STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

| | | |
|---|---|---|
| PETITION OF NORTHERN INDIANA PUBLIC SERVICE COMPANY FOR (1) AUTHORITY TO MODIFY ITS RATES AND CHARGES FOR GAS UTILITY SERVICE THROUGH A PHASE IN OF RATES; (2) MODIFICATION OF THE SETTLEMENT AGREEMENTS APPROVED IN CAUSE NO. 43894; (3) APPROVAL OF NEW SCHEDULES OF RATES AND CHARGES, GENERAL RULES AND REGULATIONS, AND RIDERS; (4) APPROVAL OF REVISED DEPRECIATION RATES APPLICABLE TO ITS GAS PLANT IN SERVICE; (5) APPROVAL OF NECESSARY AND APPROPRIATE ACCOUNTING RELIEF; AND (6) AUTHORITY TO IMPLEMENT TEMPORARY RATES CONSISTENT WITH THE PROVISIONS OF IND. CODE CH. 8-1-2-42.7. | ) | CAUSE NO. 44988 |

IURC - Steel Dynamics
INTERVENOR'S 1
EXHIBIT NO.
5-29-18
DATE REPORTER

PREFILED DIRECT TESTIMONY OF:

KEVIN C. HIGGINS

ON BEHALF OF

STEEL DYNAMICS, INC.



MARCH 2, 2018

## PREFILED DIRECT TESTIMONY OF KEVIN C. HIGGINS

**INTRODUCTION**

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

A. My name is Kevin C. Higgins. My business address is 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

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

A. I am a Principal in the firm of Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

**Q. On whose behalf are you testifying in this proceeding?**

A. My testimony is being sponsored by Steel Dynamics, Inc. ("Steel Dynamics"). Steel Dynamics takes transportation service from Northern Indiana Public Service Company ("NIPSCO" or "the Company").

**Q. Please describe your professional experience and qualifications.**

A. My academic background is in economics, and I have completed all coursework and field examinations toward the Ph.D. in Economics at the University of Utah. In addition, I have served on the adjunct faculties of both the University of Utah and Westminster College, where I taught undergraduate and graduate courses in economics. I joined Energy Strategies in 1995, where I assist private and public sector clients in the areas of energy-related economic and policy analysis, including evaluation of electric and gas utility rate matters.

Prior to joining Energy Strategies, I held policy positions in state and local government. From 1983 to 1990, I was economist, then assistant director, for the Utah Energy Office, where I helped develop and implement state energy policy. From 1991 to 1994, I was chief of staff to the chairman of the Salt Lake County Commission, where I was responsible for development and implementation of a broad spectrum of public policy at the local government level.

**Q. Have you previously filed testimony before this Commission?**

A. Yes. I have filed testimony in the following cases: Duke Energy Indiana's ("DEI") Transmission, Distribution and Storage System Improvement Charge ("TDSIC") proceeding, Cause No. 44720 (2016); DEI's TDSIC proceeding, Cause No. 44526 (2014); Vectren's TDSIC proceeding, Cause Nos. 44429 and 44430 (2014); the Self-Direct DSM proceeding, Cause No. 44310 (2013); DEI's energy efficiency proceeding, Cause No. 43955 (2011); DEI's Smart Grid proceeding, Cause No. 43501 (2009); the MISO cost recovery proceeding, Cause No. 43426 (2008); and DEI's (then PSI Energy) general rate case, Cause No. 42359 (2003). I also filed several rounds of testimony in DEI's 2008 energy efficiency proceeding, Cause No. 43374. My testimony in that proceeding initially had been withdrawn pursuant to stipulation, but was re-submitted in 2010, subsequent to which DEI withdrew its Application.

**Q. Have you testified before utility regulatory commissions in other states?**

A. Yes. I have testified in approximately 220 proceedings on the subjects of utility rates and regulatory policy before state utility regulators in Alaska, Arizona, Arkansas, Colorado, Georgia, Idaho, Illinois, Kansas, Kentucky, Michigan, Minnesota, Missouri, Montana, Nevada, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Virginia, Washington, West Virginia, and Wyoming. I have also prepared affidavits that have been filed with the Federal Energy Regulatory Commission ("FERC") and prepared expert reports in state and federal court proceedings involving utility matters.

