

44893

**VERIFIED DIRECT TESTIMONY**

**OF**

**NICHOLAS M. GRIMMER**

**ON BEHALF OF**

**INDIANAPOLIS POWER & LIGHT COMPANY**

**INCLUDING IPL WITNESS NMG ATTACHMENTS 1, 1C, 2, AND 2C**

1                   **VERIFIED DIRECT TESTIMONY OF NICHOLAS M. GRIMMER**  
2                   **ON BEHALF OF**  
3                   **INDIANAPOLIS POWER & LIGHT COMPANY**

4   **Q1. Please state your name, employer and business address.**

5   A1. Nicholas M. Grimmer. I am employed by Indianapolis Power & Light Company and my  
6       address is One Monument Circle, Indianapolis, Indiana 46204.

7   **Q2. What is your position with Indianapolis Power & Light Company (“IPL” or**  
8       **“Company”)?**

9   A2. I am Director, Fuel Supply, Logistics and Coal Combustion Product (“CCP”)  
10       Management.

11   **Q3. Please briefly describe your educational and business experience.**

12   A3. I am a graduate of Indiana University with a BS in Public Policy and Management as  
13       well as a graduate of the Indiana University School of Law - Indianapolis. I have  
14       professional experience as a City Planner and Real Estate Broker prior to my graduating  
15       from law school. I have served as an attorney in private practice with the law firm of  
16       Stewart & Irwin in Indianapolis. Prior to coming to Indianapolis Power & Light  
17       Company, I was Associate General Counsel in charge of leasing activities with a real  
18       estate investment trust by the name of Equity Investment Group, and Corporate Counsel  
19       for Do-it-Best Corp, a hardware purchasing cooperative. I was in the Legal Department  
20       at Indianapolis Power & Light Company from July 2004 until I assumed the position of  
21       Director, Fuel Supply (now called Director, Fuel Supply, Logistics and CCP  
22       Management) on October 11, 2010.

23   **Q4. Are you familiar with IPL's purchases of fuel for use in its generating stations?**

1 A4. Yes, I have been involved in IPL's fuel related matters since 2004. As in-house counsel,  
2 I worked with the Fuel Supply group reviewing a wide variety of agreements relating to  
3 fuel procurement and transportation. Since October 11, 2010, I have been directly  
4 involved in the day-to-day operations of the IPL Fuel Supply, Logistics & CCP  
5 Management Department.

6 **Q5. Have you testified previously before the Indiana Utility Regulatory Commission**  
7 **(“Commission”) or other regulatory agencies?**

8 A5. Yes. I have regularly testified in IPL's FAC proceedings since 2011.

9 **Q6. What is the purpose of your testimony in this proceeding?**

10 A6. My testimony discusses IPL's coal and fuel inventory and procurement practices and  
11 supports the pro forma adjustment made to the June 30, 2016 Electric Fuel Stock  
12 Inventory. I also provide the coal contract pricing for purposes of the pro forma system  
13 re-dispatch presented by IPL Witness Dininger.

14 **Q7. Are you sponsoring any exhibits or attachments?**

15 A7. Yes. I am sponsoring IPL Financial Exhibit IPL-RB, Schedule RB8, IPL Witness NMG  
16 Attachment 1 and 1C [Confidential], and IPL Witness NMG Attachment 2 and 2C  
17 [Confidential].

18 **Q8. Were the exhibit and attachments prepared or assembled by you or under your**  
19 **direction or supervision?**

20 A8. Yes.

21 **Q9. Did you provide information used by any other IPL Witness in this Cause?**

1 A9. Yes. I provided an estimate of IPL's average cost of coal for IPL Witness Dininger,  
2 which is provided as IPL Workpaper 1C [Confidential] – IPL Witness NMG Direct  
3 Testimony.

