliance filing. We direct the participants in the collaboration to file the reports as compliance filings under this consolidated Cause. The compliance filings directed throughout this section will allow an enhanced transparency not only to the progress made in network management processes, but as an opportunity to demonstrate the consensus-building envisioned by the parties.

The Commission recognizes that constructive participation by IPL is a key factor in the efficient accomplishment of the objectives set forth above. Accordingly, the ROE ultimately approved in this proceeding includes an incentive linked to such participation.

7. Petitioner's Rate Base.

A. Original Cost. The proposed Indiana jurisdictional net original cost rate base at June 30, 2014, is approximately $1.96 billion. IPL's proposed original cost rate base includes materials and supplies; fuel stock inventory; regulatory assets authorized in Cause Nos. 37837, 39938, 42170, 42700, 43403, and 43960; and a net prepaid pension asset. The OUCC challenged the inclusion of the net prepaid pension asset in rate base. The Industrial Group opposed IPL's

proposal to completely treat certain plant as non-jurisdictional. We discuss these contested issues below. We also address IPL's proposed rate base adjustment to coal inventory.

(1) Net Prepaid Pension Asset.

(a) Evidence. IPL's proposed rate base includes a net prepaid pension asset in the amount of $138.46 million as of June 30, 2014. The prepaid pension asset is the cumulative amount of actual cash pension contributions to the pension trust fund made by IPL beyond the cumulative amount of pension cost that has been accrued to expense for IPL. IPL witness Kunz explained that a prepaid pension asset arises when cumulative contributions to the plan exceed cumulative expense under U.S. Generally Accepted Accounting Principles ("GAAP"). He testified that plan contributions are determined under the federal Employee Retirement Income Security Act of 1974 ("ERISA") and federal Internal Revenue Service ("IRS") regulations; pension expense is determined under Accounting Standards Committee ("ASC") 715. Therefore, the amount contributed to the plan each year is generally different than the annual pension expense. ERISA requirements prohibit IPL from removing money from the qualified pension funds. The additional pension contributions are incurred by IPL as part of its provision of service to its customers in order to maintain an appropriate level of total pension funding, which results in lower pension expense. The record shows that as of June 30, 2014, IPL has contributed approximately $151 million more than the cumulative amount of pension cost determined in accordance with ASC 715.

In response, OUCC witness Stull agreed that as of June 30, 2014, IPL had recorded a net prepaid pension asset of approximately $138.5 million on its balance sheet in accordance with ASC 715. She also agreed that the net prepaid pension asset is composed of a prepaid pension asset of $151.2 million, which is partially offset by a prepaid OPEB liability of $12.8 million. However, Ms. Stull recommended that IPL's net prepaid pension asset not be allowed any treatment for ratemaking purposes for the following reasons: 1) the asset is not investment in utility plant as defined in Ind. Code § 8-1-2-6; 2) the asset is not [cash] working capital; and 3) IPL should not be allowed to recover its annual pension expense calculated under FAS 87 (currently ASC 715) through the revenue requirement while also earning a return on the net prepaid pension asset. Ms, Stull stated that as long as IPL maintains at least the ERISA mandated minimum levels in its pension plan, it has a considerable amount of discretion regarding the funding of the pension obligation.

IPL witnesses Felsenthal and Reed filed rebuttal to the OUCC testimony. Mr. Felsenthal testified that having a net prepaid pension asset determined under GAAP, pension expense reflected in IPL's proposed revenue requirement is reduced, and that a reduction in annual pension cost will occur as long as the prepaid pension asset exists. He stated that while the earnings on the pension trust reduce future pension contributions and net periodic pension expense to the benefit of IPL's customers, investors do not receive a benefit through the earnings accruing on the investments in the pension trust. Mr. Felsenthal and Mr. Reed explained that a prepaid pension asset of approximately $73.6 million would be needed if IPL had only made the required ERISA minimum contributions.

(b) Discussion and Findings. The Commission must address two issues in considering the inclusion of a pension asset in rate base. First, the Commission must determine whether a pension asset constitutes used and useful utility property under Ind. Code § 8-

1-2-6. If so, we must then address what amount of the prepaid asset should be recognized as investor capital on which a return should be provided.

With respect to the used and useful status of a pension asset, IPL asserts that the prepaid asset represents working capital, and as such, is properly considered used and useful utility property. Mr. Felsenthal includes an excerpt of *Principles of Public Utility Rates*, defining working capital as:

> the average amount of capital in excess of that used to finance net utility plant, (and other separately identified rate base components) necessary to operate the utility business. The working capital allowance is necessary to bridge the gap between the time when costs are incurred in providing service and the time the utility is paid for that service. In general, the components represented are invested capital used to support inventories, petty cash funds, prepayments, minimum bank balances, and costs of providing services. When these funds have come from investor sources (debt and equity securities issued or earnings retained in the business), they are legitimate investments to provide service and thus, should be included in rate base. Inclusion of an allowance for working capital in rate base is an appropriate method of compensating investors for the cost of capital which they have provided for these purposes.

Bonbright et al., *Principles of Public Utility Rates*, at 242-43 (2nd Ed.1998).

We note that in Cause No. 44075, the Commission made the following finding with respect to I&M's prepaid pension asset:

> The record reflects that the prepaid pension asset was recorded on the Company's books in accordance with governing accounting standards. The record also reflects that the prepaid pension asset has reduced the pension cost reflected in the revenue requirement in this case and preserves the integrity of the pension fund. Petitioner made a discretionary management decision to make use of available cash to secure its pension funds and reduce the liquidity risk of future payments. In addition, the prepayment benefits ratepayers by reducing total pension costs in the Company's revenue requirement. Therefore, we find that the prepaid pension asset should be included in Petitioner's rate base.

Indiana Michigan Power, Cause No. 44075, at 10. While the Commission did not identify the prepaid pension asset as working capital in that case, we note that prepayments can fall within the definition of working capital if the prepayments were prudently made for the benefit of customers and were made using investor-supplied funds. We also note that materials, supplies, and fuel inventory are typically included in utility rate base, i.e., used and useful utility property, and while they may not be identified as working capital, those items would reasonably constitute working capital as defined by Dr. Bonbright. A prepaid pension asset may similarly be categorized as a component of working capital.[4]

[4] While *Indianapolis Water Co.*, Cause No. 37612 (Mar. 20, 1985), *reversed on appeal,* 484 N.E.2d 635 (Ind. Ct. App. 1986), is cited as supporting the Commission's prior approval of an allowance for working capital, a review of the Commission's Order in that Cause shows that Petitioner's working capital request was based on a lead-lag study and the FERC 45-day methodology, both of which are analyses done to determine cash working capital. *See also* Felsenthal Rebuttal, at 16.

As for the amount to be recognized, while we agree with IPL that the prepaid pension asset represents a component of working capital, we disagree that the entire $138.5 million should be recognized as investor-supplied capital and included in rate base. As noted above, working capital represents an amount of investor-supplied capital. However, funds held by the utility are only available to investors to the extent that the utility has already met its existing obligations. The evidence establishes that ERISA minimum funding is not discretionary and we view non-discretionary funding as an obligation of IPL in its role as an electric service provider. Further, to the extent revenues collected from customers are used for the provision of electric service to fund IPL's obligations, those funds are not available to be used at IPL's discretion. In this case, Mr. Felsenthal testified that $73.6 million would represent the pension asset if IPL only contributed the ERISA minimum contributions from 2000-2014. Because ERISA requirements mandated a level of minimum funding of its pension asset, the $73.6 million was not available to shareholders to use for other purposes. We find that customers have effectively supplied this minimum amount of the prepaid pension asset and therefore do not owe IPL a return on this portion of the asset, or the accompanying impact on deferred taxes. However, the remaining $64.9 million of the net prepaid pension asset was a discretionary choice to provide additional funding to the pension asset. While parties did challenge the inclusion of the prepaid pension asset on other grounds, no party contended that the prepaid asset represented an imprudent investment. Accordingly, we find that $64.9 million of the net prepaid asset (the sum of the prepaid pension asset, supplemental pension asset, and other post-retirement positions) shall be included in rate base.[5]

(2) Jurisdictional Status of Petersburg Auto-transformers Project. IPL proposed to adjust net original cost rate base to remove $8.970 million of utility plant and $0.454 million of accumulated depreciation associated with its Petersburg Auto-transformers Project as non-jurisdictional plant. Industrial Group witness Dauphinais opposed IPL's proposal and contended that a portion of the project should be treated as jurisdictional. We address the substantive dispute in Section 9(B)(3), *infra*, where we discuss how to address the revenues (and associated expenses) from this project. In that discussion the Commission concludes that IPL's proposal to treat this project as non-jurisdictional is reasonable. Accordingly, we find Mr. Cutshaw's proposed adjustment to rate base to be appropriate.

(3) Fuel Stock Inventory. IPL witness Leitze proposed a rate base adjustment to its coal inventory to reflect IPL's proposed pro forma target level in the amount of $7.156 million. Essentially, the pro forma actual coal inventory was below IPL's target pro forma level at each of the IPL generation locations, which resulted in the proposed increase to rate base. While no party challenged this adjustment, the Commission sought additional clarification in its September 11, 2015 Docket Entry, and IPL filed its response on September 15, 2015.

In its Response, IPL explained that Harding Street Units 5 and 6 were shut down on September 11, 2015, and Unit 7 is scheduled to be shut down at the end of February, 2016, each unit to be converted to gas-burning units. For Eagle Valley, the units are scheduled to be shut down on April 15, 2016. IPL stated that it has developed plans to deplete its coal inventory at each station.

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[5] Our conclusion in this case should not be read to foreclose alternative proposals to address prepaid pension assets.

Based on the planned removal of coal from Harding Street and Eagle Valley, an upward adjustment to pro forma coal inventory at those stations is inappropriate, and we deny the proposed upward rate base adjustment for the Eagle Valley and Harding Street stations. Because the Petersburg station is intended to remain a coal-fired station for the relevant future, and no party contested its related station coal inventory adjustment, we find that the proposed adjustment for Petersburg is appropriate.

IPL's June 30, 2014, average cost of inventory at the Petersburg station was $48.80/ton as calculated by the public information on Schedule RB7. Further, the public version of HDL Attachment 1 indicates the appropriate Petersburg inventory adjustment is 62,887 tons, which results in a Petersburg adjustment of $3.069 million. Recognizing that the cost of the incremental tons used to calculate the adjustment presented by IPL is confidential, and the denial of the non-Petersburg adjustments presents a situation in which confidential treatment might be compromised, we find that the alternative calculation using the public information above yields a reasonable rate base adjustment of $3.069 million. Accordingly, we find IPL may adjust its rate base by $3.069 million to reflect a target level of coal inventory at Petersburg and IPL's Fuel Stock Inventory is properly established at $53.951 million.

B. Conclusion on Original Cost Rate Base. Based upon the foregoing findings, the Commission finds that the net original cost rate base for IPL, as of June 30, 2014, is $1.887 billion, calculated as follows:

Pro Forma Electric Rate Base at Original Cost ($1000s)

Net Plant at Original Cost	$ 1,698,119
Less: Non-jurisdictional plant in service	$ (8,516)
Less: Asset Retirement obligation	$ (16,133)
Materials and supplies inventory	$ 74,179
Fuel Stock inventory	$ 53,951
Regulatory assets	$ 20,844
Net Prepaid pension assets	$ 64,861
Total pro forma original cost rate base	$ 1,887,305

C. Fair Value. Ind. Code § 8-1-2-6 requires the Commission to value a public utility's property at its fair value, "giving such consideration as it deems appropriate in each case to all bases of valuation which may be presented. . . ."

(1) Evidence.

(a) IPL. IPL witnesses Reed and Kelly provided an assessment of the current value of IPL's electric utility assets. Except for production plant, Mr. Kelly's appraisal developed the value of IPL's electric assets in service as of June 30, 2014, using a cost-based valuation methodology known as the Replacement Cost New Less Depreciation ("RCNLD") approach. Mr. Kelly explained how he developed the RCNLD and discussed the other electric utility assets that should be considered in the current value of IPL's electric utility assets. Mr. Kelly explained that there is support in Indiana for the use of the cost approach in determining the current value of the assets.

For production plant, Mr. Kelly based his appraisal on the analysis of IPL Witness Reed. Mr. Reed valued the generating assets as individual assets and thus did not consider any going concern or goodwill value that might exist if the assets were included in the sale of a going concern. Using a discounted cash flow ("DCF") analysis, Mr. Reed valued the production plant assets to be approximately $1.077 billion or an average of approximately $357 per kilowatt. Both witnesses testified that this is a reasonable basis for estimating the value of production plant.

As summarized in his Table 1 and on IPL Witness JPK Attachment 2, Mr. Kelly stated that a) the current value of IPL's electric plant in service is approximately $3.97 billion; and b) the book value of the other rate base items is approximately $132 million. Mr. Kelly concluded that the current value of these electric utility assets is $4.10 billion. IPL witness Cutshaw explained that while this valuation includes $8.516 million of non-jurisdictional net plant, it is conservatively low because it does not include the $20.844 million of regulatory assets and the $138.461 million prepaid pension asset.

Mr. Kelly also prepared an estimate of the value of IPL's electric utility assets using a method he called "the Commission methodology," as discussed in Cause No. 44075 and other proceedings. Because he used the net book value from Cause No. 39938 instead of a past fair value, Mr. Kelly said his application of the Commission methodology is conservative. Mr. Kelly testified that this methodology resulted in an estimated current value for IPL electric utility assets of $4.6 billion. However, IPL presented a $4.10 billion valuation as a reasonable estimate of the fair value of IPL's utility property.

(b) OUCC. OUCC witness Kaufman provided an overview of IPL's fair value. Mr. Kaufman discussed the standard used to determine IPL's fair value rate base and explained that RCNLD is not by itself a measure of fair value, but merely one factor the Commission may consider.

Mr. Kaufman addressed Mr. Reed's valuation of generation plant and concluded it was both overstated and incorporates factors in market value that are expressly forbidden in calculating fair value. Mr. Kaufman testified that Mr. Reed's valuation assumes IPL's plant would earn profits by selling future capacity into a constrained market. Mr. Kaufman explained that constrained capacity may lead to higher market prices for capacity revenue, increasing total estimated revenues and projected operating cash flow of Mr. Reed's DCF analysis and his estimated market value of IPL's generation plant. Mr. Kaufman also referred to Mr. Rutter's and Ms. Armstrong's testimony and affirmed that their concerns also caused IPL's estimated value of its generating plant to be overstated.

Mr. Kaufman also identified his concerns with Mr. Kelly's valuation of IPL's transmission, generation and general plant, highlighting the absence of an adjustment to reflect technological advances. Mr. Kaufman explained how technological change reduces, over time, the monetary investment necessary to produce a given volume of product or service output. He testified that unless advances in the plant being constructed, equipment and personnel associated with designing and constructing the plant are recognized, the unadjusted RCNLD and resulting fair value will be overstated.

Mr. Kaufman testified that an RCNLD technology adjustment is well accepted by utility witnesses. He noted several cases where the utility's witness adjusted the results of their RCNLD

study, relying on productivity indexes from the Bureau of Labor Statistics and recommending productivity indexes from 1.2% to 2.5%. Mr. Kaufman concluded that while the Commission regularly recognizes RCNLD as one of the measures to determine a utility's fair value, it does not equate fair value and RCNLD value, providing numerous examples where the Commission found fair value to be different from the RCNLD value.

OUCC witness Armstrong discussed the forecasted environmental costs assumed in Mr. Reed's DCF model. She explained that Mr. Reed used the "most likely" costs based on the analysis presented by IPL in Cause No. 44540. However, she noted that IPL put forth a range of cost estimates in Cause No. 44540, and these cost estimates were for the purpose of determining an environmental compliance strategy and not for the purpose of determining the fair value of IPL's generating plants. She stated that while the OUCC concluded that the range of estimates considered in Cause No. 44540 was reasonable, that conclusion was for the purpose of that Cause alone and should not be taken as an endorsement of Mr. Reed's use of this same information to estimate fair value.

Ms. Armstrong stated that Mr. Reed's analysis could significantly understate the future compliance costs for the Petersburg and Harding Street Generating stations because it is uncertain how future environmental regulations will impact IPL's operating costs and capital expenditures. She said understating these costs could result in Mr. Reed's DCF analysis predicting a higher cash flow for Petersburg and Harding St., which may result in overstating the fair value of IPL's generating plants.

Ms. Armstrong explained that the higher CO_2 prices that the "EPA Clean Power Plan Indiana Shadow Price" or the "Federal Legislation" CO_2 cases presented in Cause No 44540 are more consistent with MISO's Regional and Sub-Regional carbon costs, and the difference in the CO_2 prices could mean the addition of hundreds of millions of dollars in future costs for Petersburg and Harding St. She also noted that no costs were projected for 316(b) compliance, and if IDEM required new or modified cooling water towers for Petersburg Units 1 and 2 for 316(b) compliance, this could add tens of millions of dollars in capital costs for Petersburg.

Ms. Armstrong pointed out that IPL excluded a significant portion ($257.5 million) of the National Pollutant Discharge Elimination System ("NPDES") costs for the period 2014 through 2018. After the OUCC inquired about the inclusion of NPDES costs, Mr. Reed found costs that were included separately in his analysis that were also included in the overall operation and maintenance expense assumptions provided by Ventyx. Once IPL corrected this double inclusion, there was a $26.1 million decrease in the production plant value. She also noted that Mr. Reed assumed that only selective non-catalytic reduction ("SNCR") would be installed on Unit 1. She explained that the EPA announced that it will be revising the ozone National Ambient Air Quality Standards ("NAAQS") from 75 ppb to a level between 65 ppb and 70 ppb, and it is possible that the new ozone standards could require a selective catalytic reduction ("SCR") unit to be installed on Petersburg Unit 4. She further noted that even if the new ozone levels do not require a SCR on Unit 4, the EPA reviews the standards every 5 years, so a SCR could be required under the next NAAQS review cycle. She stated that a new SCR would add more than $100 million in capital expenditures to continue operating Petersburg Unit 4.

OUCC witness Rutter testified regarding Mr. Reed's conclusion of the fair value of IPL electric generating facilities. Mr. Rutter noted that Mr. Reed chose to value the assets individually

and used the income approach in arriving at a fair value recommendation for IPL's electric generating facilities. Mr. Rutter stated that the exclusive use of an income approach in developing a fair value requires adopting hypothetical income, expense, and capital additions, which is a speculative and unrealistic method based on the existing ownership and use of those assets. As an example, Mr. Rutter pointed to Mr. Reed's assumption that the steam production plant facilities would be sold to a non-regulated merchant generator, who then would enter into Purchased Power Agreements with IPL to purchase the power generated.

Mr. Rutter disagreed with Mr. Reed's fair value estimate of the IPL electric generating facilities under the income approach, because Mr. Reed ascribed income to specific electric generating facilities that are part of a unique integrated system made up of more than the IPL electric generating facilities. Mr. Rutter stated that the income approach is more effective in determining value where income is already present, as opposed to imputing income to a group of assets that contribute to the generation of income but do not currently do so on a stand-alone basis. Because the IPL electric generating facilities are part of a sophisticated and integrated electricity generating, transmission, and distribution system, developing a revenue stream, operating expense and capital additions over a long period is speculative and inconsistent with the assets' use. Mr. Rutter stated that for the income approach to be acceptable, historical actual revenue, operating expenses and capital expenditures, reasonable estimates for the future based on the historical actual costs, along with the operating experience and plans must be incorporated for the ultimate purchaser.

Mr. Rutter pointed out that Mr. Reed adopted a Capital Asset Pricing Model ("CAPM") to estimate the cost of common equity, a pre-tax cost of debt as of June 30, 2014, based on the 30-day average yield-to-maturity of utility bonds with maturities of at least 20 years, and reasonable credit ratings. Mr. Reed also developed a hypothetical capital structure of 52.78% debt and 47.22% equity. The resultant discount rates were then adjusted for pre-tax property taxes, and were as follows: Eagle Valley – 9.73%; Georgetown – 10.07%; Harding Street - 10.28%; Harding Street CT – 10.28%; and Petersburg – 10.28%. Mr. Rutter stated that these rates purported to reflect what a hypothetical investor would demand from an investment in these merchant generator companies. However, these rates do not necessarily represent the return that new management would expect to achieve in evaluating the purchase of an asset. Instead, those decisions would be made based on management's risk assessment, knowing what the investment market requires, the return developed by Mr. Reed, and what the internal target is for asset acquisition.

Based on his experience, Mr. Rutter stated that internal management decisions on asset acquisition typically are made on a pre-tax return basis, and valuing both assets and going concerns would typically be discounted in the range of 15% to 18%. Mr. Rutter searched publicly available information for the five companies Mr. Reed utilized as a sample group for an actual target return percentage for each merchant generator, and could not find reliable sources or the actual transaction documents to calculate a more precise return target.

Mr. Rutter concluded that if his discount rates were used, Mr. Reed's estimated fair value of the IPL electric generating facilities would be significantly reduced. In ETR Attachment 3, the estimated fair value of the IPL electric generation facilities developed ranges from $1,076,649,184[6] to $381,610,440, utilizing Mr. Reed's work papers and Mr. Rutter's suggested discount rates

[6] IPL Witness Mr. Kelly direct testimony, page 8, Table 1.

ranging from 15 to 18 percent. Based on a 16 percent discount rate, the estimated fair value of IPL's Steam Production Plant Facilities would be no more than $494,272,762, or $582,376,422 less than Mr. Reed's estimated fair value. Thus, Mr. Rutter found that even accepting Mr. Reed's hypothetical inputs to his model (which he did not), Mr. Reed's proposed fair value of IPL's electric generating facilities was overstated by at least $582 million.

Mr. Rutter concluded that because both Mr. Reed's comparable sales approach and income approach are not supportable, the only typical valuation approach remaining is the value of the underlying assets. Mr. Rutter stated that this approach is fully verifiable, represents how the steam production plant assets are currently utilized and is represented by the net original cost of the steam production assets at test year end. He therefore recommended that the Commission use the underlying value of the assets as the basis for its valuation of IPL's plant.

