

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANAPOLIS POWER & LIGHT)
COMPANY ("IPL") FOR (1) AUTHORITY TO INCREASE)
RATES AND CHARGES FOR ELECTRIC UTILITY)
SERVICE, (2) APPROVAL OF REVISED DEPRECIATION)
RATES, ACCOUNTING RELIEF, INCLUDING UPDATE OF)
THE MAJOR STORM DAMAGE RESTORATION RESERVE)
ACCOUNT, APPROVAL OF A VEGETATION)
MANAGEMENT RESERVE ACCOUNT, INCLUSION IN)
BASIC RATES AND CHARGES OF THE COSTS OF)
CERTAIN PREVIOUSLY APPROVED PROJECTS,)
INCLUDING THE EAGLE VALLEY COMBINED CYCLE)
GAS TURBINE, THE NATIONAL POLLUTION)
DISCHARGE ELIMINATION SYSTEM AND COAL)
COMBUSTION RESIDUALS COMPLIANCE PROJECTS,)
RATE ADJUSTMENT MECHANISM PROPOSALS, COST)
DEFERRALS, AMORTIZATIONS, AND (3) APPROVAL OF)
NEW SCHEDULES OF RATES, RULES AND)
REGULATIONS FOR SERVICE.)

CAUSE NO. 45029

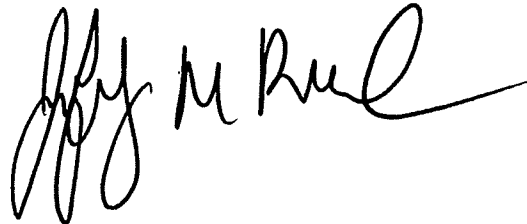
INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

TESTIMONY OF

EDWARD T. RUTTER - PUBLIC'S EXHIBIT NO. 8

MAY 24, 2018

Respectfully submitted,



Jeffrey M. Reed, Atty. No. 11651-49
Deputy Consumer Counselor

TESTIMONY OF OUCC WITNESS EDWARD T. RUTTER
CAUSE NO. 45029
INDIANAPOLIS POWER & LIGHT COMPANY

I. INTRODUCTION

1 **Q: Please state your name and business address.**

2 A: My name is Edward T. Rutter, and my business address is 115 West Washington
3 St., Suite 1500 South Tower, Indianapolis, Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as
6 a Chief Technical Advisor. My educational background and professional
7 experience are detailed in Appendix ETR-1 attached to this testimony.

8 **Q: What is the purpose of your direct testimony?**

9 A: The purpose of my testimony is to demonstrate to the Indiana Utility Regulatory
10 Commission ("IURC" or "Commission") that Indianapolis Power & Light
11 Company's ("IPL") request to revise its depreciation accrual rates for electric plant
12 in service should be modified. My testimony demonstrates that IPL's depreciation
13 study overstates costs relative to the inclusion of a contingency in developing the
14 net negative salvage value for numerous asset accounts.

15 Further, I demonstrate that IPL's current value claim, relative to the
16 development of the fair value for its steam production plant, is flawed and should
17 not be accepted for purposes of establishing fair and reasonable electric service
18 rates.

II. DEPRECIATION ANNUAL ACCRUAL

1 **Q: Have you reviewed and analyzed IPL Witness John J. Spanos' proposed**
2 **depreciation annual accruals and the resulting accrual rates?**

3 A: Yes. I reviewed and analyzed Witness Spanos' depreciation study and the proposed
4 annual depreciation accruals for test year-end June 30, 2017.

5 **Q: Did you review and compare Witness Spanos' depreciation analysis in this**
6 **Cause to those filed in IPL's last base rate case Cause No. 44576 and in Cause**
7 **No. 44893, a rate case filing which IPL voluntarily withdrew?**

8 A: Yes. In this Cause, Witness Spanos analyzed IPL's accounting entries that record
9 plant transactions from 1994 through 2015.¹ In Cause No. 44576, Witness Spanos
10 analyzed the same accounting entries for the period 1994 through 2013.² In Cause
11 No. 44893, Witness Spanos analyzed the same accounting entries for the period
12 1994 through 2015.³ Witness Spanos, in developing the service life and net salvage
13 study for each depreciable asset group for the historic test period, June 30, 2017,
14 performed the same analysis and review that he completed in preparing his
15 depreciation study in Cause No. 44576 and Cause No, 44893.

16 **Q: In his analysis, Witness Spanos employed a straight line remaining life method**
17 **of depreciation. Does the OUCC agree with this method in determining**
18 **depreciation rates for IPL's electric plant in service for the historical test year**
19 **ending June 30, 2017?**

20 A: Yes. The straight line remaining life method is designed to provide for the recovery
21 of each capital asset or group of capital assets, such as utility plant in service, over
22 the estimated remaining useful life of the assets.

23 In arriving at the service life, and ultimately, the remaining useful life of the

¹ The pre-filed direct testimony of Witness John J. Spanos, page 6, lines 5 - 6.

² Cause No. 44576, the pre-filed direct testimony of Petitioner's Witness John J. Spanos, page 7, lines 5 - 6.

³ Cause No. 44893, the pre-filed direct testimony of Petitioner's Witness John J. Spanos, page 6 lines 3-4.

1 IPL electric plant in service, Witness Spanos reviewed and analyzed IPL's actual
2 asset retirements from 1994 through June 2017. In performing this analysis, he
3 estimated the service life and the net salvage characteristics for each depreciable
4 group, which enabled him to calculate the composite remaining lives, annual
5 depreciation accruals and accrual rates.

6 Witness Spanos employed the life span technique, to estimate the lives of
7 significant facilities where concurrent retirement of an entire facility will occur.
8 These facilities would include electric generating facilities.

9 **Q: Is it reasonable to use the life span technique to estimate the lives of significant**
10 **facilities such as electric generating facilities for ratemaking purposes?**

11 A: Yes. Using the life span technique to estimate the lives of significant facilities is
12 appropriate and reasonable because it recognizes the concurrent retirement of an
13 entire facility using interim survivor curves and an estimate of probable retirement
14 dates.

15 In this Cause, Witness Spanos prepared his depreciation studies adopting
16 the same electric generating facilities, techniques, procedures, analysis and review
17 as he used in Causes Nos. 44576 and 44893.

18 **Q: Did Witness Spanos use survivor curves to develop the proposed annual**
19 **accruals for each depreciable property group?**

20 A: Yes. Witness Spanos developed life tables for each property group based on
21 average survivor patterns observed in his analysis of the actual IPL electric plant in
22 service retirement rates. Interpretation of each property group's life characteristics
23 was performed using Iowa-type survivor curves. Iowa-type survivor curves are a

1 widely used group of generalized survivor curves that represent the range of
2 survivor characteristics utilities typically experience.

3 **Q: Does the OUCC oppose the survivor curves used to develop IPL's proposed**
4 **annual depreciation accruals for the historic test period?**

5 A: No. Witness Spanos' use of the survivor curves in developing the proposed
6 depreciation accruals for the historic test period is consistent with his use of Iowa
7 survivor curves in the depreciation study approved in Cause No. 44576 and
8 proposed in Cause No. 44893. The Iowa survivor curves Witness Spanos used in
9 this Cause to perform his depreciation study vary from the Iowa survivor curves
10 used in the Cause No. 44576 depreciation study. However, varying survivor curves
11 do not necessarily indicate there are errors in either depreciation study.