4 **Q10. The test year data indicates coal inventories at the Eagle Valley and Harding Street**  
5 **Station Generation Stations. Are those coal inventories necessary going forward,**  
6 **and if not, what is IPL doing to manage those inventories?**

7 A10. The Eagle Valley coal-burning units have been retired and the Harding Street coal-  
8 burning units have been retro-fitted to operate on natural gas. As such, there is no  
9 ongoing need for a coal inventory at these stations and all salvageable coal that was  
10 present at these stations has been reclaimed and transferred to the Petersburg Station.

11 **Q11. Please identify and describe the fuel requirements for IPL's coal-fired generating**  
12 **station.**

13 A11. IPL burns approximately 4 to 5½ million tons of coal per year at Petersburg Generating  
14 Station. The coal is mined and prepared at various mines located in southern Indiana.  
15 Delivery is made to Petersburg by rail and truck. IPL maintains adequate coal  
16 inventories of 25 to 50 days' supply as explained in more detail below. Diesel fuel or  
17 fuel oil is used for start-up and in mobile equipment used to push coal and groom the coal  
18 stockpiles.

19 **Q12. Please describe IPL's coal and fuel oil procurement practices.**

20 A12. For coal, using IPL's load forecast, the Fuel Supply Group prepares a monthly outlook of  
21 IPL's need for coal supplies for the next ten years to maintain adequate inventory levels.  
22 As a need is identified, IPL starts the procurement process by preparing a solicitation for

1 competitive bids specifying the amount, term and quality needed and sending it to  
2 suppliers who are on IPL's approved supplier list and who have the desired quality coal.  
3 The bids are then received and analyzed for each applicable generating unit based upon a  
4 lowest busbar cost factoring in such variables as the price of the coal, transportation  
5 costs, quality characteristics and generating unit parameters such as heat rate and cost of  
6 environmental controls. A short list of potential suppliers is selected and negotiations are  
7 entered into to determine the overall best contract(s) for the Company. IPL reduces its  
8 overall coal market risk by diversifying its suppliers, transportation options, and contract  
9 expiration dates.

10 Diesel fuel is procured by each generating plant's purchasing group. A blanket purchase  
11 order or contract is set up with a fuel oil supplier based upon competitive bids and the  
12 best overall service for the plant. The rack price of diesel fuel is tracked throughout the  
13 year and deliveries are ordered by plant personnel based upon inventory levels and the  
14 market price of diesel fuel. Fuel oil represents less than 2.0% of IPL's total fuel expense.

15 **Q13. Please explain and indicate how much coal (in days) is considered to be a reasonable**  
16 **level of coal inventory.**

17 A13. The amount of coal inventory needed at Petersburg is based upon several factors such as  
18 the quality and availability of the coal needed, whether the coal is purchased under  
19 contract or on the spot market, the predictability of the consumption at the plant, price  
20 volatility in the coal and electric power markets and the possibility for supply  
21 interruptions. These variables cause coal inventories to fluctuate up and down every  
22 month. Operational and safety concerns also play an important part in determining the  
23 target inventory level. Having the inventory too low can cause unit operational issues

1 such as derates in an extreme weather event like excessive rain and having the inventory  
2 too high can cause safety issues for trucks dumping coal on the pile. Over the past five  
3 years, Petersburg's inventory has been as low as 25 days' supply and as high as 72 days'  
4 supply. Some of these variables can be anticipated and some cannot so the uncertainty  
5 must be managed. Each year, IPL examines the most recent five year historical burns on  
6 a month-by-month basis. The highest monthly coal burn in the past five years divided by  
7 30 is known as the Maximum Burn Day ("MBD"). The amount of coal in inventory  
8 divided by the MBD provides an approximation of the number of days of supply on hand  
9 each month based upon peak generation when fuel supply is most critical. IPL Witness  
10 NMG Attachment 1C shows the MBD, the average inventory at each of IPL's generation  
11 stations covering the period beginning January 1, 2011 through December 31, 2015. The  
12 average inventory represents a 5 year rolling average using month end reports for the  
13 respective time period and the current target inventory for each station. Due to the fact  
14 that IPL's Harding Street Station has been converted to natural gas and IPL's Eagle  
15 Valley coal-fired generation units have been retired, their current target inventories are  
16 zero. The desired inventory targets represent the levels which based on IPL's experience  
17 are reasonable in order to account for all of the variables previously mentioned. The  
18 desired inventory targets can be adjusted up or down at various times for specific reasons.  
19 For example, if a labor strike or other temporary mine shutdown is anticipated, the  
20 inventory might be increased for a period of time until the threat has passed. If a  
21 generating unit maintenance outage is planned, the inventory might be decreased during  
22 the time leading up to the outage. IPL maintains monthly tonnage flexibility in its coal  
23 contracts to enable it to manage through these periods.

