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VERIFIED DIRECT TESTIMONY OF JOHN A. WAGNER

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IURC  
PETITIONER'S

EXHIBIT NO. 3  
4-3-20 AT  
DATE REPORTER

1 Q1. Please state your name, business address and title.

2 A1. My name is John A. Wagner. My business address is 801 E. 86th Avenue,  
3 Merrillville, Indiana 46410. I am Manager, Fuel Supply for Northern  
4 Indiana Public Service Company LLC ("NIPSCO").

5 Q2. Please describe your educational and employment background.

6 A2. I graduated from Macomb College with an A.A.S. degree in automotive  
7 design, from Wayne State University with a B.S. in mechanical engineering,  
8 and I earned a M.B.A. from the University of Michigan. From 1998 to 2015,  
9 I held fuel procurement roles with increasing levels of responsibility at DTE  
10 Energy. My last role there was Director of Fuel Supply where I was  
11 responsible for the procurement of coal, natural gas and oil for 10,000 MW  
12 of electric generating capacity as well as the oversight of DTE's coal  
13 transshipment terminal in Superior, Wisconsin. I started my employment  
14 as Manager, Fuel Supply at NIPSCO in 2016.

1    **Q3.    What are your responsibilities as Manager, Fuel Supply?**

2    A3.    As Manager, Fuel Supply, I am responsible for supervising the purchase  
3           and transport of coal used for generating electric energy, including  
4           negotiation and administration of coal supply agreements, coal  
5           transportation agreements, railcar leases, and railcar maintenance service  
6           agreements. In addition, Fuel Supply is responsible for the collection of fuel  
7           cost data, fuel accounting support and the disposal and sale of coal  
8           combustion residuals.

9    **Q4.    Are you familiar with the Company's Verified Petition, including the**  
10           **schedules attached thereto, initiating this proceeding, a copy of which**  
11           **has been marked Attachment 1-A?**

12   A4.    Yes.

13   **Q5.    What is the purpose of your testimony in this proceeding?**

14   A5.    The purpose of my testimony is to (1) summarize the generation mix, by  
15           fuel type, of the energy produced by NIPSCO's fossil-fueled generation  
16           during the period October, November, and December 2019 ("reconciliation  
17           period"); (2) describe NIPSCO's coal procurement process and the coal  
18           supply agreements that governed coal shipments NIPSCO received during

1 the reconciliation period; (3) provide the delivered cost of the coal NIPSCO  
2 received during the reconciliation period and summarize factors that  
3 affected the delivered cost; (4) provide an overview of the coal market, coal  
4 pricing, transportation markets and factors that affected those markets  
5 during the reconciliation period; (5) provide NIPSCO's estimated coal costs  
6 for the forecast period and the assumptions used to develop NIPSCO's  
7 forecast; (6) provide a status update for NIPSCO's railcar fleet utilization;  
8 (7) provide information on the generating station heating sheds and any  
9 freeze treatment considered for the upcoming winter; and (8) provide an  
10 overview of NIPSCO's coal inventory.

11 **Q6. What was the generation mix, by fuel type, of the energy produced by**  
12 **NIPSCO's fossil-fueled generation during the reconciliation period?**

13 A6. NIPSCO's coal-fired generation provided 55% of energy generated, and  
14 45% of the energy generated was gas-fired. NIPSCO's coal-fired generation  
15 consumes coal from various supply regions. For the Michigan City  
16 Generating Station ("Michigan City"), a blend of Powder River Basin  
17 ("PRB") coal and Northern Appalachian ("NAPP") coal is consumed. A  
18 blend of PRB coal and Illinois Basin ("ILB") coal is consumed in Unit 14;

1 PRB coal is consumed in Unit 15; and ILB coal is consumed in Units 17 and  
2 18 at the R. M. Schahfer Generating Station ("Schahfer").

3 **Q7. How does NIPSCO procure its coal supply?**

4 A7. NIPSCO solicits as many prospective suppliers as reasonably possible to  
5 provide offers for specific coal types and tonnage based on a portion of  
6 NIPSCO's estimated future delivery requirements. Specifically, NIPSCO  
7 prepares a Request for Proposals and sends it to suppliers that can provide  
8 the type of coal required. Suppliers send proposals to the Corporate  
9 Auditor, and a formal bid opening is held with Auditing and Fuel Supply  
10 representatives. In some instances, NIPSCO may contact suppliers by  
11 telephone if there are only a small number of suppliers that can meet critical  
12 specifications and/or if time is of the essence (e.g., emergency purchases if  
13 contracted supply is interrupted, unanticipated increases in consumption,  
14 etc.). In these cases, the supplier will send offers by email or provide a  
15 quote over the telephone directly to Fuel Supply. NIPSCO then performs  
16 an evaluation that ranks the offers on a total cost basis and also considers  
17 reliability. The total cost analysis includes the coal free-on-board (or  
18 "F.O.B.") mine price, transportation costs, railcar costs, dust treatment,