## OVERVIEW AND CONCLUSIONS

**Q. What is the purpose of your direct testimony in this proceeding?**

A. My testimony addresses the rate design of Rate 428,[1] Large Transportation and Balancing Service, and the class cost of service study prepared by NIPSCO witness Ronald J. Amen. Absence of comment on my part regarding other aspects of NIPSCO's filing should not be interpreted as implying support (or necessarily opposition) to NIPSCO's positions.

**Q. Please summarize your primary conclusions and recommendations.**

A. The allocation of costs to Rate 428 properly recognizes that a significant proportion of the gas delivered to this class is delivered directly from the high-pressure system, not the downstream lower-pressure system. However, the rate design for Rate 428 fails to differentiate *within the rate schedule* among those individual customers taking service at high pressure and those taking service at lower pressure. Consequently, Rate 428 customers taking service at high pressure are unreasonably charged for a portion of the costs of the lower-pressure system that they do not use, and Rate 428 customers taking delivery off the lower-pressure system are under-assigned cost responsibility for the lower-pressure system. I recommend that this basic inequity be

[1] NIPSCO intends to re-designate Rate 428 as Rate 128. However, since this rate schedule is referred to as Rate 428 in NIPSCO's cost-of-service study, I will use the same terminology in my testimony.

rectified by differentiating high-pressure service from lower-pressure service within Rate 428. Specifically, I propose that all of the lower-pressure system costs allocated to Rate 428 be recovered from that subset of the class that uses the lower-pressure system, while none of the lower-pressure system costs allocated to Rate 428 would be recovered from customers taking delivery directly off the high-pressure system.

I also recommend that the Commission reject the use of the Peak and Average method to allocate transmission plant because this method unreasonably shifts costs to higher-load factor customer classes. I recommend instead that the Commission require NIPSCO to allocate transmission plant using the Design Day Peak allocation factor, just as NIPSCO did in its last general rate case.

## RATE 428 RATE DESIGN – DIFFERENTIATION OF HIGH PRESSURE SERVICE

**Q. What aspect of Rate 428 rate design are you addressing in your testimony?**

A. I am addressing the need to differentiate high-pressure service from lower-pressure service within Rate 428.

**Q. By way of background, please describe Rate 428.**

A. Rate 428 is Large Transportation and Balancing Service. This rate schedule is for large retail customers that transport gas purchased from third-party providers. Generally, it is available to customers with average usage of at least 200 Dth per day.

**Q. What is your concern regarding the need to differentiate high-pressure service from lower-pressure service within Rate 428?**

A. As described in Mr. Amen's direct testimony, NIPSCO's system includes pipelines of various diameters and pressures. At the large end of the spectrum is

NIPSCO's transmission system, which is a large diameter, high pressure pipeline system that moves large volumes of gas between dispersed interstate pipeline interconnecting points and NIPSCO's downstream distribution systems. NIPSCO also has high pressure distribution mains, which are also referred to by NIPSCO as "Pseudo-Transmission" due to similarities in operating characteristics of these pipelines to the transmission system. The high-pressure distribution mains typically operate at pressures above 200 PSIG and serve as an intermediate pipeline system between the transmission system and the lower-pressure downstream distribution systems.[2] For purposes of the rate design discussion that follows, I will refer to the transmission system and the high-pressure distribution mains collectively as the "high-pressure" system and the downstream distribution mains as the "lower-pressure" system.

In its class cost of service study, NIPSCO properly recognizes that that a significant proportion of the gas delivered to Rate 428 is delivered directly from the high-pressure system, not the downstream lower-pressure system. Thus, even though the vast majority of NIPSCO's customers are not directly connected to either the transmission system or high-pressure distribution system, the peak demands of those relatively few customers that are directly connected to these pipelines are excluded from the allocation of the downstream distribution mains for purposes of NIPSCO's class cost of service study. This exclusion is entirely appropriate because customers taking service directly from the high-pressure system do not use the downstream distribution mains. This situation is analogous to an electric system in which customers taking service directly from the high-voltage transmission system are not allocated the costs associated with the lower-voltage distribution system that they do not use.