(c) Industrial Group. Industrial Group witness Gorman questioned the physical and functional depreciation of the assets in Mr. Kelly's valuation. Using the original cost of the utility plant and the actual recorded book depreciation reserve for the transmission, distribution and general plant, Mr. Gorman calculated the asset depreciation is 73.24%. He testified that this calculation reduces the fair value estimate of these transmission, distribution, and general plant from the $2.79 billion estimated by Mr. Kelly to $1.23 billion. Substituting this value for Mr. Kelly's value lowers the fair value rate base from $4.1 billion to $2.54 billion.

Mr. Gorman commented that Mr. Reed's valuation of the production plant is overstated because he relies on market power prices that are much higher than are expected in the market currently. Mr. Gorman said there should be a correlation between forward power energy prices and the gas prices reflected in Mr. Reed's forecast. Mr. Gorman stated that if Mr. Reed's wholesale market energy prices are conservatively reduced by 15 percent they would approximate the same market heat rates as reflected in the Ventyx general projections for Indiana. He added that when that is done, Mr. Reed's valuation of IPL's generating assets decreases from $1.08 billion down to approximately $500 million. Mr. Gorman stated that reflecting his adjustments to IPL's production, transmission, distribution and general plant lowers IPL's fair value rate base from $4.1 billion down to $1.96 billion.

Mr. Gorman recommended that the Commission not use the fair value methodology to determine the value of IPL's rate base. Mr. Gorman recommended the Commission use the original cost method and stated that a reasonable estimate of IPL's fair value rate base is in the range of $1.96 billion, or generally equal to its original cost rate base.

(d) City. City witness Sommer raised a concern about IPL's RCNLD based on the view that IPL's streetlight system is "fully", "completely" and "over" depreciated. Mr. Sommer said Mr. Reed's reference to *The Appraisal of Real Estate* to explain the income approach to valuing IPL's generation fleet is noteworthy because Ind. Code § 8-1-2-6 excludes applying fair value to real estate and similarly prohibits inclusion of going concern in fair value. He stated that fair value is to reflect the commonly known fact of inflation and the assets' state of efficiency. Mr. Sommer stated he was unaware of fair value being used to justify valuing a regulated retail asset by the stream of revenue it would produce if its purpose was changed to wholesale use. He recommended that Mr. Reed's fair value of generation plant not be adopted.

(e) IPL Rebuttal. In rebuttal, Mr. Reed stated that assets included in his generation analysis are tangible assets, not goodwill or going concern value. He disagreed with the discussion of the Indiana Code as it related to utility property valuation, arguing the statutory limitations regarding land value need not be addressed because his study conservatively used the original cost for the land value.

Mr. Reed disagreed with Mr. Rutter's suggestion that the DCF approach is "speculative and unrealistic" and pointed out that Mr. Rutter does not offer another valuation methodology other than original cost. Mr. Reed explained that he has advised clients on merger, acquisition and due diligence efforts for various types of transactions including individual generating assets and fleets of generating assets. He stated that in those transactions, the DCF model is the most accepted valuation methodology. He added that in all cases, the potential acquiring companies rely on the best estimates of projected revenues and operating expenses to estimate the cash flows available from the generating assets as a primary driver of the value determination. Mr. Reed explained that the capital structure he relied on is not hypothetical. He did not agree that historical actual revenue should be incorporated into the DCF analysis because it is a prospective view on the cash flow of the asset and projected market conditions may vary considerably from historical experience. He opined that while an investor would consider the changes in historical revenues to understand the model results, it is not reasonable to specifically include historical revenue in the DCF modeling as Mr. Rutter suggested.

Mr. Reed testified that Mr. Rutter has not provided any analysis that undermines the DCF analysis that forms the basis of Mr. Reed's estimate of the current value of IPL's generating assets. He added that the net original cost of the steam production plant as the fair value of the assets would not consider the effect of inflation, which is one of the criteria in the estimation of the fair value of the assets. Mr. Reed claimed in NIPSCO's Sugar Creek Generating Station purchase (Cause No 43396) the Commission used the merchant market for the valuation of utility assets. He also pointed out that the U.S. Supreme Court in *Duquesne Light Co. v. Barasch* concluded that the use of the wholesale market to value utility property may be appropriate.

Mr. Reed disagreed that the electric generating facilities are not stand-alone revenue producers. He stated that the value of IPL's generating assets is readily observable in the MISO market in which the assets operate and the expected prices in the MISO markets can be used to estimate the value of the assets operating as merchant generation.

Mr. Reed also disagreed that the generating assets should be valued based on ownership in a regulated utility environment. He explained that the market value of assets is the highest price a willing buyer would pay and a willing seller would accept, both being fully informed, and the property being exposed for sale for a reasonable period of time. He stated the MISO, where the IPL generating assets are located, is a competitive market for generation where supply of and demand for energy clear in both day ahead and real time energy markets. He stated that while IPL's generating assets are currently owned under a regulated structure, it is not reasonable to assume that the most likely buyer of these assets would be a regulated utility. He said a more reasonable assumption in an open competitive power market, such as MISO, is that the likely buyer of the assets or the value of the assets would be based on the value to a merchant generator.

Mr. Reed also disagreed with Mr. Kaufman's view of what constitutes excess profits and his suggestion that the Commission would not approve the purchase or sale of an asset that is based on

the market value of that asset. Mr. Reed asserted that any utility seeking to acquire additional generation from the market to meet customer demand would be required to pay the market price for that generation. Similarly, if the utility were to purchase generating assets rather than construct an additional generating unit, the price that would be paid for that asset would be based on the market's expectation of the value of the asset. Mr. Reed testified that the DCF analysis reflects the expected changes in the market and the asset costs over the valuation period and noted that capacity prices are projected to increase over time as capacity becomes more constrained in MISO due to the retirement of coal-fired generating units resulting from the EPA's Mercury Air Toxics Standards compliance deadline.

Mr. Reed responded to Mr. Gorman's contention that Mr. Reed's analysis is overstated because the power prices used in his analysis are higher than current market expectations. Mr. Reed explained that Mr. Gorman misunderstood the derivation of the energy price projections in Mr. Reed's analysis. Mr. Reed used the projected average price for IPL's specific generating assets, not the projected average price for the Indiana region. Mr. Reed said the Ventyx Reference Case prices relied on by Mr. Gorman are not unit specific, but rather include the average price set in the Indiana region for every hour. He added that the Reference Case prices reflect the market heat rate, not the heat rate of the IPL generating assets specifically; therefore, Mr. Gorman's analysis is not meaningful and should be disregarded.

Mr. Reed added that it is precisely because the IPL generating assets use a different fuel and run at a different capacity factor, that Mr. Gorman's analysis has no validity. Mr. Reed stated that Mr. Gorman did not provide any support for his proposal to reduce the revenues in the DCF analysis by 15 percent. Mr. Reed stated that the fundamental assumptions in his analysis have been relied on and accepted in IPL's NPDES case (Cause No. 44540) and the energy revenues and costs consistently project the expected costs of the IPL assets and the revenues that would be derived from those assets in the market. Mr. Reed explained that Mr. Gorman also erred by comparing nominal and real prices in his analysis. Mr. Reed concluded that Mr. Gorman's alternative valuation is not a reasonable estimate.

Mr. Reed disagreed with Mr. Rutter's suggestion that the DCF analysis should be viewed on a pre-tax basis and said that buyers and sellers use an after-tax basis. Mr. Reed noted that while Mr. Rutter offers no basis for the range of pre-tax discount rates he considered "typical" (15% to 18%), the pre-tax equivalent of the after-tax discounts Mr. Reed relied on are within the range Mr. Rutter determined is "typical." Mr. Reed concluded that Mr. Rutter's contention that Mr. Reed's valuation of the generating assets is overstated by at least $582 million is not correct and should be disregarded. With respect to Ms. Armstrong's testimony, Mr. Reed argued that the specific environmental compliance cost scenario he relied on in his DCF analysis was reasonable for purposes of determining the costs of compliance with environmental regulations.

IPL witness Bulkley responded to the testimony related to the current value of IPL's transmission and distribution assets and related facilities discussed by Mr. Kelly. She claimed that the Commission has previously recognized that RCNLD is the best indicator of the property's current value in the absence of an active market. She testified that because original cost rate base does not consider inflation, Mr. Kaufman's estimate that relies on original cost significantly understates the fair value of IPL's assets. Ms. Bulkley disagreed with Mr. Kaufman's assertion that Mr. Kelly's valuation could be overstated because it did not include a productivity adjustment. Ms. Bulkley disagreed that the percent condition in Mr. Kelly's study of the IPL distribution plant

should be adjusted because the 2015 O'Neill Report indicated that IPL's downtown electrical network was "basically sound."

Ms. Bulkley disagreed with Mr. Gorman's contention that book depreciation should be used in valuation, claiming it misstates how Mr. Kelly used IPL witness Spanos' depreciation study. She claimed Mr. Gorman's analysis does not accurately reflect the remaining life of IPL's rate base or the RCNLD. Ms. Bulkley also disagreed with the City, arguing Mr. Sommer is confusing accounting depreciation with valuation principles.

IPL witness Spanos testified that the City's contention that IPL's lighting assets are fully or over depreciated is not correct from an accounting standpoint.

(2) Findings and Discussion. In Cause No. 43624, the Commission noted that the Indiana Court of Appeals' decision in *Indianapolis Water*, 484 N.E.2d 635, 640 (Ind. Ct. App. 1985), instructed that "reproduction cost new less depreciation cannot be disregarded in fixing a valuation for rate making purposes." *Westfield Gas Corp.*, Cause No. 43624 at 16 (IURC March 10, 2010). In *Westfield Gas*, the utility performed a trended cost analysis that is similar to the analysis presented by Mr. Kelly. In that case, the Commission found the utility's reproduction cost new depreciated calculation "to be a reasonable estimate of the fair value of Petitioner's utility property." *Id.*, *quoting Indianapolis Water*, 484 N.E.2d at 640. As IPL presented a fair value estimate based on its RCNLD and DCF analyses of $3.97 billion, this calculation must be a consideration in the Commission's ultimate determination of the fair value of Petitioner's utility property.

However, this does not mean that the Commission's fair value determination should be based solely on these analyses. In Cause No. 43526, the Commission approved NIPSCO's proposed methodology of fair valuation by utilizing a combination of the RCNLD valuation with the net original cost based on NIPSCO's capital structure. *Northern Indiana Public Service Co.*, Cause No. 43526 at 13-14 (Aug. 25, 2010). The Commission adopted a similar approach in Cause No. 44075. *Indiana Michigan Power Co.*, Cause No. 44075, at 21 (Feb. 13, 2013). The Commission finds this approach to be reasonable in this case.

The weighted approach used in Cause Nos. 43526 and 44075 recognized that the fair value of a utility should be reflective of the equity obligations and fixed obligations, i.e., debt, shown in the utility's capital structure. Here, Petitioner's RCNLD and DCF analyses reflect the current valuation subject to inflation and the physical operating condition of the assets, and thus, should be weighted on a pro rata basis using the equity component of IPL's capital structure, which similarly varies over time. In contrast, the original cost less depreciation valuation is unaffected by the physical characteristics of the asset, and should be weighted on a pro rata basis using the debt component of IPL's capital structure, which is similarly fixed over time.

Under this approach, IPL's net plant fair valuation as of June 30, 2014, is as follows:

	Cost ($1000s)	Weight	Contribution ($1000s)
Original Cost Less Depreciation	$1,698,119	62.67%	$1,064,211
Current Cost Less Depreciation	$3,969,199	37.33%	$1,481,702
Total Fair Value Net Electric Plant			$2,545,913

D. Conclusion on Fair Value Rate Base. Based on the foregoing findings, the Commission finds that the fair value rate base for IPL, as of June 30, 2014, is $2.75 billion, calculated as follows:

Fair Value Electric Rate Base ($1000s)	
Net Plant at Fair Value	$2,545,913
Less: Non-jurisdictional plant in service	$ (8,516)
Materials and supplies inventory	$ 74,179
Fuel Stock inventory	$ 53,951
Regulatory assets	$ 20,844
Prepaid pension assets	$ 64,861
Total fair value rate base	$2,751,278

8. Rate of Return.

A. Original Cost Rate of Return.

(1) Evidence.

(a) IPL. IPL witness Avera presented testimony concerning a reasonable range for the cost of equity ("COE") of IPL. Dr. Avera also examined the reasonableness of IPL's capital structure, considering both the specific risks faced by IPL and utility industry comparisons.

Dr. Avera provided four accepted quantitative methods of estimating the COE for a reference group of comparable risk utilities ("Electric Utility Proxy Group"): DCF, CAPM, Utility Risk Premium, and Comparable/Expected Earnings analyses. He explained that application of quantitative methods to estimate COE requires observable capital market data, such as common stock prices. Dr. Avera explained that investors will commit money to a particular investment only if they expect it to produce a return commensurate with those from other investments with comparable risks. In other words, IPL must compete with other investment opportunities and unless there is a reasonable expectation that investors will have the opportunity to earn returns commensurate with the underlying risks, capital will be allocated elsewhere, IPL's financial integrity will be weakened, and investors will demand an even higher rate of return. Dr. Avera said

IPL's ability to earn its COE is a necessary ingredient in ensuring that customers continue to enjoy economical rates and reliable service.

Dr. Avera added that IPL will need additional equity to accomplish its capital investment program. He explained that flotation costs are incurred when equity capital is issued in the market. He said the COE applied to the original cost rate base must include an adjustment for flotation costs if the utility is to have an opportunity to earn a fair return. Based on an estimate of these costs, Dr. Avera recommended an adjustment of 13 basis points. Taken together, these COE models adjusted for flotation costs produce a COE range of 9.83% to 11.83%. He stated that 10.93% represented a reasonable COE, which he noted is slightly above the midpoint of his COE range.

Dr. Avera testified that current capital market conditions reflect the legacy of the Great Recession, and are not representative of what investors expect in the future. He explained that investors do not anticipate that these very low interest rates will continue into the future. He said it is widely anticipated that as the economy stabilizes and resumes a more robust pattern of growth, long-term capital costs will increase significantly from present levels. Dr. Avera explained that FERC recently concluded that it is appropriate to consider the extent to which economic anomalies may have affected the reliability of DCF analyses.

Dr. Avera stated that IPL's 43.44% common equity ratio at June 30, 2014 is reasonable for IPL. He testified that IPL's greater use of debt implies that IPL carries more financial risk and reiterated that IPL is on the cusp of a large capital investment program relative to its size. He explained that while more debt reduces the weighted average cost of capital ("WACC") compared to a higher equity ratio, it means that the end result of a rate case must provide for an adequate return on equity ("ROE") to assure that IPL can maintain its financial resilience during its construction program.

(b) OUCC. Mr. Kaufman testified that the OUCC's recommended COE is 9.2%, which he developed using a DCF and CAPM analysis. Mr. Kaufman's DCF model produced a range of estimates from 8.66% to 9.04% and his CAPM analysis produced a range of estimates from 7.89% to 8.49%. Mr. Kaufman's recommended 9.2% is 16 basis points above the highest point of his models' range and 73.5 basis points above their midpoint. Mr. Kaufman explained his 9.2% recommendation is greater than that produced by his models because a) the COE for the electric industry at this time is at or near the high end of his overall range, and b) due to the scope of its pending construction projects, Petitioner's risk is somewhat above the risk to the overall electric industry. He said his 9.2% cost of common equity results in a weighted cost of capital of 6.26%. OUCC witness Eckert testified that he reviewed Petitioner's capital structure and the OUCC had no adjustment except for the COE supported by Mr. Kaufman.

Mr. Kaufman explained how his 9.2% differs from IPL's proposed COE and how inflation and interest rates influence the estimated COE. Mr. Kaufman noted that interest rates in general had decreased since Dr. Avera filed his direct testimony. Mr. Kaufman discussed Dr. Avera's view that interest rates will rise over the near term and testified that the estimated range derived from his cost of equity models used Commissioned-approved methodologies, did not understate investors' required return and reasonably incorporated expectations of rising interest rates. Mr. Kaufman concluded the Commission should not authorize a higher COE to address Dr. Avera's concerns regarding rising inflation rates, and the Federal Reserve, which committed to maintaining a low inflationary environment, uses a target of 2% inflation as both a floor and a ceiling. Mr. Kaufman

testified that so long as the Federal Reserve maintains its statutory mandate of price stability, it is reasonable to anticipate that inflation should remain around 2.0%.

Mr. Kaufman pointed out a variety of sources that forecast a long term market return. He explained the OUCC's proposed COE is consistent with the forecasts made by his source and other electric industry studies. He noted that IPL's expected return on the pension fund supports the reasonableness of his proposed COE. Mr. Kaufman also cited an article by Regulatory Research Associates ("RRA") (a source used and cited by Dr. Avera) that discusses a downward trend in authorized ROEs. Mr. Kaufman noted that the more current RRA report (April 13, 2015) provides the average authorized returns for the first quarter of 2015, indicating an average authorized electric ROE of 9.67% in the first quarter of 2015 versus 9.76% in 2014.

Mr. Kaufman completed a DCF analysis using methods typically relied on by the Commission. For example, Mr. Kaufman used both historical and forecasted growth rates in earnings per share, dividends per share and book value per share, while Dr. Avera relied exclusively on forecasted growth rates in earnings per share. While the inputs to determine the growth rate in a DCF analysis are typically controversial, Mr. Kaufman pointed out at this time both inputs produce similar results and do not explain differences in their DCF results.

Mr. Kaufman explained the key differences that explain the results of his and Dr. Avera's respective DCF models were Dr. Avera's proxy group including incomparable companies and his unbalanced approach to remove outliers, but that his use of midpoint results was the largest driver. Mr. Kaufman criticized Dr. Avera's use of midpoint estimates, stating that Dr. Avera's use of midpoint results as a direct estimate of IPL's COE inflated the results of Dr. Avera's DCF analyses. Mr. Kaufman also pointed out that Dr. Avera's use of midpoint estimates are 80 to 120 basis points higher than his average estimates.

Mr. Kaufman also completed a CAPM analysis using methodologies consistent with those accepted in numerous Commission orders and then compared the results of his analysis to Dr. Avera's CAPM analysis. Mr. Kaufman pointed out several differences he had with Dr. Avera's CAPM analyses, and explained Dr. Avera's use of small company risk adjustment for companies in his electric utility proxy group accounted for 90-110 basis points of their differences. Mr. Kaufman pointed out that despite the fact that Otter Tail Corp. has a market capitalization of more than $1.0 billion, Dr. Avera increased his estimated cost of equity for Otter Tail by 248 basis points to account for its "small" size. Mr. Kaufman pointed out that Dr. Avera even included a size adjustment (+80 basis points) for companies as large as $19.2 billion (Edison International).

Mr. Kaufman explained it is not appropriate to directly apply Ibbotson's equity size premium adjustment to regulated utilities. Regulation decreases the risks faced by IPL and the companies in Dr. Avera's electric utility proxy group, and those companies also do not face the same bankruptcy risks that other similarly sized companies may. Mr. Kaufman noted that the Commission recognized small company risk adjustments in Cause Nos. 40398 and 43680, and cited two financial articles that supported his opinion that it was inappropriate to apply a small company adjustment like Dr. Avera has proposed.

Mr. Kaufman also criticized Dr. Avera's ECAPM analyses, his market risk premium and use of projected bond yields. Mr. Kaufman explained his criticisms of the ECAPM, stating that adjusted beta and the ECAPM make similar adjustments, so using both is redundant. Mr. Kaufman also

pointed to prior Commission orders that support his opinion regarding the ECAPM and observed that Dr. Avera only recently started using the ECAPM.

Mr. Kaufman was also critical of Dr. Avera's Electric Utility Risk Premium and his Expected Earnings models. Mr. Kaufman explained that Dr. Avera's Risk Premium model did not provide reliable estimates of cost of equity. Mr. Kaufman stated Commission authorized returns are the result of a cost of equity analysis and they should not be used as an input to the analysis. The direct use of prior costs of equity makes the model circular. Moreover, Commission authorized rates of return may include incentives (such as those allowed by the Virginia Commission) that cause the authorized return on equity to overstate cost of equity. Mr. Kaufman also pointed out the results of Dr. Avera's Risk Premium analysis (10.1% and 11.2%) exceed both recent authorized returns for regulated electric utilities and expected returns from utility stocks.

Mr. Kaufman next explained his concerns with Dr. Avera's Expected Earnings model, which is simply a compilation of Value Line's 3-5 year estimated return on common equity. Value Line's 3-5 year forecasted return on common equity is not a required return or a cost of equity, and is also an intermediate term forecast. If a company was forecasted to over/under earn during the forecast period, using that figure to determine an authorized cost of equity would simply reinforce out-of-place expectations into future rates. Value Line's intermediate-term expected returns should not be used to estimate cost of equity. The OUCC also pointed out that to the extent any of the companies in Dr. Avera's proxy group earn returns from unregulated (riskier) operations, Value Line's forecasted earnings will overstate cost of equity.

Mr. Kaufman stated that Dr. Avera's flotation cost adjustment is not appropriate because IPL has not incurred or been allocated any flotation costs from its parent, and there is no evidence IPL projects a near-term need to issue new stock. Mr. Kaufman pointed out that the Commission previously denied a request for flotation costs in Cause No. 40003.

Mr. Kaufman also discussed IPL's dividends to IPALCO for the period 2010 to 2014 and IPL's targeted dividend ratio. He stated that IPALCO uses its dividends from IPL to meet debt service obligations and to pay dividends to AES, the parent company. Mr. Kaufman compared IPL's payout ratio to the industry average (obtained from AUS Utility Reports) of 70%. Mr. Kaufman explained that if IPL had maintained an industry average payout ratio of 70% during the last five years, it would have $507 million of funds available to invest in existing and/or planned infrastructure for the benefit of IPL customers.

Next Mr. Kaufman discussed the potential impact that the Commission's investigation could have on IPL's authorized cost of equity, fair rate of return and fair value rate base. Mr. Kaufman explained that if the Commission investigation found IPL's management practices were a contributing factor to its recurring underground network failures, it would be appropriate for the Commission to consider this finding in its determination of IPL's authorized return. Mr. Kaufman also pointed to prior Commission orders where the Commission's concern regarding inadequate service caused it to authorize a cost of equity at the low end of the reasonable range.