1 **Q14. Please discuss fuel oil inventories.**

2 A14. Petersburg has two 500,000 gallon above ground tanks. Eagle Valley has two 300,000  
3 gallon above ground tanks and Harding Street has eight above ground fuel oil tanks with  
4 a combined capacity of 3,620,000 gallons. As a general rule, IPL tries to keep the tanks  
5 above half full but market price and expected usage impacts can cause inventories to  
6 vary. However, at Harding Street an inventory of 500,000 to 600,000 gallons has been  
7 determined to be adequate.

8 **Q15. Why does IPL maintain an inventory of fuel oil for its power plants?**

9 A15. IPL's Petersburg units can use as little as 5,000 gallons or as much as 100,000 gallons  
10 for a single restart depending upon the size of the unit and whether or not it is a cold start  
11 or a hot start. Forced outages are by their very nature unpredictable and therefore IPL  
12 must have an inventory of oil on hand in order to restart the unit. Also, at Harding Street,  
13 IPL must keep oil inventory on hand to run the combustion turbines which can be called  
14 upon to start on a moment's notice depending on market conditions or in black start  
15 conditions.

16 **Q16. Now that Harding Street Station and Eagle Valley are no longer burning coal, will  
17 this change the amount of fuel oil inventory IPL will keep on hand?**

18 A16. Fuel oil inventories will likely remain the same at Petersburg and Harding Street.  
19 Petersburg will still use fuel oil for flame stabilization during restarts. As mentioned  
20 above, Harding Street will keep fuel oil on hand for times when the oil-fired peaker units  
21 are needed either for energy or for black starting the system. Going forward, Eagle Valley  
22 will not need a fuel oil inventory for generation purposes. The \$29,000 of fuel oil  
23 inventory currently stored at Eagle Valley was available for use in mobile equipment

1 used to reclaim Eagle Valley's coal pile for transportation to the Petersburg Station. The  
2 unused inventory will be transferred to the Petersburg and/or Harding Street Generation  
3 Stations or resold to a third party.

4 **Q17. How much fuel, by source type, did IPL's plants consume in the test year ending**  
5 **June 30, 2016?**

6 A17. The amount of fuel consumed by source type and generating plant is shown on IPL  
7 Witness NMG Attachment 2C.

8 **Q18. What is the cost of the fuel consumed by IPL, by source type, in the test year ending**  
9 **June 30, 2016?**

10 A18. The amounts are shown on IPL Witness NMG Attachment 2C.

11 **Q19. Is the amount stated above consistent with prior years?**

12 A19. No. Fuel costs can vary from year to year based upon factors such as price fluctuations,  
13 weather, load growth, planned generating unit maintenance outages, unplanned  
14 generating unit outages, availability of energy from renewables such as wind power and  
15 outside market forces such as the price for natural gas and electricity available for  
16 purchase on the grid. The test year was abnormally low for the amount of fuel consumed  
17 due to factors listed above, but specifically due to extremely low natural gas and power  
18 prices and a mild winter. This led to a higher than target coal inventory.

19 **Q20. What other costs have been included in fuel inventory for rate base purposes?**

20 A20. The cost of freeze protection in the winter months and the cost of railcar maintenance  
21 directly related to the transportation of coal are included. These costs represent less than  
22 1.0% of the total cost of coal.