1 emissions control costs, costs associated with coal combustion byproducts  
2 and other operational costs. NIPSCO then negotiates commercial terms and  
3 conditions with the supplier with the most competitive offer and enters into  
4 a term agreement after the contract receives legal and executive approval.  
5 An agreement is considered a term supply agreement if the contract term is  
6 one (1) year or longer.

7 **Q8. What factors need to be considered in purchasing fuel for NIPSCO's coal-**  
8 **fired generating units?**

9 A8. Factors that are considered in purchase evaluations for a specific generating  
10 unit include the delivered cost, operational costs, cost of emissions controls,  
11 and management of coal combustion byproducts. In addition, a coal's  
12 combustion and emission characteristics are critical and may eliminate a  
13 coal from consideration if these characteristics adversely affect a generating  
14 unit's reliability, drastically increase the total cost (fuel and operational  
15 costs) of generation, or inhibits its ability to comply with emission limits.  
16 Reliability of the coal source and coal transportation from that source are  
17 also critical factors.

1    **Q9.   What supply agreements governed coal shipped to NIPSCO during the**  
2           **reconciliation period?**

3    A9.   NIPSCO purchased coal under four term supply contracts as follows: one  
4           Arch Coal Sales Company agreement for PRB coal, two Peabody  
5           COALSALES, LLC agreements for ILB and PRB coal, and one CONSOL  
6           Pennsylvania Coal Company, LLC for NAPP coal.

7    **Q10. Does NIPSCO have a financial interest in any of the coal producers**  
8           **currently under contract?**

9    A10. No.

10   **Q11. Did NIPSCO sell any coal purchased by NIPSCO to any other party**  
11           **during the reconciliation period?**

12   A11. No.

13   **Q12. Did NIPSCO make any new commitments for either spot or term coal**  
14           **purchases or coal transportation during the reconciliation period?**

15   A12. Yes. Two PRB coal purchases were made with Peabody CoalSales LLC and  
16           Arch Coal Sales Company, Inc., and one coal transportation agreement with  
17           the Norfolk Southern.

1 Q13. Did any of NIPSCO's term coal contracts effective during the  
2 reconciliation period have price adjustments?

3 A13. Yes. Two (2) of the contracts have firm prices that increase each year as  
4 specified in the contract. One (1) contract had rates that are adjusted based  
5 on hourly power prices. In addition, all NIPSCO's coal supply agreements  
6 adjust the price of coal based on a shipment's quality variances from  
7 contract specifications.

8 Q14. What is the purpose of price adjustments in term coal contracts?

9 A14. In general, producers and customers are reluctant to execute long term  
10 contracts with fixed prices without some type of market price adjustment  
11 mechanism. Maintaining a price close to market is beneficial to both  
12 parties. For example, long term coal supply agreements with fixed prices  
13 could end up well above future market prices making electricity generated  
14 with that supply uneconomic. Therefore, the producer and customer may  
15 work together to establish an equitable price adjustment methodology. For  
16 example, the price may be calculated based on a mix of prompt and year-  
17 ahead published market prices. The adjustment methodology is  
18 incorporated into the terms and conditions of the agreement, and price

adjustments are typically made each contract year. Historically, price adjustments in long term supply agreements tend to reduce the buyer's cost of hedging since future prices are generally higher than spot and year-ahead prices. In addition to base price adjustments, quality price adjustments are used to maintain the underlying economics of the agreement on a dollar per million British thermal unit ("BTU") basis when the shipment quality varies from the guaranteed quality specifications.

**Q15. What was the delivered cost of coal for NIPSCO for the twelve (12) months ending December 31, 2019, and for the reconciliation period?**

A15. The delivered cost of coal for the twelve (12) months ending December 31, 2019 was \$42.54 per ton or \$2.159 per million BTU. The delivered cost of coal shipments during the reconciliation period was \$40.03 per ton or \$2.017 per million BTU and were supplied under term agreements. There were no spot coal shipments made during the reconciliation period.