Mr. Kaufman discussed "double leverage" but testified that he did not adjust the capital structure or his estimated COE for this. Mr. Kaufman quoted from a Moody's article titled, "High Leverage at the Parent Company Often Hurts the Whole Family." Mr. Kaufman then explained why double leverage is a problem for IPL, stating that "to the extent IPALCO uses excessive debt, the

negative influences can flow down to IPL, potentially impairing utility operations if capital improvements are deferred to meet debt obligations." Mr. Kaufman further explained that IPALCO depends on dividends from IPL to meet its debt service obligations, which impose/create a fixed cost on IPL. Mr. Kaufman stated that IPL's lenders will not ignore IPALCO's debt service obligations when assessing IPL's risks. Moreover, IPALCO's debt service obligations have the potential to impair IPL's operations if IPALCO struggles to meet these obligations.

Mr. Kaufman pointed out that IPALCO has $800 million of long term debt that it uses to finance its equity ownership of IPL. Mr. Kaufman explained if a utility borrowed $800,000,000 in debt at an average cost of 6.125% the annual interest payment would be $49,000,000. If the entire $800,000,000 was invested in new plant and included as rate base, a utility's revenue requirements would need to include $49,000,000 to pay for the plant additions if they were funded by debt as described above. However, if the same plant was funded by equity, the utility's revenue requirements would need to include $73,600,000 (assuming a 9.2% cost of equity) before grossing up for income taxes (and $121,440,000 after taxes assuming a gross-up factor of 1.65). Thus holding all other factors constant, converting $800,000,000 of debt to equity increases a utility's revenue requirements (and the costs to ratepayers) by approximately $72,440,000 per year.

Mr. Kaufman concluded that because IPL is employing a reasonable balanced mix of equity in its capital structure that is consistent with electric utility capital structures, he did not adjust the capital structure or his estimated cost of equity for IPL to account for the influence of double leverage. But he pointed out that due to double leverage, authorizing IPL a 9.2% cost of equity will provide IPALCO the opportunity to earn a return above 9.2%. Mr. Kaufman concluded that the Commission should be assured that authorizing IPL a 9.2% cost of equity provides IPL an adequate return that meets the *Hope* and *Bluefield* standards. Mr. Kaufman also noted that IPL's fair value methodology only produces $403,153 more than multiplying IPL's original cost rate base by its weighted cost of capital.

OUCC witness Lorton testified that IPL will likely maintain its current credit rating if the Commission approved the OUCC's recommendation for the cost of common equity. Mr. Lorton testified that favorable regulatory treatment alone will not assure strong credit quality. He stated that capital structure and dividend policies play important roles in maintaining a healthy credit rating.

Mr. Lorton further testified while IPL is viewed by the credit rating agencies as a "strong and stable business" the ownership structure of IPL, IPALCO and AES are seen as raising IPL's risk profile. Specifically, IPALCO's sole reliance on IPL dividends and the speculating rating of the AES parent company are described by the rating agencies as burdens to IPL's credit rating. Mr. Lorton cited reports by the rating agencies regarding the circumstances that could trigger a downgrade of IPL's current rating. He cited Standard & Poor's ("S&P") that its rating assumes IPALCO will not issue additional debt for the purpose of distributing proceeds as a dividend to the AES Corp. He further noted that S&P indicated that such a move would likely lower the rating multiple notches.

Mr. Lorton also testified that Moody's Investor Service anticipates some deterioration in IPL and IPALCO's credit metrics in the near future but not by a magnitude that would cause a downgrade. He noted Fitch Ratings indicated IPL's credit metrics are expected to decline over the current capex cycle ending in 2017, but expects those metrics to stay in line with its current rating. Mr. Lorton presented data from SNL Financial comparing credit metrics of IPL, IPALCO and AES

to a peer group of 44 electric utilities with similar customer bases. He observed that IPL's credit metrics were stronger than both IPALCO and AES, and that the only company in the peer group with lower metrics than IPALCO was DPL, another company in the AES family.

Mr. Lorton discussed the impact of lower ROEs on credit ratings, citing a Moody's report from March 10, 2015. He noted that the credit profiles of U.S. regulated utilities will remain intact over the next few years despite Moody's expectation that regulators will continue to lower authorized returns on equity for utilities. He also cited Moody's reasons for this expectation including more timely cost recovery mechanisms, utilities' cash flows being insulated from lower ROEs and the stability of utilities' actual performance. Mr. Lorton also testified that Fitch expects this proceeding to result in a lower ROE than IPL's last rate case.

Mr. Lorton concluded that the ROE proposed by Mr. Kaufman will not adversely impact IPL's credit rating, or its ability to attract capital. He stated that none of the ratings agencies see a lower ROE as a significant threat to IPL's credit rating and contended that the agencies seem far more concerned about IPL's corporate ownership structure and IPL's 100% dividend payout ratio to IPALCO.

(c) Industrial Group. Industrial Group witness Gorman recommended the Commission set IPL's operating income at $124.6 million using an overall rate of return of 6.34% and an original cost rate base of $1.96 billion. His recommendation was based on IPL's proposed capital structure, a ROE of 9.40% and IPL's embedded debt cost and produces an overall rate of return on original cost of 6.34%.

Mr. Gorman testified that his recommended rate of return of 6.34% based on a 9.40% COE will produce credit metrics that will support an investment grade bond rating for IPL and the $124.6 million operating income is the highest operating income estimate he believes is reasonable. He testified that Dr. Avera's proposed original cost return on equity of 10.93% significantly exceeds IPL's current market COE, does not balance customers' and shareholders' interest and provides IPL with an excessive level of operating income.

Mr. Gorman explained that he derived his fair return on common equity using the DCF, a Risk Premium analysis and the CAPM. *Id.* at 20. Based on these methodologies, Mr. Gorman estimated IPL's current market cost of equity to fall in the range of 9.00% to 9.70%. His recommended estimate of 9.40% is at the approximate midpoint of this estimated range, and in his view reflects fair consideration of IPL's investment risk, and is fair compensation in today's very low capital market cost environment.

(d) City. City witness Sommer discussed the rate of return in general based on his 36 years of experience in regulated utility ratemaking. He stated that the current capital market conditions in large part reflect and stem from the Great Recession. He stated that the Federal Reserve's past and continuing intervention has had an unprecedented impact in lowering the cost of capital. He opined that the American economy has not recovered. Mr. Sommer stated that the Commission should not place much emphasis on the possibility of higher interest rates in determining the authorized return in this case. Mr. Sommer quoted Dr. Avera's and Roger Morin's view that the projections of security analysis do not need to be accurate so long as investors share their views. He said regulators are free to make their own subjective judgment based on the

evidence presented, with an intention not necessarily to follow the pack, but rather to reach a result that they believe will be reasonable and fair.

Mr. Sommer stated that IPL's financial and operational risk is reduced by its location and the proposed three new and other existing tracking mechanisms. He said an approved ROE for IPL in the range of 9.4 - 9.7% would be reasonable.

(e) IPL Rebuttal. IPL witness Jackson testified about the impact on IPL's financial integrity resulting from the IG and OUCC positions regarding deferred MISO costs and proposed rejection of two of the rate adjustment mechanisms IPL proposed and the Major Storm Damage Reserve account. He stated that there could be a reduction in IPL's credit metrics and impairment of IPL's ability to earn its authorized return. He stated that once a company is downgraded it typically takes a few years of improved metrics to illustrate sustainable improved financial performance to lead to an upgrade in the credit rating. Therefore, he disagreed that the Commission need not be concerned about its decision in this case because IPL will soon be filing another one.

Dr. Avera discussed errors, omissions and oversights in the analyses of Mr. Kaufman and Mr. Gorman cause their COE estimates to be biased, unreliable and not reflective of current capital market conditions. Dr. Avera said if any ROE from their recommended ranges were applied to original cost rate base, the end result would weaken the financial integrity of IPL. He added that with the risk that IPL faces as it continues through this period of significantly increased capital spending, it is crucial that its financial condition is strengthened, not reduced, as would result from the other parties' ROE recommendations in this case.

Dr. Avera explained that the utilities in Mr. Kaufman's proxy group are expected to earn an average 9.84% with a midpoint of 10.02% and that the utilities in Mr. Gorman's proxy group have expected earnings averaging 10.50% with a midpoint of 12.21%. Dr. Avera stated that if IPL were authorized an ROE in the 9.2% to 9.7% range, it would be unable to offer a return similar to that authorized from other opportunities of comparable risk.

Dr. Avera also showed that the allowed return data reported to investors by Value Line indicates that the average authorized ROE for the utilities in Mr. Kaufman's proxy group is 10.11% with a midpoint of 10.17%. He said the authorized ROEs for the utilities in Mr. Gorman's proxy group average 10.21% with a midpoint of 11.06%. Dr. Avera stated that these authorized returns exceed the ROE recommendations of Mr. Kaufman, Mr. Sommer and Mr. Gorman by a wide margin even though Mr. Kaufman concedes that IPL is riskier than the utilities in his proxy group. Dr. Avera added that a rational investor would not willingly accept a lower return from IPL, a relatively riskier utility, when higher returns are authorized for less risky utilities.

Dr. Avera explained why the drop in Treasury bond yields does not translate directly into lower equity costs for utilities like IPL. He explained why he disagreed with Mr. Kaufman's and Mr. Sommer's position that forecasts of increasing interest rates should be ignored. He said that it is generally accepted that in the face of improving economic conditions, the Federal Reserve is on the verge of ending its ultra-loose monetary policy stance and will raise interest rates for the first time in nearly a decade. He said respected and widely followed economic forecasting services are continuing to project rising interest rates. He stated however, that what really is important is not so much that rates change by the amount, or even the direction, forecasted. He said what is important

is that investors expect rates to increase. He said the COE estimation models are measuring investor expectations and that is all that matters even if, in hindsight, such expectations prove to be inaccurate. While Dr. Avera agreed that regulators must use judgment in finding a fair return, he said they should consider the expectations of investors in the marketplace. He said the allowed return in this case will send an important signal to investors as to the regulatory treatment IPL may expect during this capital spending program. Dr. Avera stated that if investors are confident that the end result for IPL will be consistent with capital market realities, then investors will make capital available to IPL on reasonable terms.

Dr. Avera stated that the fact that Mr. Kaufman's recommended COE does not even fall within the range of his model output, makes clear that Mr. Kaufman's application of the DCF and CAPM estimation models is not dependable and his choice of a COE above his range confirms Mr. Kaufman's opinion that IPL has greater risk than his proxy group utilities. Dr. Avera stated that while lowering the overall weighted cost of capital, this causes IPL's equity to be riskier than the proxy group, thereby increasing the cost of equity.

Dr. Avera testified that the credit rating agencies and investment advisory publications in Mr. Lorton's testimony establish two points about IPL: 1) the utility is looking at a large capital spending program and 2) its financial metrics are not particularly strong relative to other utilities. He said the bond rating reports for IPL referenced by Mr. Lorton do not contemplate the imposition of a dramatic reduction in ROE, such as that proposed by Mr. Kaufman.

Dr. Avera explained that the Moody's report attached to Mr. Lorton's testimony contradicts Mr. Sommer's and Mr. Gorman's suggestion that rate adjustment mechanisms cause IPL's risk to be less than other utilities. Dr. Avera added that because the utilities in the proxy groups used by Mr. Kaufman and Mr. Gorman have similar mechanisms to those IPL has requested in this case, any effect on COE is already reflected in their proxy group estimates and therefore no additional risk adjustment for IPL is warranted.

Dr. Avera explained that Mr. Gorman's focus on selected Standard & Poor's ("S&P") metrics for IPL implicitly assumes: 1) that IPL will be able to actually earn the allowed return notwithstanding other recommendations to adjust its cost recovery mechanisms by the IG; and 2) that the three ratios he cites are all that matter to S&P, other rating agencies, and investors. He added that Mr. Gorman completely ignores how credit rating agencies and investors would react to the change in regulatory risk that would likely occur from a rate decision so out of step with past Commission decisions and allowed returns for other utilities that IPL must compete with for capital. He pointed out that Mr. Jackson testified that regulatory risk is key focus of credit rating agencies and investors.

Dr. Avera explained why the forecasted pension return referenced by Mr. Kaufman is not an appropriate benchmark for IPL's allowed ROE. Dr. Avera stated that consumers would not be well-served if IPL is unable to meet its capital investment needs due to a posture of financial weakness, as would be likely with an authorized return in the 9.0% to 9.7% range as recommended by Mr. Kaufman, Mr. Sommer, and Mr. Gorman.

Dr. Avera responded to Mr. Lorton's and Mr. Kaufman's discussion of dividend policies and capital structure of IPL relative to its parent and noted that neither OUCC witness recommended any adjustment to the fair rate of return based on these discussions. Dr. Avera stated

that IPL has more financial risk than other utilities, so all else being equal, investors require a higher return to compensate for the additional risk. On the other hand, as noted by Mr. Kaufman, having more debt in the capital structure lowers the overall cost of capital "[b]ecause debt typically carries a lower cost than equity." Dr. Avera explained the inconsistency with Mr. Kaufman's elimination of other proxy group utilities.

Dr. Avera also discussed the motivation for applying a double leverage adjustment and stated it does not apply here because there is no legitimate concern about IPL's common equity ratio being distorted on the high side. Dr. Avera explained that Mr. Kaufman's discussion of this issue turns the regulatory justification for double leverage on its head and that nowhere in the *Hope* case are the earnings of the parent or its capital structure addressed; the end result test is applied only to the utility. Dr. Avera discussed the downside to the application of a double leverage adjustment and explained that the application of double leverage adjustments has all but faded away except in a few isolated cases. Dr. Avera noted that while Iowa has been one of the remaining bastions of double leverage, even Iowa has not recently applied this to electric utilities.

Dr. Avera and Mr. Reed pointed out that Mr. Kaufman wrongly compares the dividends paid by IPL to its parent with the dividend payout to common stock investors. Dr. Avera said there is a fundamental difference in the dividend policy of a subsidiary to its corporate parent and the data cited by Mr. Kaufman. Dr. Avera explained that earnings not paid out in dividends increase the equity on IPL's balance sheet. He stated that if the dividends paid to its parent had been less, the equity ratio would be correspondingly higher. Yet, Mr. Kaufman found IPL's existing equity ratio to be reasonable. Dr. Avera testified that dividends are the property of shareholders and can be paid or retained at management's discretion, without regulatory approval. Dr. Avera concluded that Mr. Kaufman demonstrates no impropriety in IPL's financial policies or capital structure and his apples-to-oranges comparisons of dividend policies should be ignored.

(2) Discussion and Findings. The rate of return for a utility must be comparable to the return on investments in other enterprises having corresponding risks, sufficient to assure confidence in the financial integrity of the utility, maintain support of the utility's credit, and attract capital. *Bluefield Waterworks & Improvements Co. v. Pub. Service Comm. of West Virginia*, 262 U.S. 679, 43 S.Ct. 675 (1923); *Federal Power Comm. v. Hope Natural Gas. Co.*, 320 U.S. 591, 64 S.Ct. 281 (1944).

In order to meet the requirements set forth in *Bluefield* and *Hope*, the parties proposed various returns using a variety of methods as bases for their positions. Dr. Avera's analysis produced a range of 9.7% to 11.7%. He recommended that the Commission adopt a cost of common equity ("COE") of 10.93%. Mr. Kaufman's analysis produced a range of 7.89% to 9.04%. He recommended a COE of 9.20%. Mr. Gorman's analysis produced a range of 9.00% to 9.70%. He recommended a COE of 9.40%. Mr. Sommer recommended a COE in the range of 9.40% to 9.70%. In rebuttal, Dr. Avera cautioned that a return lower than 9.70% would be unreasonable.

The Commission recognizes that the cost of equity cannot be precisely calculated and estimating it requires the use of judgment. Due to this lack of precision, the use of multiple methods is desirable because no single method will produce the most reasonable result under all conditions and circumstances. We further note that the cost of equity has been trending lower over the past ten years, with Duke Energy Indiana, LLC (then PSI) receiving a return on equity of

10.50% in Cause No. 42359 (2005), and most recently, Indiana Michigan Company receiving a return on equity of 10.20% in Cause No. 44075 (2013).

While general equity market conditions are certainly a part of this trend, an additional part of this trend relates to the effect of cost tracking and rate adjustment mechanisms in reducing utility earnings risks. Earnings risk can be seen in both an absolute and a volatility context – the absolute context serves as an effective marker to provide investors with an understanding of the base line earnings available, while the volatility context relates to the ability of the company to perform under a range of real world operating conditions. Trackers that adjust rates for incremental investments or for costs that are nearly certain to be increasing serve to adjust the base line earnings for post rate case changes and address issues primarily associated with regulatory lag. Trackers that adjust rates for cost changes that are more unknown and that are equally likely to decrease or increase address the risk of volatile earnings results. The general effect of these trackers reduces the uncertainty of earnings that an investor can expect.

Petitioner already has a number of trackers in place, and we have generally continued such trackers in this Cause. We have also considered and approved new or revised mechanisms, each of which reduces IPL's risk. We specifically note that the capacity and RTO trackers approved in this Cause allow IPL to pass the expected cost increases to ratepayers. We have addressed the uncertainty of major storm damage restoration expenses through the creation of a reserve account. We have also increased the customer charge in IPL's proposed rate design, which will reduce volatility by making the bill less reliant on volumetric charges. These reasonable steps materially reduce the uncertainty of earnings available to investors and should enhance Petitioner's ability to earn its authorized COE.

Based on our discussion above, we find that a reasonable range for Petitioner's cost of equity is 9.7% to 10.30%, and conclude that the mid-point, a 10.0% COE, would be appropriate absent other considerations.

However, as we noted in Cause No. 43526,

> a utility's operational and financial performance were appropriate considerations in determining a utility's cost of equity. . . .The Commission has a unique role in regulating its jurisdictional utilities, which at times requires us to send a clear and direct message to utility management concerning the need for improvement in the provision of its utility service. Our determination of the authorized cost of common equity capital can be a very direct means to incent improved service.

NIPSCO, Cause No. 43526, at 32 (IURC Aug. 25, 2010).

We have been critical of IPL's management decisions over the past several years, as noted in Cause Nos. 44242 and 44339. In Cause No. 44242, we expressed disappointment in the manner in which IPL presented its cost-benefit analysis supporting its proposed environmental compliance strategy "and how it represented a poor management decision and demonstrated a lack of due regard for the regulatory process." While the Commission ultimately approved the proposed settlement, the Commission modified the settlement to increase the depreciation credit in order to send an appropriate "message to provide feedback in a manner that provides an incentive for improvement"

to management. In Cause No. 44339, the Commission again criticized IPL's management for the bid process it used to determine the best estimate for constructing the Eagle Valley CCGT.

In this consolidated case, we are again faced with questions over IPL management relating to the maintenance and operation of IPL's downtown network, and we have addressed a path forward through the collaborative process in our earlier discussion. However, while the Commission's establishment of a collaborative process to address IPL's asset management is a positive step, the establishment of that process alone does not reflect the importance the Commission places on IPL's provision of safe and reliable service. As noted in our earlier discussion, IPL's suggestions that the public safety concerns related to the March 2015 network events are essentially a media-driven reaction and that the issues related to manhole covers did not pose a risk to public safety fail to reflect the seriousness that the Commission places on these events and the need to improve the utility's asset management process.

In order to provide an appropriate message to IPL management, the Commission finds that the use of an incentive linked to IPL's constructive participation in the collaborative process is warranted and that an adjustment to the COE used for ratemaking provides a reasonable mechanism to review IPL's participation. As noted above, the unadjusted cost of equity of 10.0% represents the midpoint of the appropriate range of cost of equity for IPL. The midpoint between 10.0% and the low end of the range of 9.7% is 9.85%, which we find to be representative of an appropriate adjustment. We recognize that this adjustment will be reconsidered in IPL's next rate case review in the context of its participation in the collaborative, and expect that IPL will respond accordingly. In conclusion, we find that the appropriate authorized COE for IPL is 9.85%, which we note is higher than the cost of equity Dr. Avera considered insufficient.

Based on these findings and after giving effect to the COE we authorized above, we find that Petitioner's capital structure and weighted cost of capital as of June 30, 2014, is as follows:

Description	Total Company Capitalization ($1000s)	Percent Of Total	Cost Rate	Weighted Cost Rate
Long Term Debt	$ 1,148,446	46.20%	5.67%	2.62%
Preferred Stock	$ 59,784	2.41%	5.37%	0.13%
Common Equity	$ 928,034	37.33%	9.85%	3.68%
Customer Deposits	$ 26,688	1.07%	6.00%	0.06%
Deferred Income Taxes	$ 316,991	12.75%	0.00%	0.00%
Pre-1971 ITC	-	0.00%	0.00%	0.00%
Post 1970 ITC	$ 5,945	0.24%	7.48%	0.02%
Total	$ 2,485,888	100.00%		6.51%

B. Fair Rate of Return.

(1) Evidence.

(a) IPL. Dr. Avera noted that his recommended fair return on the fair value rate base was based on a methodology that reflects inflation in the fair value rate base. To develop the recommended return on the fair value rate base, Dr. Avera adjusted the utility's WACC to recognize that historical inflation is reflected in his fair value rate base. To remove historical inflation from the WACC, Dr. Avera used an historical inflation rate of 2.4% taken from the Ibbotson publication referenced in past Commission decisions. For the common equity component of the WACC, Dr. Avera used the lowest COE estimate that meets the FERC benchmark adjusted for current capital market conditions of 7.75%. He stated that no flotation cost adjustment is needed for this minimum COE because the allowed return is not limited to original cost in this approach. As shown on WEA Attachment 9, under this approach the resulting fair rate of return on the fair value rate base is 3.32%.

To confirm the reasonableness of his recommended NOI, Dr. Avera used three logical alternative measures of fair value rate base and applied a fair value rate of return for IPL adjusted for inflation in a manner consistent with the corresponding rate base. The equity return included in each test was based on the reasonable COE range developed in Dr. Avera's testimony.

Dr. Avera's first test of his recommended NOI calculated an NOI using IPL's original cost rate base and applying a WACC using his 10.93% proposed COE. Dr. Avera selected this point to recognize that the use of original cost as the "fair value" makes no adjustment for inflation (as required), to assure financial strength and to otherwise recognize that fair return lies above the COE calculated by the financial models. This test produced a NOI that is slightly less than his recommended NOI (i.e., $135.764 million compared to Dr. Avera's recommended NOI of $136.167 million).