12 Depreciation annual accruals are estimates based on actual retirement
13 experience. These accruals are then compared against Iowa survivor curves, and
14 are modified using informed judgment. When a depreciation analyst develops
15 estimated annual accrual rates, the use of informed judgment must be considered in
16 light of: (1) their overall experience in performing similar studies for similar
17 utilities, (2) their work in reviewing and analyzing a utility's actual retirement
18 experience, and (3) physical observations of the utility plant in service for which
19 the analyst is developing the estimated annual accruals.

20 **Q: What annual accrual does IPL propose in this proceeding, and how does it**
21 **compare to the annual accruals approved in Cause No. 44576 and in the**
22 **withdrawn Cause No. 44893?**

23 A: The depreciation approved in Cause No. 44576 developed a \$199,245,654 overall

1 annual accrual, including the estimated amortization of the General Plant Reserve.
2 The Depreciation Study proposed in Cause No. 44893 developed an \$186,500,243
3 overall annual accrual, including the estimated amortization of the General Plant
4 Reserve.

5 The Depreciation Study presented in this Cause proposes a \$210,139,002
6 overall annual accrual, including the estimated amortization of the General Plant
7 Reserve, for a difference of \$10,893,348 (\$210,139,002 minus \$199,245,654).

8 **Q: Does the OUCC recommend the Commission approve IPL's request to revise**
9 **its depreciation accrual rates for electric plant in service at June 30, 2017 as**
10 **proposed by IPL Witness Spanos?**

11 A: No. Based on my review of Witness Spanos' depreciation study and the
12 \$210,039,002 annual depreciation accruals calculation, Witness Spanos
13 incorporated the September 30, 2016 Sargent & Lundy ("S&L) Decommissioning
14 Study for Eagle Valley, Harding Street, Petersburg and Georgetown Stations (the
15 "Decommissioning Study"). Witness Paula Guletsky, Vice President, S&L,
16 presented and testified regarding this Decommissioning Study.

17 The Decommissioning Study includes a 20% contingency on labor, material
18 and subcontract direct and indirect costs to account for the potential risk of
19 increased cost. The contingency cost totals \$70,181,481, as shown on Attachment
20 ETR-1.

21 The Decommissioning Study also provides for an escalation factor totaling
22 \$45,495,931 representing a cumulative cost escalation of 3% as shown on
23 Attachment ETR-1.

1 Using a contingency factor to develop an estimated decommissioning cost
2 is inappropriate when applied to a group of prudently invested assets providing
3 utility service since their inception. The IPL steam production plant is an example
4 of a group of assets that were proven both prudent and necessary at the in-service
5 date.

6 A contingency allowance is typically employed to offset cost risk and cost
7 uncertainty. Cost risk and cost uncertainty refer to the fact that a cost estimate is a
8 forecast and there is a chance that actual costs will differ from the estimate. Risk
9 is the probability that an unfavorable outcome will occur. Uncertainty is the
10 possibility or probability that an estimated funding level will be exceeded.

11 The cost uncertainty in the Decommissioning Study is addressed in the 3%
12 escalation factor applied through the estimated dismantling period, and accounts
13 for \$45.5 million dollars of the decommissioning estimate for all generating
14 stations, reference to Attachment ETR1 page 1 of 4.

15 The risk associated with the Decommissioning Study presumes IPL and its
16 shareholders will not fully recover the cost of the individual generating stations,
17 including the ultimate cost of decommissioning each unit. Since IPL prudently
18 invested in these generating units and they currently provide electric service to
19 consumers (with the possible exception of the Eagle Valley Combined Cycle Gas
20 Turbine ("CCGT") and the Eagle Valley coal-fired generating unit) it is unlikely
21 that the Commission would disallow IPL's request to recover the stranded costs

1 relative to each steam production unit. Therefore, there is no need to include a cost
2 risk in the Decommissioning Study and the depreciation annual accrual for steam
3 production plant.

4 Because cost uncertainty has been addressed in the 3% escalation factor
5 applied through to the estimated retirement dates, a contingency factor is not
6 necessary in developing the decommissioning costs associated with the steam
7 production plant.

8 **Q: Have you recalculated the annual accrual rates proposed by Witness Spanos**
9 **to remove the contingency factor?**

10 A: Yes. By reference to Attachment ETR-1 page 4 of 4, I have recomputed the annual
11 accruals, removing the contingency costs from the net salvage value and deducting
12 the annual depreciation accrual associated with the Harding Street Station battery
13 referred to by OUCG Witness Alvarez. The resulting overall annual accrual is
14 reduced from the IPL proposed \$210,139,002 to \$203,046,429, which is a
15 \$7,092,573 reduction.

III. CURRENT VALUE DETERMINATION

16 **Q: Has IPL provided a current value rate base recommendation in this**
17 **proceeding?**

18 A: Yes. IPL has proposed a fair or current value determination of its utility plant in
19 service as of June 30, 2017. The proposed fair value rate base consists of two (2)
20 distinct components: (1) a Reproduction Cost New less Depreciation ("RCNLD")
21 approach for all of IPL's electric plant in service assets, excluding production plant,

1 and (2) an estimated market value of the steam production plant assets, at June 30,
2 2017.

3 Witness Ann E. Bulkley, Vice President of Concentric Energy Advisors,
4 Inc., provided the RCNLD analysis. Witness John J. Reed, Chairman and Chief
5 Executive Officer of Concentric Energy Advisors, Inc., and CE Capital Advisors,
6 Inc., presented the market value of the production plant.

7 **Q: What is the proposed fair value or current cost of IPL's electric plant in service**
8 **at June 30, 2017?**

9 A: The fair market value or current value of IPL's electric plant in service is
10 \$4,090,862,425⁴ as of June 30, 2017. The RCNLD recommendation for all non-
11 production plant is \$3,120,126,888⁵ plus \$46,415 for Intangible Plant and
12 \$87,316,743 for Software. The market value recommendation for production plant
13 is \$883.4 million⁶ (\$883,372,379 in Table 2-T of IPL Witness AEB, Attachment 2-
14 T).

15 **Q: Is the Commission bound by a specific methodology in determining the fair**
16 **value of IPL's property used and useful in the provision of electric service?**

17 A: No. IC 8-1-2-6 Valuation of property is the guiding directive. Sec. 6 (a) states in
18 part the following:

19 The commission shall value all property of every public utility actually used
20 and useful for the convenience of the public at its fair value, giving
21 consideration as it deems appropriate in each case to all bases of valuation
22 which may be presented or which the commission is authorized to consider
23 by the following provisions of this section.

24 Sec. 6 (b) states in part the following:

⁴ IPL Witness AEB Attachment 2-T, page 1 of 1.

⁵ IPL Witness AEB Attachment 3, Page 1 of 1.

⁶ IPL Witness JJR Attachment 2-T, page 1 of 1.

1 As an element in determining value the commission may also take into
2 account reproduction costs at current prices, less depreciation, based on the
3 items set forth in the last sentence hereof and shall not include goodwill,
4 going value, or natural resources.

5 **Q: Does IPL's proposed fair value rate base determination comply with the**
6 **criteria established in IC 8-1-2-6 Valuation of Property?**

7 A: Yes. The IPL fair value proposal consists of two (2) very distinct methodology
8 approaches that are consistent with IC 8-1-2-6 Valuation of Property. The RCNLD
9 approach for all non-production plant assets sponsored by IPL Witness Ann E.
10 Bulkley and a market approach for production plant sponsored by IPL Witness John
11 J. Reed.