**Q16. What factors affected NIPSCO's delivered cost of coal during the reconciliation period?**

A16. As stated above, NIPSCO's delivered cost of coal during the reconciliation period was \$40.03 per ton or \$2.017 per million BTU. When compared to



1 shipments made during the third quarter of 2019, the delivered cost  
2 decreased \$1.30 per ton, and was down \$0.080 on a per million BTU basis.  
3 Changes in the unit costs are largely due to lower PRB coal prices due to  
4 coal prices that are adjusted to the hourly station locational marginal  
5 (power) price ("LMP") and lower PRB and ILB transportation rates that are  
6 also adjusted to hourly station LMPs.

7 **Q17. What was the average spot market price of coal during the reconciliation**  
8 **period?**

9 A17. The average spot market price of coal during the reconciliation period was  
10 \$12.12 per ton (down \$0.01) for PRB coal, \$29.12 per ton (down \$2.43) for  
11 ILB coal, and \$41.16 per ton (down \$1.71) for NAPP coal. NIPSCO tracks  
12 these estimated spot market prices by reviewing various daily and weekly  
13 coal publications. These prices do not include the cost of transportation and  
14 are only an indication of prices NIPSCO could pay if purchases were made  
15 during the reconciliation period; however, given the relative illiquidity of  
16 coal markets, actual purchase prices can vary from published indices.

1    **Q18. What are the current spot market prices for coal?**

2    A18. As of February 6, 2020, the spot market prices for shipments in March 2020  
3       Delivery were approximately \$12.00 per ton for PRB coal, \$29.00 per ton for  
4       ILB coal, and \$38.25 per ton for NAPP coal. These average spot market  
5       prices do not include the cost of transportation.

6    **Q19. What are the market prices for the forecast period?**

7    A19. As of February 6, 2020, the estimated market prices for delivery in the  
8       forecast period were \$12.00 per ton for PRB coal, \$29.45 per ton for ILB coal  
9       and \$38.45 per ton for NAPP coal. Again, these prices do not include the  
10      cost of transportation.

11   **Q20. What factors do you believe affected the market for coal and**  
12      **transportation during the reconciliation period?**

13   A20. Coal prices again continued to fall during this reconciliation period. Year-  
14      to-date domestic coal consumption for 2019 is down roughly 14%  
15      nationwide through the end of November ("YTD") when compared to the  
16      same period in 2018. U.S. coal production is projected to fall 7% in 2019 and  
17      another 9% in 2020. During the third quarter of 2019, coal production fell  
18      7.3% when compared with the third quarter of 2018 and is down 6.8% YTD

1 through November when compared to 2018 and down 1.0% when  
2 compared to the same period in 2017. Domestic electric coal inventories are  
3 16% below the 5 year average. As stated in prior filings, lower utility  
4 inventory levels may have been a concern in the past; however, given lower  
5 coal consumption due to the economics of coal-fired generation and the  
6 continued retirement of coal-fired generating units, this trend is likely to  
7 continue. The decline in coal utilization was evident during the third  
8 quarter of 2019 as coal consumption fell 13.9% when compared to the third  
9 quarter of 2018. Total U. S. coal consumption has fallen 17.7% YTD when  
10 compared to the same period in 2017. Natural gas and renewables continue  
11 to increase their share of the power market. Natural gas fired generation's  
12 share of the market is near 38% YTD (up 7.0% when compared to the same  
13 period in 2017). Wind and solar now comprise 10.0% of the electricity  
14 generated YTD (up 2.0% when compared to the same period in 2017). Coal  
15 generation continued its precipitous drop in market share to 23.6% (down  
16 5.4% when compared to the same period in 2017). Coal producers and  
17 railroads rely on strong international markets to offset the long-term  
18 decline in domestic demand. Unfortunately, demand from international  
19 markets for steam coal has decreased nearly 27% YTD when compared to

1 the same period in 2018 (when 2018 was the five year peak), driving NAPP  
2 and ILB coal prices sharply lower. These dynamics have pushed coal  
3 demand to a 40 year low and this trend is anticipated to continue. This will  
4 likely keep a ceiling on coal and transportation pricing and continue to  
5 financially strain coal suppliers.

6 **Q21. What is NIPSCO's estimate for the cost of coal to be used for power**  
7 **generation during the forecast period of January, February, and March**  
8 **2020?**

9 **A21.** NIPSCO's cost of coal consumed for generation in the forecast period of  
10 April, May, and June 2020 is estimated to be \$40.59 per ton and \$2.155 per  
11 million BTU.