1 **Q21. Please explain the pro forma adjustment shown on IPL Financial Exhibit IPL-RB,**  
2 **Schedule RB8.**

3 A21. The coal inventories at the end of the test year (June 30, 2016) were above the desired  
4 levels shown on IPL Witness NMG Attachment 1C due to circumstances explained in  
5 answer A19 for Petersburg and A10 regarding Eagle Valley and Harding Street Station.  
6 An adjustment is made to the ending inventories as of June 30, 2016 to bring them down  
7 to the target levels shown in IPL Witness NMG Attachment 1C. Specifically, a decrease  
8 of 250,868 tons of coal is needed at Petersburg and a decrease of 46,423 tons and 18,110  
9 tons respectively at Eagle Valley and Harding Street Station. To determine the value of  
10 the coal, I used the average weighted cost of inventory. This represents the price of the  
11 current ton in inventory in order to bring each plant's inventory down to the desired level.  
12 As shown on IPL Financial Exhibit IPL-RB, Schedule RB8, this results in a pro forma  
13 decrease to the June 30, 2016 inventory of \$16,089,000. If this adjustment was not  
14 included, fuel inventory would be overstated.

15 **Q22. Please describe the information you provided to support IPL Witness Dininger's**  
16 **testimony.**

17 A22. I provided IPL Workpaper 1C [Confidential] – IPL Witness NMG Direct Testimony,  
18 which calculates estimates of IPL's cost of coal for the period July 2016 through June  
19 2017 to be used in the pro forma dispatch performed by IPL Witness Dininger. The  
20 estimated costs were developed from IPL's coal and transportation contracts.

21 **Q23. Does that conclude your verified pre-filed direct testimony?**

22 A23. Yes.

**VERIFICATION**

I, Nicholas M. Grimmer, Director, Fuel Supply, Logistics and Coal Combustion Product Management for Indianapolis Power & Light Company, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.

A handwritten signature in black ink, appearing to read "Nick M Grimmer", written over a horizontal line.

Nicholas M. Grimmer

Dated: December 22, 2016

**IPL COAL INVENTORY LEVELS**

	Petersburg	Eagle Valley	Harding Street Low Sulfur Coal	Harding Street High Sulfur Coal
Maximum Burn Day Tons	16,900	2,500	2,200	4,100
Average Coal Inventory Tons (2011-2015)	643,000	120,700	84,400	145,300
Average Coal Inventory Days (2011-2015)	38.0	48.3	38.3	35.4
Current Target Inventory Tons	660,000	0	0	0
Current Target Inventory Days	39.0	0	0	0

**CALCULATION OF PRO-FORMA ADJUSTMENT**

	Petersburg	Eagle Valley	Harding Street Low Sulfur Coal	Harding Street High Sulfur Coal	Total System
Coal Inventory (Actual Tons 6-30-16)	910,868	46,423	0	18,110	975,401
Tons Subtracted	(250,868)	(46,423)	0	(18,110)	(315,401)
Cost of Inventory Tons (\$/Ton)					
Pro Forma Adjustment					\$16,089,000
Source of Coal	Somerville, Oaktown, Log Creek, Freelandville & Gibson County				

**IPL FUEL CONSUMPTION**

**TEST YEAR JULY 1, 2015 THROUGH JUNE 30, 2016**

<b>Generating Station</b>	<b>Measurement</b>	<b>Fuel Consumption</b>
Petersburg- Coal	Tons	3,844,512
Eagle Valley- Coal	Tons	98,413
Harding Street- Coal	Tons	709,838
Total System- Coal	Tons	4,652,763
Petersburg- Oil	Gallons	1,628,091
Eagle Valley- Oil	Gallons	206,286
Harding Street- Oil	Gallons	367,544
Total System- Oil	Gallons	2,201,921

**IPL COST OF FUEL CONSUMPTION**

**TEST YEAR JULY 1, 2015 THROUGH JUNE 30, 2016**

<b>Generating Station</b>	<b>Cost of Fuel Consumption</b>
Petersburg- Coal	
Eagle Valley- Coal	
Harding Street- Coal	
Total System- Coal	
Petersburg- Oil	
Eagle Valley- Oil	
Harding Street-Oil	
Total System- Oil	