12 While each methodology used by the witnesses would appear to fit within
13 the confines of IC 8-1-2-6 Valuation of Property, neither are as accurate as an
14 original cost determinant.

15 The RCNLD for the non-production plant utilizes the Handy-Whitman
16 Index of Public Utility Construction Costs ("Handy-Whitman Index") to escalate
17 construction costs from the year of investment to current dollars. While it is
18 accepted as a tool for purposes of developing current costs for sales purposes, for
19 *ad valorem* tax purposes, for stock valuations, insurance purposes and engineering
20 project costs it is just a tool. The end result of its use in this case is an estimate
21 subject to the vagaries of the market, an inflation impact, assumes responsible
22 management and ignores the current state of the assets in question. Any result must
23 be looked at with a critical view.

24 The "market" approach employed by IPL Witness John J. Reed assumes a
25 non-existent cash flow for the production plant facilities. The production plant

1 facilities are a critical part of IPL's ability to generate revenues, but those
2 generating facilities are not stand-alone revenue generators. Witness Reed is
3 utilizing what is commonly referred to as the "income" approach where the present
4 value of an estimated future stream of cash flows over a specific time period is
5 determined. One must also take into consideration any residual value, sale or resale
6 value. To properly develop the market value utilizing the income approach,
7 revenue or cash flow that can be discounted must exist in order to derive a present
8 value.

9 The income approach is typically employed when valuing an asset or group
10 of assets that currently have an income stream. The valuation is then developed
11 based on what a prospective buyer assumes relative to the continuation of a revenue
12 stream and what impact that potential buyer would have on that revenue stream.
13 To assume a revenue stream where one does not exist is a leap of credibility that is
14 particularly invalid in arriving at a market value for the IPL steam production plant
15 facilities at June 30, 2017. The realization of an income stream for IPL's steam
16 production facilities in the future must assume that those facilities have an ability
17 to generate revenue on a stand-alone basis.

18 To treat an asset or group of assets on a stand-alone cash flow generating
19 basis the asset or group of assets must include all components necessary to be able
20 to generate a cash flow. Any prospective purchaser will assess the availability of
21 that stream of cash flow. The ability to achieve a stream of cash flows from an
22 investment in IPL's production plant facilities is dependent on the ability to get the
23 "product," in this case electric service, to a consuming or purchasing party.

1 The assets for which Witness Reed developed a “market” value do not have
2 the ability, as stand-alone revenue generators, to deliver their product to the
3 purchasing public. Those assets do not include any transmission, distribution or
4 customer premises facilities necessary to generate a cash flow. The production
5 plant assets alone will not generate revenue.

6 Absent transmission, distribution or customer premises assets, one must
7 assume that the owner of the production plant assets will enter into a contract with
8 an entity that possesses the required assets to deliver the product to entities willing
9 to purchase the product at a reasonable price. That could be in the form of a
10 transport type contract or a purchased power agreement where an independent
11 entity will purchase the power generated and use their facilities or enter into
12 agreement with another entity for access to the required facilities to get the
13 generation to a consuming public. In the case of the Petersburg units, where coal-
14 fired generation is uneconomic in comparison to natural gas generation and quite
15 possibly to renewable generation, it would require that the purchaser of the
16 Petersburg unit provide coal-fired power generated at uneconomic prices to the
17 public or IPL for sale.

18 **Q: Is there a difference between “fair value” and “fair market” or “market”**
19 **value”?**

20 **A:** Yes. Fair value is derived utilizing various models that consider financial and
21 economic factors to arrive at an asset’s or group of assets’ intrinsic value. Intrinsic
22 value is the actual value of an asset or group of assets based on an underlying
23 perception of the true value including all aspects of the business, tangible and

1 intangible. For rate making purposes, however, intangible assets like goodwill and
2 going concern are traditionally not included in determining fair value. Intrinsic
3 value can be higher or lower than market value or original cost and depends on how
4 valuable the asset. The "exit price" or market value is the price at which the asset
5 or group of assets would change hands between a willing buyer and a willing seller
6 when the buyer is under no compulsion to buy and the seller is under no compulsion
7 to sell.

8 Fair market or market value is the price at which an asset or group of assets
9 could be bought or sold in an open market (what a willing buyer and a willing seller
10 in open negotiations would agree upon). The Comparable Sales approach will
11 provide a history of recent sales including a market discussion that provides a
12 comparable ratio or value per unit that is used to develop market value. Like any
13 ratio or per unit price development, the valuator must take into consideration the
14 timing of those comparable sales, any outside influences may have had on the sales
15 price and whether the current environment or structure of the current market will
16 influence the historical analysis.

17 **Q: Considering the risk associated with fossil fuels, environmental and**
18 **economics, does the OUCC accept Witness Reed's proposed position that there**
19 **will be a stream of cash flows for a period of at least 12 years and for as long**
20 **as 24 years?**

21 **A:** No. By reference to IPL Witness JJR Attachment 2, the retirement dates for the
22 production plant facilities range from December 2030 for Harding Street units 5
23 and 6 to December 2042 for Petersburg Units 3 and 4.

1 It is a remote possibility that any of the generating units included in the
2 production plant category and valued based on the present value of future cash
3 flows will remain used and useful through the estimated retirement date. Any
4 income approach value result must be adjusted to recognize this fact, recognize that
5 the assets necessary to allow for a stand-alone valuation based on the ability to
6 generate a cash flow are not included and that the economics of coal and to a lesser
7 extent natural gas fired generation units are becoming less economic compared to
8 the economics of renewable generation and this should get worse with the
9 deployment of efficient battery storage options.

10 **Q: Do you have a recommended market approach using the income approach to**
11 **the market value of the production Plant?**

12 A: Yes. I recommend the Commission reject Witness Reed's assumed retirement
13 schedule for IPL's most recent Integrated Resource Plan ("IRP") that was used to
14 develop the discounted cash flows. Instead, the Commission should adopt a more
15 reasonable approach that recognizes coal-fired generation deployment is
16 uneconomic and that even natural gas fired generation is becoming uneconomical
17 when compared to renewable deployment. The economic viability of those gas fired
18 units is even riskier as battery deployment and technology advances.

19 I have modified Witness Reed's current value determination using his
20 income approach to reflect an economic retirement date of 2025. The result is
21 \$579.86 million shown on Attachment ETR 3.

1 **Q: Besides the income approach to determining value, what traditional valuation**
2 **methodologies should also be considered?**

3 A: As Petitioner's Witness Reed points out on page 7, lines 5 – 8, of his direct
4 testimony, the two other methods traditionally used for determining market value
5 are the Comparable Sales approach and the Value of the Underlying assets or Cost
6 Approach.

7 **Q: Have you prepared an alternative to the market value Witness Reed**
8 **developed?**

9 A: Yes. I have provided a Comparable Sales approach, Value of the Underlying Assets
10 and modified Witness. Reed's income approach to discount these estimated future
11 cash flows over a shorter timeframe for the Petersburg coal-fired generating units.