[2] Direct Testimony of Ronald J. Amen, pp. 37-38.

My concern arises not with the class cost allocation, but rather with NIPSCO's failure to differentiate between the customers taking service on the high pressure system and the customers on the lower-pressure system for the purpose of Rate 428 rate design.

**Q. Why should customers directly connected to the high-pressure system be differentiated from those connected to the lower-pressure system for the purpose of Rate 428 rate design?**

A. NIPSCO correctly recognizes that it costs less to serve customers that are directly connected to the high-pressure system. However, rather than reflect this lower cost specifically to the customers served off the high-pressure system, NIPSCO conveys the benefit of this lower cost to the entire Rate 428 class, spreading it across all customers in the class – including those served off the lower-pressure system.[3] Consequently, Rate 428 customers taking service at high pressure are unreasonably charged for a portion of the costs of the lower-pressure distribution mains which they do not use, and Rate 428 customers taking delivery off the lower-pressure system are under-assigned cost responsibility for those same lower-pressure distribution mains. This situation results in an inequitable misallocation of cost responsibility *within* the class that should be remedied.

**Q. What cost responsibility for the lower-pressure system is allocated to Rate 428?**

A. After accounting for the proportion of the class taking service directly at high pressure, approximately $5.8 million of costs are allocated to Rate 428 for the lower-pressure system.[4] All of these costs are attributable solely to those Rate 428 customers

[3] See also NIPSCO Response to SDI 4-001, included in SDI Attachment KCH-1
[4] See NIPSCO Response to SDI 5-002(a), included in SDI Attachment KCH-1.

taking service off the lower-pressure distribution mains, yet they are recovered from *all* customers in the class, including those directly connected to the high-pressure system.

**Q. What is your recommendation for addressing this inequity?**

A. I recommend that the rate design for Rate 428 be modified to differentiate between customers taking service directly at high pressure and those taking service off the lower-pressure distribution mains. All else being equal, the demand charge and volumetric charges would be lower for the high-pressure customers, reflecting their lower cost to serve, while the demand charge and volumetric charges would be correspondingly higher for the Rate 428 customers served off the lower-pressure distribution mains. This differentiation would be comparable to the differentiation that exists in electric tariffs in Indiana between customers taking service at transmission voltage and those served off the distribution system. Indeed, NIPSCO's electric tariff has voltage-differentiated rates for electric service customers.[5]

**Q. Would modifying the Rate 428 rate design in this way impact any other class of customers?**

A. No. The change in rate design I am proposing is completely revenue neutral with respect to all other customer classes. That is, the changes in revenue recovery responsibility to remedy this problem would be contained entirely within Rate 428.

**Q. Have you prepared a rate design analysis for implementing your proposal?**

A. Yes, I have. This analysis is presented in SDI Attachment KCH-2. The rates I have prepared are based on NIPSCO's proposed revenue allocation for Rate 428 in the

[5] See for example, NIPSCO's Electric Rate 724, General Service – Large.

Company's supplemental filing.[6] To the extent that the class revenue requirement is modified in the Commission's final order in this case, my recommended rate design should be adjusted accordingly, while maintaining the same relationship between high-pressure service rates and lower-pressure service rates that I present in SDI Attachment KCH-2.

**Q. Please describe the derivation of your proposed rate design.**

A. My proposed rate design utilizes billing determinant information provided by NIPSCO in its Response to SDI 5-001, included in SDI Attachment KCH-1. Rate 428 has 58 customers that are directly connected to the high-pressure system and 99 customers taking service from the lower-pressure system.[7] As shown in SDI Attachment KCH-2, page 1, the customers on the lower-pressure system comprise 40% of the demand billing determinants, 67% of the first block volumetric billing determinants, and 35% of the second block volumetric billing determinants. Taking this information into account, under NIPSCO's proposed rate design, these customers would recover $2.6 million of the $5.8 million in lower-pressure system costs allocated to Rate 428.[8] My recommended rate design apportions the remaining $3.2 million of lower-pressure system costs to the lower-pressure customers in a manner that is consistent with the underlying relationships in NIPSCO's proposed rate design; that is, I retain NIPSCO's proposal to recover 25% of the apportioned demand-related costs through the demand charge and make equal percentage adjustments to the first and second volumetric blocks. In this

