
VERIFIED REBUTTAL TESTIMONY OF RONALD J. AMEN

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I. Introduction and Summary of Testimony

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

2 A1. My name is Ronald J. Amen. My business address is 11401 Lamar Avenue,
3 Overland Park, Kansas 66211. I am a Director, Advisory & Planning.

4 **Q2. On whose behalf are you testifying?**

5 A2. I am testifying on behalf of Northern Indiana Public Service Company LLC
6 ("NIPSCO" or the "Company").

7 **Q3. Did you provide previous testimony in this proceeding?**

8 A3. Yes. I previously sponsored the following direct and supplemental direct
9 testimony:

- 10 • Exhibit No. 15 Direct Testimony of Ronald J. Amen
- 11 • Exhibit No. 15-SD Supplemental Direct Testimony of Ronald J. Amen

12 **Q4. Did you sponsor any attachments to your direct and supplemental**
13 **testimony?**

14 A4. Yes. I sponsored the following Attachments 15-A through 15-J and
15 Attachments 15-F-SD through 15-J-SD, all of which were prepared by me or
16 under my supervision and direction:

- 17 • Attachment 15-A, Resume of Ronald J. Amen;

- 1 • Attachment 15-B, Description of the Black & Veatch Model;
- 2 • Attachment 15-C, 400 Series Classes Load Characteristics;
- 3 • Attachment 15-D, Graph of Miles of Mains v. No. of Residential
- 4 Customers;
- 5 • Attachment 15-E, Allocation of Pipeline and Storage Demand Costs for
- 6 Gas Cost Adjustment ("GCA");
- 7 • Attachment 15-F, COSS Summary Schedules for 400 Series Classes;
- 8 • Attachment 15-G, Alternative Cost of Service Analysis;
- 9 • Attachment 15-H, Rate Mitigation (pg. 1), Revenue Proof and Rate
- 10 Design Schedules (pgs. 2-4);
- 11 • Attachment 15-I, Typical Residential Customer Monthly Bill
- 12 Comparison and Residential Bill Impacts at Various Usage Levels;
- 13 • Attachment 15-J, C&I Bill Impact Schedules.
- 14 • Attachment 15-F-SD, COSS Summary Schedules for 400 Series Classes;
- 15 • Attachment 15-G-SD, Alternative Cost of Service Analysis;
- 16 • Attachment 15-H-SD, Rate Mitigation (pg. 1), Revenue Proof and Rate
- 17 Design Schedules (pgs. 2-4);

- 1 • Attachment 15-I-SD, Typical Residential Customer Monthly Bill
- 2 Comparison and Residential Bill Impacts at Various Usage Levels; and
- 3 • Attachment 15-J-SD, C&I Bill Impact Schedules.

4 **Q5. Please briefly summarize the subject of your direct testimony and the**
5 **topics you will cover in your rebuttal testimony.**

6 A5. In my direct testimony I presented NIPSCO's Allocated Cost of Service Study
7 ("ACOSS") and discussed its results, and I presented the various rate design
8 proposals filed by NIPSCO in this proceeding. I updated NIPSCO's ACOSS
9 and rate design proposals in my supplemental direct testimony to reflect the
10 changes in NIPSCO's cost of service study model resulting from the Tax Cuts
11 and Jobs Act ("TCJA") impact on the (2018) revenue requirement. I discussed
12 the results of the cost of service study model with NIPSCO's new revenue
13 requirement and the derivation of the proposed rates and impact on
14 customers. My rebuttal testimony consists of this introduction, summary
15 section and the following additional sections:

- 16 • NIPSCO's ACOSS – Transmission and High-Pressure Distribution
- 17 Mains Cost Allocation;
- 18 • NIPSCO's Non-Residential Rate Design – Rate 428/128;

- 1 • NIPSCO's Residential Rate Design Proposal – Rate 411/111;
- 2 • NIPSCO's Updated Proposed Phase II ACOSS;
- 3 • NIPSCO's Proposed Phase I and II Class Revenue Allocations;
- 4 • NIPSCO's Proposed Phase I and II Rates and Customer Bill Impacts;
- 5 and
- 6 • NIPSCO's Alternative ACOSS, Revenue Allocation and Rate Design
- 7 under a Bifurcated Rate Schedule 428/128.

8 **Q6. Please summarize the purpose of your testimony?**

9 A6. First, I discuss the issues raised by the responsive testimonies of the NIPSCO
10 Industrial Group ("IG") witness Nicholas Phillips Jr. and the Steel Dynamics,
11 Inc. ("SDI") witness Kevin C. Higgins regarding the use of the Peak and
12 Average ("P&A") allocation methodology for NIPSCO's Transmission Plant.

13 Second, I discuss the proposal by SDI witness Mr. Higgins to
14 differentiate the rate design within Rate Schedule 128 (currently Rate
15 Schedule 428) between the customers receiving service at high pressure and
16 those customers receiving service at the lower distribution pressure.

1 Third, I discuss the recommendation by IG witness Mr. Phillips that
2 the Commission reject NIPSCO's proposed Demand Charge for Rate
3 Schedule 128 (currently Schedule 428).

4 Fourth, I will address the issues raised by the Office of Utility
5 Consumer Counsel ("OUCC") witness Brien R. Krieger concerning NIPSCO's
6 proposed monthly customer charge for residential Rate Schedule 111
7 (currently Rate Schedule 411).

8 Fifth, I will present the revised class-by-class rate of return results and
9 corresponding revenue surpluses or deficiencies from NIPSCO's updated
10 ACOSS that results from the Company's revised proposed Phase I (Rate Base
11 as of 5/31/18) revenue requirement of \$409,981,113 and Phase II (Rate Base as
12 of 12/31/18) revenue requirement of \$436,585,562. This presentation includes
13 the resulting unit costs by class for customer, demand and commodity related
14 costs with the ACOSS.

15 Finally, I present NIPSCO's updated revenue allocation rate design
16 proposals based on the Company's revised proposed revenue requirement

1 for both Phase I and Phase II implementation. Proposed rate levels by class
2 are presented as well as bill impacts by class.

3 **Q7. Are you sponsoring any attachments to your rebuttal testimony?**

4 A7. Yes. I am sponsoring the following attachments, all of which were prepared
5 by me or under my supervision and direction.

- 6 • Attachment 15-A-R, Customer Charge Benchmarking (two pages)
- 7 • Attachment 15-B-R, Phase II - COSS Summary Schedules (four pages);
- 8 • Attachment 15-C-R, Phase II - Rate Mitigation (pg. 1), Revenue Proof
9 and Rate Design Schedules (pgs. 2 – 4);
- 10 • Attachment 15-D-R, Phase II Typical Residential Customer Monthly
11 Bill Comparison and Residential Bill Impacts at Various Usage Levels
12 (one page);
- 13 • Attachment 15-E-R, Phase II - C&I Bill Impact Schedules (three pages);
- 14 • Attachment 15-F-R, Phase I - Revenue Proof and Rate Design
15 Schedules (three pages);

- 1 • Attachment 15-G-R, Phase I - Typical Residential Customer Monthly
2 Bill Comparison and Residential Bill Impacts at Various Usage Levels
3 (one page);
- 4 • Attachment 15-H-R, Phase I - C&I Bill Impact Schedules (three pages);
- 5 • Attachment 15-I-R, Alternative COSS Summary Schedules (four
6 pages); and
- 7 • Attachment 15-J-R, Alternative Revenue Proof and Rate Design
8 Schedules (two pages).