12 **Q: How did you develop your Comparable Sales approach to market value?**

13 A: Fossil fuel generation facility sales have diminished recently with investors moving
14 away from investing. The current market reflects an emphasis on infrastructure
15 assets such as transmission lines and natural gas pipelines. Natural gas transmission
16 and distribution companies continue to set the bar for power and utility prices where
17 investors are looking for growth opportunities.⁷

18 Investors are looking for growth and the purchase of a coal fired electric
19 generating facility is not set-up to provide that growth. Coal-fired generation
20 facility closures are not caused wholly by environmental compliance costs as
21 suggested by coal supporters. Pure economics are the primary drivers of these
22 closures. Continued low natural gas prices, increasing competition from low-cost
23 renewables and continued low energy market prices dictate that investment in coal

⁷ PwC: Power sector deals rose 60% in the first quarter. Utility Dive by Peter Maloney, April 27, 2018.

1 generation will not provide the growth that investors seek from the utility and
2 energy market. New coal-fired plant owners would need to find consumers willing
3 to buy electricity at prices above market -- a necessity not likely to be realized over
4 the long-term. Natural gas and coal-fired generation both lost market share to
5 renewables in 2017.⁸

6 Citing rising risk, the Chief Investment Officer representing the California
7 Pension Fund stated that, "in the long-term, the \$66.6 billion pension fund and
8 \$11.5 billion endowment were going to move out of fossil fuel investments." He
9 further stated, "[t]he traditional approach, not only with us but other investors, was
10 the tendency to own oil and gas upstream assets. The investment in fossil fuels is
11 a financial risk we do not want to take in the context of real assets. We will
12 fundamentally reduce those holdings."⁹

13 Given the trend away from investment in coal-fired and other fossil fuel
14 powered generation like natural gas, any comparable sales approach must look to
15 the realities that to refuel a coal-fired generator today, that facility must be either
16 adjacent to a supply of natural gas or in close proximity. The biggest barrier to
17 redevelop a coal-fired generation facility site is coal ash and what to do with it.
18 Cleanup of coal ash is costly and often a coal-fired plant owner will retain the site
19 and it will not get remediated and redeveloped. The use of natural gas as essentially

⁸ Energy Information Administration 2017 Annual Report, pages 1 – 20.

⁹ IEEFA (Institute for Energy Economics and Financial Analysis) April 4, 2018 "Citing Rising Risk, \$67 Billion California Pension Fund Will Sell Fossil Fuel Holdings"

1 a bridge fuel is being challenged by diminishing renewable costs which are still
2 evolving.

3 The use of a Comparable Sales approach must look to the basics of the
4 ultimate sale. The ratio of sales price to Kilowatt ("kW") capacity for coal plant
5 sales has been as low as \$132 per kW to \$500 per kW.¹⁰ Another unit sale example
6 is where the buyer is paid by the utility an amount equal to the decommissioning
7 costs, effectively being paid to acquire the asset. The sale of Tanners Creek
8 generating facility in southeast Indiana serves as a good example. In 2016,
9 American Electric Power ("AEP") paid a decommissioning specialist company to
10 take the closed coal plant and environmental liabilities off its hands. The amount
11 associated was approximately \$93.5 million.¹¹

12 **Q: Do you have a recommended range for the comparable sales approach to**
13 **market value?**

14 A: Yes. By reference to Attachment ETR – 2 pages 1 and 2, I developed market values
15 for IPL's Production Plant ranging from a negative \$165,439,932, that equals the
16 estimated decommissioning costs less the contingency (which I recommend not be
17 adopted for depreciation purpose), and a high of \$220,704,000 based on a \$132 per
18 kilowatt comparable sales value.

19 **Q: How did you develop your Value of the Underlying Assets approach to market**
20 **value?**

21 A: The Value of the Underlying Assets can range between original cost and

¹⁰ S&P Global: Recent plant sales establish new floor for coal assets. 14 March 2013.

¹¹ Reference to the 2016 AEP Security and Exchange Commission form 10-K indicated a \$93.5 million cash flow negative for the Tanners Creek.

1 replacement cost. The likelihood that a utility would replace a coal-fired generator
2 with a new coal-fired generator in the current environment is remote, so the use of
3 replacement cost would result in an arbitrarily inflated value for the Petersburg
4 generating facility.

5 **Q: Do you have a recommended range for the Value of the Underlying Asset**
6 **approach to market value?**

7 A: Yes. The original cost of the steam production generating facilities is
8 \$2,906,886,250 as shown on IPL Witness AEB Attachment 2-T. This number is
9 different from the \$3,000,377,863 original cost of the steam production plant shown
10 on IPL Witness JJS Attachment 1 pages 56 – 57 of 358.

11 The replacement value in kind for a coal plant is null at this point in time
12 because old coal plants are not being replaced by new coal plants, but instead
13 alternative fuels. However, there is the issue of stranded costs. The accumulated
14 book depreciation reserve derived from IPL Witness JJS Attachment 1, pages 56 –
15 58, of 358 is \$1,367,528,070 and results in a net book value of \$1,828,589,114. By
16 reference to my Attachment ETR 4, I have reduced the book value by the liabilities
17 estimated for closing the coal ash pond and the estimated coal combustion product
18 disposal cost. I also reduced the net book value for 8.5 years of additional
19 depreciation, which assumes an accelerated year end 2025 retirement date for
20 determining current value. The adoption of a retirement date of 2025 was assumed
21 for market value purposes only and coincides with the trend away from uneconomic
22 coal fired generation to more economic natural gas fired generation and renewables.
23 In assuming a stranded cost asset value, the value of the underlying assets for steam
24 production plant is \$811,606,975 (see Attachment ETR 4).

1 **Q: Do you have a recommendation for the Commission relative to an appropriate**
2 **and more realistic current value rate base determination for IPL's steam**
3 **production plant at June 30, 2017?**

4 A: Yes. In Attachment ETR 5, I have weighted the various values for each of the
5 market value approaches Witness Reed discussed but did not fully develop. The
6 current value recommendation for IPL's steam production plant is a range from a
7 low of \$276,024,453, Option A to a high of \$582,911,162, Option B.

8 **Q: Do you have a recommendation for the Commission relative to an appropriate**
9 **and more realistic current value rate base determination for IPL's electric**
10 **plant in service at June 30, 2017?**

11 A: Yes. My recommendation is developed on Attachment ETR 6 and ranges from
12 \$3,461,765,031 to \$3,768,651,740. The recommendation is based on the range
13 developed in the Comparable Sales value analysis between Option A, assuming a
14 repurposing of the Petersburg site and Option B a sale to an independent third party.

15 **IV. RECOMMENDATIONS**

16 **Q: What are you recommending to the Commission in this proceeding?**

17 A: I am recommending the Commission adopt the following:

- 18 • A \$203,046,429 depreciation annual accrual for utility plant in service
19 at June 30, 2017.
- 20 • A \$3,461,765,031 to \$3,768,651,740 current value range for plant in
21 service at June 30, 2017.

22 **Q: Does this conclude your testimony?**

23 A: Yes.

APPENDIX TO TESTIMONY OF
OUCW WITNESS EDWARD T. RUTTER

1 **Q: Please describe your educational background and experience.**

2 **A:** I am a graduate of Drexel University in Philadelphia, PA, with a Bachelor of
3 Science degree in Business Administration. I was employed by South Jersey Gas
4 Company as an accountant responsible for coordinating annual budgets, preparing
5 preliminary monthly, quarterly, annual and historical financial statements,
6 assisting in preparation of annual reports to shareholders, all SEC filings, state
7 and local tax filings, all FPC/FERC reporting, plant accounting, accounts payable,
8 depreciation schedules and payroll. Once the public utility holding company was
9 formed, South Jersey Industries, Inc., I continued to be responsible for accounting
10 as well as for developing the consolidated financial statements and those of the
11 various subsidiary companies including South Jersey Gas Company, Southern
12 Counties Land Company, Jessie S. Morie Industrial Sand Company, and SJI LNG
13 Company.