[6] That is, rate schedule margin of $44,767,437 as shown in Petitioner's Exhibit No. 15-SD, Attachment 15-F-SD, p. 2, line 44, col. (g).
[7] Source: Mr. Amen's Attachment 15-C – External Allocators workpaper.
[8] See SDI Attachment KCH-2, page 1, lines 11-12.

way, I implement the high-pressure/lower-pressure differentiation in an unbiased manner with respect to demand/throughput relationships and customer size.

As shown in SDI Attachment KCH-2, page 1, the high-pressure demand charge should be reduced by $0.01590 per therm relative to the undifferentiated demand charge proposed by NIPSCO, whereas the lower-pressure demand charge should be increased by $0.02419 per therm relative to that same benchmark. Similarly, the first block volumetric rate should be reduced for high-pressure customers by $0.00508 per therm relative to the undifferentiated charge proposed by NIPSCO and increased for the lower-pressure customers by $0.00581 per therm. Finally, the second block volumetric rate should be reduced for high-pressure customers by $0.00144 per therm relative to the undifferentiated charge proposed by NIPSCO and increased for the lower-pressure customers by $0.00165 per therm. As shown in SDI Attachment KCH-2, page 2, this rate design will fully recover the proposed revenue requirement for Rate 428 and does not impact the revenue allocation for any other customer class.

**Q. Please summarize your recommendation with respect to Rate 428 rate design.**

A. The rate design for Rate 428 fails to differentiate *within the rate schedule* among those individual customers taking service at high pressure and those taking service at lower pressure. Consequently, Rate 428 customers taking service at high pressure are unreasonably charged for a portion of the costs of the lower-pressure system which they do not use, and Rate 428 customers taking delivery off the lower-pressure system are under-assigned cost responsibility for the lower-pressure system. I recommend that this basic inequity be rectified by differentiating high-pressure service from lower-pressure service within Rate 428. Specifically, I propose that all of the lower-pressure system costs allocated to Rate 428 be recovered from that subset of the class that uses the lower-pressure system, while none of the lower-pressure system costs allocated to Rate 428 would be recovered from customers taking delivery directly off the high-pressure system. My recommended rate design at NIPSCO's proposed revenue allocation for Rate 428 is shown in SDI Attachment KCH-2. My proposed rate design will fully recover the proposed revenue requirement for Rate 428 and does not impact the revenue allocation for any other customer class.

**Q. Are there any other customer classes besides Rate 428 with customers taking service on both the high-pressure system and lower-pressure system?**

A. Yes. Rate 438, General Transportation and Balancing Service, has 15 customers taking service on the high-pressure system and 79 customers taking service on the lower-pressure system.[9] Therefore, a change could also reasonably be made to the Rate 438 rate design to differentiate between customers taking service at high-pressure and those taking lower-pressure service, comparable to what I recommend above for Rate 428. However, I am not making a specific recommendation with respect to Rate 438 in this proceeding.

## CLASS COST OF SERVICE STUDY – ALLOCATION OF TRANSMISSION PLANT

**Q. Do you have any concerns regarding the class cost of service study presented by NIPSCO in this case?**

A. Yes, I do. In his direct testimony, Mr. Amen explains that he changed the method used for allocating transmission plant in this case compared to the class of service study

[9] Source: Mr. Amen's Attachment 15-C – External Allocators workpaper.

used in NIPSCO's previous general rate case, Cause No. 43894.[10] Specifically, in this case, Mr. Amen allocates transmission plant using the Peak and Average method, whereas in the prior general rate case he allocated transmission plant using Design Day Peak allocation factor. This change has a significant adverse impact on Rate 428, causing an increase in costs allocated to this class of nearly $8 million.[11]

**Q. How do the Peak and Average method and the Design Day Peak method differ with respect to cost allocation?**

A. The methods differ in that Design Day Peak method allocates costs exclusively based on class usage during the design day peak, whereas the Peak and Average method also includes a significant weighting of average demand – or throughput – to allocate costs. In effect, the Peak and Average method counts average demand twice, in that it is included both in the average demand component of the allocator and in the peak component of it as well (as average demand is a subset of peak demand).