9 **II. Allocation of Transmission and High-Pressure Distribution Mains in the**
10 **NIPSCO ACOSS**

11 **A. NIPSCO's Presentation in Direct Testimony**

12 **Q8. Please summarize the importance of the physical configuration of the**
13 **transmission and distribution system to the development of the ACOSS.**

14 A8. As I discussed in my direct testimony, the particulars of the physical
15 configuration of the transmission and distribution system are important. The
16 specific characteristics of the system configuration, such as whether the
17 distribution system is a centralized or a dispersed one, should be identified.
18 Other such characteristics are whether the utility has a single city-gate or a
19 multiple city-gate configuration, whether the utility has an integrated

1 transmission and distribution system or a distribution-only operation, and
2 whether the system is a multiple-pressure or a single-pressure based
3 operation.

4 **Q9. What are the specific physical characteristics of the NIPSCO system?**

5 A9. As discussed by NIPSCO Witness Campbell in his direct testimony, the
6 physical configuration of the NIPSCO system is a dispersed / multiple city-
7 gate, integrated transmission / distribution and multiple-pressure based
8 system.

9 **Q10. Please describe the P&A methodology.**

10 A10. As I described the P&A allocation method in my direct testimony, it is a
11 simplified version of the Average and Excess demand allocation
12 methodology, also referred to as the "used and unused capacity" method,
13 which allocates demand related costs to the classes of service based on system
14 and class load factor characteristics.

15 The P&A methodology employed in the NIPSCO ACOSS weighted the
16 peak demands (56%) and average demands (44%) according to the NIPSCO
17 system load factor, then allocated the peak demand portion of the system

1 capacity costs on the design day peak demand, and allocated the average
2 demand portion of the system capacity costs on a throughput basis.

3 **Q11. Please summarize the rationale from your direct testimony for choosing the**
4 **P&A method to allocate NIPSCO's investment in its transmission plant.**

5 A11. NIPSCO's transmission system is a large diameter, high pressure pipeline
6 system that moves large volumes of gas between dispersed interstate pipeline
7 interconnecting points and its downstream distribution systems throughout
8 the year. This transmission pipeline configuration permits the sourcing of gas
9 supplies from multiple trading points and supply basins to the benefit of both
10 sales and transportation customers. Therefore, a P&A demand allocation
11 method reflecting the NIPSCO system load factor of 44 percent was used to
12 ratably allocate transmission plant.

13 **Q12. Please summarize the method used to allocate NIPSCO's investment in its**
14 **high-pressure distribution plant.**

15 A12. NIPSCO's high pressure distribution mains are commonly referred to by
16 NIPSCO as "Pseudo-Transmission" due to similarities in operating
17 characteristics. These pipelines typically operate at pressures above 200 PSIG

1 and serve as an intermediate pipeline system between the transmission
2 system and the downstream distribution systems but don't meet the Federal
3 Department of Transportation's SMYS (Specified Minimum Yield Strength)
4 criteria for transmission pipelines. Design day demand was used to allocate
5 the high-pressure distribution mains.

6 **Q13. Are some NIPSCO customers served directly from the transmission or**
7 **high-pressure distribution systems?**

8 A13. Yes. However, the vast majority of NIPSCO's customers are not directly
9 connected to either the transmission system or high-pressure distribution
10 system. The peak demands of customers that are directly connected to these
11 high-pressure pipelines were excluded from the allocation of the downstream
12 distribution mains, including 58 Rate 428/128 customers.

13 **B. Positions of the Parties**

14 **Q14. Please summarize the parties' positions and proposals related to NIPSCO's**
15 **use of the P&A method for allocation of transmission mains in the ACOSS.**

16 A14. IG witness Mr. Phillips stresses that the P&A method is at odds with system
17 design and cost causation, and recommends that a peak day demand
18 allocation method be used in place of NIPSCO's proposed P&A method. Mr.

1 Philips states that design day peak demand by class best reflects the actual
2 design of the system and is the method used by NIPSCO in its last base rate
3 case. He points out that NIPSCO included a peak day demand allocation
4 methodology for transmission plant as an alternate approach to its current
5 case-in-chief, which is consistent with the methodology used in NIPSCO's
6 last base rate case.¹ SDI witness Mr. Higgins also recommends that the
7 Commission reject the use of the P&A method for purposes of allocating
8 transmission plant because the P&A method unreasonably shifts costs to
9 higher-load factor customer classes. He recommends that the Commission
10 require NIPSCO to allocate transmission plant using the design day peak
11 allocation method, as NIPSCO did in the ACROSS submitted in its last general
12 rate case.²

13 **C. NIPSCO's Rebuttal Position**

14 **Q15. What is your response to the argument that design day peak demand by**
15 **class best reflects the actual capacity design of the pipeline system?**

16 **A15.** I do not disagree. In fact, as I stated in my direct testimony (as quoted
17 variously by Mr. Higgins and Mr. Phillips in their direct testimonies), from a

¹ Phillips Direct at 3:5-15.

² Higgins Direct at 4:6-10.

1 gas engineering perspective, it has been my experience that a peak demand
2 design criterion is always utilized when designing a gas distribution system
3 to accommodate the gas demand requirements of the customers served from
4 that system.³ For this reason, the Peak portion of the P&A methodology
5 employed in the NIPSCO ACROSS uses the design day peak demands of the
6 various customer classes.

7 **Q16. Does the National Association of Regulatory Commissioners ("NARUC")**
8 **recognize alternative methods for allocation of demand or capacity costs?**

9 A16. Yes. The NARUC Gas Distribution Rate Design Manual states the following:

10 Demand or capacity costs are allocated to customer classes
11 based upon an analysis of system load conditions and on how
12 each customer class affects such costs. These are largely joint or
13 common costs, and their allocation generates the largest
14 controversy surrounding a cost of service study. This subject
15 has been studied and argued for years without resolution, and
16 often represents the largest item which can dramatically alter
17 the result of a study.⁴

18 The NARUC Manual discusses several cost allocation methodologies
19 employed by natural gas utilities:

³ Amen, Exh. 15 at 23:15-18

⁴ NARUC, Gas Distribution Rate Design Manual, at 25.

1 The most commonly used demand allocations for natural gas
2 distribution utilities are the coincident demand method, the non-
3 coincident demand method, the average and peak method, or some
4 modification or combination of the three.⁵

5 **Q17. Are there other cost-related considerations particular to NIPSCO's**
6 **transmission system that influenced your choice of the P&A methodology?**

7 A17. Yes. I provided the following response to an IG information request that
8 asked whether there had been any material changes in circumstances
9 subsequent to the filing of NIPSCO's ACOSS in Cause No. 43894 that have a
10 significant bearing on the selection of the method for allocating transmission
11 plant investment:

12 During discussions with NIPSCO, the following information was
13 considered in selecting the method for allocating transmission
14 investment:

- 15 • The significant investment in transmission mains, since the
16 filing of NIPSCO's ACOSS in Cause No. 43894, in expanding
17 and upgrading the transmission system;
- 18 • The integration of the Kokomo Gas and Northern Indiana Fuel
19 & Light distribution systems into the NIPSCO pipeline
20 system; and
- 21 • The role that the transmission system plays in providing
22 access to multiple trading points and supply basins for

⁵ Ibid, at 27.