14 I left South Jersey Industries, Inc. and took a position with Associated
15 Utility Services Inc. (AUS), a consulting firm specializing in utility rate
16 regulation including rate of return, revenue requirement, purchased gas
17 adjustment clauses, fuel adjustment clauses, revenue requirement development
18 and valuation of regulated entities.

1 On leaving AUS, I worked as an independent consultant in the public
2 utility area as well as telecommunications including cable television (CATV). I
3 joined the OUCC in December 2012 as a utility analyst.

4 **Q: Have you previously testified before the Indiana Utility Regulatory**
5 **Commission?**

6 A: I have previously testified before the Indiana Utility Regulatory Commission
7 (Commission). I have also testified before the regulatory commissions in the
8 states of New Jersey, Delaware, Maryland, Pennsylvania, New York,
9 Connecticut, Georgia, Florida, North Carolina, Ohio, Oklahoma, Virginia and
10 Wisconsin. In addition to the states mentioned, I submitted testimony before the
11 utility regulatory commissions in the Commonwealth of Puerto Rico and the U.S.
12 Virgin Islands. I have also testified as an independent consultant on behalf of the
13 U.S. Internal Revenue Service in Federal Tax Court, New York jurisdiction.

INDIANAPOLIS POWER AND LIGHT COMPANY

CAUSE NO. 45029

DECOMMISSIONING COST

ADJUSTMENT

AT

JUNE 30, 2017

DESCRIPTION	EAGLE VALLEY COAL \$	EAGLE VALLEY CCGT \$	HARDING STREET COAL/GAS/OIL UNITS # 1 - # 7 \$	PETERSBURG COAL/DIESEL UNTS # 1 - # 4 \$	GEORGETOWN GAS UNITS # 1 & # 4 \$	TOTAL \$
ESTIMATE NUMBER	32706H	33897C	32707I	32708H	33928C	
ESTIMATE DATE	9/30/2016	9/28/2016	9/30/2016	9/30/2016	9/28/2016	
DIRECT COST:						
DEMOLITION COST	\$42,428,113	\$7,714,353	\$68,212,365	\$124,624,663	\$1,605,853	\$244,585,347
SCRAP VALUE	<u>(3,693,801)</u>	<u>(3,154,709)</u>	<u>(12,919,048)</u>	<u>(16,856,111)</u>	<u>(625,960)</u>	<u>(37,249,629)</u>
TOTAL DIRECT COST	\$38,734,312	\$4,559,644	\$55,293,317	\$107,768,552	\$979,893	\$207,335,718
INDIRECT COST	11,462,773	5,187,167	22,200,444	28,006,773	2,215,270	69,072,427
CONTINGENCY ESTIMATE	11,516,937	3,211,246	20,666,372	33,897,509	889,417	70,181,481
ESTIMATED ESCALATION COST	<u>4,479,427</u>	<u>1,192,694</u>	<u>9,742,219</u>	<u>29,664,610</u>	<u>416,981</u>	<u>45,495,931</u>
TOTAL PROJECT COST	<u>\$66,193,449</u>	<u>\$14,150,751</u>	<u>\$107,902,352</u>	<u>\$199,337,444</u>	<u>\$4,501,561</u>	<u>\$392,085,557</u>
PROPOSED OUCC ADJUSTMENTS:						
ELIMINATE CONTINGENCY ALLOWANCE	<u>(11,516,937)</u>	<u>(3,211,246)</u>	<u>(20,666,372)</u>	<u>(33,897,509)</u>	<u>(889,417)</u>	<u>(70,181,481)</u>
ELIMINATE SCRAP ESCALATION	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL ADJUSTED PROJECT COST	<u>\$54,676,512</u>	<u>\$10,939,505</u>	<u>\$87,235,980</u>	<u>\$165,439,935</u>	<u>\$3,612,144</u>	<u>\$321,904,076</u>
PERCENTAGE DIFFERENCE						-17.90%

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 RECOMMENDED DEPRECIATION ANNUAL ACCRUALS
 PRODUCTION PLANT IN SERVICE
 AT
 JUNE 30, 2017

ACCOUNT NUMBER	ACCOUNT	ADJUSTED NET SALVAGE PERCENT	ORIGINAL COST 6/30/2017	BOOK DEPRECIATION RESERVE 6/30/2017	FUTURE ACCRUALS	ANNUAL ACCRUAL	ACCRUAL RATE %	COMPOSITE REMAINING LIFE
		(a)	(b)	(b)				
311	STEAM PRODUCTION PLANT: STRUCTURES AND IMPROVEMENTS							
	HARDING STREET STATION	20.525%	\$52,489,774	\$34,106,097	\$29,157,203	\$1,905,700	3.63%	15.3
	EAGLE VALLEY STATION	41.050%	3,589,060	5,383,590	0	0		
	PETERSBURG STATION	12.315%	<u>188,319,260</u>	<u>96,399,525</u>	<u>115,111,252</u>	<u>4,983,171</u>	2.65%	23.1
	TOTAL ACCOUNT 311		<u>244,398,094</u>	<u>135,889,212</u>	<u>144,268,455</u>	<u>6,888,871</u>	2.82%	20.9
311.01	STRUCTURES AND IMPROVEMENTS-MPP							
	HARDING STREET STATION	20.525%	2,859,876	1,411,253	2,035,613	254,452	8.90%	8.0
	PETERSBURG STATION	12.315%	<u>16,201,965</u>	<u>8,263,180</u>	<u>9,934,057</u>	<u>841,869</u>	5.20%	11.8
	TOTAL ACCOUNT 311.01		<u>19,061,841</u>	<u>9,674,433</u>	<u>11,969,670</u>	<u>1,096,321</u>	5.75%	10.9
312	BOILER PLANT EQUIPMENT							
	HARDING STREET STATION	20.525%	238,048,662	54,092,696	232,815,454	16,749,313	7.04%	13.9
	EAGLE VALLEY STATION	41.050%	146,816	220,223	0	0		
	PETERSBURG STATION	12.315%	<u>1,006,692,270</u>	<u>428,539,622</u>	<u>702,126,801</u>	<u>35,640,954</u>	3.54%	19.7
	TOTAL ACCOUNT 312		<u>1,244,887,748</u>	<u>482,852,541</u>	<u>934,942,255</u>	<u>52,390,268</u>	4.21%	17.8
312.01	BOILER PLANT EQUIPMENT-MPP							
	HARDING STREET STATION	20.525%	88,547,778	50,049,766	56,672,443	8,213,398	9.28%	6.9
	PETERSBURG STATION	12.315%	<u>252,891,152</u>	<u>108,982,022</u>	<u>175,052,675</u>	<u>22,734,114</u>	8.99%	7.7
	TOTAL ACCOUNT 312.01		<u>341,438,930</u>	<u>159,031,788</u>	<u>231,725,119</u>	<u>30,947,511</u>	9.06%	7.5
312.02	BOILER PLANT EQUIPMENT-MATS							
	HARDING STREET STATION	20.525%	10	1	11	1	10.05%	11.0
	EAGLE VALLEY STATION	41.050%	437	656	0	0		
	PETERSBURG STATION	12.315%	<u>431,976,245</u>	<u>48,834,782</u>	<u>436,339,338</u>	<u>21,816,967</u>	5.05%	20.0
	TOTAL ACCOUNT 312.02		<u>431,976,692</u>	<u>48,835,439</u>	<u>436,339,349</u>	<u>21,816,968</u>	5.05%	20.0
312.3	ASH & COAL HANDLING EQUIPMENT							
	HARDING STREET STATION	20.525%	4,785,673	1,715,834	4,052,098	295,774	6.18%	13.7
	EAGLE VALLEY STATION	41.050%	499,682	749,523	0	0		
	PETERSBURG STATION	12.315%	<u>171,963,981</u>	<u>65,134,899</u>	<u>128,006,446</u>	<u>7,033,321</u>	4.09%	18.2
	TOTAL ACCOUNT 312.3		<u>177,249,336</u>	<u>67,600,256</u>	<u>132,058,545</u>	<u>7,329,095</u>	4.13%	18.0
312.31	ASH & COAL HANDLING EQUIPMENT-MPP							
	HARDING STREET STATION	20.525%	<u>229,659</u>	<u>287,074</u>	<u>0</u>	<u>0</u>		
	TOTAL ACCOUNT 312.31		<u>229,659</u>	<u>287,074</u>				
	SUB-TOTAL		\$2,459,242,300	\$904,170,743	\$1,891,303,392	\$120,469,033		
	SUB-TOTAL PETERSBURG STATION					\$93,050,396		