**Q. Do you believe that changing the cost allocation method for transmission plant to the Peak and Average method is reasonable?**

A. No, I do not. In his direct testimony, Mr. Amen provides a convincing explanation as to why a Design Day Peak allocation factor best reflects cost causation for a natural gas pipeline (after accounting for customer-related costs).

From a gas engineering perspective, it has been my experience that a peak demand design criterion is always utilized when designing a gas distribution system to accommodate the gas demand requirements of the customers served from that system, whether the investment is driven by the need to replace aging and deteriorating pipelines *or for the purpose of expanding transmission* or distribution capacity to serve growing demand on the system. As NIPSCO Witness Campbell discusses, a utility's gas system sized only to accommodate average gas demands would be unable to accommodate system peak demands. That is, by sizing plant investment for peak period demands, the

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[10] Direct Testimony of Ronald J. Amen, p. 50.

[11] See Petitioner's Exhibit No. 15-SD, Attachment 15-G-SD, p. 2.

> utility is assured to satisfy its service obligation throughout the year. As such, *cost causation with respect to demand related costs are unrelated to average demand characteristics.*[12]

Yet, in using the Peak and Average method to allocate transmission plant, Mr. Amen abandons this insightful commentary and relies heavily on average demand to allocate these costs. Indeed, Mr. Amen's use of the Peak and Average method resulted in 44% of transmission plant being allocated on the basis of average demand, his admonition above notwithstanding.

Because, as I noted above, the Peak and Average method double weights average demand, Mr. Amen's use of this method unreasonably shifts costs to higher-load factor customer classes.

**Q. Does Mr. Amen recognize that the use of average demand to allocate demand-related costs adversely impacts higher-load factor customer classes?**

A. Yes. Mr. Amen testifies as follows:

> Additionally, use of average demand characteristics for the allocation of demand related costs penalizes customers that exhibit efficient gas consumption characteristics, *i.e.*, customers with high load factors and encourages the inefficient use of the utility's gas system by customers with low load factors. Under-utilization of a utility's gas system is a result that a utility can hardly encourage, recognizing that higher system utilization will result in lower unit costs to all customers served by the utility. Therefore, the use of peak demand characteristics for the allocation of demand related costs is consistent with the goal of sending proper price signals to customers to encourage efficient use of the system and thereby prolong the need for distribution capacity additions. For the above-stated reasons and with few exceptions, it is inappropriate to rely upon the use of a commodity-based allocation factor, as derived from annual gas throughput volume, for purposes of allocating demand related costs to a utility.[13]

I completely agree with Mr. Amen's discussion on this point and I believe it makes a compelling argument to reject the use of the Peak and Average method to allocate transmission plant in this case.

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[12] Direct Testimony of Ronald J. Amen, pp. 23-24. Emphasis added.
[13] *Id.*, pp. 24-25.

**Q. What is your recommendation to the Commission regarding the use of the Peak and Average method to allocate transmission plant?**

A. I recommend that the Commission reject the use of the Peak and Average method to allocate transmission plant, and instead require NIPSCO to allocate these costs using the Design Day Peak allocation factor, just as NIPSCO did in its last general rate case. These results are presented in the alternative cost of service study prepared by Mr. Amen, and are summarized in Petitioner's Exhibit No. 15-SD, Attachment 15-G-SD.

**Q. Would rejecting the Peak and Average method for allocating transmission plant reduce the revenue allocation to Rate 428 in this case as proposed by NIPSCO?**

A. No, not as proposed by NIPSCO in this case. Even though using the Peak and Average method to allocate transmission plant shifts nearly $8 million in costs to Rate 428, NIPSCO is also proposing to mitigate class rate increases by limiting the margin increase to any class to 150% of the system average margin increase. This mitigation measure caps the margin increase to Rate 428 at 57.28% in NIPSCO's filed supplemental case. Based on my review of NIPSCO's proposed mitigation, which I support, it appears that the margin increase to Rate 428 would still be constrained by the mitigation cap even if the Peak and Average method is rejected. That said, the Peak and Average method should nevertheless be rejected because it unreasonably distorts class cost allocation, irrespective of whether a mitigation measure is used to limit final rate impacts.