1 purposes of sourcing gas supplies to the benefit of
2 transportation and sales customers.⁶

3 **Q18. Please expand on the information you provided in the aforementioned**
4 **response to the IG information request.**

5 A18. The following illustrative examples were compiled from my discussions with
6 NIPSCO pipeline operations personnel familiar with improvement to the
7 transmission system over the last several years as well as the TDSIC
8 investments in the transmission system, which I have categorized as a)
9 Increased Transmission System Reliability, and b) Supply Diversity and
10 Flexibility.

11 Increased Transmission System Reliability

12 As daily "sendout" (i.e., total gas demand) has grown on the NIPSCO
13 system, daily nomination caps have become commonplace. With increased
14 frequency, NIPSCO has had to issue nomination cap directives to its large
15 transportation customers when maintenance or emergency repair work is
16 necessary on the transmission system to insure continuous system operations.
17 Due to the extensive NIPSCO transmission system network, the Company

⁶ Industrial Group's Request 2-027.

1 has been able to manage around these events with only supply directives or
2 nomination caps and not with periodic curtailments or supplying insufficient
3 delivery pressures to its large transportation customers. In addition,
4 investments under the TDSIC program include:

- 5 • Replacement of "at risk" pipeline, in other words, finding problems
6 before they become emergencies;
- 7 • Investments to allow live pipeline pigging, which eliminates out-of-
8 service down-time for pressure testing purposes;
- 9 • Investment in a major transmission segment in the Northwestern
10 Indiana, the "483 lb." system, allowing for a secondary feed for
11 redundancy, LNG support, additional physical paths for supply, and
12 to maintain higher operating pressures.

13 The investments in TDSIC I and II will eventually create an additional
14 high-pressure feed to customers served from the 483 lb. system while
15 replacing at risk pipeline segments, and the need for nomination caps is
16 expected to be relaxed.

1 Supply Diversity and Flexibility

2 Most of the IG customer load is located in Zone A on the NIPSCO
3 transmission system.⁷ This zone is supplied by five of the seven interstate
4 pipelines that are connected to the NIPSCO transmission system.⁸ Currently,
5 only three of these interstate pipelines provide physical supply to the 483 lb.
6 system mentioned earlier. Under most conditions, the majority of the 483 lb.
7 demand can be served by any of the three points of delivery ("POD"). Had
8 the POD facilities been sized only for peak day, it would have required all
9 three POD at near capacity to serve the demand on this system. However, the
10 three POD have been configured in such a way to allow for supply diversity,
11 redundancy, and operational flexibility. Under most conditions, this benefits
12 the IG customers by allowing them to move large quantities of supply to any
13 one or more of the POD to minimize their supply costs. Although two of the
14 Zone A pipelines currently have no physical interconnection to some IG
15 customers, NIPSCO allows them to source significant amounts of supply

⁷ Under peak weather conditions, IG transportation customers comprise approximately 25-35% of load; in January 2018, the "Big 9" (the 9 largest gas usage facilities in Northwest Indiana) was 30-50% of daily sendout. In July 2017, the Big 9 were 60-70% of daily sendout, averaging 49% of annual system throughput.

⁸ These interstate pipelines are: Natural Gas Pipeline ("NGPL"), Northern Border Pipeline ("NBPL"), ANR Pipeline, Trunkline Pipeline, and Vector Pipeline.

1 from these points, while managing deliveries by displacement behind the
2 scenes. The alternative would be to create additional Transportation Zones or
3 islands where certain customers would be further restricted from a supply
4 perspective.

5 To summarize, the NIPSCO transmission system provides increased
6 supply diversity, and price options, for transportation customers as well as
7 core GCA sales customers. It facilitates the transfer of supply from five of the
8 seven pipeline interconnection points, even when NIPSCO might not be
9 receiving gas from all interconnection points. It allows transportation
10 customers to receive supply at various points of interstate pipeline delivery,
11 whether near or far from their location on the system. It has consolidated
12 multiple transportation zones across the NIPSCO system under a single
13 balancing contract. The significant investment by NIPSCO in the
14 transmission system since 2010 has resulted in increased redundancy through
15 additional looping of the transmission system to provide secondary feeds and
16 maintain higher allowed operating pressure and additional physical paths for
17 less supply source restrictions. The culmination of improvements under

1 TDSIC II projects will provide further enhanced services, with fewer
2 restrictions.

3 The operational improvements, cost-saving supply sourcing flexibility
4 and associated pricing options described above were understandably
5 influential in the choice of the P&A allocation method for the NIPSCO
6 transmission system mains.

7 **Q19. Mr. Phillips stated that the "average demand method or variations of that**
8 **method have not been endorsed by the Commission."**⁹ **Do you agree?**

9 A19. No. In a prior NIPSCO gas general rate case, the Commission approved the
10 Company's proposed use of the P&A method, as modified by a Commission
11 staff witness:

12 Ms. Downton substantially modified Petitioner's peak and average
13 method used for allocating demand-related costs. She allocated
14 Petitioner's transmission system costs giving equal weight to the
15 average of Petitioner's 3-day peak demands and the average daily
16 consumption during the three winter months of December, January
17 and February, rather than the whole year, as Petitioner had done... Ms.
18 Downton's modifications and conclusions were not challenged or

⁹ Phillips Direct at 16:18-22.

disputed by Petitioner. We find they are reasonable and should be accepted.¹⁰

The Commission has provided other commentary on the subject of previously approved cost of service methodologies that is pertinent to this issue:

We have noted our preference to utilize previously approved allocation methodologies unless evidence demonstrates that system operating characteristics have changed since the last approved COSS allocation methodology.¹¹

III. Non-Residential Rate Design Issues – Schedule 428/128

A. NIPSCO's Presentation in Direct Testimony

Q20. Please summarize NIPSCO's proposed structural rate design changes for Schedule 428/128 in your direct testimony.

A20. The Company introduced a Demand Charge for the two Transportation & Transportation Balancing Services (Rates 428 and 438). As indicated in my direct testimony, the use of three-part rates by gas utilities is more prevalent in today's competitive gas marketplace. Demand charges reduce intra-class subsidies by lowering the average cost of utility service for high load factor customers and thereby encourage efficient use of the distribution system.

¹⁰ Northern Indiana Public Serv. Co., 97 P.U.R. 4th 259, Cause No. 38380, October 26, 1988.

¹¹ Northern Indiana Public Serv. Co., 2010 Ind. PUC LEXIS 294, at *263.

1 The Company proposes to establish the initial Demand Charges for these two
2 rate schedules to recover approximately 25 percent of fixed demand-related
3 costs of providing distribution service to these rate schedules. Under the
4 Company's proposal, the demand billing determinant for customers served
5 under these rates will be initially determined at the average daily usage
6 during the three billing months of December 2015 through February 2016.