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 RECOMMENDED DEPRECIATION ANNUAL ACCRUALS
 PRODUCTION PLANT IN SERVICE
 AT
 JUNE 30, 2017

ACCOUNT NUMBER	ACCOUNT	ADJUSTED NET SALVAGE PERCENT	ORIGINAL COST 6/30/2017	BOOK DEPRECIATION RESERVE 6/30/2017	FUTURE ACCRUALS	ANNUAL ACCRUAL	ACCRUAL RATE %	COMPOSITE REMAINING LIFE
	STEAM PRODUCTION PLANT:	(a)	(b)	(b)				
	SUB-TOTAL CARRIED FORWARD		\$2,459,242,300	\$904,170,743	\$1,891,303,392	\$120,469,033		
312.4	RAILROAD TRACK SYSTEM/CARS							
	EAGLE VALLEY STATION	41.05%	132,037	198,055	0	0		
	PETERSBURG STATION	12.32%	<u>6,130,394</u>	<u>323,535</u>	<u>6,561,817</u>	<u>302,388</u>	4.93%	21.7
	TOTAL ACCOUNT 312.4		6,262,431	521,590	6,561,817	302,388	4.83%	21.7
314	TURBOGENERATION UNITS							
	HARDING STREET STATION	20.525%	62,974,992	44,626,691	31,273,918	2,249,922	3.57%	13.9
	EAGLE VALLEY STATION	41.050%	60,428	90,643	0	0		
	PETERSBURG STATION	12.315%	<u>222,917,358</u>	<u>125,663,065</u>	<u>124,706,566</u>	<u>6,266,662</u>	2.81%	19.9
	TOTAL ACCOUNT 314		285,952,778	170,380,399	155,980,484	8,516,584	2.98%	18.3
314.01	TURBOGENERATION UNITS-MPP							
	HARDING STREET STATION	20.525%	<u>57,280</u>	<u>21,782</u>	<u>47,255</u>	<u>5,907</u>	10.31%	8.0
	TOTAL ACCOUNT 314.01		57,280	21,782	47,255	5,907	10.31%	8.0
315	TURBOGENERATION UNITS							
	HARDING STREET STATION	20.525%	20,759,242	14,277,973	10,742,103	716,140	3.45%	15.0
	EAGLE VALLEY STATION	41.050%	327,356	491,033	0	0		
	PETERSBURG STATION	12.315%	<u>140,973,053</u>	<u>90,432,855</u>	<u>67,901,029</u>	<u>2,991,235</u>	2.12%	22.7
	TOTAL ACCOUNT 315		162,059,651	105,201,861	78,643,133	3,707,375	2.29%	21.2
315.01	TURBOGENERATION UNITS							
	HARDING STREET STATION	20.525%	25,146,468	10,268,863	20,038,918	2,707,962	10.77%	7.4
	PETERSBURG STATION	12.315%	<u>27,280,147</u>	<u>19,661,592</u>	<u>10,978,105</u>	<u>1,097,811</u>	4.02%	10.0
	TOTAL ACCOUNT 315.01		52,426,615	29,930,455	31,017,023	3,805,772	7.26%	8.1
316	TURBOGENERATION UNITS							
	HARDING STREET STATION	20.525%	7,370,697	3,343,775	5,539,758	384,705	5.22%	14.4
	EAGLE VALLEY STATION	41.050%	18,548	27,822	0	0		
	PETERSBURG STATION	12.315%	<u>23,768,568</u>	<u>13,035,972</u>	<u>13,659,695</u>	<u>650,462</u>	2.74%	21.0
	TOTAL ACCOUNT 316		31,157,813	16,407,569	19,199,453	1,035,167	3.32%	18.5
316.01	TURBOGENERATION UNITS							
	HARDING STREET STATION	20.525%	1,875,599	538,801	1,721,765	223,606	11.92%	7.7
	PETERSBURG STATION	12.315%	<u>1,343,396</u>	<u>646,152</u>	<u>862,683</u>	<u>85,414</u>	6.36%	10.1
	TOTAL ACCOUNT 316.01		<u>3,218,995</u>	<u>1,184,953</u>	<u>2,584,448</u>	<u>309,020</u>	9.60%	8.4
	TOTAL STEAM PRODUCTION PLANT		\$3,000,377,863	\$1,227,819,352	\$2,185,337,004	\$138,151,246	4.60%	
	TOTAL PETERSBURG STATION					<u>\$104,444,367</u>		

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 OUCC
 RECOMMENDED ANNUAL DEPRECIATION ACCRUAL

DEPRECIABLE PLANT FUNCTION	PLANT BALANCE ORIGINAL COST JUNE/30/2017 (a) (\$)	IPL PROPOSED RATE (a)	IPL PROPOSED EXPENSE (a) (\$)	OUCC PROPOSED EXPENSE ADJUSTMENT (\$)	OUCC RECOMMENDED EXPENSE (\$)	OUCC PROPOSED RATE
DEPRECIABLE UTILITY PLANT IN SERVICE:						
STEAM PRODUCTION PLANT	\$3,000,377,863	4.80%	\$144,089,143	(\$5,937,897)	\$138,151,246	4.60%
OTHER PRODUCTION PLANT	195,739,322	1.99%	3,895,717	0	3,895,717	1.99%
TRANSMISSION PLANT	376,980,106	2.47%	9,295,113	(9,434)	9,285,679	2.47%
DISTRIBUTION PLANT	1,455,443,857	2.32%	33,707,016	(1,145,242)	32,561,774	2.32%
GENERAL PLANT	<u>245,004,493</u>	7.82%	<u>19,152,013</u>	<u>0</u>	19,152,013	7.82%
TOTAL DEPRECIABLE PLANT	<u>\$5,273,545,641</u>		<u>\$210,139,002</u>	<u>(\$7,092,573)</u>	<u>\$203,046,429</u>	
NOTES:						
(a) TAKEN FROM IPL WITNESS JJS ATTACHMENT 1, PAGE 7 OF 358						
(b) DIFFERENCE BETWEEN OUCC RECOMMENDED ANNUAL ACCRUAL ATTACHMENT ETR 1 PAGE 3 OF 4 AND COLUMN B LINE 7 FOR PRODUCTION PLANT AND IPL RESPONSE TO OUCC DR 8.1 PAGE 4 OF 4 ANNUALIZING THE JUNE 2017 DEPRECIATION EXPENSE						