**Q. Does this conclude your direct testimony?**

A. Yes, it does.

SDI Attachment KCH-1
Cause No. 44988

NIPSCO Responses to
SDI Data Requests 4-001, 5-001, and 5-002

**Cause No. 44988**
**Northern Indiana Public Service Company's**
**Objections and Responses to**
**Steel Dynamics, Inc.'s Set No. 4**

**SDI Request 4-001:**

Please refer to the Direct Testimony of Ronald Amen, p. 38, lines 4-10.

a. When the peak demands of customers served at high-pressure are excluded from the allocation of downstream distribution main costs, how is this exclusion of downstream costs reflected in NIPSCo's cost allocation? For example, are the 58 high-pressure customers taking service on Rate 428 directly allocated zero cost responsibility for the downstream distribution main costs or are they implicitly assigned a pro rata share of the (reduced) downstream cost responsibility of downstream distribution mains that are allocated to Rate 428 as a whole? If the former, please indicate where and how this direct allocation occurs in the class cost of service study.

b. Rate 428 in NIPSCO's tariff does not appear to differentiate between customers served at High Pressure and customers served on the downstream distribution mains. Why is that? Does NIPSCO agree that it would be reasonable for customers served at High Pressure to pay a lower rate within the rate schedule to reflect the fact that they do not use the downstream distribution mains? If NIPSCO disagrees, please explain the basis for disagreeing.

**Objections:**

NIPSCO objects to subpart (b) of this Request on the grounds and to the extent that the Request solicits an analysis, calculation or compilation which has not already been performed and which NIPSCO objects to performing.

**Response:**

Subject to and without waiver of the foregoing general and specific objections, NIPSCO is providing the following response:

a. Because the peak demands of the Rate 428 customers that are served directly from the high-pressure pipeline system are excluded from the allocation of the downstream distribution mains costs, the Rate 428 class as a whole receives a reduced allocation of the downstream distribution mains costs.

b. Please see response to subpart (a.). The impact to the class already accounts for the reduced allocation of downstream distribution mains costs. To the extent the cost of service study may suggest a cost basis for an increase or

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| decrease to the proposed rates within Rate 428 by creating additional subclasses and further differentiating between customers served at High Pressure and customers served on the downstream distribution mains, NIPSCO has not performed such an analysis. |

# Cause No. 44988
## Northern Indiana Public Service Company's
## Objections and Responses to
## Steel Dynamics, Inc.'s Set No. 5

**SDI Request 5-001:**

**Large Transportation – Rate 428 Billing Determinants.** Please refer to Attachment 15-H-SD Rate Design for Large Transportation – Rate 428.

a. The 2018 Forecasted Billing Determinant for Large Transportation – Rate 428 Demand is 83,404,689. How much of this amount is for service delivered at High Pressure?

b. The 2018 Forecasted Billing Determinant for Large Transportation – Rate 428 Transportation Charge First 300,000 Therms is 321,996,061 therms. How much of this amount is for service delivered at High Pressure?

c. The 2018 Forecasted Billing Determinant for Large Transportation – Rate 428 Transportation Charge All Over 300,000 Therms is 1,985,469,543 therms. How much of this amount is for service delivered at High Pressure?

**Objections:**

**Response:**

a. Out of the forecasted demand of 83,404,689 therms, 50,320,545 therms are for service delivered at High Pressure.
b. Out of the forecasted first block of 321,996,061 therms, 107,656,692 therms are for service delivered at High Pressure. This was calculated by applying the percentage of High Pressure volumes in the first block during the base year of 2016 to the first block of the 2018 forecast.
c. Out of the forecasted second block of 1,985,469,543 therms, 1,285,442,497 therms are for service delivered at High Pressure. This was calculated by applying the percentage of High Pressure volumes in the second block during the base year of 2016 to the second block of the 2018 forecast.