Dr. Avera's second test applied the "fair value increment" approach to fair value ratemaking used by the Arizona Corporation Commission. Dr. Avera proposed a variant of this approach in the last I&M rate case but the Commission rejected his proposal because it added the fair value increment return on top of a fair return to original cost. In this case, Dr. Avera adjusted the return to original cost to avoid double-counting inflation and to recognize the Commission's criticism of his earlier proposal. This test resulted in a NOI that is higher than Dr. Avera's recommendation (i.e., $138.789 million compared to Dr. Avera's recommended NOI of $136.167 million).

Dr. Avera's third test applied the Commission's practice in other cases of weighting current cost and original cost rate base based on the ratemaking capital structure and adjusting the return applied to the current value component of the fair value rate base for inflation. This test also produced an NOI that is higher than Dr. Avera's recommendation (i.e., $141.074 million compared to Dr. Avera's recommended NOI of $136.167 million).

Dr. Avera concluded that the end result NOI of $136.167 million based on a current cost fair value rate base and a fair return using the lowest COE value in the proxy group analysis is reasonable. He said the recommended NOI is consistent with end results of three applications of fair value that match the fair value rate base to the fair rate of return that produce NOIs ranging from $135.764 million to $141.074 million.

(b) OUCC. OUCC witness Kaufman discussed fair value and testified that the Commission can meet the *Hope* and *Bluefield* standards by multiplying IPL's weighted cost of capital by its original cost rate base. Mr. Kaufman also noted that IPL's fair value methodology only produces $403,153 more than what would otherwise be generated by multiplying IPL's original cost rate base by its weighted cost of capital. Mr. Kaufman stated that the minimal difference between IPL's proposed NOI and the NOI in its original cost rate base example supports the conclusion that the Commission can provide a reasonable return by employing original cost ratemaking. He noted that Dr. Avera does not propose a fair value premium in jurisdictions outside of Indiana and said Dr. Avera's estimated COE is able to provide utilities outside Indiana a reasonable rate of return by using original cost ratemaking.

Mr. Kaufman responded to Dr. Avera's three reasons why IPL believes the Commission should use fair value ratemaking. First, Dr. Avera argued current capital markets have been distorted by the Great Recession and aggressive Federal Reserve action, which Dr. Avera argued has caused capital market methods used to estimate cost of equity to be less reliable. Mr. Kaufman responded that the U.S. economy is recovering from the Great Recession and the Federal Reserve is reducing its aggressive actions. Mr. Kaufman concluded when appropriate inputs are used, market models produce reliable results and Dr. Avera's first argument should not be given any weight.

Next, Dr. Avera argued the development of wholesale electric markets provides a market-based estimate to value utility assets. As Mr. Kaufman explained in greater detail later in his testimony, it is inappropriate to base revenue requirements charged to captive ratepayers on the value of plant in an unregulated wholesale market. Mr. Kaufman concluded Dr. Avera's second argument should not be given any weight.

Finally, Dr. Avera asserted the announced Federal Reserve target of 2% or more inflation bolsters the relevance of fair value as a way to offset the harm done to regulated utilities by original cost regulation under inflation. Mr. Kaufman pointed out that Dr. Avera's argument had several flaws. First, to the extent investors are concerned about inflation, that inflation is reflected in the estimated cost of equity. Fair value ratemaking treats inflation differently, but not necessarily more effectively than original cost ratemaking at reflecting inflation in the authorized NOI. Next, Mr. Kaufman pointed out the article provided by Dr. Avera discusses a target of 2%, not a target of 2% or more. Mr. Kaufman then explained that a target that includes a ceiling announces an entirely different posture than having no ceiling. As discussed earlier in his testimony the Federal Reserve has a statutory mandate to foster maximum employment and price stability. Consequently, Mr. Kaufman believed Dr. Avera's concerns about inflation were overstated.

Mr. Kaufman then described a process the Commission could use to determine a fair value rate base and fair rate of return that produces an NOI that meets the *Hope* and *Bluefield* standards. Mr. Kaufman used the Commission approved methodology of removing historical inflation from the weighted cost of capital to produce a single fair rate of return of 3.86%. Mr. Kaufman then demonstrated that when a fair rate of return of 3.86% is applied to a fair value rate base of $2.97 million, it produced an NOI that met the *Hope* and *Bluefield* standards. Mr. Kaufman recognized there are other factors the Commission should consider when deciding on an appropriate NOI for IPL in order to balance the investor and consumer interests, so that the end result addresses those interests.

(c) Industrial Group. Industrial Group witness Gorman made general observations about the use of the original cost methodology versus a fair value methodology and stated that the final conclusion is appropriately reserved for the Commission. Mr. Gorman stated he believes that calculating an allowable net operating income using the fair value of a utility's rate base determined by an original cost valuation methodology is more stable and balanced, better meets the desired goal of setting rates which are fair and reasonable to both customers and shareholders, and better supports the utility's financial integrity and access to capital than other alternatives. He discussed the successful use of original cost ratemaking in other jurisdictions.

Mr. Gorman discussed the operating incomes that would result from his various adjustments to Dr. Avera's estimated fair return on the fair value rate base. Mr. Gorman said the adjustments he made to Dr. Avera's estimated fair return on common equity coupled with an increase to Dr. Avera's historical inflation percentage, lowered Dr. Avera's overall rate of return from 3.32% to 2.39% and produced an operating income level of $98.2 million. When the fair value rate base is reduced to reflect Mr. Gorman's adjustments to Mr. Kelly's and Mr. Reed's valuation, Mr. Gorman said his analysis produced an operating income of $84.3 million and $65.1 million respectively.

Mr. Gorman reviewed Dr. Avera's discussion of fair value ratemaking and contended Dr. Avera acknowledged that the application of the fair value and original cost ratemaking have arrived at roughly the same results. Mr. Gorman discussed the treatment of inflation and attrition in the fair value and original cost ratemaking methods and provided an example that illustrates why fair value and original cost ratemaking produce about the same investment return to a utility.

Mr. Gorman stated that he believes Dr. Avera's proposed operating income estimate is based on a flawed fair value rate of return and flawed valuation estimates of IPL's fair value rate base and that his corrections to these factors produce operating income levels that are less than his recommended operating income. Mr. Gorman discussed Dr. Avera's methodology and stated that it is based on a flawed application of the FERC low-end outlier methodology, is not reflective of current market capital costs and understates historical inflation and thereby overstates the overall fair value rate of return adjusted for historical inflation.

(d) IPL Rebuttal. Dr. Avera discussed Mr. Kaufman's criticism of Dr. Avera's use of fair value ratemaking and explained that he elected to use this method because Indiana has unique laws regarding fair value ratemaking that differ from almost all state and federal jurisdictions. Dr. Avera explained that both Mr. Kaufman and Mr. Gorman attack the false premise that Dr. Avera argued fair value is the only path to an acceptable end-result. He said the discussion of this issue in his direct testimony states that an acceptable result can be reached with original cost ratemaking but it requires adjustment to current capital market conditions. He said the problem with the ROEs recommended by Mr. Kaufman, Mr. Sommer, and Mr. Gorman is that they do not provide an end-result that is sustainable in light of current market expectations.

Dr. Avera responded to the criticism of the 2.4% historical inflation rate that he used to adjust the 7.75% minimum logical COE used in his fair return on fair value calculation. He said the inflation adjustment is not based on the average age of IPL's plant because unlike fair value rate base estimates that have typically been presented by investor owned utilities in Indiana, IPL's fair value rate base is not based solely on trending original cost values. Instead, it largely depends on market value estimates of generating facilities that are not linked to original cost. Dr. Avera said he

used a historical inflation rate of 2.4% based on a review of inflation rates from the source cited by the Commission in Cause No. 44075 and added that he disagreed with Mr. Kaufman and Mr. Gorman who suggest that other values might better represent a more appropriate inflation rate. Dr. Avera stated that since he filed his direct testimony, the minimum logical COE to compute the fair return based on the FERC criteria updated for capital market conditions has increased and that the minimum COE value that could be considered logical is 7.94% under this benchmark test based on current capital market conditions. Given this result, he said even with an inflation rate adjustment higher than the 2.4% used in his direct testimony, the resulting equity component of the fair return to fair value would be the same.

Dr. Avera disagreed with Mr. Kaufman's claim that 2% inflation is the Federal Reserve's "floor" and "ceiling" for inflation. Dr. Avera testified that because the Federal Reserve has a dual mandate relating both to employment and inflation, it must make tradeoffs between the two targets. He added that the Federal Reserve does not have direct control over the economy, and the actual inflation rate and employment can, and have, deviated from its targets. Dr. Avera also explained that Mr. Kaufman misses the fundamental point – inflation has been and will almost certainly continue to be a persistent feature of the U.S. economy. Dr. Avera stated that means regulators will have to deal with the effects of inflation on utilities and that fair value ratemaking is one of the tools available to deal with the impacts of inflation while maintaining an end result that balances the interests of consumers and investors.

Dr. Avera stated that it is possible to deal with inflation using original cost ratemaking but it may be difficult. He noted that in Mr. Gorman's example the rate of asset escalation of 3% incorporated into the rate of return is exactly the same as the asset appreciation in the rate base. Dr. Avera stated that the inflation expectation built into the market required returns is forward-looking to reflect investors' loss of purchasing power over the time they own securities. In contrast, the inflation reflected in asset values is that which occurred before the valuation date. He stated that in Mr. Gorman's convenient example, these two rates happen to be the same. Dr. Avera testified that in the real world in which utilities and regulators must operate, future and past inflation rates rarely are the same and can differ greatly. Dr. Avera showed this to be the case using the examples in Mr. Kaufman and Mr. Gorman's testimony. Dr. Avera stated that Mr. Gorman's example also assumes that the utility is able to earn its allowed return exactly under either fair value or original cost. Dr. Avera said Mr. Gorman's example assumes away the very real world issue of attrition – the systematic inability of a utility to actually earn its allowed return. In short, Mr. Gorman's example stands for the proposition that original cost and fair value will have the same outcome if and only if inflation in the allowed return and the rate base are exactly the same and there is no attrition. Dr. Avera stated that in the real world regulators have to deal with inflation, attrition, and changing capital market conditions to reach an end result that balances the interest of consumers and investors.

Dr. Avera said Mr. Gorman's criticism of Dr. Avera's application of the FERC benchmark ignores changing capital market conditions. He said Mr. Gorman would apply the FERC benchmark using interest rates from 2014 even though equity investors are forward-looking and would evaluate prospective equity returns relative to prospective bond returns. Dr. Avera said this distinction is particularly important in today's turbulent capital markets where Federal Reserve policy is transitioning and interest rates are expected to increase. Dr. Avera said the magnitude of the expected increase in interest rates is reflected in the update of his calculation of the minimum COE

based on the FERC benchmark, as updated for current capital market conditions using recognized and highly regarded economic forecasting services.

(2) Discussion and Findings. To develop the recommended return on the fair value rate base, Dr. Avera used an alternate FERC-derived cost of equity of 7.75% and adjusted the utility's WACC for historical inflation. Mr. Kaufman and Mr. Gorman questioned the 2.4% historical inflation rate that Dr. Avera used to adjust the 7.75% for historical inflation. Mr. Kaufman noted that based on the Federal Reserve's target of a 2.0% inflation rate, it is reasonable to expect inflation to remain at approximately 2.0%. Mr. Gorman revised Dr. Avera's historical inflation from 2.4% to 2.6%.

Initially, we note that Dr. Avera's proposed methodology for calculating fair return in this case differs from the presentation that he made in Cause No. 44075, in that for his fair return analysis in this Cause, he proposed utilizing a different cost of equity that is over 300 basis points less than what he recommended in his original cost rate of return analysis. One could infer that this change was made because using Dr. Avera's proposed original cost rate base COE, adjusted for inflation, with IPL's proposed fair value would result in an unreasonable net operating income ("NOI"). Because the Commission has utilized an alternate methodology for determining fair value, we decline to use Dr. Avera's proposed methodology to calculate a fair return. Instead, we will utilize an inflation adjustment to the original cost overall weighted cost of capital determined above.

The record shows that the Federal Reserve has targeted inflation at approximately 2.0%, and we find that 2.0% is a reasonable reflection of inflation over the expected life of the resulting rates. Accordingly, based on our calculated weighted cost of capital of 6.51%, we find that with inflation removed, the fair return on IPL's fair value rate base should be 4.51%, which results in an authorized fair value NOI of $124.1 million. In comparison, the original cost NOI is $122.9 million, which supports the reasonableness of the fair value NOI.

9. Operating Income at Present Rates.

A. Undisputed Pro Forma Adjustments. IPL proposed a number of pro forma adjustments to its test year revenues and expenses that were accepted by the other parties, and are accepted by the Commission. In addition, subsequent to IPL's rebuttal filing the OUCC accepted additional adjustments, which we discuss below along with the remaining disputed pro forma adjustments.

B. Disputed Pro Forma Revenue Adjustments.

(1) Weather Normalization.

(a) Evidence. IPL witness Chambers supported the weather normalization adjustment made to test year revenues. She explained that weather during the test year was not representative of normal weather, and without a weather normalization adjustment, IPL would be overstating kWh consumption in its rate calculations.

In response, Industrial Group witness Gorman stated that IPL's weather normalization adjustment results in an understatement of Residential Service ("RS") class kWh sales during

normal weather. He stated the weather in Indianapolis was reasonably normal during the time period 2011 through 2013. Therefore, this three-year period is more reflective of normal weather around Indianapolis than the test year data relied upon by Ms. Chambers.

In rebuttal, IPL witness Fox responded to Mr. Gorman's criticism of IPL's weather normalization adjustment. He stated IPL uses an industry standard approach that appropriately accounts for test-year weather conditions.

(b) Findings and Discussion. The test year period includes a cold winter with heating degree days 15% higher than normal, and a warmer than normal summer with cooling degree days 8% above normal. This period also includes the polar vortex. IPL adopted an industry standard approach for weather normalizing customer usage using actual customer usage data during the test year. While Mr. Gorman disagreed with IPL's residential weather normalization adjustment, no party challenged either IPL's methodology or the adjustments proposed for any other rate classes.

We find that IPL adopted an industry standard approach for weather normalizing customer usage that produces reasonable results. Mr. Fox validated the reasonableness of IPL's weather-normalized test year sales. Accordingly, the Commission accepts IPL's pro forma weather normalization adjustment of ($18,537,000), and finds the resulting rate class sales should also be accepted for ratemaking purposes.

(2) Off System Sales Margins. As discussed in Section 14(B), *infra*, we find the level of OSS margins to be embedded in IPL's basic rates should be $6.324 million.

(3) Petersburg Autotransformers Project – Non-Jurisdictional.

(a) Evidence. IPL witness Holtsclaw testified regarding MISO Transmission Expansion Plan ("MTEP") projects and costs. He explained the costs for MTEP projects that are determined to provide reliability benefits to the MISO transmission system are shared across all of the MISO transmission owners and billed through MISO's FERC tariff. IPL witness Cutshaw explained that such MTEP projects are non-jurisdictional and IPL proposed several pro forma adjustments to remove the rate base and operating income statement impact of the revenue requirement of the Petersburg Autotransformers project.

In response, Industrial Group witness Dauphinais testified that because IPL's allocated share of the project is too large, the Commission should require IPL to retain in its rates the percentage of the total project cost and total MISO Schedule 26 revenues associated with IPL's own MISO Schedule 26 and 26-A projects equal to the percentage of the total cost of those projects that MISO assigns to IPL under Schedules 26 and 26-A.

In rebuttal, IPL witness Cutshaw stated that Mr. Dauphinais' proposal would result in IPL's customers being treated differently than the customers of other Indiana electric utilities receiving benefits from the same project. He stated the costs of the Autotransformers project are also being allocated to Duke Energy Indiana and Vectren, and that Duke is being allocated a larger percentage of the costs than IPL. Both of these utilities have been allowed to recover allocated MISO Schedule 26 charges in their jurisdictional revenue requirement in the same fashion as IPL is proposing and it is reasonable that IPL be allowed to do the same. Mr. Cutshaw also noted that Vectren and NIPSCO have been allowed to exclude the rate base and operating impact of constructed transmission

projects subject to regional cost allocation from their jurisdictional revenue requirements and yet recover allocated Schedule 26 and 26-A charges.

(b) Discussion and Findings. The Petersburg Autotransformers project was approved by MISO as a Baseline Reliability Project and is subject to regional cost sharing that was approved in MTEP09. We find IPL's methodology to be consistent with the treatment of the same project costs for other Indiana electric utilities. Accordingly, the Commission accepts IPL's proposal to treat this and future projects subject to MISO regional cost allocation as non-jurisdictional and to recover all allocated Scheduled 26 or 26-A charges through the RTO Rider, as set forth below. The resulting adjustment to pro forma revenues is ($1,715,000).

(4) Navistar Closure. IPL witness Cutshaw noted the closure of Navistar in his direct testimony, but no IPL witness sponsored any pro forma revenue adjustment in IPL's schedules, financial exhibits, or rate design. In his rebuttal testimony, Mr. Cutshaw noted that IPL did not make an adjustment in its rebuttal financial exhibits, instead stating "it would be appropriate for *the Commission* to make this adjustment or otherwise consider this loss in revenue in determining the overall result in this case." Pet. Ex. 16-R at 57 (emphasis added). Mr. Cutshaw reasoned that this presentation was consistent with IPL's case-in-chief. We note that the OUCC proposed order did not include the Navistar closure in its revenue calculation.

It is unclear why IPL proposed treating the Navistar closure in the manner presented. IPL filed 15 revisions to its case over the course of the proceeding, but chose not to take the opportunity to revise its case to include a proposed pro forma revenue adjustment. Ultimately, the petitioning utility has the burden to establish and actually make adjustments to pro forma results. IPL's presentation failed to actually make the adjustment it believes appropriate, and we decline to accept IPL's proposal.

Further, the impact of IPL's implied appropriate treatment of the Navistar revenues would result in a simplistic summary increase in rates, rather than reflecting that revenue loss in IPL witness Gaske's cost of service study. Because the revenue decrease was not allocated to the affected class, the impact would create unnecessary distortions from sound and supported cost allocation principals. With the current rates being in effect for a relatively short duration, IPL will have an opportunity to present actual revenues, allocated to respective classes without unexplained distortions, in its next rate case.

(5) Migration Adjustment.

(a) Evidence. Dr. Gaske proposed a downward revenue adjustment of $1.187 million to account for lower revenues he contended would be realized by IPL upon the approval of new rates. The basis for the adjustment was the supposition that IPL customers, upon the approval of new rates, would switch to the most economic rate available. Dr. Gaske stated that after rates are implemented, IPL intends to notify customers that may benefit from switching to a different rate. In response, OUCC witness Watkins proposed that the Commission reject the migration adjustment as speculative. In rebuttal, Dr. Gaske argued that absent the migration adjustment, IPL would not achieve the designed level of revenues. Dr. Gaske also recalculated the proposed decrease in revenues to $1.377 million.

(b) Discussion and Findings. The proposed migration adjustment essentially makes a pro forma revenue adjustment to address customer behavior that may occur after the new rates go into effect, which is outside of the adjustment period. We agree with the OUCC that the adjustment is speculative, and cannot be considered a change that is fixed, known, and measurable. While it may be reasonable to assume that some customers will change rates because a better rate exists, the Commission cannot determine how many may do so, and therefore is unable to reasonably quantify any actual decrease in revenues that may occur. Further, given the relatively short period of time that these rates will be in effect, any customer migrations will be captured by actual data in Petitioner's next rate case. Accordingly, we reject Petitioner's proposed $1.377 million downward adjustment to revenues.

C. Disputed Operation and Maintenance ("O&M") Expense Adjustments.

(1) Overtime Expense.

(a) Evidence. IPL witness Steadman sponsored various pro forma adjustments related to wages and the related payroll taxes, benefits, and AES Services transactions. She explained how the total pro forma base wages amount was determined. She explained how she accounted for wage increases and incentive pay, which includes both short-term and long-term compensation for specific employees. With respect to overtime pay, Ms. Steadman stated the overtime experienced during the test year, exclusive of that pertaining to storms and plant overhauls, was adjusted to consider the effects of pay rate changes that will occur prior to June 30, 2015.

In response, OUCC witness Morgan disagreed with IPL's inclusion of open IPL and AES Services positions in determining pro forma base salaries and wages, and stated that it is unreasonable to assume that a full complement of employees will exist throughout the year. He also disagreed with IPL's calculation of overtime expense, stating that the number of overtime hours in the test year is abnormally high and that a three calendar year average should be used instead for union employees. Mr. Morgan also proposed the removal of $22,000 in employee relocation costs, stating that this is consistent with IPL's removal of these costs in conjunction with the formation of AES Services at the end of 2013.

In rebuttal, Ms. Steadman explained that relocation expense is a typical business expense for a corporation to incur when attracting talented employees and noted that Mr. Morgan did not claim this level of expense was excessive. She explained that the relocation costs at issue here were incurred in May 2014, which was after the start-up period for AES Services and therefore are appropriately included in the revenue requirement.

With respect to overtime expense, Ms. Steadman disagreed with Mr. Morgan's proposed adjustment to overtime cost and proposed a number of corrections. First, she identified an error in Mr. Morgan's calculation of the clerical overtime average hourly rate used for his proposed adjustment. Second, she stated that Mr. Morgan should have divided the dollar amounts for the non-storm/non-outage pro forma overtime wages by the respective quantities of non-storm/non-overtime hours to arrive at average per hour wage rates for both unions. She explained that the overtime worked during storms and outages includes more double-time; therefore, including these in his average overtime rates causes Mr. Morgan's hourly rates to be too high. Third, Ms. Steadman disagreed with the allocation percentage used by Mr. Morgan to identify the portion of his

adjustment applicable to O&M expense and recommended use of the specific test year allocation percentage for just overtime. Ms. Steadman stated that even with these corrections, Mr. Morgan's use of a three calendar year average will understate the cost that IPL incurs for physical and clerical union non-storm/non-outage overtime hours. She said the detailed information from calendar years 2012, 2013 and 2014 demonstrate that the pro forma test year average hourly rates were conservative, being lower than those experienced during 2012, 2013 or 2014. She opined that it is inappropriate to only use hours to measure the reasonableness of the overtime pro forma amount, and concluded that the pro forma test year amount of overtime included in IPL's original filing is reasonable.

