

OFFICIAL
EXHIBITS

Petitioner's Exhibit No. 3
Northern Indiana Public Service Company LLC
Cause No. 38706-FAC-123
Page 1

VERIFIED DIRECT TESTIMONY OF JOHN A. WAGNER IURC
PETITIONER'S

EXHIBIT NO. 3
7-8-19 DATE REPORTER AT

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 and 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 to be 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 and disposal and sale of coal combustion residuals.

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

11 A4. Yes.

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

13 A5. The purpose of my testimony is to (1) summarize the generation mix, by
14 fuel type, of the energy produced by NIPSCO's fossil-fueled generation
15 during the period January, February, and March 2019 ("reconciliation
16 period"); (2) describe NIPSCO's coal procurement process and the coal
17 supply agreements that governed coal shipments NIPSCO received during
18 the reconciliation period; (3) provide the delivered cost of the coal NIPSCO

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

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

11 A6. NIPSCO's coal-fired generation provided 68% of energy generated, and
12 32% of the energy generated was gas-fired. NIPSCO's coal-fired generation
13 consumes coal from various supply regions. For the Michigan City
14 Generating Station ("Michigan City"), a blend of Powder River Basin
15 ("PRB") coal and Northern Appalachian ("NAPP") coal is consumed. A
16 blend of PRB coal and Illinois Basin ("ILB") coal is consumed in Unit 14;
17 PRB coal is consumed in Unit 15; and ILB coal is consumed in Units 17 and
18 18 at the R. M. Schahfer Generating Station ("Schahfer").

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

2 A7. NIPSCO solicits as many prospective suppliers as reasonably possible to
3 provide offers for specific coal types and tonnage based on a portion of
4 NIPSCO's estimated future delivery requirements. Specifically, NIPSCO
5 prepares a Request for Proposals and sends it to suppliers that can provide
6 the type of coal required. Suppliers send proposals to the Corporate
7 Auditor, and a formal bid opening is held with Auditing and Fuel Supply
8 representatives. NIPSCO performs an evaluation that ranks the offers on a
9 total cost basis and that also considers reliability. The total cost analysis
10 includes the coal free-on-board (or "F.O.B.") mine price, transportation
11 costs, railcar costs, dust treatment, emissions control costs, costs associated
12 with coal combustion byproducts and other operational costs. NIPSCO
13 then negotiates commercial terms and conditions with the supplier with the
14 most competitive offer and enters into a term agreement after the contract
15 receives legal and executive approval. An agreement is considered a term
16 supply agreement if the contract term is one (1) year or longer.

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

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

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

14 A9. NIPSCO purchased coal under three (3) term supply contracts as follows:
15 one (1) Arch Coal Sales Company agreement for PRB coal, and two (2)
16 Peabody COALSALES, LLC agreements for ILB and PRB coal.

1 Q10. Does NIPSCO have a financial interest in any of the coal producers
2 currently under contract?

3 A10. No.

4 Q11. Did NIPSCO sell any coal purchased by NIPSCO to any other party
5 during the reconciliation period?

6 A11. No.

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

9 A12. No.

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

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

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

2 A14. In general, producers and customers are reluctant to execute long term
3 contracts with fixed prices without some type of market price adjustment
4 mechanism. Maintaining a price close to market is beneficial to both
5 parties. For example, long term coal supply agreements with fixed prices
6 could end up well above future market prices making electricity generated
7 with that supply uneconomic. Therefore, the producer and customer may
8 work together to establish an equitable price adjustment methodology. For
9 example, the price may be calculated based on a mix of prompt and year-
10 ahead published market prices. The methodology is incorporated into the
11 terms and conditions of the agreement, and price adjustments are typically
12 made each contract year. Historically, price adjustments in long term
13 supply agreements tend to reduce the buyer's cost of hedging since future
14 prices are generally higher than spot and year-ahead prices. In addition to
15 base price adjustments, quality price adjustments are used to maintain the
16 underlying economics of the agreement on a dollar per million British
17 thermal unit ("BTU") basis when the shipment quality varies from the
18 guaranteed quality specifications.