# Cause No. 44988
# Northern Indiana Public Service Company's
# Objections and Responses to
# Steel Dynamics, Inc.'s Set No. 5

**SDI Request 5-002:**

Please refer to the Direct Testimony of Ronald Amen, p. 38, lines 4-10 and SDI Response 4-0001, regarding the exclusion of the peak demands of Rate 428 customers served directly from the high-pressure pipeline system from the allocation of the downstream distribution main costs.

a. How much of the total cost allocation to Rate 428 is attributable to that class's utilization of downstream distribution mains (based on the utilization of downstream distribution mains by Rate 428 customers that are not served directly from the high-pressure pipeline system)? Please include secondary allocation impacts that are a function of downstream distribution mains cost allocation (e.g., A&G expense, depreciation expense, etc.).

b. Does Mr. Amen agree that the answer to (a) can be calculated by excluding the peak demands of Rate 428 customers that are not served directly from the high-pressure pipeline system from the allocation of downstream distribution main costs in the Allocated Cost of Service Study, and then comparing (i) the resulting allocation of total costs to Rate 428 to (ii) the total cost allocation to Rate 428 that occurs in the class cost of service study prepared by Mr. Amen? If Mr. Amen disagrees, please explain.

c. Does Mr. Amen agree that the allocation of rate base for downstream distribution mains to the Rate 428 class based on the peak demands of customers that are not served by the high-pressure pipeline system causes an increased allocation of certain operating expenses, A&G expenses, depreciation expense, and tax expenses? If Mr. Amen disagrees, please explain.

**Objections:**

**Response:**

a. $5,812,500 of the total cost allocation to Rate 428 is attributable to that class's utilization of downstream distribution mains. Please see SDI Request 5-002 Attachment A for a Class Cost of Service Study summary schedule, which provides a comparison between the proposed method of allocating non-high

**Cause No. 44988**
**Northern Indiana Public Service Company's**
**Objections and Responses to**
**Steel Dynamics, Inc.'s Set No. 5**

pressure distribution mains to Rate 428 (Attachment 15-F-SD) with the requested scenario.

b. Yes.

c. Yes.

## SDI Recommended Rate Design -- Rate 428 Large Transportation and Balancing Service

### At NIPSCO Proposed Rate 428 Revenue Allocation

| | Description | 2018 Forecasted Billing Determinants (Therms) | High Pressure and Low Pressure Proportion of Billing Determinants | NIPSCO Proposed Rates (Supplemental Filing) | NIPSCO Proposed Revenue (Supplemental Filing) | SDI Recommended Rates | Differences between SDI and NIPSCO Proposed Rates |
|---|---|---|---|---|---|---|---|
| | **Demand Charge** | | | | | | |
| 1 | HP Demand Charge | 50,320,545 | 60.3% | $0.11910 | $5,993,291 | $0.10320 | ($0.01590) |
| 2 | LP Demand Charge | 33,084,145 | 39.7% | $0.11910 | $3,940,397 | $0.14329 | $0.02419 |
| 3 | Total Demand | 83,404,690 | 100.0% | | $9,933,687 | | |
| | **Transportation Charge** | | | | | | |
| 4 | HP First 300,000 Therms | 107,656,692 | 33.4% | $0.03434 | $3,696,645 | $0.02926 | ($0.00508) |
| 5 | LP First 300,000 Therms | 214,339,369 | 66.6% | $0.03434 | $7,359,845 | $0.04015 | $0.00581 |
| 6 | Total First 300,000 Therms | 321,996,061 | 100.0% | | $11,056,490 | | |
| 7 | HP All Over 300,000 Therms | 1,285,442,497 | 64.7% | $0.00975 | $12,533,064 | $0.00831 | ($0.00144) |
| 8 | LP All Over 300,000 Therms | 700,027,046 | 35.3% | $0.00975 | $6,825,264 | $0.01140 | $0.00165 |
| 9 | Total Over 300,000 Therms | 1,985,469,543 | 100.0% | | $19,358,328 | | |

| | | NIPSCO Proposed Demand and Transportation Revenues | NIPSCO Proposed Demand and Transportation Revenue Proportion | NIPSCO Proposed Lower-Pressure System Cost Recovery | SDI Recommended Lower-Pressure System Cost Recovery |
|---|---|---|---|---|---|
| 10 | HP Customers | $22,223,000 | 55.1% | $3,201,387 | $0 |
| 11 | LP Customers | $18,125,505 | 44.9% | $2,611,113 | $5,812,500 |
| 12 | Total | $40,348,505 | 100.0% | $5,812,500 | $5,812,500 |