7 **B. Positions of the Parties**

8 **Q21. Please provide a summary of the parties' recommendations regarding the**
9 **Schedule 428/128 rate structure.**

10 A21. SDI witness Mr. Higgins proposes to differentiate the rate design within Rate
11 Schedule 428/128 between the customers receiving service at high pressure
12 and those customers receiving service at the lower distribution pressure. IG
13 witness Mr. Phillips recommended that the current Rates 428 and 438 rate
14 forms be maintained and that NIPSCO's proposed Demand Charge be
15 rejected.¹² Mr. Phillips states that the underlying demand volume for the
16 proposed Demand Charge that he challenges, that is, average winter usage
17 from a previous quarter (December 2015 through February 2016) is not an up-

¹² Phillips Direct at 3:33-34.

1 to-date price signal, and not peak day demands. In addition, he asserts that
2 the current Schedule 428/128 rate structure contains accurate fixed cost
3 recovery through its customer charge and high price first volumetric rate
4 block.

5 **C. NIPSCO's Rebuttal Position**

6 **1. Bifurcated Rate Design for Schedule 428/128**

7 **Q22. What is your response to Mr. Higgins' proposal to restructure Schedule**
8 **428/128 to differentiate between those customers receiving service from**
9 **high-pressure mains versus those served from distribution-pressure mains?**

10 **A22.** NIPSCO is not opposed to the concept of a bifurcated Schedule 428/128
11 similar to the approach embodied in Mr. Higgins' proposal, with recognition
12 of both the underlying rationale, sufficient cost basis, and support from its
13 Schedule 428 customers. However, NIPSCO prefers to do so with a more
14 complete cost analysis within the ACOSS. The basis for Mr. Higgins' revision
15 to the Schedule 428 rate structure is a NIPSCO response to an SDI
16 information request whereby the allocation of non-high-pressure distribution
17 mains in the ACOSS was removed from the 428 class.¹³ The removal of the

¹³ See NIPSCO Response to SDI 5-002(a), included in SDI Attachment KCH-1.

1 lower pressure distribution mains resulted in the \$5.8 million estimate of the
2 costs attributable to the Schedule 428 customers served from the lower-
3 pressure mains throughout the distribution system referenced in Mr. Higgins'
4 testimony.¹⁴

5 **Q23. What other distribution plant categories within the ACOSS would have**
6 **significant impact on the differentiation of cost responsibility between the**
7 **Schedule 428 customers served from the high-pressure system and lower**
8 **distribution-pressure¹⁵ mains?**

9 A23. The two most important distribution plant categories other than mains that
10 would impact the ACOSS results for Schedule 428 customers would be the
11 metering and associated pressure regulating equipment on the customers'
12 premises, and the service lines that connect the customers to the distribution
13 mains. Therefore, an analysis of these plant categories should be made to
14 identify the respective cost responsibility of the high-pressure and lower,
15 distribution-pressure subgroups within Schedule 428. The importance of this
16 additional analysis relates to the hypothesis that the metering, pressure

¹⁴ Higgins Direct at 6:19-21.

¹⁵ Distribution pressure mains on the NIPSCO system operate at pressure levels below 60 Pounds per Square Inch Gage ("PSIG").

1 regulating equipment and service pipe attributable to the customers directly
2 served by the transmission and high-pressure distribution mains will be
3 larger and costlier than the same facilities for the customers connected to the
4 lower-pressure distribution mains.

5 **Q24. Have you conducted the foregoing cost analysis?**

6 A24. Yes. Company personnel compiled the necessary distribution plant data to
7 facilitate the analysis and segmentation of the metering, pressure regulating
8 equipment, and service line costs into the high-pressure and distribution-
9 pressure subgroups within Schedule 428. An alternative version of the
10 ACOSS was then developed to provide results for the high-pressure and
11 distribution-pressure subgroups within Schedule 428, which are presented in
12 Section VIII of my testimony. The alternative ACOSS results for Schedule 428
13 will provide a proper cost-based foundation for the eventual bifurcation of
14 the proposed revenue requirement and rate structure between the high-
15 pressure and distribution-pressure customers of Schedule 428.

16 **Q25. Is NIPSCO proposing to implement a bifurcated Schedule 428 at this time?**

1 A25. No. NIPSCO prefers to maintain Schedule 428 in its present form, as
2 presented in its case-in-chief. However, if the Commission wishes to adopt
3 the concept of a bifurcated Schedule 428 rate structure, as embodied in SDI's
4 proposal, the Company felt it imperative to provide a sound, foundational
5 cost basis for doing so, beyond the conceptual underpinnings. Therefore, the
6 alternative ACOSS, a proposed separation of the Schedule 428 revenue
7 requirement between the high-pressure and distribution-pressure customer
8 groups, and a bifurcated rate structure, is presented in Section VIII of my
9 testimony.

10 **2. Proposed Demand Charge for Schedule 428/128**

11 **Q26. What is your response to Mr. Phillips' recommendation to reject NIPSCO's**
12 **proposed Demand Charge for Schedule 428/128?**

13 A26. The primary purpose of the introduction of the Demand Charges for
14 Schedules 428/128 and 438/138 was not directed toward fixed cost recovery,
15 as Mr. Phillips implied in his direct testimony.¹⁶ Rather, the purpose was to
16 reduce existing intra-class subsidies and encourage high load factor use of the
17 distribution system by sending economically efficient price signals to the

¹⁶ Phillips Direct at 19:18-22.

1 customers within these two rate schedules.¹⁷ Large-use industrial customers
2 exhibit a wide range of load factors, which can cause some inequities within a
3 rate class. The volumetric block rate tends to be discriminatory against high
4 load factor customers with low average usage, while favoring large-use
5 customers even though they may have lower than average load factors.
6 Because of the greater variance in the load characteristics of large-use
7 customers, natural gas distribution companies prefer rate forms that consider
8 a customer's demand and load factor.¹⁸ The Schedule 428 customers, are a
9 diverse group, in size of annual throughput and load factor. The average cost
10 per unit of delivered volume for Schedule 428 customers should be a function
11 not only of the size of their annual throughput but their load factor as well.

12 **IV. Residential Rate Design – Monthly Customer Charge**

13 **A. NIPSCO's Presentation in Direct Testimony**

14 **Q27. Please summarize NIPSCO's proposal to increase the residential monthly**
15 **customer charge for Schedule 411/111, as presented in your direct**
16 **testimony.**

¹⁷ Load Factor is typically defined as the relationship of average load to peak load. Unit costs decrease with increasing load factor.

¹⁸ See American Gas Association, Gas Rate Fundamentals, at 168-169.

1 A27. NIPSCO proposed an increase to the residential monthly customer charge for
2 Schedule 411/111 from its present level of \$11.00 to \$19.50. A higher customer
3 charge provides increased bill stability for customers as well as increased
4 revenue stability for the Company. The monthly bill impact for a typical gas
5 customer was depicted in Attachment 15-I to my direct testimony. This
6 exhibit presented a monthly and annual bill for an average residential
7 customer using 824 Therms per year, at the proposed revenue level for the
8 class, comparing the proposed \$19.50 customer charge with retaining the
9 current \$11.00 charge.