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

3 A15. The delivered cost of coal for the twelve (12) months ending March 31, 2019
4 was \$45.24 per ton or \$2.312 per million BTU. The delivered cost of coal
5 shipments during the reconciliation period was \$44.88 per ton or \$2.302 per
6 million BTU. The delivered cost of coal for term contract coal shipments
7 during the reconciliation period was \$44.88 per ton or \$2.302 per million
8 BTU. There were no spot deliveries during the reconciliation period, which
9 is why the delivered cost of coal shipments is the same as it is for term
10 contract coal shipments. .

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

13 A16. As stated above, NIPSCO's delivered cost of coal during the reconciliation
14 period was \$44.88 per ton or \$2.302 per million BTU. When compared to
15 shipments made during the fourth quarter of 2018, the cost increased \$0.58
16 per ton, and the cost was up \$0.034 per million BTU. Changes in the unit
17 costs are largely due to relatively higher shipments of ILB coal to Schahfer
18 and lower PRB shipments to Michigan City and Schahfer. The delivered

1 cost of coal by coal type was relatively unchanged during the reconciliation
2 period; however, ILB coal costs were lower due to lower contract prices.

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

5 A17. The average spot market price of coal during the reconciliation period was
6 \$12.37 per ton (down \$0.05) for PRB coal, \$39.00 per ton (down \$0.28) for
7 ILB coal and \$53.64 per ton (down \$2.21) for NAPP coal. NIPSCO tracks
8 these estimated spot market prices by reviewing various daily and weekly
9 coal publications. These prices do not include the cost of transportation and
10 are only an indication of prices NIPSCO could pay if purchases were made
11 during the reconciliation period; however, given the relative illiquidity of
12 coal markets, actual purchase prices can vary from published indices.

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

14 A18. As of May 6, 2019, the spot market prices for shipments in March 2019
15 Delivery were \$12.47 per ton for PRB coal, \$35.81 per ton for ILB coal and
16 \$47.70 per ton for NAPP coal. These average spot market prices do not
17 include the cost of transportation.

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

2 A19. As of May 6, 2019, the estimated market prices for delivery in the forecast
3 period were \$12.20 per ton for PRB coal, \$35.00 per ton for ILB coal and
4 \$47.75 per ton for NAPP coal. Again, these prices do not include the cost of
5 transportation.

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

8 A20. Demand for coal globally increased during the latter half of 2018 resulting
9 in stronger U.S. exports to Europe and Asia, which led to higher Central
10 Appalachian, ILB, and NAPP coal prices. However, global demand for U.S.
11 coal has fallen off during the reconciliation period impacting Central
12 Appalachian, ILB, and NAPP coal markets throughout most of the first
13 quarter of 2019. Strong exports in 2018 also tended to increase
14 transportation rates as railroad resources shifted to serve stronger markets.
15 That being said, all coal prices have fallen off of the 2018 highs and
16 continued to fall after the reconciliation period. Overall, domestic coal
17 consumption was down roughly 4% nationwide in 2018 when compared
18 with 2017. U.S. coal production is projected to fall 7% in 2019 and another

1 9% in 2020. Domestic coal inventories are 25% lower than December 2017
2 levels and are near the bottom of the five year range. In prior years, lower
3 utility inventory levels may have been a concern; however, given reduced
4 coal consumption rates due to the economics of coal-fired generation and
5 the continued retirement of a significant number of coal-fired generating
6 units, this trend is likely to continue. Natural gas and renewables continue
7 to increase their share of the power market. Natural gas generation was up
8 13% and wind and solar were up 8% and 25% respectively in 2018 when
9 compared to 2017. These dynamics are anticipated to continue and will
10 keep a ceiling on coal and transportation pricing. Coal producers and
11 railroads will need to rely on strong international markets to offset the long-
12 term decline in domestic demand.