## Revenue Proof and Rate Design for Rate 428 Large Transportation and Balancing Service

### Comparison of NIPSCO and SDI Proposals

| Description | 2018 Forecasted Billing Determinants (Therms/Bills) | NIPSCO Proposed Rates (Supplemental Filing) | NIPSCO Proposed Revenue (Supplemental Filing) | SDI Recommended Rates | SDI Recommended Revenue | Differences between SDI and NIPSCO Proposed Revenue |
|---|---|---|---|---|---|---|
| 1 Customer Charge | 1,882 | $1,000.00 | $1,882,000 | $1,000.00 | $1,882,000 | - |
| 2 HP Demand Charge | 50,320,545 | $0.11910 | $5,993,291 | $0.10320 | $5,192,944 | ($800,347) |
| 3 LP Demand Charge | 33,084,145 | $0.11910 | $3,940,397 | $0.14329 | $4,740,743 | $800,347 |
| | 83,404,690 | | $9,933,687 | | $9,933,687 | - |
| 4 Administrative Charges for Balancing Services | | | | | | |
| 5 Category A & C | 335 | $1,590.00 | $533,163 | $1,590.00 | $533,163 | - |
| 6 Category B | 1,547 | $660.00 | $1,021,020 | $660.00 | $1,021,020 | - |
| 7 Total Admin. Charges for Balancing Services | 1,882 | | $1,554,183 | | $1,554,183 | - |
| Transportation Charge | | | | | | |
| 8 HP First 300,000 Therms | 107,656,692 | $0.03434 | $3,696,645 | $0.02926 | $3,149,759 | ($546,886) |
| 9 LP First 300,000 Therms | 214,339,369 | $0.03434 | $7,359,845 | $0.04015 | $8,605,608 | $1,245,763 |
| 10 HP All Over 300,000 Therms | 1,285,442,497 | $0.00975 | $12,533,064 | $0.00831 | $10,678,910 | ($1,854,155) |
| 11 LP All Over 300,000 Therms | 700,027,046 | $0.00975 | $6,825,264 | $0.01140 | $7,980,541 | $1,155,277 |
| 12 Total Transportation Charge | 2,307,465,604 Therms | | $30,414,818 | | $30,414,818 | - |
| 13 Pooling Agreement Fee | 1,792 | $60.00 | $107,494 | $60.00 | $107,494 | - |
| 14 Company Nomination Exchange | 1,711 | $10.00 | $17,109 | $10.00 | $17,109 | - |
| 15 Imbalance Exchange Service Charge | - | $10.00 | - | $10.00 | - | - |
| 16 Pool Administration Charge - Cat. A | 12 | $1,000.00 | $11,528 | $1,000.00 | $11,528 | - |
| 17 Pool Administration Charge - Cat. B | 133 | $500.00 | $66,285 | $500.00 | $66,285 | - |
| 18 Pool Administration Charge - Cat. C | | $250.00 | - | $250.00 | - | - |
| 19 Pool Participation Fee - Cat. A | 127 | $2,500.00 | $317,015 | $2,500.00 | $317,015 | - |
| 20 Pool Participation Fee - Cat. B | 1,490 | $87.50 | $130,373 | $87.50 | $130,373 | - |
| 21 Pool Participation Fee - Cat. C | 127 | $250.00 | $31,702 | $250.00 | $31,702 | - |
| 22 Imbalance Net Throughput Fee | | | | | | |
| 23 Volumetric Fee - Cat. A & C | 1,706,733,053 Therms | $0.00015 | $256,010 | $0.00015 | $256,010 | - |
| 24 Volumetric Fee - Cat. B | 301,556,580 Therms | $0.00015 | $45,233 | $0.00015 | $45,233 | - |
| 25 Total Large Transportation - Rate 428 Sales | | | $44,767,437 | | $44,767,437 | - |