10 **Q28. Please discuss the fairness of the Company's proposed customer charge**
11 **versus the current customer charge.**

12 A28. The Company's higher customer charge is fair because it increases the portion
13 of the non-volumetric margin recovered through the non-volumetric
14 customer charge. With a higher customer charge, a higher percentage of the
15 non-volumetric costs are paid in equal shares. The intent is to evolve the
16 residential rate design, so that a typical customer will be less likely to
17 "overpay" or "underpay" his or her share of the non-gas costs based on the
18 customer's consumption relative to average consumption.

1 **B. Positions of the Parties**

2 **Q29. Please provide a summary of the selected parties' recommendations**
3 **regarding the residential monthly customer charge.**

4 A29. OUCC witness Mr. Krieger recommended the Commission reject NIPSCO's
5 proposed monthly customer charge and approve a customer charge not to
6 exceed 50% of the approved margin percentage increase. Mr. Krieger
7 included A.G.A.'s May 28, 2015 Energy Analysis titled, Natural Gas Utility
8 Rate Structure: The Customer Charge Component – 2015 Update, as partial
9 support for his recommendation.¹⁹

10 **C. NIPSCO's Rebuttal Position**

11 **Q30. What is your response to Mr. Krieger's recommendation?**

12 A30. While NIPSCO witness Caister will address the policy considerations related
13 to the level of the residential monthly customer charge, I will present updated
14 customer charge information since the May 2015 date of the A.G.A. Energy
15 Analysis document referenced by Mr. Krieger. Black & Veatch has compiled
16 residential monthly customer charges from gas utilities listed in the A.G.A.
17 document from the East North Central and West North Central regions, as of

¹⁹ See Krieger, Exh. 8, Attachment BRK-2.

1 March 2018, including those gas utilities that have completed general rate
2 cases since May 2015. This information is presented in Attachment 15-A-R,
3 Customer Charge Benchmarking, pages 1 and 2.

4 In the East North Central region (Illinois, Indiana, Michigan, Ohio, and
5 Wisconsin), the largest monthly customer charge from the Black & Veatch
6 survey is \$33.03 (Duke Energy Ohio) and the smallest monthly customer
7 charge is \$5.00 (Integrus, MI). The median customer charge among gas
8 utilities with updated rates since May 2015 is \$12.69, which is an average
9 increase of \$1.69. Of the fifteen gas utilities in the region with updated rates,
10 eight had increased residential customer charges, six kept the residential
11 customer charges constant, and one reduced the residential customer charge.

12 In the West North Central region (Iowa, Kansas, Minnesota, Missouri,
13 Nebraska, North Dakota, and South Dakota), the largest monthly customer
14 charge from the Black & Veatch survey is \$20.00 (Liberty Utilities, MO and
15 Spire-MGE, MO) and the smallest monthly customer charge is \$3.50 (MDU-
16 Great Plains, ND). The median customer charge among gas utilities with
17 updated rates since May 2015 is \$13.16, which is an average increase of \$3.16.

1 Of the eighteen gas utilities in the region with updated rates, seven had
2 increased residential customer charges, eight kept the residential customer
3 charges constant, and three reduced the residential customer charges. Our
4 survey data did not distinguish between litigated rate determinations versus
5 rate case settlements.

6 **Q31. What conclusions have you drawn from both the A.G.A. Energy Analysis**
7 **report and the updated Black & Veatch customer charge survey data?**

8 A31. The range of monthly customer charge levels across the U.S. from the A.G.A.
9 report as well as the two Midwestern regions surveyed by Black & Veatch
10 indicate a range of cost differences and costing methodologies employed by
11 gas utilities, and the related cost recovery policies by state regulatory bodies.
12 As indicated in the A.G.A. report, only five responding member companies
13 estimated that they recovered 25 percent or less of the fixed costs through the
14 customer charge. Based on an \$11.25 median monthly charge in the A.G.A.
15 report, on average the full-cost customer charge would be about \$24.00 to
16 recover a utility's fixed customer-related costs, on a monthly basis.²⁰ While

²⁰ American Gas Association, "Energy Analysis, Natural Gas Utility Rate Structure: The Customer Charge Component – 2015 Update," at page 4.

1 modest growth has occurred in the median level of monthly customer
2 charges since 2015, the Black & Veatch survey data shows progress by utilities
3 in matching the level of customer-related costs with the corresponding fixed
4 charges through which those costs are recovered.

5 **V. ACOSS Results under NIPSCO's Phase II Revenue Requirement**

6 **A. ACOSS Revisions from Supplemental Direct Filing**

7 **Q32. Please discuss revisions to the ACOSS related to NIPSCO's proposed Phase**
8 **II revenue requirement.**

9 **A32.** The following revisions were made to the ACOSS:

- 10 • Adjustments were made to the input cost accounts in the ACOSS to
11 correspond to the Phase II revenue requirements, as further discussed
12 by Company Witness Konold;
- 13 • The current revenues by rate class were updated to reflect the TCJA, as
14 described by Company Witness Konold; and
- 15 • The meter study and design day peak calculations within the ACOSS
16 were revised to reflect partial-year, inter-class customer migrations
17 between rate classes.

1 **Q33. Please describe the updates to the meter study and design day calculations.**

2 A33. In the Direct and Supplemental Direct filing partial-year, inter-class customer
3 migrations were reflected in the customer billing determinants within the
4 ACOSS and current revenues. However, the customer migrations were not
5 included in the meter study or design day peak calculations. During the
6 preparation of the ACOSS model, the Company provided details on the
7 partial-year customer migrations, and the meter study and design day peak
8 calculations were revised to reflect them. The revisions impacted rate classes
9 421, 425, 428 and 438. In addition, the design day peak calculations were
10 updated to remove the monthly therms and customer counts for three
11 NIPSCO electric generation stations that had been inadvertently included in
12 the initial peak day study. The inter-class customer count and associated
13 therm migrations are provided in the following Table 1. As noted above,
14 three NIPSCO electric generation stations were removed from the design day
15 calculations and are shown within the 'Removed' line.

Table 1

Customer Migrations in Rebuttal Case

Rate Class	Customer Count			Therms		
	Moving Out	Moving In	Net Change	Moving Out	Moving In	Net Change
421	(2)	3	22	(711,318)	1,882,662	1,171,344
425	(3)	5	2	(1,151,905)	1,726,319	574,414
428	(14)	1	(13)	(16,157,633)	744,265	(15,413,368)
438	(5)	12	7	(2,173,404)	6,474,241	4,300,837
Removed	-	3	3	-	9,366,773	9,366,773
Total	(24)	24	-	(20,194,260)	20,194,260	-

B. ACOSS Results at Present and Proposed Rates by Class

Q34. Please provide a summary of the ACOSS results under NIPSCO's proposed Phase II revenue requirement.

A34. Summary schedules for the ACOSS results under the Company's proposed Phase II revenue requirement of \$436,585,562 are presented in Attachment 15-B-R, ACOSS Summary Schedules, pages 1 – 4. Operating Income and Current Rate of Return by class are presented on page 1, lines 19 and 20 of the exhibit. The revenue (deficiencies)/surpluses by class at the proposed system rate of return are shown on page 2, line 43.

1 C. **Unit Cost Analysis**

2 **Q35. Have you included a unit cost analysis by class in Attachment 15-B-R?**

3 A35. Yes. The functionalized and classified unit costs by class are shown on page 4
4 of Attachment 15-B-R, along with the corresponding billing determinants
5 used to compute the demand, commodity and customer unit costs.