(b) Discussion and Findings. Following the presentation of rebuttal, the record reflects that the OUCC accepted Ms. Steadman's rebuttal position regarding the adjustments for employee labor costs, benefit costs, and FICA expense for open IPL and AES Services positions. The OUCC also accepted her $513,000 reduction in IPL and AES Services Long-Term Incentive Compensation Expense benefits and her $1,562,000 reduction in IPL pension and OPEB expense. *See* IPL CX-41. No other party challenged these adjustments and we find them to be reasonable and the levels of expense included in the revenue requirement appropriate. With respect to Mr. Morgan's proposed disallowance of $22,000 in relocation expense because it was similar to other costs removed with the formation of AES Services, we agree with IPL that such costs are reasonably necessary to attract and retain talented employees. No party contested the prudency or level of this expense and we note the OUCC did not dispute the relocation expense adjustment in its proposed order.

With respect to IPL's adjustment for overtime expense, the record reflects that during the test year, the number of non-storm/non-outage overtime hours for both the physical union and the clerical union were the highest recorded amongst the three previous calendar years and the twelve-month period subsequent to the test year. A comparison showing the significant difference between the overtime hours during the test year is presented in the chart below:

	Non-Storm/Non-Outage Overtime Hours	
	Physical Union	Clerical Union
Calendar Year 2012	201,206	18,502
Calendar Year 2013	232,929	21,465
Calendar Year 2014	255,769	22,082
12 Months Ended June 30, 2014	313,774	23,364
12 Months Ended June 30, 2015	276,206	22,335

As indicated above, the test year non-storm/non-outage overtime hours for both the physical and clerical unions are abnormally high. Given that the hours decreased in the adjustment period, we find that normalization of the test year non-storm/non-outage overtime hours is appropriate. However, we believe the three-year average proposed by Mr. Morgan would understate overtime

hours going forward, as the average amount of physical union hours is 229,968 and clerical union hours is 20,683, which are lower than two of the three years used in the average. Instead, we find that using calendar year 2014 hours is a reasonable compromise.

We must determine the proper value of the adjustment to normalize overtime expense, which requires reviewing three issues raised in Ms. Steadman's rebuttal testimony. First, Ms. Steadman's rebuttal noted a mathematical error in Mr. Morgan's calculation of the overtime rate for the clerical union. The record reflects Mr. Morgan accepted Ms. Steadman's correction of this error in discovery responses issued after IPL's rebuttal testimony was noted at the hearing.

The second issue raised by Ms. Steadman involves the determination of the average rates. In her rebuttal testimony, Ms. Steadman identified specific data in IPL's filing where the non-storm/non-outage overtime rate could be directly calculated by dividing non-storm/non-outage cost amount and by the non-storm/non-outage hours. Using this approach, Ms. Steadman calculated a physical union rate of $49.16 per hour and a clerical union overtime rate of $37.89 per hour. We accept the rates as calculated under Ms. Steadman's approach. Finally, Ms. Steadman disagreed with the O&M allocation factor used in Mr. Morgan's adjustment because IPL presented a specific allocation factor in its rebuttal testimony that is used for overtime costs. Again, we accept the allocation factor recommended by Ms. Steadman. Based on the evidence presented, we find that the appropriate level of Petitioner's pro forma test year amount of overtime should be adjusted by ($2,533,824) as summarized below.

Annual Overtime	Physical Union	Clerical / Technical Union	Total
2014 Non-Outage, Non-Storm Hours	$ 255,769	$ 22,082	
Test Year Non-Outage, Non-Storm Hours	$ 313,774	$ 23,364	
Adjustment to Normalize Overtime Hours	$ (58,005)	$ (1,283)	
Hourly Rate	$ 49.16	$ 37.89	
Adjustment to Overtime Wages	$ (2,851,514)	$ (48,594)	
Percent to O&M	87.37%	87.37%	
Adjustment to O&M Expense	$ (2,491,367)	$ (42,457)	$ (2,533,824)
FICA Taxes at 7.65%	$ (190,590)	$ (3,248)	$ (193,838)

(2) Major Storm Expense.

(a) Evidence. IPL witness Cutshaw proposed an adjustment to decrease test year storm expense by $1.580 million, using a 5-1/2 year average to normalize storm expense. He noted the test year included a Level 3 storm in January 2014 and therefore test year

storm expenses were higher than normal. However, he also testified that since the Level 3 storm occurred within the test year, IPL proposed a two-year amortization of the excess of the test year level over the pro forma level. He said the two-year amortization period matches the expected life of the rates to be approved in this case and allows IPL to recover prudently incurred major storm expense.

In response, the OUCC did not contest the pro forma amount of Level 1 & 2 storm expense of $0.905 million, or the pro forma Level 3 & 4 storm expense of $0.831 million. However, OUCC witness Blakley proposed to disallow recovery of the annual amortization amount of $1.292 million representing one-half of the additional actual test year Level 3 & 4 storm damage restoration costs above the 5-1/2 year average. He said this would result in recovery of something in excess of the 5-1/2 year average which IPL used as the basis for storm restoration expenses, which could be viewed as over-recovery. Mr. Gorman stated that eliminating the Major Storm Damage Restoration Reserve mechanism would remove approximately $0.8 million from the requested revenue requirement. Mr. Gorman did not contest the pro forma Level 1 & 2 storm expense or the annual amortization of $1.292 million for the Level 3 & 4 storm in the test year, but included $0 for the Level 3 & 4 pro forma amount.

In rebuttal, Mr. Cutshaw explained that actual test year Level 3 & 4 storm restoration costs were $3.415 million. He testified that without the Major Storm Damage Restoration Reserve, Petitioner would propose in the alternative that there be no adjustment to the test year level for either Level 1 & 2 or Level 3 & 4 Storms. He explained that the amount included in the proposed revenue requirement effectively implements the methodology of the proposed Major Storm Damage Restoration Reserve for these actual test year costs.

(b) Discussion and Findings. There is no disagreement that prudent storm damage expense should be included in the revenue requirement. These costs can vary widely from year to year and should be normalized over some period of years. As we have previously recognized, major storm damage expenses present a unique problem for ratemaking. *Indiana Michigan Power Company*, Cause No. 44075, at 68 (IURC Feb. 13, 2013). Major storms will occur, but the timing, frequency, and amount of potential damage is unpredictable.

IPL's proposal to address these unforeseen events is three-fold: include an average amount for storm damage in base rates; on a going forward basis, utilize the Major Storm Damage Restoration Reserve, which will be calculated based upon the average level of expense for such storms; and allow IPL the opportunity to recover its test year Level 3 storm expense through an amortization.

IPL's proposal to use a 5-1/2-year average of storm expense is reasonable, and we find it is an accurate reflection of a going-forward level of IPL's actual expenses caused by major storm damage as it normalizes the last two Level 3 storms IPL has faced. Consistent with our approval of the Major Storm Damage Restoration Reserve, addressed below, we find the amounts of $0.905 million in storm expense for Level 1 & 2 storms and $0.831 million for Level 3 & 4 storms to be reasonable and approve the inclusion of these amounts in IPL's revenue requirement.

However, we reject IPL's proposal to amortize the actual Level 3 & 4 storm expense incurred during the test year exceeding the pro forma level over a two-year period. Petitioner's Level 3 storm expense has been normalized as part of the 5-1/2 year average that has been accepted

by the Commission. The purpose of ratemaking in the context of a base rate case is to determine an appropriate level of rate recovery going forward. Petitioner's proposal to recover the entire amount of its Level 3 storm expense is essentially a request to create a deferred asset in this case, which will then be amortized once rates are approved. While IPL cites to our Order on Reconsideration in *Duke Energy Indiana*, Cause No. 43743 (IURC Oct. 19, 2011), we merely noted in that case that ongoing storm damage expense was most appropriately considered in the context of a base rate case. Nothing in that Order suggested that the Commission should approve actual historic storm expense on a going forward basis. Further, we decline IPL's invitation to use its amortization proposal as a way to fast-track the implementation of the storm damage reserve account. While we approve that treatment below, we do so prospectively, not for historic storm damage.

In conclusion, we accept IPL's pro forma adjustment to reduce test year storm expense by $2.872 million, but reject IPL's proposal for a two-year $1.292 million amortization of storm expense. Accordingly, we find the appropriate pro forma adjustment to storm expense shall be a decrease of $2.872 million.

(3) MISO Deferred Expense Amortization.

(a) Evidence. IPL witness Cutshaw sponsored two adjustments related to MISO Non-fuel costs. First, he proposed an adjustment to reflect an additional $14.905 million as an ongoing level of expense for MISO Non-fuel costs. This amount represents the pro forma annual level of cost previously being deferred. No party contested this ongoing level of expense and we find it appropriate to include in the revenue requirement.

Mr. Cutshaw also sponsored an adjustment related to the amortization of MISO Non-fuel deferred costs. He testified that as of June 30, 2014, IPL has deferred $102.770 million of MISO Non-fuel charges in accordance with orders in Cause Nos. 42266, 42685, and 42692 and expects to defer an additional $14.905 million during the adjustment period, for a total deferral of $117.675 million. Mr. Cutshaw stated IPL proposes to amortize the costs deferred as of June 30, 2014 plus the estimated costs to be deferred for the following 12 months over a six-year period, resulting in an annual amortization expense of $19.613 million. He said IPL is proposing a slightly longer amortization period than that approved for Vectren and NIPSCO to balance the impact on the revenue requirement with the need to recognize these previously incurred costs in the revenue requirement.

In response, OUCC witness Blakley stated that IPL seeks authority to amortize over a slightly longer period (six years) a much larger amount of MISO costs than Vectren or NIPSCO. He said the OUCC had voiced concern before about the possible size of IPL's deferred MISO cost, and that the Commission's approval of deferred accounting authority in other cases should not be construed as open-ended approval to defer these costs indefinitely. He stated a ten-year amortization period would be less burdensome on ratepayers and more in line with the annual recovery of deferred MISO expenses by other utilities.

Industrial Group witness Gorman opposed recovery of the deferred MISO Non-fuel costs on the grounds that IPL's existing rates have been sufficient to allow IPL to expense these costs while still earning revenues in excess of its Commission-authorized return. He stated that IPL has earned an amount of excess revenues that more than offsets the deferred MISO Non-fuel costs IPL proposes to include in this case. Mr. Gorman said that, in addition, IPL has consistently paid

dividends to its parent corporation, which makes it reasonable to assume there were sufficient profits generated by IPL. Mr. Gorman explained why he believed it was consistent with deferred accounting authority to exclude the deferred costs in prospective rates if it is shown that the utility recovered enough revenue in the past to have fully recovered the deferred costs. Finally, Mr. Gorman stated that the language in the order in Cause No. 42685 cited by IPL does not specifically authorize the continued deferral of MISO Day-1 Costs and, absent more definitive authority from the Commission, the amount of deferred MISO Day-1 Costs accumulated after December 31, 2006 should not be eligible for amortization in the future.

Mr. Cutshaw and IPL witness Reed provided rebuttal testimony to the OUCC and Industrial Group responses. Mr. Cutshaw responded to Mr. Gorman by explaining that the plain language of the Commission's Order in Cause No. 42685 provided authority for all four of the Indiana investor-owned electric utility members of MISO to continue to defer and subsequently recover through rates all of the Non-fuel MISO charges presented in this case.

Mr. Reed testified that the source of the MISO revenues that Mr. Blakley is suggesting should be used as an offset to the deferred Non-fuel MISO costs are not at all related to the costs that have been deferred. Mr. Reed further explained that Mr. Gorman's proposal to disallow these deferred costs ignores the fact that these deferrals were authorized by the Commission and are prudently incurred costs carried out in the provision of utility service for which the utility is entitled to a reasonable opportunity for recovery.

(b) Discussion and Findings. The specific ordering paragraphs in Cause No. 42685 stated:

> 5. IPL's request for approval of Standard Contract Rider No. 21; Vectren's request for approval of an Ind. Code § 8-1-2-42(a) MISO Rider mechanism; and NIPSCO's request for approval of its EMTRM tracker are hereby denied by the Commission. Requests for the recovery of MISO Costs (that differ from fuel costs properly recoverable under FAC proceedings) may be presented as part of each of the Joint Petitioner's next base rate case in which these MISO Costs can be evaluated *and offset with other costs, revenues and earnings*.
>
> 6. Vectren and IPL may defer such MISO Costs as of the date of the filing of the Verified Joint Petition in this Cause, and may seek recovery of those costs as part of their next base rate case, provided that they may not seek recovery of any interest or other carrying charges on such costs. NIPSCO may begin deferral of MISO Costs for recovery as part of its next base rate case, at the end of the rate freeze consistent with the terms of its Settlement Agreement in Cause No. 42746, and the findings set-forth herein, provided that they may not seek recovery of any interest or other carrying charges on such costs.

PSI Energy, Inc., et al., Cause No. 42685, at 44 (IURC June 1, 2005) (emphasis added). The emphasized language is the language upon which the OUCC and Industrial Group rely for purposes

of their arguments that not all of IPL's deferred MISO Costs are eligible for recovery – with the OUCC claiming that the deferred MISO Costs should be offset with MISO transmission revenues and the Industrial Group proposing to offset with earnings in general. IPL's proposed riders in this Cause do include offsets. The deferral authority is the ensuing ordering paragraph, and it contains no such offsetting language. This is consistent with our earlier interpretations of this language.

We find the OUCC's proposal to net the deferred MISO Non-fuel costs by transmission revenues previously recorded on the income statement is inconsistent with our prior orders and should be rejected. In Cause No. 43526, we rejected the OUCC's offset proposal and stated that "[t]he Order in Cause No. 42685 allows the deferral of the Midwest ISO costs with no mention of the reduction proposed now by OUCC Witness Catlin." *NIPSCO*, Cause No. 43526, at 78. Similarly, we approved the full recovery of these same types of costs for Vectren without requiring an offset. *Vectren*, Cause No. 43111, at 17 (IURC Aug. 15, 2007). The Commission saw no reason to treat the utilities differently with respect to the review and recovery of MISO Costs in Cause No. 42685 and we decline to treat IPL differently here. *See, PSI Energy, Inc., et al.*, Cause No. 42685 at 39.

Nor do we find Mr. Gorman's proposal to modify prospective rates based on consideration of past earnings to be reasonable or permissible. The deferral authority in Cause No. 42685, which we have previously found does not include any offset for transmission revenues likewise does not warrant the broad offset that Mr. Gorman seeks.

Having denied the proposed revenue offsets to the deferred costs, we next address the appropriate length of time over which Petitioner should be permitted to collect 12 years of deferred MISO costs. Noting IPL was seeking to amortize nearly $118 million over six years creating a nearly $20 million annual revenue requirement, the OUCC suggested a ten-year amortization period, pointing out that it would be less burdensome on ratepayers and more in line with the annual recovery amounts by the other utilities that deferred MISO expenses.

We agree that under the circumstances of this case, including the fact that the deferred amount accrued over a period of more than 12 years (a byproduct of IPL's rate case timing), a ten-year amortization period is reasonable. Accordingly, we find that the net amount of deferred MISO costs to be recovered through rates shall be amortized over ten years creating an annual revenue requirement of $11.77 million per year.

(4) Capacity Costs. As discussed in Section 14(B), *infra*, no party disputed IPL's proposal to embed $1.8 million in capacity expense into IPL's basic rates if its proposed capacity ("CAP") adjustment mechanism is approved. Accordingly, we find the level of capacity expense to be embedded in basic rates should be $1.8 million.

(5) Regulatory Expenses.

(a) Evidence. IPL included the unadjusted test year level of regulatory expenses, $928,727, in its proposed revenue requirement.

OUCC witness Eckert recommended that $196,611 in regulatory expense associated with Cause Nos. 44339 and 44478 be eliminated from O&M expense, because it reflects an infrequent, or one-time, non-recurring expense.

In rebuttal, IPL witness Forestal testified that the types of expenses described in Mr. Eckert's testimony are representative of the types of expenses IPL expects to incur in the future. He provided a summary of these consulting costs as shown below:

Period	Amount
Calendar Year 2013	$1,360,303
Calendar Year 2014	986,706
Test Year	928,727
Year Ended June 30, 2015	1,185,493
*Calendar Year 2015	983,378

* This amount represents the amount for the first six months of 2015 annualized (multiplied by two).

Mr. Forestal testified that IPL expects these types of costs to continue in the future as there is a significant amount of activity regarding environmental regulation and legislation as well as other regulatory requirements. He also provided a list of specific issues that are expected to require IPL to use external regulatory consulting support in the short term.

(b) Discussion and Findings. IPL has not sought a pro forma adjustment to its test year expense and has adequately supported its test year regulatory expense and satisfied the applicable standard for including these types of expenses going forward. The level of regulatory expense during the test year was the lowest amount in the past three years, including the adjustment period. Further, Mr. Forestal established that there is a significant amount of regulatory activity anticipated in the short term. The purpose of the ratemaking process is to establish the expense levels going forward. The Commission finds that the unadjusted test year regulatory expense represents a reasonable level of ongoing expense.

(6) Rate Case Expense.

(a) Evidence. IPL included rate case expense cost recovery in the total amount of $4,654,246 in its proposed revenue requirement. IPL proposed a two-year amortization period for all rate case expenses other than those for demolition and depreciation studies, for which the proposed amortization period is five years. IPL witness Forestal explained that a two-year amortization period was appropriate for the non-demolition and depreciation study costs, because that timing reflects the period of time that IPL projects the rates fixed in this proceeding will be in effect. Mr. Forestal also explained that IPL chose a five year amortization period in their case in chief for the demolition and depreciation studies because it may not be necessary to have full demolition and depreciation studies in each rate case.

In response, OUCC witness Eckert recommended a downward adjustment to rate case expense in the amount of $236,389 to remove the costs associated with Energy Group Inc. and Heid Rate and Regulatory related to initial cost of service analyses performed by them. Mr. Eckert testified that the OUCC had concerns regarding possible duplication of work being done by these consultants in addition to the work performed by Concentric and Utilities International related to

cost of service and rate design. He stated the OUCC does not believe it is appropriate for ratepayers to be required to pay for multiple studies.

Mr. Eckert also proposed an amortization period of two years for depreciation/demolition expense as opposed to IPL's proposed five-year amortization period. He testified that a two-year period would be consistent with IPL's proposal to file another rate case in two years and OUCC Witness Rutter's recommendation for IPL to perform a new depreciation study in IPL's next rate case. Mr. Eckert also recommended IPL reduce base rates for the amortization of rate case expenses, including depreciation and demolition study expenses, once those amortization periods have expired.

In rebuttal, Mr. Forestal testified that while IPL derived value from the services provided by Energy Group Inc. and Heid Rate and Regulatory, IPL would accept Mr. Eckert's adjustment to remove the costs associated with those consultants, in the interest of moving the case forward.

With respect to Mr. Eckert's proposed two-year amortization period for depreciation and demolition expense, Mr. Forestal referred to the explanation provided by IPL witness Spanos in his rebuttal testimony as to why a depreciation and demolition study will not be necessary in IPL's next rate case. As a result, Mr. Forestal stated IPL continues to believe a five-year amortization period for depreciation/demolition expense is more appropriate. Mr. Forestal also provided an update to IPL's projection of rate case expense amounts. He explained that, in addition to the adjustment to remove costs associated with Energy Group Inc. and Heid Rate and Regulatory, IPL has updated its projection of the other rate case expense amounts, reflecting an increase of $101,574 from what was filed in IPL's case in chief. He stated the increase was due to costs of additional work undertaken to address issues raised by parties in the case that extended beyond what was contemplated when the initial expense was estimated. While a contingency amount was built into IPL's original estimate, Mr. Forestal explained that issues related to asset management, performance benchmarking, Low Income Assistance Fund, and the Brighter Indianapolis Program exceeded the scope of that contingency amount.

After giving effect to the $236,389 downward adjustment proposed by the OUCC, and the $101,574 increase in the estimate of other rate case expenses, IPL's updated proposed rate case expense is $4,519,431. The net reduction reduces annual amortization as shown on IPL Fin. Ex. IPL-OPER, Schedule OM15-R.

(b) Discussion and Findings. Apart from the OUCC's recommended reduction for costs associated with Energy Group Inc. and Heid Rate and Regulatory, which IPL accepted on rebuttal, IPL's original proposed rate case expense was undisputed. The remaining dispute is whether IPL's updated projection of the other rate case expense amounts should be accepted.

While the OUCC questioned the updated amount and the use of the contingency, Mr. Forestal's rebuttal testimony provided adequate support for IPL's proposed rate case expense. Further, we agree with IPL that its expense associated with the investigation issues are appropriately included in the rate case expense. The rate case and investigation dockets were previously consolidated by the Presiding Officers, and the issues subject to Cause No. 44602 have impacted the Commission's decisions with respect to the rate case issues. Accordingly, the Commission accepts the proposed level of rate case expense as presented in IPL's rebuttal filing as the most up to date.

No party challenged IPL's proposed two-year amortization period for rate case expense. Accordingly, we find that the rate case expenses to be recovered through rates shall be included in the rates at an annual revenue requirement of $2.186 million per year. We also approve the five-year amortization period for depreciation and demolition study expense for the reasons explained in our discussion below of the depreciation accrual rates.

(7) Income Tax Expense. IPL witness Allamanno computed pro forma state and federal income tax expense. Except for two issues, his calculations were accepted by all parties and are hereby approved. The two disputed issues are the correct state income tax rate and interest synchronization, which we discuss below.

(a) State Income Tax Expense.

1. Evidence. IPL used an Indiana state income tax rate of 6.75% to compute state income tax expense for the revenue requirement. OUCC witness Morgan used an Indiana state income tax rate of 6.50% to calculate state income tax expense for the tax year. He stated this is the state income tax rate that will be in effect when the rates approved in this proceeding go into effect, and results in a net reduction in income tax expense at present rates of $110,000. Mr. Allamanno testified that the correct Indiana state income tax rate to be used for ratemaking in this proceeding is 6.75%. He stated that the 6.50% rate reflected in Mr. Morgan's calculations represents the Indiana Corporate Income Tax Rate in effect for fiscal year 2016, which begins on July 1, 2015. Mr. Allamanno testified that since IPL files its Indiana Corporate Income Tax Returns based on a calendar, not fiscal, year, the appropriate state income tax rate applicable to IPL's calendar year 2015 results is 6.75%.

2. Discussion and Findings. As explained by Mr. Allamanno, IPL files its Indiana Corporate Income Tax Rate on a calendar year, not fiscal year, basis. To determine the net operating income at present rates, the Commission agrees with Mr. Allamanno that 6.75% is the appropriate rate. However, to determine the rates going forward, the 6.50% rate is appropriate, which is the rate that will be in effect on the effective date this Order.