12 **Q22. What data and assumptions does the Fuel Supply group use to develop**  
13 **pricing estimates for the forecast period?**

14 **A22.** In developing the estimate for the forecast period, NIPSCO's Fuel Supply  
15 group incorporates coal contract prices inclusive of any adjustments  
16 specified in the agreement, transportation contract prices forecasted using  
17 estimates of future locational market prices ("LMPs") and natural gas  
18 prices, estimates of the impact of fuel surcharges on transportation rates

1       using the current price of On-Highway Diesel Fuel ("HDF") and by  
2       estimating changes in the Association of American Railroad's All Inclusive  
3       Index Less Fuel ("AAILF"), and estimates of future coal market prices. In  
4       addition, Fuel Supply also provides a forecast of beginning inventory  
5       values in dollars and quantities in tons for each of the generating stations.  
6       These assumptions are provided to NIPSCO's Energy Supply &  
7       Optimization group, which uses these assumptions to develop the forecast  
8       for the period.

9       **Q23. Please describe the factors NIPSCO believes will impact the supply,**  
10       **demand and cost of the coal commodity to be purchased and shipped to**  
11       **its stations during the forecast period?**

12       A23. The prices for NIPSCO's coal deliveries in the quarterly forecast period are  
13       fixed in most supply contracts. Concerning supply, coal producers are  
14       obligated to perform under existing contracts. If spot purchases are needed,  
15       NIPSCO anticipates that coal supply is generally available in the market,  
16       and coal prices are expected to be soft given the market dynamics discussed  
17       above.

1   **Q24. What factors will impact coal transportation during the forecast period?**

2   A24. NIPSCO's coal transportation agreements have rates that are indexed to  
3       natural gas pricing or power prices and are also adjusted periodically by  
4       changes in the AILF and HDF. One transportation agreement has rates  
5       indexed to generating unit hourly Day-Ahead LMPs, and another has  
6       significant rate discounts when natural gas prices are below threshold  
7       prices. These pricing structures and the anticipated cost of fuel surcharges  
8       are included in rates used to develop the forecast of delivered coal costs.  
9       HDF prices are roughly 14% lower when compared to the recent peak in  
10      October of 2018. HDF prices are projected to increase during the forecast  
11      period, and, if this occurs, railroad fuel surcharges under one transportation  
12      agreement will increase. The AILF typically rises at a somewhat moderate  
13      rate. Unlike earlier in the year, rail carrier performance with NIPSCO's rail  
14      carriers' service to Schahfer was back to being near historical average after  
15      flooding delays earlier in the year; therefore, NIPSCO expects stable  
16      delivery rates.

1 Q25. What was the status of NIPSCO's railcar fleet during the reconciliation  
2 period?

3 A25. NIPSCO has 1,471 railcars used to support 10 unit trains (approximately  
4 135 cars per unit train, plus 8.2% as spares needed to support maintenance  
5 of the fleet). NIPSCO utilized roughly 90% of its railcar fleet during October  
6 and 87% in November and December.

7 During the reconciliation period, NIPSCO, the Union Pacific and Norfolk  
8 Southern continued testing longer unit trains for Schahfer. PRB train  
9 lengths were increased from 125 cars to 146 cars per unit train. The PRB set  
10 count at Schahfer was reduced from four unit trains to three unit trains. In  
11 addition, testing of 137 car unit trains for Gateway service began during the  
12 fourth quarter of 2019. The goal of these changes is to increase the amount  
13 of coal delivered per train and decrease the number of sets operating to  
14 improve cycle times (i.e., increase delivery rates and delivery efficiency). It  
15 appears that this strategy has improved delivery rates. NIPSCO anticipates  
16 returning approximately 200 cars in 2020 based on projected requirements.

1   Q26. Please describe NIPSCO's efforts to mitigate costs incurred during  
2       periods of surplus train capacity.

3   A26. NIPSCO had modest surplus capacity during most of the reconciliation  
4       period. In general, NIPSCO maximizes the use of Bailly and Schahfer  
5       stations to store railcars and looks for opportunities to sublease railcars in  
6       order to minimize the total cost of the railcar fleet. Storage cost is a lesser  
7       consideration when determining the size of the unit train fleet. Three key  
8       factors are considered to determine the size of the fleet and far outweigh  
9       potential storage costs. These factors are reliability, the cost of unit train  
10      capacity, and the time it takes to lease additional railcars. The first key  
11      consideration is ensuring modest surplus capacity for reliability. This  
12      practice is prudent since it protects against unplanned unloading outages,  
13      changes in consumption, mine production problems, rail carrier  
14      performance issues, and transportation disruptions. A second key  
15      consideration is the cost of unit train capacity. Specifically, the cost to carry  
16      surplus capacity is relatively low when compared to the total delivered cost  
17      of coal. A final key consideration is the time it takes to place new capacity  
18      into service. Specifically, once the need for additional railcars is identified,  
19      it can take several months to solicit the market, evaluate bids, award the