6 **VI. Proposed Phase II Revenue Allocation and Rate Design**

7 A. **Phase II Revenue Allocation**

8 **Q36. How does NIPSCO propose to distribute the Phase II revenue increase**
9 **among the rate schedules?**

10 A36. The proposed margin increases by class and corresponding percentage
11 increases are shown on Attachment 15-B-R, page 2, lines 50 and 51
12 respectively, and appear in Table 2 below, along with estimated percentage
13 total bill increases and proposed rates of return by class. The Company
14 followed the same mitigation approach in the apportionment of margin
15 increases to the respective classes as it employed in the direct case-in-chief;
16 that is, limiting increases by the mitigation parameter of 150 percent of the
17 system average increase. In so doing, the Company recognized the tension
18 caused when removing subsidies between classes and the rate increases that

1 result. The mitigation parameter limited the proposed increase to Schedule
2 428/128.

3 **Table 2**

4 **Proposed Phase II Margin Increase by Class**

Description	Total Company	411	415	421	425	428	434	438
Proposed Margin Increase	\$138,134,204	\$86,856,960	\$208,034	\$27,301,591	\$2,948,015	\$19,110,566	-	\$1,507,779
Percent Margin Change	47.34%	46.55%	9.58%	44.28%	27.96%	70.51%	0.00%	44.94%
Percent Total Bill Increase	9.64%	19.75%	3.96%	14.36%	5.07%	2.66%	0.00%	8.12%
Proposed Rate of Return	6.90%	6.72%	6.90%	10.39%	9.59%	3.80%	255.32%	9.75%

5

6 **B. Phase II Rate Design and Bill Impacts**

7 **Q37. How were the proposed Phase II rates for each Rate Schedule determined?**

8 A37. Detailed calculations for each rate component of each Rate Schedule are
9 included in Attachment 15-C-R, Phase II Rate Mitigation, Revenue Proof, and
10 Rate Design Schedules, pages 1 – 4. As the exhibit shows, the targeted total
11 rate schedule revenue will be achieved using the proposed rates and
12 volumes. Further, Attachment 15-C-R provides a revenue proof of the
13 transition of revenues at current rates using forecasted 2018 billing
14 determinants, and existing 400 series rate classes to the proposed revenues at

1 the 100 series rate classes. The proposed Phase II rate components by Rate
2 Schedule are listed in Table 3, below.

Table 3

Phase II - Schedule of Proposed Rates

Rate Schedule	Rate Code	Monthly Charge	Demand Charge per Therm	Distribution Charge per Therm
Residential	111	\$19.50	----	\$0.15560
Multi-Family	115	\$17.50	----	\$0.17372
General Service – Small	121	\$53.00	----	\$0.14847
General Service – Large	125	\$400.00	----	Block 1 \$0.09261 Block 2 \$0.08261 Block 3 \$0.06261 Block 4 \$0.05761
Large Transportation Balancing Charges: Option 1 - \$1,590.00 Option 2 - \$660.00	128	\$1,000.00	\$0.12124	Block 1 \$0.03828 Block 2 \$0.00975
C&I Off-Peak Interruptible	134	\$637.00	----	\$0.16591 ²¹
General Transportation Balancing Charge: Option 1 - \$365.00	138	\$750.00	\$0.3099	Block 1 \$0.05762 Block 2 \$0.05662 Block 3 \$0.05562 Block 4 \$0.05462

5

6 **Q38. Have you calculated bill impacts for the Residential, Commercial and**
7 **Industrial rate classes that result from the Company's Phase II rate design**
8 **proposal?**

²¹ This charge is comprised of a Delivery Charge and a Gas Supply Charge and may vary based upon the customer's alternate fuel. The charge is individually negotiated within the terms of the customer's Service Agreement.

1 A38. Yes. The monthly bill impacts for a Residential gas customer is depicted on
2 Attachment 15-D-R, Phase II Typical Residential Monthly Bill Comparison
3 and Residential Bill Impacts at Various Usage Levels. Attachment 15-E-R,
4 Phase II C&I Bill Impact Schedules, pages 1 – 3, provides bill comparisons at
5 various ranges of consumption levels for all C&I rate schedules.

6 **VII. Proposed Phase I Revenue Allocation and Rate Design**

7 **A. Phase I Revenue Allocation**

8 **Q39. Please explain the basis for NIPSCO's Phase I revenue allocation.**

9 A39. The reference point for the Phase I total system revenue requirement and
10 thus, the basis for the proposed Phase I class-by-class revenue allocation, is
11 the Phase II total revenue requirement of \$436,585,562. A reduction of
12 \$26,604,449 or 6.09 percent from the Phase II revenue requirement was made
13 to establish the interim, Phase I revenue requirement of \$409,981,113. Equal
14 percentage reductions of 6.19 percent were applied to each Rate Schedule as
15 shown in Table 4, below. The difference between the overall system-wide
16 percentage reduction of 6.09 and the class-by-class percentage reductions of
17 6.19 is due to the unchanged level of miscellaneous revenue between Phase I
18 and Phase II.

Table 4

Phase I Margin by Class

Class		12.31.2018 Proposed Margin	Equalized Reduction Phase II to Phase I	5.31.2018 Proposed Margin
System Total		\$ 429,730,539		\$ 403,126,090
Residential	411	273,450,242	6.19%	256,521,045
Multi-Family	415	2,379,497	6.19%	2,232,183
General Service Small	421	88,962,126	6.19%	83,454,516
General Service Large	425	13,491,823	6.19%	12,656,550
Large Transp.	428	46,215,315	6.19%	43,354,143
C&I Off-Peak Interruptible	434	368,385	6.19%	345,579
General Transportation	438	4,863,150	6.19%	4,562,074
Miscellaneous Revenues Margin		6,855,023	0.00%	6,855,023
Total Margin		\$ 436,585,562	6.09%	\$ 409,981,113

B. Phase I Rate Design and Bill Impacts

Q40. How were the proposed Phase I rates for each Rate Schedule determined?

A40. The proposed Phase I revenue levels by Rate Schedule were effectuated by ratable reductions in the volumetric Distribution Charges from the level of these charges in the Phase II rate design. The fixed Monthly Charges and Demand Charges in each Rate Schedule remained unchanged between Phase II and Phase I. Detailed calculations for each Distribution Charge component of each Rate Schedule are included in Attachment 15-F-R, Phase I Revenue Proof and Rate Design Schedules, pages 2 – 4. As the exhibit shows, the

1 targeted total Phase I rate schedule revenue will be achieved using the
2 proposed rates and volumes. The proposed Phase I rate components by Rate
3 Schedule are listed in Table 5, below

4 **Table 5**

5 **Phase I - Schedule of Proposed Rates**

Rate Schedule	Rate Code	Monthly Charge	Demand Charge per Therm	Distribution Charge per Therm
Residential	111	\$19.50	----	\$0.12840
Multi-Family	115	\$17.50	----	\$0.15427
General Service – Small	121	\$53.00	----	\$0.13101
General Service – Large	125	\$400.00	----	Block 1 \$0.08575 Block 2 \$0.07575 Block 3 \$0.05575 Block 4 \$0.05075
Large Transportation Balancing Charges: Option 1 - \$1,590.00 Option 2 - \$660.00	128	\$1,000.00	\$0.12124	Block 1 \$0.02939 Block 2 \$0.00975
C&I Off-Peak Interruptible	134	\$637.00	----	\$0.15508 ²²
General Transportation Balancing Charge: Option 1 - \$365.00	138	\$750.00	\$0.30990	Block 1 \$0.05169 Block 2 \$0.05069 Block 3 \$0.04969 Block 4 \$0.04869

6
7 The monthly bill impacts for a Residential gas customer is depicted on
8 Attachment 15-G-R, Phase I Typical Residential Monthly Bill Comparison and
9 Residential Bill Impacts at Various Usage Levels. Attachment 15-H-R, Phase I

²² This charge is comprised of a Delivery Charge and a Gas Supply Charge and may vary based upon the customer's alternate fuel. The charge is individually negotiated within the terms of the customer's Service Agreement.