(b) Interest Synchronization.

1. Evidence. OUCC witness Morgan contended that interest expense on customer deposits should be included in the interest synchronization calculation. In rebuttal, IPL witness Allamanno explained that interest revenues from customer deposits are not operating revenues to the utility. As such, he responded that the interest expense should not be included in the interest synchronization calculation. He cited numerous prior Commission Orders supporting his position.

2. Discussion and Findings. We have determined on several occasions that interest expense on customer deposits should not be included in the interest synchronization calculation. *See, e.g., Indiana Michigan Power Co.*, Cause No. 39314, at 164 (IURC Nov. 12, 1993). We see no reason to depart from these prior rulings. Accordingly, we reject Mr. Morgan's proposal.

(8) Uncollectibles Expense.

(a) Evidence. IPL witness Forestal provided direct testimony concerning uncollectible expense and IPL's proposal to use 0.3891% as the uncollectible rate. OUCC witness Morgan testified that IPL's proposal should be adjusted downward by $749,000 based on a 0.3259% three-year average rate ending June 30, 2014. In his rebuttal testimony, Mr. Forestal discussed IPL's history of revenues and write-offs for the ten and one-half years ending with June 30, 2015, stating that the average uncollectible rate over that time period was 0.3556%, and if the highest and lowest years are removed, the uncollectible rate would be 0.3573%.

(b) Discussion and Findings. The test year uncollectible rate was one of the highest of the previous ten years, as shown in Mr. Forestal's rebuttal testimony. Similarly, the three-year average proposed by Mr. Morgan included two of the lowest yearly uncollectible rates. The purpose of ratemaking is to develop an overall revenue requirement that is reflective of utility operations going forward. For uncollectible expense, this is best demonstrated by the ten-year average uncollectible rate, with the removal of the two outlier years. Accordingly, we find that the uncollectible rate shall be 0.3573%, which results in a decrease to test year uncollectible expense of $111,000.

10. Net Operating Income at Present Rates. We find that each of the adjustments we have approved are appropriate for ratemaking in that they result from changes that are fixed, known, and measurable and that will have occurred within 12 months of the close of the test year. Based upon the evidence and the determinations made above, we find IPL's adjusted operating results under its present rates are as follows:

Operating Revenues		$ 1,203,560,000
Less: O&M Expenses		$ 821,977,000
Depreciation/Amortization		$ 208,582,000
Other Taxes		$ 44,704,000
State Income Taxes		$ 4,902,000
Federal Income Taxes		$ 18,763,000
Income Tax Credit Adjustments		$ (1,803,000)
Total Operating Expenses		$ 1,097,125,000
Net Operating Income ("NOI")		$ 106,435,000

In summary, we find that with appropriate adjustments for ratemaking purposes, IPL's annual net operating income under its present rates for electric utility service would be approximately $106,435,000, which is insufficient to represent a reasonable return. We therefore find that IPL's present rates are unreasonable. Accordingly, it is both reasonable and necessary for new rates and charges to be established.

11. Authorized Revenue Requirement. On the basis of the evidence presented, we find that IPL should be authorized to increase its basic rates and charges to produce additional operating revenue of approximately $29,622,000. This revenue is reasonably estimated to afford IPL the opportunity to earn net operating income of approximately $124,083,000, as follows:

Operating Revenues	$ 1,233,182,000
Less: O&M Expenses	$ 822,119,000
Depreciation/Amortization	$ 208,582,000
Other Taxes	$ 45,117,000
State Income Taxes	$ 6,818,000
Federal Income Taxes	$ 28,266,000
Income Tax Credit Adjustment	$ (1,803,000)
Total Operating Expenses	$ 1,109,099,000
Net Operating Income ("NOI")	$ 124,083,000

Calculation of Authorized Increase in Revenue:

Fair Value Rate Base	$ 2,751,278,000
Rate of Return on Fair Value	4.51%
Allowable Electric Operating Income	$ 124,083,000
Less: Adjusted NOI at Present Rates	$ 106,435,000
Deficiency in Electric Operating Income	17,648,000
Divided by: Revenue Conversion Factor	0.595771
Authorized Increase in Revenue	$ 29,622,000

12. Miscellaneous Rate Issues.

A. Depreciation Study.

(1) Evidence. IPL witness Spanos performed a depreciation study for IPL's electric plant as of December 31, 2013. Mr. Spanos used the straight line remaining life method of depreciation with the equal life group procedure.

While not opposed to the depreciation rates established in this Cause, OUCC witness Rutter noted that IPL's depreciation rates were last set in 1986 and testified that it was unreasonable to rely upon those depreciation rates for thirty years. Mr. Rutter expressed concern with respect to negative utility plant balances for some accounts. As a result of his concerns, he proposed that a new depreciation study be conducted in the next rate case such that negative plant balances could be evaluated again. Further, he testified that as a result of the negative plant balances, funds should be available to address downtown network issues.

In rebuttal, Mr. Spanos responded to witness Rutter's testimony concerning accounts with negative balances and regarding his proposal to use negative plant balances to cover other expenditures. He stated that just because an account has a negative balance does not mean that it is fully depreciated. Negative salvage estimates, properly included in the account, can result in a significant amount of cost still to be recovered through depreciation expense. Mr. Spanos testified that service life and net salvage estimates for long-lived property do not change significantly in the short time period and that his study using remaining life depreciation rates already addresses the OUCC concern.

(2) Discussion and Findings. No party challenged the resulting depreciation rates, which have been reflected in pro forma depreciation expense above. The only

issue that the Commission must address is whether it should set the required timing of IPL's next depreciation study. Given IPL's planned construction activities over the next two years, the Commission finds that it would be appropriate to leave the discretion to conduct another depreciation study to IPL rather than requiring IPL to conduct another study. For purposes of rate case expense amortization, we will amortize the costs of the depreciation study in this case over five years as proposed by IPL.

B. Major Storm Damage Restoration Reserve.

(1) Evidence. IPL witness Cutshaw explained the accounting methodology IPL would use, which is the same accounting methodology IPL uses for over- or under-recovery related to other items that the Commission has approved. He said that in its next general rate case, IPL would summarize the activity in the reserve account and include an amortization in the cost of service developed for that case that would either reduce the cost of service for any over-recovery or increase the cost of service for any under-recovery as of the end of the test year. He said that in addition, IPL will propose an adjustment to the base level of the Major Storm Damage Restoration Reserve account that reflects recent historical storm damage levels.

In response, OUCC witness Alvarez stated that there are differences between IPL's proposal and the storm damage reserve approved for I&M in Cause No. 44075, including how IPL defines a major event for these purposes. He discussed the Institute of Electrical and Electronics Engineers ("IEEE") Standard 1366 definition of a major event and stated that the five large electric investor-owned utilities have all adopted the IEEE Standard 1366 to define a major event. He stated that if the Major Storm Restoration Reserve account is approved, IPL should be required to use the IEEE Standard 1366 definition of "major events" and submit annual reports to the Commission and OUCC.

OUCC witness Blakley argued that the major storm damage reserve shifts the risk of higher than anticipated operating expenses associated with Level 3 & 4 major storms from IPL to its ratepayers. He recommended the Commission reaffirm what he called the traditional practice of embedding a pro forma amount of major storm expense based on an historic average.

Industrial Group witness Gorman stated that IPL has not demonstrated that the infrequent major storm costs are significant enough to warrant this type of extraordinary rate treatment. He said that if a Major Storm Damage Restoration Reserve is approved, it should be limited to only Level 3 & 4 major storm events, and identified the types of costs that can qualify. He explained that each time IPL withdraws from the major storm restoration account, it should be obligated to provide a report and accounting that proves the withdrawals from the account are consistent with these qualifying factors.

In rebuttal, IPL witness Holtsclaw stated that IPL adopted the IEEE 1366 methodology for determining Major Event Days for purposes of reporting reliability performance in 2012. He provided the formal definition used by IPL for Level 3 & 4 Major Storms and explained IPL proposes to use Level 3 & 4 storm events as the definition for purposes of the proposed Storm Reserve in order to limit the number of storm events that would qualify for the proposed Storm Reserve accounting treatment. He said there have been three Level 3 and no Level 4 storms in IPL's service area from 2009 to July 2015. He said if IPL strictly followed the IEEE 1366 definition

during the same period, an additional 22 Level 1 & 2 storm events would have also qualified as Major Storm Events for purposes of the Storm Reserve.

(2) Discussion and Findings. IPL's proposed Major Storm Damage Restoration Reserve is similar to the proposal that the Commission approved in Cause No. 44075. *See Indiana Michigan Power Co.*, Cause No. 44075 at 72-73. The one significant difference relates to what storm events qualify for deferred accounting treatment. While IPL's definition of major storm event does not follow the IEEE 1366 methodology, Mr. Holtsclaw's rebuttal testimony established that IPL's definition is more strict than IEEE 1366 and that fewer storms would potentially qualify for cost inclusion in the reserve account.

With respect to the balance of risk between ratepayers and shareholders, the Commission's approval of the proposed storm reserve has been considered, as noted in our determination in Section 8(A)(2) concerning the ROE awarded to IPL. As we previously found in Cause No. 44075, we find IPL's proposed accounting treatment will smooth out the impacts of major storms, thereby mitigating the financial consequences of a major storm. In addition, we find the Major Storm Damage Restoration Reserve account provides a ratemaking mechanism that reasonably and in an administratively efficient manner recognizes the potential volatility of major storms while it, over time, reflects in rates no more or less than the direct costs incurred as a result of major storms. The result is a methodology that appropriately balances the interests of both the utility and the customer. Therefore, we approve IPL's proposal to establish a Major Storm Damage Restoration Reserve account.

In the event a major storm event occurs that qualifies for cost deferral, Mr. Holtsclaw indicated in questioning from the bench that IPL could file a report within 30 days of the conclusion of the event identifying the associated costs assigned to the reserve account. The Commission directs IPL to make any such compliance filing under this Cause.

C. AES Services Cost Allocation. IPL witness Tornquist discussed IPL's affiliate relationship with AES Services. He stated that effective December 23, 2013, AES Services began providing services to IPL. These services include accounting, legal, human resources, and information technology. The services are charged at cost with no mark-up. The arrangement includes services performed by AES Services for IPL as well as IPL services performed for AES Services.

Some costs are directly assigned while others are allocated. Allocated costs are assigned by specific project cost drivers and the drivers are defined in the Cost Alignment and Allocation Manual (CAAM). Mr. Tornquist described the underlying intent of the CAAM as cost allocation to preclude cross-subsidization between affiliates, including non-regulated affiliates. The CAAM states the Service Company is regulated by FERC; specifically it will file a Form 60 with the FERC on an annual basis. KAT Attachment 4 presents the basis of the allocations; the Composite Factor, for example, when applied would allocate costs 41% to DPL, 37% to IPL and 22% to US Generation (an affiliate not regulated by a specific state).

While no party challenged the proposed allocations or service company expense, the Presiding Officers issued Docket Entries on September 11, 2015, and September 24, 2015, requesting additional information with respect to the AES Services allocations, to which IPL responded on September 15, 2015, and September 28, 2015, respectively. IPL's Responses

indicated that while no third party audits had been undertaken with respect to CAAM, IPL confirmed that IPL or the Commission could seek FERC review of CAAM pursuant to Section 1275 of the 2005 Energy Policy Act.

The topic of service company allocations is important to the Commission because it is ultimately the Commission's responsibility to ensure that ratepayers are charged or credited an appropriate amount for services provided by or to utility affiliates. This is especially true when service companies provide services to unregulated affiliates. The Commission considers third party review of service company allocations an important factor in determining the reasonableness of those allocations. For example, in Cause No. 42536, the Commission found that NIPSCO's proposed allocations were reasonable, in part because an independent accounting firm tested the allocations as part of its audit procedures used to support their outside opinions on the financial statements of NIPSCO.

In this case, it is understandable that no third party review had been undertaken, given that AES Services only began providing services to IPL in December 2013. While the Commission finds the proposed allocations to be reasonable, we direct IPL to request FERC to review its Service Company allocations, pursuant to Section 1275 of the 2005 Energy Policy Act, and to make a compliance filing in this Cause to report the outcome of such request and review.

13. Cost of Service and Rate Design.

A. Cost of Service and Revenue Allocation.

(1) Evidence. IPL witness Gaske presented a fully allocated cost of service study ("ACOSS") to determine the embedded costs of serving the various customers. For allocation of production and transmission functions IPL used the coincident peak during each of the twelve months of the test period, otherwise known as the 12 CP method. For distribution costs, Dr. Gaske supported a Minimum System Study to determine the costs that should be allocated based upon demand (12 CP) and the costs that should be allocated based upon number of customers. The costs that are necessary for the "minimum system" are allocated based upon number of customers and the remaining costs of the distribution system are allocated based upon demand. Dr. Gaske allocated energy-related costs based on the amount of energy used by each class. Customer related costs are allocated based upon the number of customers in each class, and some distribution costs are based on the cost-weighted number of customers. Upon completion of the ACOSS, Dr. Gaske then attempted to mitigate the class rate increases primarily using an approach that the Commission utilized in *Indiana Michigan Power Co.,* Cause No. 44075 (IURC Feb. 13, 2013). He first calculated the subsidy (deviation from the average current return) that each rate class is currently paying, and he then determined an amount that would be appropriate to eliminate in the current case. His subsidy reduction among the classes is shown in IPL Witness JSG Attachment 2, Revised at 1 of 2.

OUCC witness Watkins responded to Dr. Gaske's cost of service study. For production plant, after his extensive analysis of alternative allocation methods, based on the similar results, he calculated and concluded that the 12 CP method can also be considered in this case for allocation purposes. He agreed with IPL's use of the 12 CP method for transmission plant allocation. For distribution plant, he recommended that all costs be allocated on the basis of demand, rather than customer count.

Despite his disagreements with the cost of service study, Mr. Watkins ultimately concluded that Petitioner's proposed class revenue distribution is not unreasonable. He recommended that any revenue increase be distributed to the rate classes in proportion to the class increases proposed by Dr. Gaske in his direct testimony and no class should receive a rate reduction.

Industrial Group witness Phillips testified that either the 4 CP or 6 CP method would be superior to the 12 CP method for allocating generation costs. With respect to allocation of the rate increase, he testified that IPL had originally proposed (prior to the prefiling of revisions to Dr. Gaske's testimony) a strict 20% proposed mitigation method. Mr. Phillips testified that this would be consistent with the Order in Cause No. 44075.

In rebuttal, as to allocation among the classes, Dr. Gaske testified that he accepted Mr. Phillips' recommendation to reduce subsidies by 20% to all customer classes, as limited by the constraint that no class receive more than a 10% overall rate increase and that no class receive a rate decrease.

(2) Discussion and Findings. IPL's proposed revenue allocation incorporates its 12 CP cost allocation methodology for production plant. Mr. Phillips testified that the average of the 12 monthly coincident peak demands method no longer reflects IPL's current or projected loads. Mr. Phillips examined the actual peak demands that IPL experienced during the test year and also testified regarding IPL's use of the four summer months for its generation planning purposes in IPL's Integrated Resource Plan ("IRP").

While IPL did not dispute the fact that it designs its generation portfolio utilizing the four summer months, IPL relied on a set of tests that FERC uses as a guide to determine a level of diversity in the monthly peaks and to determine whether a 12 CP demand allocator is appropriate. Mr. Phillips testified that the Commission should not rely on the FERC tests for cost allocation for Indiana utilities. However, the Commission has historically supported using the 12 CP methodology if the FERC diversity tests are satisfied. *Northern Indiana Public Service Co.*, Cause No. 43526, at 84-85 (IURC Aug. 25, 2010). IPL provided a summary table showing that the 12 CP methodology is consistent with the FERC tests.

We understand that a change in cost allocation methodology can have significant impacts on customer classes and therefore any change in the allocation method should not be taken lightly. The Commission's preference is to "utilize the previously approved allocation methodology, given sufficient evidence, unless system operating characteristics are demonstrated to have changed since the last approved cost of service study allocation methodology." *Id.* at 85. Further, we are also cautious to adopt a new allocation methodology without seeing the potential bill impacts on customer classes. Accordingly, we find that the 12 CP methodology represents a reasonable means of allocating production cost in this case.

For the allocation of distribution plant costs, we are not persuaded that none of the costs should be allocated based on the number of customers. The number of customers and their dispersion across a service territory create costs that can be independent of the demand of those customers. As both factors are cost drivers, and IPL has reasonably supported a reasonable delineation of the factors, we find its distribution cost allocation methodology reasonable.

With respect to the appropriate mitigation parameters to be applied to the resulting increases to the customer classes under the cost of service study, Mr. Philips expressed concern that IPL had deviated from the original proposed mitigation parameters of reducing subsidies by 20% with the added parameters that no rate class receive a decrease and no rate class receive an increase in excess of 10%. The City also proposed that the rates for MU-1 be decreased pursuant to Dr. Gaske's cost of service study and that IPL's proposed mitigation strategy of no rate decreases be rejected. On rebuttal IPL agreed with Mr. Phillips' recommendation that the 20% subsidy reduction be used for rate mitigation. IPL Ex. 24-R at 23.

The MU-1 street lighting rate ACOSS results create a sufficiently divergent result that the general ratemaking objective of IPL requires altering to be reasonably applied. Therefore, we find that the proposed mitigation factors of eliminating existing subsidies by 20%, modified to achieve the goals of no class receiving a decrease and no rate class receiving an increase greater than 10% should be applied, with the exception of the rate MU-1, which subsidy shall be 40% eliminated and the rate decrease restriction not applied, are reasonable and should be approved.

B. Comprehensive Low Income Bill Payment Assistance Program.

(1) Evidence. Joint Intervenors witness Howat recommended implementation of a low income rate that would be paid for by all classes of customers through a volumetric charge and that the low income rate be available to all residential customers at or below 150% of the poverty level. His recommendation was a 25% discounted rate. He also recommended a plan to implement a low-income arrearage write-down program by retiring pre-program arrearages through 12 timely payments of discounted bills. He conducted and submitted analysis for the Commission's consideration of the account activity among Low Income Home Energy Assistance Program ("LIHEAP") customers – number of overdue accounts, disconnect notices, and disconnection for nonpayment. Joint Intervenor witness Fraser presented demographic data concerning income levels and poverty rates in Indiana and Marion County.[7]

Industrial Group witness Phillips contended that recovery of social program costs is divorced from any cost causation principles and distorts electric price signals. He testified that the proposed program is best addressed by the Indiana state legislature.

In rebuttal, IPL witness Gaske testified that the Joint Intervenors' proposal raises significant policy issues for the Commission to address and that perhaps the manner and amount of low income assistance would be more appropriately addressed in a generic proceeding involving all regulated electric utilities or by the legislature.

(2) Discussion and Findings. We recognize the importance of the issues raised by Joint Intervenors, but find that there are numerous implementation and policy related concerns. The timing of the introduction of the proposal in this proceeding has not provided an opportunity for sufficient consideration of the complexities involved. As pointed out by Mr. Phillips, the application of costs that could be considered beyond the cost of electric service distorts electric service price signals. A well-designed proposal would include a thorough understanding of how it would create or alleviate any costs of providing electric service. Further, access to the key demographic and billing information the affected utility or utilities collect and hold is integral to

[7] Ms. Fraser adopted the direct testimony originally filed by Joint Intervenor witness Thomas.

evaluating any specific program design. Absent this information, we decline to adopt Mr. Howat's recommendations in this proceeding.

Joint Intervenors also have proposed that IPL be ordered to collect and report trend data on arrearages, disconnections, and related data points. While a properly designed program of the type suggested by Joint Intervenors would benefit from this information, and we encourage IPL to consider working with the Joint Intervenors and other interested stakeholders in further identifying beneficial information, we decline to order such collection and reporting solely on the basis of the evidence before us. We believe that any such effort is best pursued by the utility and interested stakeholders outside the regulatory constraints of a specific Commission directive.

C. Street Lighting.

(1) Evidence. The City presented a proposal with respect to its "Brighter Indianapolis Program." The premise is to switch all streetlights throughout the IPL service territory to LED technology. City witness Kramer explained that LED lights provide improved public safety benefits. He further testified that LED technology reduces energy use, lowers maintenance costs, and has a longer lifespan. He testified that upgrading streetlights in large groups will allow for low-cost volume purchase and that the time is right for retrofit with LEDs for Indianapolis.

City witness Park testified that due to cost of operations, the City has not been installing additional streetlights. She testified that under the City's proposal, the first 20,000 LED lights would be installed in six focus areas and that the retrofit program would apply not only to those streetlights billed to the City, but all streetlights in IPL's service territory. She attached to her testimony a copy of the street lighting contract between the City and IPL, which was approved as part of IPL's last rate case.

City witness Sommer calculated an LED rate that would apply to new lights in the Brighter Indianapolis Program. This would include streetlights that are billed to other entities and municipalities, such as Beech Grove, Speedway, Cumberland, and Meridian Hills. He testified that IPL's proposed street lighting tariff would discourage conversion to LED. He calculated his proposed LED rate based upon assumptions of cost of installation and an energy use and maintenance savings estimated by Dr. Kramer. Sommer, at 20-30. He testified that if the City's proposal is not approved, then IPL's mitigation strategy of maintaining MU-1 rates so as to reduce the amount of the increase for IPL should be rejected and that instead MU-1 rates should be reduced by $3 million.

In rebuttal, Dr. Gaske testified that there is an existing contract between the City and IPL, which would allow the City and IPL jointly to undertake such a program. IPL witness Henley testified that IPL was willing to undertake the LED street lighting retrofit for the City as long as adequate rates, agreements and commitments are in place so as to allow IPL to recover through the ratemaking process the full and true cost of providing this service and facilities. Mr. Henley proposed the parties work on this issue pursuant to the process in the Public Lighting Contract. Dr. Gaske testified that there is too much uncertainty concerning the financial viability of the City's proposed street lighting replacement program in the absence of some form of significant subsidy by other customers. He testified that where LED conversions have taken place, they have done so with significant grant funds.

(2) Discussion and Findings. Petitioner's existing and proposed Rate MU-1 provides: "The terms, prices, and provisions of this rate schedule shall be applicable to a consolidated city of the first class [*i.e.*, the City of Indianapolis] 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 IC 36-9-9-1, *et seq.*"[8] The City and IPL have an existing contract (City Exhibit 3-A), which establishes a procedure for the installation of any devices that are "an advancement or improvement in the art or service of lighting." If the City wants new facilities installed, which are not addressed in the current tariff, the existing contract requires the City and IPL to work together to establish a tariff for Commission approval of the City's desired facilities.