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 DEVELOPMENT OF MARKET VALUE FOR PRODUCTION PLANT
 COMPARABLE SALES APPROACH
 ALTERNATIVE A
 AT
 JUNE 30, 2017

DESCRIPTION	CAPACITY (MW) (a)	COMPARABLE SALE VALUE PER KWH \$	MARKET VALUE (\$ MILLIONS) (b)
GEORGETOWN GENERATING STATION UNIT # 1	74.3		
GEORGETOWN GENERATING STATION UNIT # 2	<u>75.3</u>		
TOTAL MARKET VALUE	149.6	\$288	43.1
HARDING STREET GENERATING STATION UNIT # 5	100.0		
HARDING STREET GENERATING STATION UNIT # 6	98.0		
HARDING STREET GENERATING STATION UNIT # 7	<u>420.0</u>		
TOTAL MARKET VALUE	618.0	\$288	178.0
HARDING STREET GENERATING STATION UNIT # 4	73.1		
HARDING STREET GENERATING STATION UNIT # 5	75.4		
HARDING STREET GENERATING STATION UNIT # 6	<u>145.6</u>		
TOTAL MARKET VALUE	294.1	\$288	84.7
PETERSBURG GENERATING STATION UNIT # 1	222.0		
PETERSBURG GENERATING STATION UNIT # 2	410.0		
PETERSBURG GENERATING STATION UNIT # 3	520.0		
PETERSBURG GENERATING STATION UNIT # 4	<u>520.0</u>		
TOTAL MARKET VALUE	1,672.0		<u>(165.4)</u>
TOTAL IPL GENERATION ASSETS	<u>2,733.7</u>		<u>\$140.4</u>
NOTES:			
(a) TAKEN FROM IPL WITNESS JJR ATTACHMENT 2			
(b) DEVELOPED BY MULTIPLYING THE MWs FOR THE IPL GENERATING STATION TIMES THE COMPARABLE SALES PRICE PER KW DEVELOPED IN PUBLIC EXHIBIT NO. 8, THE DIRECT TESTIMONY OF MR. EDWARD T. RUTTER, EXCEPT FOR PETERSBURG GENERATING STATION WHERE THE DECOMMISSIONING COST LESS CONTINGENCY IS USED			

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 DEVELOPMENT OF MARKET VALUE FOR PRODUCTION PLANT
 COMPARABLE SALES APPROACH
 ALTERNATIVE B
 AT
 JUNE 30, 2017

DESCRIPTION	CAPACITY (MW) (a)	COMPARABLE SALE VALUE PER KW \$	MARKET VALUE (\$ MILLIONS) (b)
GEORGETOWN GENERATING STATION UNIT # 1	74.3		
GEORGETOWN GENERATING STATION UNIT # 2	<u>75.3</u>		
TOTAL MARKET VALUE	149.6	\$288	43.1
HARDING STREET GENERATING STATION UNIT # 5	100.0		
HARDING STREET GENERATING STATION UNIT # 6	98.0		
HARDING STREET GENERATING STATION UNIT # 7	<u>420.0</u>		
TOTAL MARKET VALUE	618.0	\$288	178.0
HARDING STREET GENERATING STATION UNIT # 4	73.1		
HARDING STREET GENERATING STATION UNIT # 5	75.4		
HARDING STREET GENERATING STATION UNIT # 6	<u>145.6</u>		
TOTAL MARKET VALUE	294.1	\$288	84.7
PETERSBURG GENERATING STATION UNIT # 1	222.0		
PETERSBURG GENERATING STATION UNIT # 2	410.0		
PETERSBURG GENERATING STATION UNIT # 3	520.0		
PETERSBURG GENERATING STATION UNIT # 4	<u>520.0</u>		
TOTAL MARKET VALUE	1,672.0	\$132	<u>220.7</u>
TOTAL IPL GENERATION ASSETS	<u>2,733.7</u>		<u>\$526.5</u>
NOTES:			
(a) TAKEN FROM IPL WITNESS JJR ATTACHMENT 2			
(b) DEVELOPED BY MULTIPLYING THE MWs FOR THE IPL GENERATING STATION TIMES THE COMPARABLE SALES PRICE PER KW DEVELOPED IN PUBLIC EXHIBIT NO. 8, THE DIRECT TESTIMONY OF MR. EDWARD T. RUTTER			

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 DEVELOPMENT OF MARKET VALUE FOR PRODUCTION PLANT
 INCOME APPROACH
 AT
 JUNE 30, 2017

DESCRIPTION	CAPACITY (MW) (a)	MARKET VALUE IPL WITNESS JJR ATTACHMENT 1 (\$ MILLIONS) (a)	ADJUSTMENT FOR RETIREMENT PERCENTAGE % (b)	ADJUSTED MARKET VALUE (\$ MILLIONS) (c)
GEORGETOWN GENERATING STATION UNIT # 1	74.3			
GEORGETOWN GENERATING STATION UNIT # 2	<u>75.3</u>			
TOTAL MARKET VALUE	149.6	\$74.3	100%	\$74.30
HARDING STREET GENERATING STATION UNIT # 5	100			
HARDING STREET GENERATING STATION UNIT # 6	98			
HARDING STREET GENERATING STATION UNIT # 7	<u>420</u>			
TOTAL MARKET VALUE	618.0	\$74.6	100%	\$74.60
HARDING STREET GENERATING STATION UNIT # 4	73.1			
HARDING STREET GENERATING STATION UNIT # 5	75.4			
HARDING STREET GENERATING STATION UNIT # 6	<u>145.6</u>			
TOTAL MARKET VALUE	294.1	\$142.0	100%	\$142.00
PETERSBURG GENERATING STATION UNIT # 1	222			
PETERSBURG GENERATING STATION UNIT # 2	410			
PETERSBURG GENERATING STATION UNIT # 3	520			
PETERSBURG GENERATING STATION UNIT # 4	<u>520</u>			
TOTAL MARKET VALUE (c)	<u>1,672.0</u>	<u>\$592.5</u>	48.77%	<u>\$288.96</u>
TOTAL IPL GENERATION ASSETS	<u>2,733.7</u>	<u>883.40</u>		<u>\$579.86</u>

NOTES:

(a) TAKEN FROM IPL WITNESS JJR ATTACHMENT 2

(b) DERIVED BY COMPARING DISCOUNT RATE DIFFERENCES AT 8% BETWEEN 40 YEARS AND 25 YEARS

(c) COLUMN C TIMES COLUMN D

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 DEVELOPMENT OF MARKET VALUE FOR PRODUCTION PLANT
 VALUE OF UNDERLYING ASSETS APPROACH
 AT
 JUNE 30, 2017