1 C&I Bill Impact Schedules, pages 1 – 3, provides bill comparisons at various
2 ranges of consumption levels for all C&I rate schedules.

3 **VIII. Alternative ACOSS, Revenue Allocation, and Rate Design under**
4 **Bifurcation of Schedule 428/128**

5 **A. Alternative ACOSS Summary under Bifurcated Schedule 428/128**

6 **Q41. Please provide a summary of the Alternative ACOSS results under**
7 **NIPSCO's proposed Phase II revenue requirement.**

8 A41. As discussed earlier in Section III-C-1, of my rebuttal testimony, an
9 alternative version of the ACOSS was developed to provide results for the
10 high-pressure and distribution-pressure subgroups within Schedule 428/128.
11 The alternative ACOSS results, including the high-pressure and distribution-
12 pressure subcategories within Schedule 428/128, are summarized in
13 Attachment 15-I-R, pages 1 – 4.

14 **B. Alternative Schedule 428/128 Revenue Allocation and Rate Design**

15 **Q42. Please describe the alternative Schedule 428/128 bifurcated revenue**
16 **allocation and rate design.**

17 A42. A proposed separation of the Schedule 428/128 revenue requirement between
18 the high-pressure and distribution-pressure customer subgroups was made

1 using the alternative ACOSS results, and a bifurcated rate structure created,
2 both of which are presented in Attachment 15-J-R. The approach to
3 recovering the assigned revenue responsibility of each of the two subgroups
4 in the bifurcated rate structure was consistent with that presented in
5 NIPSCO's case-in-chief. The monthly charge for Schedule 428/128 was set at
6 \$1,000 for both subgroups, the respective demand charges were set at 25% of
7 their respective demand-related unit costs, and the remainder of the
8 subgroups' revenue responsibility was assigned to the volumetric
9 Distribution Charge block rates. The Distribution Charge tail block rate for
10 each of the two subgroups was set at the same unit rate per therm to provide
11 the same price signal to large customers within Schedule 428/128 regardless
12 of the pipeline operating pressure of the mains to which the customers are
13 connected.

14 **IX. Summary of Rebuttal Findings and Recommendations**

15 **Q43. Please summarize your findings and recommendations from your rebuttal**
16 **testimony.**

17 **A43.** First, regarding the selection of a costing methodology for the NIPSCO
18 transmission plant, this transmission system provides the following

1 functional characteristics in addition to its design day peak capacity
2 capability:

- 3 • Increased supply diversity, and price options, for transportation
4 customers as well as core GCA sales customers.
- 5 • Transfer of supply across the NIPSCO pipeline system, which allows
6 transportation customers to receive supply at various points of
7 interstate pipeline delivery, whether near or far from their location on
8 the system.
- 9 • Increased redundancy through additional looping of the transmission
10 system to provide secondary feeds and maintain higher allowed
11 operating pressure and additional physical paths for less supply
12 source restrictions.

13 The operational improvements in recent years, cost-saving supply
14 sourcing flexibility and associated pricing options described above were
15 influential in my recommendation that the P&A allocation method be used
16 for the NIPSCO transmission system mains.

1 Second, regarding the concept of a bifurcated Schedule 428/128,
2 NIPSCO is not opposed to a similar approach to that embodied in SDI
3 witness Mr. Higgins' proposed rate structure, provided that it is supported
4 by NIPSCO's Schedule 428/128 customers. For this reason, I have provided
5 an Alternative ACOSS, Schedule 428/128 revenue allocation, and bifurcated
6 rate design as presented in my rebuttal testimony. However, the Company
7 prefers to maintain Schedule 428/128 in its present form, as presented in its
8 case-in-chief.

9 Third, because of the greater variance in the load characteristics of
10 large-use customers, NIPSCO prefers a rate design for its Schedule 428/128
11 that considers a customer's annual demand and load factor. In particular,
12 Schedule 428/128 customers are a diverse group, in size of annual throughput
13 and load factor. The average cost per unit of delivered volume for Schedule
14 428/128 and Schedule 438/138 customers should be a function not only of the
15 size of their annual throughput but their load factor as well. Therefore, I
16 recommend that the proposed demand charges for Schedule 428/128 and
17 Schedule 438 be approved by the Commission.

1 Fourth, the range of residential monthly customer charge levels across
2 the U.S. from the A.G.A. report, as well as the two Midwestern regions
3 surveyed by Black & Veatch, indicate a range of cost differences and costing
4 methodologies employed by gas utilities, and the related cost recovery
5 policies by state regulatory bodies. Modest growth has occurred in the
6 median level of residential monthly customer charges since 2015, and Black &
7 Veatch's survey data supports the progress by utilities in matching the level
8 of customer-related costs with the corresponding fixed charges through
9 which those costs are recovered.

10 Fifth, the ACOSS results presented for NIPSCO's Phase II revenue
11 requirement of \$436,585,562, as summarized in Attachment 15-B-R, and the
12 corresponding revenue apportionment and rate design, as presented in
13 Attachment 15-C-R, should be approved by the Commission.

14 Finally, the revenue apportionment and rate design for the Phase I
15 revenue requirement of \$409,981,113, as presented in Attachment 15-F-R and
16 Attachment 15-G-R, should also be approved by the Commission

17

1 Q44. Does this conclude your prepared rebuttal testimony?

2 A44. Yes.

VERIFICATION

I, Ronald J. Amen, Director, Black & Veatch Management Consulting, LLC, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information and belief.