There is uncertainty concerning what it would cost to retrofit to LED technology, whether there are any grant funds available to finance it, and what the ultimate LED lighting rates cost tradeoffs might be. While there are energy use benefits of LED technology, we cannot find that the preference for LED streetlights is universal. The City proposes the Commission adopt an LED lighting rate based on the cost efficiency to be derived from a mass retrofit program. The existing City and IPL contract contains a path for the solution of the disagreement between the parties. Despite the City's apparent desire to come to this proceeding to make its interest known, we find that the existing contract mechanism is a far better course for the parties to investigate and further develop an LED conversion proposal than for us simply to order that an LED conversion throughout the IPL service territory take place. The Commission encourages the cost-effective implementation of advanced lighting technology and suggests that its technical staff can be made available to provide its expertise in moderating the dialogue if requested by the parties.

D. Rate Design.

(1) Evidence. Dr. Gaske explained that the rate design objective was guided by two goals: (1) the residential increase would remain less than 10%; and (2) no rate schedule would receive a rate decrease. The rate design proposed for residential and commercial rate classes by Dr. Gaske included moving additional fixed costs into the customer charge component of the bill. The result is a customer charge that increases by a greater percentage than the overall rate increase. He explained that the proposed level does not include all the fixed costs. In conducting the revenue proof, Dr. Gaske gave effect to the movement of customers who are eligible to migrate to a different rate schedule that would be more financially advantageous to them. He testified that after this case is concluded, IPL will notify those customers who would achieve lower bills by moving to a different rate schedule. The effect of this migration will result in the new rate schedules producing $1.187 million less in revenue, which was added to the overall rate increase requested.

OUCC witness Watkins objected to the increase to the residential customer charge. He testified that it violates gradualism, violates efficient competitive pricing, and discourages conservation. Mr. Watkins also opposed Dr. Gaske's proposed migration adjustment. The migration adjustment was based upon an analysis of customers and a determination that a number of the customers would be financially benefitted if they migrated to an alternative rate schedule. Mr. Watkins claimed that one cannot assume that a customer will choose to move to a more economical rate. He noted that savings for most would be less than 10%.

[8] This specific tariff language was approved by the Commission in accordance with the Settlement Agreement in Cause No. 39938. IPL Admin Notice 1, at 4-5, 8.

Mr. Watkins also recommended that water heating rates be eliminated in the next rate case, recommended that the demand charge increase for large commercial and industrial customers should be limited to 50%, and testified that if the interruptible rider is not used more regularly to invoke curtailments for energy economy reasons, it should be discontinued. Finally, he testified that the threshold for energy economy interruptions be reduced so that an interruption can be called whenever the Locational Marginal Price ("LMP") is reasonably forecasted to be in excess of IPL's purchased power benchmark.

Joint Intervenor witness Howat also objected to the increase to the customer charge and continuation of declining block rates. He testified that rate structures such as these have a disproportionate impact on low income, elderly, and African American customers, and that on average, low income customers use less electricity than the average or than their higher income counterparts.

Industrial Group witness Phillips objected to the proposed increase in the demand charge for the HL class. He testified that the increase in the demand charge for this class was roughly 100%. He testified that as a result, at least one customer would be projected to receive an overall cost increase significantly in excess of 10%. He recommended that each element of the rate for the HL3 class be increased by the percentage allocation to the HL3 class using IPL's proposed mitigation strategy. Finally, he testified that the cost of the interruptible credit should be allocated among all customer classes, and not just the HL3 class.

Kroger witness Higgins testified that he supports IPL's proposed rate design, including the increases to the demand charge for the HL and SL classes.

City witness Sommer disagreed with IPL's rate migration objective that no class receive a rate decrease. He disagreed with holding the rates for MU-1 at their current levels so that the rate increase for Automatic Protective Lighting ("APL") Service could be mitigated. He testified that it is primarily businesses that pay the APL rate whereas it is municipalities that pay the MU-1 rate.

In rebuttal, Dr. Gaske responded to Mr. Watkins' testimony concerning economic efficiency and testified that economic theory supports the concept that economic efficiency is promoted by recovering fixed costs through a fixed charge and only variable costs in a variable charge. He noted that IPL is not proposing a straight fixed variable ("SFV") rate design in this case. He testified that while a SFV rate design would provide better price signals, IPL's proposed rates would continue to recover 75% of residential fixed costs through the energy charge and 81% of small commercial fixed costs. He agreed that declining block rates are not as cost-justified as a SFV rate design, but are more cost-justified than a flat energy charge in that the declining block rate structure represents a reasonable compromise approach in which successively larger rate blocks move closer to the marginal cost of energy. He further responded to Mr. Watkins' contention that the increase in the customer charge violates a principle of gradualism by noting that gradualism looks at the total bill, which is the sum of both the customer and energy charges. The proposed increase in customer charge would significantly reduce the percentage increase in energy charge that would otherwise be required and thereby offset the increase in the customer charge which is the focus of Mr. Watkins' argument.

With respect to the Joint Intervenors' position, Dr. Gaske cited details concerning the percentage of residential customers who are enrolled in the LIHEAP program and those who are

not, showing that, in general, the energy usage characteristics among the residential class for LIHEAP customers are very similar to the no-assistance customers. As a result, proposals for lower customer charges and/or flat energy charges are likely to increase the monthly bills of the significant portion of low income energy assistance customers who have above-average energy use, and reduce the bills of the significant portion of customers who are not low income but have below-average energy use.

Dr. Gaske also responded to Mr. Watkins' testimony regarding the rate migration adjustment. He testified that one can always speculate about why a particular customer may be on a rate schedule that will not be the most economical; nevertheless, IPL can reasonably determine that certain customers can be on a more advantageous rate. He said IPL will communicate with customers about this after the rate case. The median savings for customers to move from rate SL to rate SS would be 6.0%, and the median savings for customers moving the other direction would be 9.0%. He testified that these are not minor savings, and they will have a dollar-for-dollar impact on IPL's ability to collect through rates its full revenue requirement determined by the Commission in this Cause. Dr. Gaske proposed that the migration adjustment be recalculated to reflect the final results in this case as part of the compliance filing.

With respect to the increase in demand charge for the HL and SL classes, Dr. Gaske testified that IPL's proposed rate design properly reflects the manner in which costs vary. He testified that higher demand charges benefit higher load factor customers and provide the correct price signals for customers to undertake steps to improve their load factors. With respect to the one customer who was projected to receive an increase significantly greater than 10%, he noted that this is a result of an extremely low load factor. He explained that the increase in a particular customer's bill due to higher demand charges may be offset by a reduction in the bill due to lower energy charges, which is dependent on the load factor of the particular customer.

Dr. Gaske also objected to Mr. Watkins' proposal to eliminate the water heating rate at the time of the next case. He testified that this class has now been closed to new customers, but that existing customers may not have yet fully amortized their water heater investments. As a result, it would be premature to require the discontinuation of this rate.

Finally, as to the interruptible credit, he objected to requiring interruption based upon the LMP exceeding the purchased power benchmark. Based upon the number of occasions during the test year when this circumstance occurred, IPL would have quickly exhausted its 80 hours of interruption rights on relatively low value curtailments. As to Mr. Watkins' proposal that the interruptible rate be used or discontinued, Dr. Gaske testified that the credit has value as an alternative to additional peak generating resources, even in years when load is not curtailed.

(2) Discussion and Findings.

(a) Increase in Residential Customer Charge and Continuation of Declining Block Rates. There were only two arguments presented in opposition to IPL's customer charge proposal: Mr. Watkins' contention that all costs are variable in the long run and therefore SFV rates represent inefficient pricing, and Mr. Howat's testimony that Petitioner's rate design produces a disproportionate impact on low income customers.

As to the first argument, we note that IPL has not proposed SFV rates. While the proposed increases in the customer charge from $6.70 to $11.25 (for less than 325 kWh/month) and $11.00 to $17.00 (for greater than 325 kWh/month) move toward a more fixed and variable rate design consistent with traditional cost causation principals, it is demonstrably short of SFV rates. There is no evidence that the customer charge as designed even reaches the level of full distribution system fixed cost recovery. Cost recovery design alignment with cost causation principles sends efficient price signals to customers, allowing customers to make informed decisions regarding their consumption of the service being provided. The Commission investigated the rate design issue with regard to natural gas service in Cause No. 43180, and the general premise appears to be reasonably applicable to electric utilities in the context of distribution-related costs. Notwithstanding, gradualism in any movement is a reasonable consideration, and we find that the increase in customer charge is consistent with the Commission's preference for gradual changes in rate structures. We note that IPL's proposed customer charge represents the first increase in the customer charge since base rates were last changed in 1995.

With respect to the second argument, Dr. Gaske's analysis demonstrated that approximately 8-10% of the customers within each residential class receive energy assistance, yet the median usage and the 90th percentile usage for energy assistance customers compared to no-assistance customers is similar. While switching to an inclining block rate structure may benefit low income/low energy users, it would harm a substantial number of low income/high energy users. Many low-income customers use more than the residential average amount.

Ultimately, we find that Petitioner's proposed rate design to increase the customer charge and maintain declining block rates should be approved. We further find that this structure does not violate principles of gradualism, because gradualism is best considered in the context of the entire customer bill and not discrete charges within the bill.

(b) Migration Adjustment. We rejected IPL's proposed pro forma revenue adjustment in Section 9(B)(5). Given that a subsequent rate case will be filed in the near term, any actual migration can be addressed in that case. Accordingly we decline to accept Petitioner's proposed migration adjustment in this Cause.

(c) Demand Charge for HL and SL Classes. The conflict over the increase in the demand charge for the HL classes arises because it has been revealed that there is a low load factor customer profile that would experience an increase in the total bill three times the average class increase. IPL's proposed change to HL and SL classes involved a 100 percent increase to demand charges. While the proposed increase to the demand charge is consistent with cost causation, as discussed above with respect to customer charges, we reiterate the need to be mindful of the total bill impacts on customers. In this case, we believe that it would be appropriate for IPL to increase the demand charge only to the extent that no identified customer within the HL classes receives a bill increase of more than 1.5 times the average class increase. Further, IPL shall consider the appropriateness of creating a rate for low load factor/high energy usage customers and in IPL's next base rate proceeding, IPL shall present an industrial low load factor rate option, or discuss why a low load factor rate should not be implemented.

(d) Rate MU-1. As noted above, we have declined the City's proposal to order the implementation of its Brighter Indianapolis proposal. With respect to IPL's proposed rate mitigation, the Commission is often faced with the competing goals of cost-based

rates and the minimization of "rate shock." The strategy of mitigating rate increases that would otherwise be excessive by not reducing rates for any particular class is a common one that we have employed in striking this balance. *See, e.g., Citizens Thermal,* Cause No. 44349, at 27 (IURC 5/21/2014). No party other than the City opposed the use of that strategy here.

While the authorized revenue requirement pursuant to this Order is markedly below that reflected in IPL's sponsored ACOSS, the results it reflects regarding the MU-1 rate justifies a rate specific mitigation strategy. As proposed, MU-1 rates would provide a 34.7% rate of return, versus an average rate of return for all classes of 6.93%. Accordingly, we find IPL's compliance filing shall reflect application of a 40% subsidy reduction and not apply the no rate decrease constraint to the MU-1 rate.

(e) Water Heating Rate. We agree with IPL witness Gaske that it is premature to order the termination of the Water Heating rate. Customers purchased these water heaters in reliance on this rate structure. The class has been closed to new customers and eventually the rate will simply go away because there are no longer any customers served under it. We find no action is necessary at this time.

(f) Interruptible Rate. Based on the evidence in this proceeding it would not be reasonable to order IPL to revise its interruptible rider to require energy economy curtailments whenever the MISO LMP exceeds IPL's purchased power benchmark. The record shows that such events occur approximately 800 hours in a year, but IPL's Rider 14 allows no more than 80 hours of energy economy curtailments in a year, and each curtailment must be for at least four hours at a time. Thus, it is clear that the economy energy provision in IPL's interruptible rider is intended to be used to curtail usage during extreme spikes in the price of energy, and is not intended for relatively common circumstances such as when the LMP exceeds the purchased power benchmark. Using OUCC witness Watkins' proposed benchmark, IPL may very quickly exhaust its economy energy interruption rights each year and then be denied the right to interrupt at times when perhaps economics or reliability would more warrant interruption. Furthermore, the ability to interrupt creates value for other customers through the ability to shave peaks, whether the right to interrupt is exercised or not.

Industrial Group witness Phillips also testified that it was inappropriate to allocate the interruptible credit only to HL-3 customers. He stated interruptible load benefits all customers by reducing capacity needs and fuel costs. In rebuttal, Dr. Gaske agreed with Mr. Phillips' recommendation that the interruptible credit should be allocated to all rate classes. No other party disputed the proposed change for allocating the interruptible credit. Based on the evidence, we find that it is appropriate to allocate the interruptible credit to all rate classes.

(g) Overall Finding on Rate Design. Based on the discussion above, we find that the final rates to be approved in this Order shall reflect the revenue allocation and rate design recommended by Dr. Gaske on rebuttal, as modified herein, i.e., changes to MU-1 rates and HL demand charges. We find that the resulting class revenue allocation factors based on firm load are those set forth in the compliance filing version of Petitioner's Witness JSG Attachment 7-R, Column K, reflective of the changes ordered herein.

14. Tariff, Rules and Regulations. IPL witness Chambers sponsored IPL's proposed new tariff which sets forth the revised schedule of Rates and Rules and Regulations for Electric

Service. The facts which affect the specific schedule charge amounts have been discussed throughout this order and shall be incorporated in the compliance filing to this order. With the exception of IPL's proposed rate adjustment mechanisms, its Interruptible Service Rider, Backup and Maintenance Riders, and Non-Residential Customer Deposit Rule, no party objected to any of IPL's proposed tariffs, riders, rules, and regulations. Based upon the evidence of record, the uncontested proposals for IPL's tariffs, riders, rules and regulations are approved as proposed by IPL. With regard to the contested tariff items, we address each issue below.

A. **Existing Riders.** Petitioner proposed to continue its four current rate adjustment riders – Standard Contract Rider No. 6 Fuel Cost Adjustment ("FAC"), Standard Contract Rider No. 20 Environmental Compliance Cost Recovery Adjustment ("ECCRA"), Standard Contract Rider No. 21 Green Power Initiative ("GPR"), and Standard Contract Rider No. 22 Demand Side Management Adjustment ("DSM"). No revisions are proposed to the GPR. Modifications were proposed to the ECCRA to account for qualifying pollution control equipment placed in service before June 30, 2014. These projects will be reflected in rate base in this Cause and the associated expenses reflected in the revenue requirement. The modifications to the ECCRA were not opposed and we find they should be approved. The remainder of the modifications to existing riders are discussed herein.

(1) FAC. IPL witness Dininger described the pro forma system redispatch modeling and presented the proposed base cost of fuel per kWh of $0.031520 based on 13,818,053 MWh of pro forma retail sales. No party challenged IPL's proposed levels for FAC revenue and expenses and we find them appropriate. We further find the base cost of fuel is approved. With respect to IPL's FAC proceedings, the OUCC recommended, and IPL accepted, that the Commission allow the continuation of the agreement with IPL that allows the OUCC and intervenors to file their testimony and report 35 days after IPL files its application and testimony. Accordingly, we find that the OUCC and intervenors shall maintain the 35 day schedule to file their testimony and report after IPL files its FAC application and testimony.

(2) DSM.

(a) Evidence. IPL witness Allen also described the recovery of lost revenues and IPL's DSM programs. Mr. Allen testified that IPL proposes to begin ratemaking recognition of lost revenues in the first semi-annual DSM adjustment rider filing that occurs after the new rates are approved in this Cause.

Industrial Group witness Phillips testified that IPL should not use the DSM margin rate based upon proposed rates in this Cause for purposes of lost revenues deferred during 2015. He claimed the lost revenue margin rate should be based upon the rates in place during the same time that the measure was installed. OUCC witness Rutter and Kroger witness Higgins were also critical of IPL's DSM proposal.

(b) Discussion and Findings. In our Order issued December 17, 2014 in Cause No. 44497, we authorized the deferral of lost revenues associated with Petitioner's DSM programs commencing on the effective date of that Order, with recovery to begin subsequent to the issue of our Order in this Cause and with such recovery to be based on an updated and approved cost of service study. In that Cause, we stated:

> Regardless of the changes discussed by IPL, the unaddressed problem is that the reasonableness of lost revenue amounts resulting from avoided sales is dependent on the appropriate fixed costs being included in the calculation. The extensive length of time since IPL's last approved cost-of-service study creates uncertainty regarding how accurately the fixed costs included in the variable component of base rates represents the actual fixed costs of providing service today. Therefore, we decline to authorize IPL current recovery of its lost revenues. However, we find value in IPL's alternative to defer lost revenues because it provides a reasonable mechanism to foster the principals of our DSM rules and addresses the stagnant cost-of-service problem. Under the deferral alternative we find reasonable herein, IPL would be authorized to defer its lost revenues for subsequent recovery beginning after its next base rate case, with such recovery to be based on an updated and approved cost-of-service study. Further, we do not find that accrual of carrying charges on the deferred amount to be reasonable because the conditions which give rise to denial of current recovery of the amounts being deferred result from IPL's decisions, namely the time passed since an approved cost-of-service study. Accordingly, we approve IPL's deferral alternative for lost revenue recovery, and authorize IPL to defer such lost revenues without carrying costs, for subsequent recovery after its next retail base rate case, consistent with an updated cost-of-service study approved in such base rate case.

Order, at 22-23. In a footnote to this quote, we expressly stated: "Any deferred lost revenue amounts which are in excess of the lost revenue amounts based on the approved cost-of-service study in IPL's next rate case should be excluded from recovery at that time." *Id.* at 22, n.3.

IPL claims that the lost revenue margin rates calculation provided by Mr. Cutshaw is consistent with the Commission Order in Cause No. 44497 and that its proposal to apply rates ultimately approved in this case to determine the amount of lost revenue deferred to date is both appropriate and consistent with that Order. IPL also implies that the limited period involved as well as the proposed amounts minimizes the significance of the concerns raised by the consumer parties. Both arguments are misplaced.

We agree with IPL witness Allen that the issue before us is essentially one of timing. No parties dispute the use of rates approved in this docket to determine lost margins for savings achieved for energy efficiency measures installed going forward. Instead, the substantive issue is whether the rates approved in this proceeding should be applied retroactively to the calculations of lost margins for savings achieved before our approval and IPL's implementation of new rates.

The Commission, in Cause No. 44497, approved Petitioner's proposed 2015 and 2016 DSM Plan and authorized it to recover program and plan costs associated with the plan via its Rider 22. The Commission, as noted above, also authorized the deferral of lost revenues with the recovery made consistent with an "updated cost of service study" approved in Petitioner's next base rate case. We did not authorize IPL to apply rates approved in this docket to its lost margin calculations

for those savings achieved prior to the issuance of this Order. Accordingly, we disagree with Petitioner's interpretation of the 44497 Order.

The authority we granted to IPL in Cause No. 44497 does not permit the application of rates to the calculations of energy savings to determine the amount of lost revenues incurred prior to the issuance of this Order. Instead, it required the approval of a new cost-of-service study, which can then be applied to IPL's authorized rates in place for the relevant period for calculating appropriate lost margin rates. Such methodology addresses the concern expressed in Cause No. 44497 regarding how accurately the fixed costs included in the variable component of base rates represents the actual fixed costs of providing service today by applying a scaled current cost-of-service study.

In conclusion, in Cause No. 44497, IPL was granted authority to defer lost revenues that were based on the rates in existence at the time of deferral. Once new rates go into effect as a result of this proceeding, IPL may then use the cost of service allocations approved in this Cause to assign the deferred lost revenues to the appropriate rate classes on a going forward basis.

(3) IPL Backup and Maintenance Riders.

(a) Evidence. IPL did not propose any modifications to its Standard Contract Rider No. 10 (Backup Power) or Rider No. 11 (Maintenance Power) in its Case-in-Chief.

Industrial Group witness Dauphinais stated IPL is required to provide backup and maintenance power to its Cogeneration and Small Power Production Facilities. He stated that Rider Nos. 10 and 11 essentially provide backup and maintenance power to the customer under the standard contract rate applicable to the customer (Rate RS, SL, PL, or HL). He stated these riders are not reasonable for Rate SL, PL and HL customers and should be modified to be consistent with federal law and the Commission's rules. He said his proposed modifications ensure that customers pay demand charges for backup service consistent with the likelihood that they will experience a forced outage at the time of IPL's system peak. With respect to maintenance power, he said his modifications appropriately reduce the applicable demand charges to reflect the coordination of the customer's maintenance outage with IPL's own scheduled outages during the time of the year when such outages can be more readily accommodated.

IPL witness Gaske stated that IPL does not provide Backup Service and Maintenance Service under Rate Schedules RS, SL, PL, and HL, but rather provides these services under Rate Schedules CGS and REP. He stated 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. He noted that no service has been, or is currently being provided, pursuant to Rider Nos. 10 or 11 and thus no customers are affected by this issue at this time.

(b) Discussion and Findings. The Industrial Group argues that IPL's backup and maintenance power rates are contrary to 170 IAC 4-4.1-5(b) to the extent those rates assume that the backup and maintenance service will be needed during the times of peak demand. However, the language of the rule itself provides that "[a] rate for back-up and maintenance power shall not presume (unless supported by factual data) that a forced outage or other reduction ... will occur simultaneously or during the system peak . . . ." 170 IAC 4-4.1-5(b)

(emphasis added). Here, IPL provided data that the current charges for backup and maintenance power service align with cost causation principles.

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, IPL continues to carry the fixed costs of capacity on a year-round basis in order to be ready to serve these customers. Thus, it is not inappropriate that customers seeking backup and maintenance power service pay the applicable monthly demand charge. While the Industrial Group suggests that treating a customer with cogeneration facilities the same as customers without cogeneration facilities would "create a disincentive" to customers to employ self-generation, we find it consistent with our cogeneration rules. *See* 170 IAC 4-4.1-5(b) (a utility shall sell backup and maintenance service to a qualifying facility at a rate "which does not discriminate against the qualifying facility in comparison to another retail customer with similar load characteristics"). Accordingly, we find IPL's existing backup and maintenance riders continue to be reasonable. However, we appreciate that a well-placed cogeneration facility with well-timed maintenance outages can enhance value to both the providing customer-generator and the utility-system customers as a whole, and direct IPL to explore with existing and potential industrial customer-generators how to capture such value.