ATTACHMENT ETR 4

FERC ACCOUNT #	ACCOUNT DESCRIPTION	ORIGINAL COST 06/30/17 \$	BOOK DEPRECIATION RESERVE 06/30/17 \$	NET ORIGINAL COST 06/30/17 \$
		(a)	(a)	(b)
311	STEAM PRODUCTION PLANT IN SERVICE: STRUCTURES AND IMPROVEMENTS	\$244,398,093	\$135,889,212	\$108,508,881
311.01	STRUCTURES AND IMPROVEMENTS -MPP	19,061,841	9,674,433	9,387,408
312	BOILER PLANT EQUIPMENT	1,244,887,748	482,852,541	762,035,207
312.01	BOILER PLANT EQUIPMENT-MPP	341,438,929	159,031,788	182,407,141
312.02	BOILER PLANT EQUIPMENT-MATS	431,976,692	48,835,439	383,141,253
312.3	ASH AND COAL HANDLING EQUIPMENT	177,249,336	67,600,256	109,649,080
312.3	ASH AND COAL HANDLING EQUIPMENT-MPP	229,659	287,074	(57,415)
312.4	RAILROAD TRACK SYSTEM/CARS	6,262,431	521,590	5,740,841
314	TURBOGENERATOR UNITS	285,952,779	170,380,399	115,572,380
314.01	TURBOGENERATOR UNITS-MPP	57,281	21,782	35,499
315	ACCESSORY ELECTRIC EQUIPMENT	162,059,651	105,201,861	56,857,790
315.01	ACCESSORY ELECTRIC EQUIPMENT-MPP	52,426,615	29,930,455	22,496,160
316	MISCELLANEOUS POWER PLANT EQUIPMENT	31,157,813	16,407,569	14,750,244
316.01	MISCELLANEOUS POWER PLANT EQUIPMENT-MPP	<u>3,218,995</u>	<u>1,184,953</u>	<u>2,034,042</u>
	TOTAL STEAM PRODUCTION PLANT	<u>3,000,377,863</u>	<u>1,227,819,352</u>	<u>1,772,558,511</u>
	OTHER PRODUCTION PLANT:			
341	STRUCTURES AND IMPROVEMENTS	8,524,269	6,877,911	1,646,358
342	FUEL HOLDERS, PRODUCERS AND ACCESSORIES-H&S	5,524,587	3,724,256	1,800,331
343	PRIME MOVERS	123,067,627	83,307,372	39,760,255
344	GENERATORS	37,578,114	30,571,142	7,006,972
345	ACCESSORY ELECTRIC EQUIPMENT	19,101,482	13,864,319	5,237,163
346	MISCELLANEOUS POWER PLANT EQUIPMENT	<u>1,943,243</u>	<u>1,363,719</u>	<u>579,524</u>
	TOTAL OTHER PRODUCTION PLANT	<u>195,739,322</u>	<u>139,708,719</u>	<u>56,030,603</u>
	TOTAL PRODUCTION PLANT	<u>\$3,196,117,185</u>	<u>\$1,367,528,071</u>	<u>\$1,828,589,114</u>
	COAL ASH POND CLOSING ESTIMATED LIABILITY			(\$96,091,425)
	COAL COMBUSTION PRODUCT DISPOSAL COSTS (c)			(\$4,896,000)
	ANNUAL ACCRUAL FOR PRODUCTION PLANT PETERSBURG STATION FOR PERIOD 7/1/2017 TO 12/31/2025 (e)			(\$920,890,714)
	ESTIMATED VALUE OF THE UNDERLYING ASSETS FOR THE PETERSBURG GENERATING STATION			<u>\$811,606,975</u>
	NOTES: (a) TAKEN FROM IPL WITNESS JJS ATTACHMENT 1 PAGES 56, 57 & 58 OF 358 (b) COLUMN C MINUS COLUMN D (c) TAKEN FROM IPL WITNESS PMG ATTACHMENT 1 PAGE 82 OF 107 (d) TAKEN FROM IPL WORKPAPER OM6 PAGE 1 & 2 OF 4 (e) DERIVED FROM IPL WITNESS JJS ATTACHMENT 1, PAGES 57 & 58 OF 358			

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 DEVELOPMENT OF MARKET VALUE FOR PRODUCTION PLANT
 SUMMARY
 AT
 JUNE 30, 2017

APPROACH TO MARKET VALUE	OPTION A (\$)	WEIGHTING FACTOR	MARKET VALUE OPTION A (\$)	OPTION B (\$)	WEIGHTING FACTOR	MARKET VALUE OPTION B (\$)
PRODUCTION PLANT:						
COMPARABLE SALES APPROACH (a)	\$140,400,000	4	\$561,600,000	\$526,500,000	4	\$2,106,000,000
INCOME APPROACH (b)	579,860,000	1	579,860,000	579,860,000	1	579,860,000
UNDERLYING ASSET APPROACH (c)	514,686,718	1	<u>514,686,718</u>	811,606,973	1	<u>811,606,973</u>
TOTAL			<u>\$1,656,146,718</u>			<u>\$3,497,466,973</u>
RECOMMENDED MARKET VALUE			<u>\$276,024,453</u>			<u>\$582,911,162</u>
NOTES:						
(a) ATTACHMENT ETR 1 PAGES 1 & 2 OF 2						
(b) ATTACHMENT ETR 3						
(c) ATTACHMENT ETR 4						

INDIANAPOLIS POWER AND LIGHT COMPANY
 CAUSE NO. 45029
 CURRENT VALUE RATE BASE RECOMMENDATION
 AT
 JUNE 30, 2017

ATTACHMENT ETR 6

PLANT DESCRIPTION	ORIGINAL COST 6/30/2017	CURRENT VALUE OPTION A 6/30/2017	CURRENT VALUE OPTION B 6/30/2017
ELECTRIC PLANT IN SERVICE:			
INTANGIBLE PLANT	\$46,415	\$46,415	\$46,415
SOFTWARE	87,316,743	87,316,743	87,316,743
PRODUCTION PLANT (a)	2,906,886,250	276,024,453	582,911,162
TRANSMISSION PLANT	361,117,688	737,628,452	737,628,452
DISTRIBUTION PLANT	1,459,054,770	2,122,869,222	2,122,869,222
GENERAL PLANT	<u>248,739,203</u>	<u>259,628,214</u>	<u>259,628,214</u>
TOTAL ELECTRIC PLANT IN SERVICE	<u>\$5,063,161,069</u>	<u>\$3,483,513,499</u>	<u>\$3,790,400,208</u>
ELIMINATE BATTERY AT HARDING STREET GENERATION STATION (b)	<u>(\$24,868,575)</u>	<u>(\$21,748,468)</u>	<u>(\$21,748,468)</u>
TOTAL CURRENT VALUE	<u>\$5,038,292,494</u>	<u>\$3,461,765,031</u>	<u>\$3,768,651,740</u>
NOTES:			
(a) ATTACHMENT ETR 5			
(b) OUCC DR 8.1 ATTACHMENT 1			

**INDIANAPOLIS POWER AND LIGHT COMPANY
CAUSE NO. 45029
CURRENT VALUE RATE BASE RECOMMENDATION
AT
JUNE 30, 2017**



AFFIRMATION

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



Edward T. Rutter
Chief Technical Advisor
Indiana Office of Utility Consumer Counselor

May 24, 2018
Date

Cause No. 45029
Indianapolis Power & Light Co.

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *OUCC Testimony and Exhibits* have been served upon the following counsel of record in the captioned proceeding by electronic service on May 24, 2018.

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