13 **Q21. What is NIPSCO's estimate for the cost of coal to be used for power**
14 **generation during the forecast period of July, August, and September**
15 **2019?**

16 **A21. NIPSCO's cost of coal consumed for generation in the forecast period of**
17 **July, August, and September 2019 is estimated to be \$41.87 per ton and**
18 **\$2.175 per million BTU.**

1 Q22. What data and assumptions did the Fuel Supply group use to develop
2 pricing estimates for the forecast period?

3 A22. In developing the estimate for the forecast period, NIPSCO's Fuel Supply
4 group incorporates coal contract prices inclusive of any adjustments
5 specified in the agreement, transportation contract prices forecasted using
6 estimates of future LMPs and natural gas prices, estimates of the impact of
7 fuel surcharges on transportation rates using the current price of On-
8 Highway Diesel Fuel ("HDF") and by estimating changes in the Association
9 of American Railroad's All Inclusive Index Less Fuel ("AAILF"), and
10 estimates of future coal market prices. In addition, Fuel Supply also
11 provides a forecast of beginning inventory values in dollars and quantities
12 in tons for each of the generating stations. These assumptions are provided
13 to NIPSCO's Energy Supply & Optimization group who uses these
14 assumptions to develop the forecast for the period.

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

4 A23. The prices for NIPSCO's coal deliveries in the quarterly forecast period are
5 generally fixed in supply contracts. Concerning supply, coal producers are
6 obligated to perform under existing contracts. If spot purchases are needed,
7 NIPSCO anticipates that coal supply is generally available in the market
8 and coal prices are expected to be soft given the market dynamics discussed
9 above.

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

11 A24. NIPSCO's coal transportation agreements have rates that are indexed to
12 natural gas pricing or power prices and are also adjusted periodically by
13 changes in the AILF and HDF. One (1) transportation agreement has rates
14 indexed to generating unit hourly Day-Ahead Locational Marginal Prices
15 ("DA-LMPs"), and another has significant rate discounts when natural gas
16 prices are below threshold prices. These pricing structures and the
17 anticipated cost of fuel surcharges are included in rates used to develop the
18 forecast of delivered coal costs. HDF prices are roughly 7% lower when

1 compared to the peak in October of 2018. HDF prices are projected to
2 increase during the forecast period and railroad fuel surcharges under one
3 transportation agreement would increase. The AILLF typically rises at a
4 somewhat moderate rate.

5 Rail carrier performance with one of NIPSCO's rail carrier's service to
6 Schahfer continued to improve during the reconciliation period. NIPSCO
7 expects cycle times to continue to improve.

8 **Q25. What was the status of NIPSCO's railcar fleet during the reconciliation**
9 **period?**

10 A25. NIPSCO has 1,471 railcars used to support 11 unit trains (approximately
11 125 cars per unit train, plus 6.5% spares needed to support maintenance of
12 the fleet). NIPSCO utilized 100% of its railcar fleet during January and 72%
13 of the capacity during February and March. Three (3) sets were stored
14 during February and March due to a planned maintenance outage at
15 Michigan City. Two (2) sets were stored at Bailly Generation Station, and
16 one (1) set was stored at Michigan City. Consumption at Schahfer remained
17 robust during the reconciliation period, and this helped maximize the
18 utilization of NIPSCO's fleet.

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

3 **A26.** As stated above, NIPSCO did not have any surplus capacity in January and
4 stored three (3) sets during February and March. Notwithstanding, any idle
5 unit trains are typically stored at Schahfer or at Bailly whenever possible
6 before trains are stored at third party locations. This practice has
7 minimized the cost of storage. As stated above, the three (3) sets were
8 stored on NIPSCO property at no cost. Storage cost is only one (1) of many
9 factors considered when determining the size of the unit train fleet.