B. Proposed New Riders. Petitioner is proposing three new periodic rate adjustment riders: the Regional Transmission Organization ("RTO") adjustment, the Off-System Sales ("OSS") Margin Sharing adjustment, and the CAP Cost Recovery adjustment.

(1) Evidence. IPL witness Cutshaw explained the proposed new riders, beginning with the RTO adjustment. IPL proposes this rider will be filed every six months, similar to the filings utilized by Vectren and NIPSCO for their RTO Non-fuel cost adjustments. The periods would run from April through September and from October through March. MISO Non-fuel costs would be allocated to each rate class based upon demand allocators developed in IPL's cost of service study submitted in this proceeding and recovered on a kWh basis. A true-up to actual would occur in a subsequent semi-annual filing.

IPL witness Holtsclaw described the MISO transmission expansion project ("MTEP") costs that would be recovered through the RTO rider. MTEP costs are related to new transmission projects benefiting the MISO footprint. He testified that the total amount of MTEP projects to be allocated to IPL between 2015 and 2019 pursuant to Schedule 26 and Schedule 26A is $15.9 million and $91.7 million, respectively. He explained that these costs will vary from year to year and will be increasing each year as transmission expansion projects are approved.

Mr. Cutshaw also explained the OSS margin sharing adjustment. This adjustment is intended to timely share the excess of an estimate of OSS margins (greater than zero) compared to the amount embedded in base rates. He stated that to the extent the OSS margin exceeds the base amount reflected in rates in this case, 50% would be shared with the retail customers and 50% would be retained by IPL, resulting in a credit on the retail customer's monthly bill. Witness Cutshaw explained that this sharing percentage is consistent with the previously approved OSS sharing riders for Duke, I&M, NIPSCO, and Vectren, so as to provide an incentive for IPL to pursue additional OSS. If the annual OSS margins are less than the base amount (but greater than zero), IPL proposes that 100% of the deficit be recognized through the adjustment, resulting in a charge to customers. He testified that this is appropriate because the revenue requirement will have

already been reduced by the base amount, with the retail customer receiving 100% of the benefit and IPL receiving 0% of the benefit of these margins. Witness Cutshaw proposed this rider be filed annually, based upon an estimate of OSS margins. The annual filings would be coincident with one of the semi-annual DSM Rider 22 filings, using a period from January through December. A true-up of the estimate to actual would occur in a subsequent annual proceeding.

IPL witness Dininger provided historic OSS margins in IPL Witness DCD Attachment 1. He testified that the amount of OSS margins built into base rates is proposed to be $6.324 million, which is the lowest amount during the period 2009 through 2013. He explained the amount built into the revenue requirement was necessary in order to represent a reasonable, achievable level of OSS margins. He has proposed setting it at the lowest amount because IPL is anticipating significantly lower margins after the Eagle Valley coal units are retired and after the Harding Street units are refueled to natural gas. He testified that OSS margins are volatile.

Mr. Cutshaw also explained the new proposed CAP adjustment. The CAP adjustment is intended to timely recover the excess (or deficit) of an estimate of capacity costs (greater than zero) compared to the amount embedded in base rates. To the extent IPL forecasts it will sell excess capacity, such sales would be shared 50%. A CAP adjustment factor would be filed annually running from June through May which is the same period as the MISO planning year. To the extent estimated annual capacity costs exceed the amount in base rates, 100% of the excess would be recovered through the adjustment. If estimated costs are lower than the established base amount, but greater than zero, 100% of the deficit would be shared with the customer, resulting in a credit. If costs are less than zero (meaning capacity sales) the sales would be shared 50% with the customers. A true-up of the estimate to actual would occur in a subsequent annual filing.

Mr. Dininger also testified concerning the volatility of capacity costs and the level to include in the revenue requirement. He testified that charges for capacity are material and volatile. Costs during the test year were low relative to the need for capacity purchases in 2015. He explained that costs for capacity are estimated to rise as more coal fired units are retired and will rise as a result of the retirement of Eagle Valley in April 2016. After the placement in service of the Eagle Valley combined cycle gas turbine, IPL will be in a position to sell capacity.

OUCC witness Blakley testified that the proposed RTO adjustment is similar to the adjustment that has been approved for Duke and Vectren.

OUCC witness Stacie R. Gruca testified that with respect to OSS, she proposed to include a larger amount in the revenue requirement ($9,488,000), which is the average of the five years of lowest OSS margins (either actual or budgeted) for the years 2010 to 2019. She recommended no sharing of OSS margins because she contended OSS levels were beyond IPL's control and therefore did not need to be incentivized.

With respect to the CAP mechanism, Ms. Gruca agreed with embedding $1.8 million in the revenue requirement but suggested that the tracking mechanism be re-evaluated in the next rate case. She also criticized the proposal as being asymmetrical and recommended that 100% of proceeds from capacity sales be credited to customers.

Industrial Group witness Dauphinais testified that IPL had not submitted sufficient evidence that the capacity adjustment or RTO adjustment were sufficiently volatile, material, and beyond the

utility's control. He contended that IPL had not presented evidence of a threat to its financial wellbeing and that IPL does not need a rider to manage MTEP costs. He testified that if the RTO adjustment is approved, transmission revenues would need to be removed from base amounts or that transmission revenues would need to be tracked through the RTO adjustment. With respect to the CAP, he testified that customers should be entitled to 100% of net capacity revenue. With respect to OSS margins, he testified that treatment should be symmetrical. He recommended setting the embedded level at the five-year average for 2009 to 2013, or $9.423 million.

Kroger witness Higgins testified on behalf of Kroger with respect to the new adjustment mechanisms. His proposal on the CAP adjustment and OSS margin sharing was that they should be symmetrical. He also proposed that all three riders (and the DSM rider) should be designed as a demand charge. Mr. Higgins also proposed no adjustment to the test year level of OSS margins of $15.695 million. Mr. Higgins also recommended language be added to IPL's rate adjustment mechanism tariffs to specify the allocation method.

(2) Discussion and Findings. Our protocol for approving new adjustment riders has been to determine whether the costs to be tracked are collectively and potentially significant, whether they are potentially variable or volatile, and whether they are largely outside the utility's control. *See, e.g.*, *PSI Energy*, Cause No. 42359, at 115 (IURC May 18, 2004). As has generally been undisputed by the parties, we have previously determined that the costs for which IPL seeks periodic adjustments satisfy this standard for every other investor-owned electric utility. *See, e.g., id.*; *Indiana Michigan Power Co.*, Cause No. 44075, at 54-55, 121 (IURC Feb. 13, 2013); *NIPSCO* Cause No. 43526, at 93-94 (IURC Aug. 25, 2010). As explained below, we similarly find as such for IPL.

The RTO adjustment would track net MISO Non-fuel costs, which are billed pursuant to MISO tariffs. The anticipated amounts described by Mr. Holtsclaw are material and variable. Mr. Cutshaw demonstrated the anticipated growth in these charges in his rebuttal. Accordingly, we find the proposed RTO adjustment rider should be approved, but modified to reflect an annual rather than semi-annual filing basis. We recognize the administrative burdens trackers may have on the resources of stakeholders, and thus, we believe annual RTO filings are appropriate to be consistent with the CAP and OSS trackers. We further find, as Mr. Cutshaw explained on rebuttal, that transmission revenues on a going forward basis should offset the MISO Non-fuel costs. We also find it unnecessary to modify the tariff language to specify the allocation method as this is adequately addressed in IPL's testimony in its periodic filings.

The margins and costs subject to the proposed OSS and CAP Adjustment Rider mechanisms are also substantial, variable or volatile, and largely outside IPL's control. Overall, without the OSS and CAP riders, IPL calculated an estimated loss of $28.5 million over the two-year period ending in 2017. IPL's ongoing generation portfolio changes create short-term volatility that is addressed in part by the proposed mechanisms. Without these riders, it would be difficult for IPL to recover these costs and the proposed level of OSS margins embedded in the revenue requirement would not adequately capture changes.

We must determine the appropriate amounts to reflect in the calculation of the revenue requirement. For the RTO and CAP adjustments, there was no dispute. We find the appropriate amounts are $14.228 million for the RTO and $1.8 million for the CAP. For OSS, our objective is not simply to use an historical figure. "[T]he offset should not be an amount that is not sustainable."

NIPSCO, Cause No. 43526, at 36. As we previously noted in our Order in Cause No. 43839 regarding the appropriate level of wholesale power margins to embed in Vectren's basic rates, "[a]lthough we rely upon an historic test year, in certain circumstances we can and do look at forward projections to determine a reasonable level of expense or revenue." *S. Ind. Gas & Elec. Co.*, Cause No. 43839, at 40 (IURC April 27, 2011). Looking at the anticipated impact the retirement of the Eagle Valley and Harding Street coal units will have on Petitioner's ability to generate OSS during the life of these rates, Petitioner's proposed level of $6.324 million is reasonable and appropriate. As with the RTO adjustment, we find it unnecessary to modify the tariff language to specify the allocation method.

The final issues to resolve are whether the riders should be designed as a demand charge (as recommended by Kroger) and whether the riders should work symmetrically. IPL established that its billing system would need significant upgrades to charge on a demand basis, and thus it is not reasonable to require demand billing at this time for these riders and for the lost revenues. Regarding Kroger's, the Industrial Group's, and the OUCC's proposal for symmetry in the CAP, Petitioner will not be in a position to sell capacity until after the Eagle Valley CCGT is in service, which means during the life of these rates, and any capacity sales will be materially the result of plant that is not yet reflected in rates. Accordingly, while symmetry may be an issue to be discussed in the next rate case, until such time, we will approve IPL's CAP mechanism as proposed. As to the OSS, the proposals from Kroger and Industrial Group are generally consistent with how OSS margins are treated for other utilities. As such, we approve a 50/50 sharing of OSS margins above and below the amount included in base rates, with a floor of $0 for includable margins.

C. Non-Residential Customer Deposits (Rule 8).

(1) Evidence. Mr. Dauphinais testified that IPL's non-residential customer deposit provisions grant IPL excessive discretion in requiring new and existing non-residential customers to provide a deposit. In rebuttal, IPL witness David R. Farris, Manager of Customer Service for Indianapolis Power & Light Company, stated that IPL is not opposed to modifying Rule 8, and he developed a revised Rule 8 to address Mr. Dauphinais' concerns.

During cross-examination, Mr. Farris clarified several aspects of Rule 8 and IPL's deposit practices. With respect to determining the creditworthiness of non-residential customers, Mr. Farris agreed it is IPL's intent to determine the creditworthiness of all non-residential customers, not just new customers, in an equitable and non-discriminatory method. He also agreed that the phrase "by any such utility" could be replaced with "by any other utility" and the words "and existing" could be added to clarify the first sentence ("The Company shall determine the creditworthiness of new and existing non-residential Customers in an equitable and non-discriminatory method."). Tr. at P-121 to P-122. Mr. Farris confirmed that IPL's practice is to not require a deposit if a non-residential customer merely has a name change, unless there is also a change in ownership, and that if a customer has multiple accounts only the specific accounts meeting the required criteria would be required to have a deposit. Tr. at P-127.

(2) Discussion and Findings. With the revisions noted above, we find the proposed language presented in IPL's rebuttal appropriately addresses Mr. Dauphinais' concerns while providing greater clarity with respect to the circumstances in which deposits and accrued interest would be refunded. This language reasonably mirrors our rules for residential customer deposits. We do not find it necessary for the tariff language to cover every conceivable hypothetical

involving a non-residential customer deposit, particularly given the lack of any evidence that IPL has improperly required a deposit from, or refused to promptly refund a deposit to, any non-residential customers.

IPL is directed to make conforming modifications to its non-residential deposit rule to reflect: that it will "determine the creditworthiness of all non-residential customers in an equitable and non-discriminatory manner"; that it will not require a new applicant to provide a deposit if the applicant "owes no outstanding bills for service rendered within the past four years by any other utility" and meets the other criteria specified in the rule; that with respect to existing non-residential customers, deposits can, and will, only be demanded on accounts which are delinquent and; that in the case of an existing customer, only a change in ownership, and not a change in name or corporate structure, will render the customer "new" within the meaning of the rule.

15. Confidentiality. IPL filed motions for Protection and Nondisclosure of Confidential and Proprietary Information on December 29, 2014, June 30, 2015, August 25, 2015, and September 4, 2015. IPL also orally made a motion for protection and nondisclosure of confidential and proprietary information during the evidentiary hearing, which was later supported by a written motion for confidential treatment filed on October 1, 2015. All of these motions were supported by affidavits showing documents to be submitted to the Commission were trade secret information within the scope of Ind. Code §§ 5-14-3-4(a)(4) and (9) and Ind. Code § 24-2-3-2. There no objections by the parties as to the confidential and proprietary nature of the information submitted under seal in this proceeding. We find all such information is confidential pursuant to Ind. Code § 5-14-3-4 and Ind. Code § 24-2-3-2, is exempt from public access and disclosure by Indiana law and shall be held confidential and protected from public access and disclosure by the Commission.

16. Appeal to the Full Commission. On October 5, 2015, the Presiding Officers issued a Docket Entry regarding IPL's Submission of Temporary Rates, in which the Presiding Officers determined that IPL's case-in-chief for the consolidated cause was not complete until IPL filed its supplemental case-in-chief evidence on June 1, 2015. As a result, the Presiding Officers determined that the Submission of Temporary Rates was premature because the 300 day timeline did not run until March 28, 2016.

Petitioner filed its Appeal to the Full Commission ("Appeal") on October 13, 2015, and the OUCC and Industrial Group filed their Response on October 19, 2015. IPL filed its Reply on October 22, 2015.

As noted in the October 5, 2015 Docket Entry, no objections were made to the Presiding Officers' April 10, 2015 Docket Entry consolidating the rate case with the investigation. As a result of the consolidation, Petitioner was required to file supplemental case-in-chief evidence to address the issues raised by the Commission with respect to the investigation, and that evidence was filed on June 1, 2015. As seen in this Order, consideration of the record evidence relating to the investigation was material in the Commission's determinations with respect to appropriate rates and charges for Petitioner. No party, including Petitioner, objected to or challenged the Commission's initiation of the investigation under Cause No. 44602 as inappropriate or unwarranted.

The Commission has an obligation to ensure utilities provide safe and reliable service, even, and perhaps especially, when issues arise during the pendency of a rate case. IPL has the responsibility to demonstrate that it is providing safe and reliable service in exchange for receiving

appropriate rates from its customers. When issues arise that call into question the provision of safe and reliable service, a utility must address those issues in order to demonstrate rate relief is appropriate. In this case, IPL addressed those issues in the testimony filed on June 1, 2015. Accordingly, March 28, 2016 represents the date 300 days after the date on which IPL completed its case-in-chief filing. Having reviewed the Appeal and the subsequent filings, we uphold the decision of the Presiding Officers' October 5, 2015 Docket Entry.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION THAT:

1. Petitioner is authorized to adjust its rates and charges to increase its annual operating revenues by approximately $29,622,000, resulting in total annual operating revenues of approximately $1,233,182,000. This increase is calculated to provide IPL the opportunity to earn $124,083,000 in annual net utility operating income.

2. Petitioner is authorized to file a new schedule of rates and charges and "proof of revenues" with the Commission's Energy Division. The "proof of revenues" filing shall include the billing determinants and the allocation of the revenue increase as found appropriate within this Order. At such time, IPL shall also file a revised cost of service study demonstrating that the new rates are consistent with the findings made in this Order. Copies of same shall be served upon all parties of record. The new schedule of rates and charges shall be effective on and after approval by the Energy Division, which shall be no earlier than five business days following the filing of the new schedule.

3. Petitioner is granted accounting authority for the Major Storm Damage Restoration Reserve Account as set forth in this Order.

4. Petitioner is authorized to file with the Energy Division a revised FAC factor reflecting the new base cost of fuel in accordance with this Order, and such changes shall be effective simultaneously with approval of the new basic rates.

5. Petitioner is authorized to file with the Energy Division a revised ECCRA factor that eliminates costs of Qualified Pollution Control Property that are being rolled into basic rates approved in this Order, and such changes shall be effective simultaneously with approval of the new basic rates.

6. Subject to adjustment to reflect the rate levels approved herein, IPL's proposed tariff, (IPL Witness EKC Attachment 1), as modified in this Order, shall be and hereby is approved to be effective simultaneously with approval of the new basic rates.

7. IPL's proposed depreciation accrual rates set forth in IPL Witness JJS Attachment 1, pages 56-59, and IPL's proposal to place these rates into effect for accrual accounting purposes are approved as set forth in this Order.

8. IPL is authorized to implement its proposed standard contract Riders 24 (Capacity Adjustment), 25 (Off System Sales Margin Sharing), and 26 (Regional Transmission Organization Adjustment) as set forth in this Order. Further, IPL's recovery of deferred and future demand side management lost revenue margins is approved for recovery pursuant to Standard Contract Rider No. 22 as set forth in this Order.

9. In accordance with this Order, the Commission investigation commenced pursuant to Cause No. 44602 shall be closed. Compliance filings shall be made, under this consolidated Cause, relating to the collaborative process as set forth in this Order.

10. The information submitted under seal in this Cause pursuant to motions for protective orders shall be and hereby is determined to be confidential and exempt from public access and disclosure pursuant to Indiana Code § 24-2-3-2 and § 5-14-3-4.

11. This Order shall be effective on and after the date of its approval.

STEPHAN, HUSTON, WEBER, AND ZIEGNER CONCUR; MAYS-MEDLEY CONCURRING WITH SEPARATE OPINION:

APPROVED: MAR 16 2016

I hereby certify that the above is a true and correct copy of the Order as approved.

Shala M. Coe

Shala M. Coe
Acting Secretary to the Commission

MAYS-MEDLEY CONCURRING

While I concur in the Commission's Order, I write separately to address my concern over the increase in the customer charge for residential customers.

The Commission stated in its findings that "[t]here is no evidence that the customer charge as designed even reaches the level of full distribution system fixed cost recovery. Cost recovery design alignment with cost causation principles sends efficient price signals to customers, allowing customers to make informed decisions regarding their consumption of the service being provided. . . . [W]e find that the increase in customer charge is consistent with the Commission's preference for gradual changes in rate structures." The Commission also found that the rate design "structure does not violate principles of gradualism." Order at 72.

Though I appreciate the attempt at gradualism, I believe the increase in the monthly fixed customer charge is too large. Based on the fixed customer charge increasing by almost $5.00 per month for usage of 0 to 325 kWh and by $6.00 per month for usage of over 325 kWh, customers who have below average energy use are impacted the greatest. The greatest negative impact is on the customers with usage of 0 to less than 900 kWh per month. Going forward, I believe that the Commission and utilities should be cognizant of placing additional burdens on low-usage customers.

LOUISVILLE GAS AND ELECTRIC COMPANY

Response to Information Requested at Hearing Held on June 14, 2016

Case No. 2016-00027

Question No. 2

Witness: Robert M. Conroy

Q-2. Provide the historical rate of return ("ROR") utilized to calculate revenue requirements for the monthly environmental surcharge reports.

A-2. See the following chart. The chart contains information provided in the most recent six-month and two-year review cases that include existing ECR plans still being recovered through the mechanism (i.e., 2009 Plan and 2011 Plan). ROR is provided in addition to the components that determine ROR: cost of debt and return on equity ("ROE").

Case No.[1] (Review Period)	Billing Periods Under Review	ECR Plans in Billing	True Up As of Date	ROR[2]	Cost of Debt	ROE
2010-00242 (6-Month)	11/1/09 - 4/30/10	2001, 2003, 2005, 2006, 2009	4/30/2010	7.91%	4.59%	10.63%
2010-00475 (6-Month)	5/1/10 - 10/31/10	2001, 2003, 2005, 2006, 2009	10/31/2010	7.92%	4.48%	10.63%
2011-00232 (2-Year)	5/1/09 - 4/30/11	2005, 2006, 2009, 2011	4/30/2011	7.64%	3.96%	10.63%
2012-00208 (6-Month)	5/1/11 - 10/31/11 11/1/11 - 4/30/12	2005, 2006, 2009	10/31/2011	7.61%	3.82%	10.63%
			1/31/2012	7.56%	3.70%	10.63%
			4/30/2012 pre-2011	7.58%	3.75%	10.63%
		2011	4/30/2012 2011 Plan	7.28%	3.75%	10.10%
2012-00547 (6-Month)	5/1/12 - 10/31/12	2005, 2006, 2009	10/31/2013 pre-2011	7.62%	3.73%	10.63%
		2011	10/31/2013 2011 Plan	7.32%	3.73%	10.10%
2013-00243 (2-Year)	5/1/11 - 4/30/13	2005, 2006, 2009	2/28/2013 pre-2011	7.47%	3.47%	10.63%
		2011	2/28/2013 2011 Plan	7.17%	3.47%	10.10%
		2005, 2006, 2009, 2011	4/30/2013	7.25%	3.45%	10.25%
2013-00437 (6-Month)	5/1/13 - 10/31/13	2009, 2011	10/31/2013	7.24%	3.33%	10.25%
2015-00021 (6-Month)	11/1/13 - 4/30/14 5/1/14 - 10/31/14	2009, 2011	12/31/2013	7.18%	3.58%	10.25%
			2/28/2014	7.19%	3.62%	10.25%
			8/31/2014	7.12%	3.44%	10.25%
2015-00222 (2-Year)	5/1/13 - 4/30/15	2009, 2011	12/31/2013	7.26%	3.48%	10.25%
			2/28/2014	7.22%	3.51%	10.25%
			8/31/2014	7.15%	3.48%	10.25%
			2/28/2015	6.95%	3.17%	10.25%
2015-00412 (6-Month)	5/1/15 - 10/31/15	2009, 2011	6/30/2015	6.99%	3.22%	10.25%
			8/31/2015	6.85%	3.20%	10.00%

Notes:

1. 2-year review cases may contain corrections to prior 6-month review period ROR.
2. ROR is grossed up for taxes in monthly ECR mechanism filings.