1 business, execute contracts, receive authorization from the railroads to  
2 operate the sets on their systems, and have sets moved into operation. Over  
3 the last few months, the market for railcars has become tighter and  
4 availability is limited, making it an even greater risk to rely on the market  
5 for spare capacity. Trip leasing sets from other utilities can be another  
6 supply option; however, availability is generally limited, and typically this  
7 is not a reliable alternative either. Therefore, it is not a prudent practice to  
8 rely on the market for spare railcar capacity to meet an immediate need for  
9 railcars. Carrying a reasonable amount of spare railcar capacity minimizes  
10 total cost and maximizes reliability.

11 **Q27. What improvements to the generating station heating sheds have been**  
12 **considered and what freeze treatment is being used?**

13 A27. As stated in prior testimony, Schahfer does not use its heating shed since it  
14 was not effective in aiding the removal of frozen coal from railcars. For  
15 Michigan City, the results of an engineering study in 2018 estimated that  
16 the cost to make improvements to the heating shed far outweighed the  
17 expected benefits. However, the Company continues to evaluate the  
18 effectiveness of the heating shed at Michigan City in its current

1 configuration and station personnel are also evaluating the potential of  
2 other lower cost modifications. The use of the heating shed is based on the  
3 condition of a given train and is ultimately at the discretion of station  
4 management and fuel handling supervisors.

5 As in prior years, NIPSCO will continue to follow industry standards for  
6 frozen coal management. Utilities typically use freeze treatments and side  
7 release chemical agents to lessen the impacts of frozen coal. NIPSCO directs  
8 the mines to start freeze treatments on November 1 and continue treatments  
9 through the end of March. PRB mines apply side release to empty rail cars  
10 before they are loaded. As directed by NIPSCO, ILB and NAPP coal mines  
11 apply side release and full body freeze treatment (i.e. coal is sprayed with  
12 anti-freeze agents as it is loaded into a railcar) depending on the severity of  
13 the weather. It is important to note that the efficacy of freeze treatments  
14 can be substantially diminished in severe conditions, even at maximum  
15 application rates.

1 Q28. Does NIPSCO have any concerns for fuel supply during the forecast  
2 period?

3 A28. NIPSCO does not anticipate any issues in securing coal since market pricing  
4 is expected to remain somewhat flat, and coal supply should be adequate.  
5 NIPSCO expects that coal deliveries will meet demand during the forecast  
6 period.

7 Q29. Please provide a summary of NIPSCO's coal inventory during the  
8 reconciliation period.

9 A29. The days of supply at the maximum burn measure for coal inventory at  
10 Schahfer was approximately 47 days (up 16 days from the prior quarter) at  
11 the end of the reconciliation period. Shipment rates continued to improve  
12 during the reconciliation period helping inventories to recover after  
13 disruptions due to extreme flooding in the PRB region and in southern  
14 Illinois during the spring and early summer. Michigan City's coal  
15 inventories were at target levels at the end of the reconciliation period.

16 The maximum daily burn used to calculate days of supply is estimated for  
17 each unit using the month with its highest consumption over the last 120  
18 months (10 years).

1    **Q30. Does NIPSCO currently anticipate utilizing decrement pricing?**

2    A30. No, not at this time. NIPSCO will continue to update the Commission  
3       about decrement pricing in future FAC filings.

4    **Q31. Has NIPSCO made every reasonable effort to acquire fuel so as to**  
5       **provide electricity to its retail customers at the lowest fuel cost reasonably**  
6       **possible?**

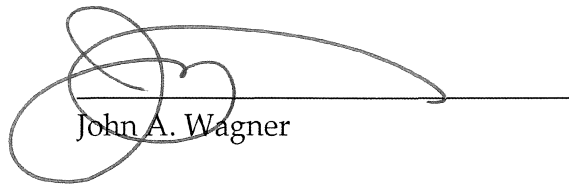
7    A31. Yes.

8    **Q32. Does this complete your prepared direct testimony?**

9    A32. Yes.

## VERIFICATION

I, John A. Wagner, Manager, Fuel Supply for Northern Indiana Public Service Company LLC, 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 dark ink, consisting of a large, stylized loop followed by a horizontal line extending to the right. The signature is written over a horizontal line.

John A. Wagner

Dated: February 14, 2020