10 Another key consideration is the cost of unit train capacity. Specifically, the
11 market for railcars over the last three years has been extremely soft (at an
12 all-time low), and this has driven the cost to carry surplus capacity down
13 substantially. In addition, modest surplus capacity is prudent since
14 protects against unplanned unloading outages, unforeseen changes in
15 consumption, and cycle times. It is not prudent to minimize the number of
16 unit trains given the unpredictability of demand, delivery rates, and the
17 time required to lease additional railcars. Specifically, once the need for
18 additional railcars is identified, it can take several months to solicit the

1 market, evaluate bids, award the business, execute contracts, receive
2 authorization from the railroads to operate the sets on their systems, and
3 have sets moved into operation. In addition, the ability to trip lease sets
4 from other utilities can be limited and is not a reliable option. Therefore, it
5 is not prudent practice to rely on the market for trip leases or spare railcar
6 capacity given the length of time required to lease new unit trains and place
7 them into service.

8 **Q27. What improvements to the generating station heating sheds have been**
9 **made and what freeze treatment is being used?**

10 A27. As NIPSCO reported in FAC-122, Schahfer does not use its heating sheds
11 since they were not effective. An evaluation of the Michigan City heating
12 shed was made in 2018, and the costs associated with recommended
13 "improvements" were prohibitive relative to the estimated benefits.
14 Therefore, NIPSCO chose to repair a number of heating elements prior to
15 the 2018-2019 winter and will operate the heating shed in their original
16 configuration as needed. In general, heating sheds are marginally effective
17 in moderate winter conditions. However, in severe weather conditions
18 (wet periods followed by extremely low temperatures), heating sheds can

1 cause huge blocks of coal weighing several tons to loosen and fall. This
2 condition restricts coal flow through the unloading hoppers and/or can
3 cause significant damage to unloading equipment. This creates an unsafe
4 condition (the large blocks of coal have to be manually broken up) and
5 typically causes significant unloading delays. To mitigate the problems
6 caused by large blocks of coal, additional capital improvements would be
7 required to install frozen coal crackers to break up these blocks. This
8 further increases cost without a significant increase in benefits. In addition,
9 excessive heating shed use can damage aluminum railcars if they are
10 overheated. Also, some railcar lessors prohibit the use of heating sheds
11 because of the potential for long term overheating damage. Given the risks
12 described above, and the limited benefits associated with heating shed use,
13 other utilities have discontinued their use since they are not effective in
14 severe winter conditions, and can create safety concerns. Most utilities rely
15 heavily on the use of freeze conditioning applied at the mines.

16 Regarding freeze conditioning, NIPSCO uses best practices. For PRB coal,
17 NIPSCO's mines apply side release to the empty railcars before the cars are
18 loaded. ILB coal mines apply side release and full body freeze treatment.

1 NIPSCO directs the application rates of full body treatments depending on
2 the severity of the weather. The efficacy of freeze treatments can be
3 substantially diminished in severe conditions, even at maximum
4 application rates.

5 **Q28. Does NIPSCO have any concerns for fuel supply during the forecast**
6 **period?**

7 A28. NIPSCO does not anticipate any issues in securing coal since market pricing
8 is expected to remain somewhat flat, and coal supply should be adequate.
9 In addition, railroad performance has improved at Schahfer. Therefore,
10 NIPSCO expects that coal deliveries will meet demand during the forecast
11 period.

12 **Q29. Please provide a summary of NIPSCO's coal inventory during the**
13 **reconciliation period.**

14 A29. The days of supply at the maximum burn measure for coal inventory at
15 Schahfer was approximately 29 days (up 3 days from the prior quarter) at
16 the end of the reconciliation period. Michigan City's coal inventories were
17 close to target levels at the end of the reconciliation period.

1 The maximum daily burn is estimated for each unit using the month with
2 its highest consumption over the last 120 months (10 years).

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

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

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

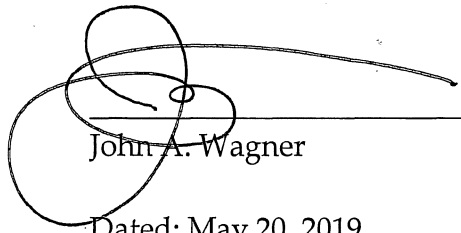
9 A31. Yes.

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

11 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.



John A. Wagner

Dated: May 20, 2019