Ronald J. Amen

Dated: March 27, 2018

NATURAL GAS CUSTOMER CHARGE - West North Central

<u>Line No.</u>	<u>Company</u>	<u>State</u>	<u>AGA Report</u>	<u>B&V Update</u>	<u>Change</u>	<u>Effective Date</u>
			<u>Residential</u>	(Mar 2018) <u>Residential</u>		
1	ALLIANT - INTERSTATE P&L IA	IA	\$12.82	\$12.82	\$0.00	2/15/2016
2	BLACK HILLS ENERGY - IA	IA	\$18.25	\$18.25	\$0.00	9/24/2015
3	LIBERTY UTILITIES IA	IA	\$7.95	\$16.00	\$8.05	6/18/2017
4	MIDAMERICAN ENERGY COMPANY IA	IA	\$10.00	\$10.00	\$0.00	4/20/2016
5	ATMOS ENERGY CORPORATION KS	KS	\$18.19	\$18.91	\$0.72	3/17/2016
6	BLACK HILLS ENERGY - KS	KS	\$17.25	\$17.25	\$0.00	1/1/2015
7	ONEOK - KANSAS GAS SERVICE	KS	\$15.35	\$16.70	\$1.35	1/1/2017
8	CENTERPOINT ENERGY MN	MN	\$9.50	\$9.50	\$0.00	12/1/2016
9	INTEGRYS - MERC MN	MN	\$8.50	\$9.50	\$1.00	3/1/2017
10	MONTANA - DAKOTA UTILITIES GREAT PLAINS MN	MN	\$6.50	\$6.90	\$0.40	6/7/2017
11	XCEL - NORTHERN STATES POWER CO OF MINNESOTA	MN	\$9.00	\$9.00	\$0.00	7/10/2015
12	AMEREN - UNION ELECTRIC CO	MO	\$15.00	\$15.00	\$0.00	2/20/2011
13	LACLEDE GAS CO	MO	\$20.70	\$19.50	(\$1.20)	7/3/2013
14	LIBERTY UTILITIES MO	MO	\$20.00	\$20.00	\$0.00	1/4/2015
15	SOUTHERN UNION/SPIRE - MISSOURI GAS ENERGY	MO	\$27.87	\$20.00	(\$7.87)	3/3/2018
16	THE EMPIRE DISTRICT GAS COMPANY	MO	\$16.50	\$16.50	\$0.00	4/1/2010
17	MONTANA - DAKOTA UTILITIES CO ND	ND	\$14.81	\$19.33	\$4.52	12/13/2016
18	MONTANA - DAKOTA UTILITIES GREAT PLAINS ND	ND	\$3.50	\$3.50	\$0.00	7/1/2017
19	XCEL - NORTHERN STATES POWER CO OF NORTH DAKOTA	ND	\$18.48	\$18.48	\$0.00	7/1/2007
20	BLACK HILLS ENERGY - NE	NE	\$13.50	\$13.50	\$0.00	3/1/2017
21	METROPOLITAN UTILITIES DISTRICT	NE	\$13.72	\$13.72	\$0.00	1/2/2017
22	MIDAMERICAN ENERGY COMPANY NE	NE	\$10.00	\$16.00	\$0.00	10/1/2015
23	NORTHWESTERN ENERGY LLC NE	NE	\$8.00	\$8.00	\$0.00	12/1/2007
24	SOURCEGAS LLC NE	NE	\$15.00	\$15.00	\$0.00	2/1/2015
25	MIDAMERICAN ENERGY COMPANY SD	SD	\$8.87	\$8.00	(\$0.87)	7/1/2015
26	MONTANA - DAKOTA UTILITIES CO SD	SD	\$8.40	\$7.41	(\$0.99)	7/1/2016
27	NORTHWESTERN ENERGY LLC SD	SD	\$8.00	\$8.00	\$0.00	12/1/2011
28	Median		\$13.50	\$15.00		
29	# Utilities that Increased Customer Charge		7			
30	# Utilities that Kept Customer Charge Constant		16			
31	# Utilities that Decreased Customer Charge		4			
32	<u>Among Utilities with Updated Rates since May 2015:</u>					
33	Median		\$10.00	\$13.16		
34	# Utilities that Increased Customer Charge		7			
35	# Utilities that Kept Customer Charge Constant		8			
36	# Utilities that Decreased Customer Charge		3			
37	<u>AGA Report Date:</u>		5/31/2015			
38	Sources: Utility tariffs					

NATURAL GAS CUSTOMER CHARGE - East North Central

			AGA Report	B&V Update		
				(Mar 2018)		
Line No.	Company	State	Residential	Residential	Change	Effective Date
1	AGL - Nicor	IL	\$13.55	\$16.72	\$3.17	8-Feb-18
2	Ameren - Illinois	IL	\$22.31	\$21.35	(\$0.96)	18-Dec-15
3	Integrys - North Shore Gas Co	IL	\$24.48	\$23.94	(\$0.54)	26-Feb-15
4	Integrys - Peoples Gas Light & Coke Co	IL	\$30.83	\$30.84	\$0.01	26-Feb-15
5	Liberty Utilities IL	IL	\$9.90	\$15.24	\$5.34	1-Dec-15
6	Midamerican Energy Company IL	IL	\$12.69	\$12.69	\$0.00	11-Apr-17
7	Mt Carmel Public Utility Co	IL	\$15.00	\$15.00	\$0.00	1-Jan-14
5	Citizens Gas & Coke Utility	IN	\$9.00	\$9.00	\$0.00	6-Sep-11
6	Nisource - NIPSCO	IN	\$11.00	\$11.00	\$0.00	1-Nov-13
7	Vectren - Indiana Gas Co Inc	IN	\$11.25	\$11.25	\$0.00	9-Sep-14
8	Vectren - Southern Indiana Gas & Electric Co (Vectren South)	IN	\$11.00	\$11.00	\$0.00	3-May-16
9	Consumers Energy Co	MI	\$11.50	\$11.75	\$0.25	7-Aug-17
10	Continental Energy - SEMCO	MI	\$11.50	\$11.50	\$0.00	1-Apr-11
11	DTE - Citizens Gas Fuel Co	MI	\$10.50	\$10.50	\$0.00	2-Oct-17
12	DTE - Michigan Consolidated	MI	\$10.50	\$10.50	\$0.00	1-Jan-13
13	Integrys - Michigan Gas Utilities Co	MI	\$12.00	\$13.00	\$1.00	11-Dec-17
14	Integrys - Wisconsin Public Service Corp MI	MI	\$5.00	\$5.00	\$0.00	1-Jul-09
15	XCEL - Northern States Power Co of Michigan	MI	\$7.25	\$11.00	\$3.75	1-Jan-18
14	Dominion East Ohio	OH	\$23.58	\$27.71	\$4.13	14-Feb-18
15	Duke Energy Ohio	OH	\$33.03	\$33.03	\$0.00	2-Dec-13
16	Nisource - Columbia Gas of Ohio Inc	OH	\$24.69	\$17.81	(\$6.88)	1-Apr-12
17	Vectren Energy Delivery of Ohio	OH	\$18.37	\$18.37	\$0.00	1-Apr-11
18	Allete - Superior Water Light & Power Co	WI	\$7.25	\$7.25	\$0.00	14-Aug-17
19	Alliant - Wisconsin Power & Light Co	WI	\$1.51	\$12.51	\$11.00	1-Jan-17
20	City Gas Co	WI	\$8.50	\$8.50	\$0.00	1-Jan-11
21	Integrys - Wisconsin Public Service Corp WI	WI	\$17.00	\$17.00	\$0.00	1-Jan-17
22	Madison Gas & Electric Co	WI	\$21.60	\$21.60	\$0.00	
23	WE Energies	WI	\$9.90	\$9.90	\$0.00	1-Mar-18
24	Xcel - Northern State Power Co of Wisconsin	WI	\$10.25	\$14.00	\$3.75	1-Jan-18
25	Median		\$11.50	\$12.69		
26	# Utilities that Increased Customer Charge		9			
27	# Utilities that Kept Customer Charge Constant		17			
28	# Utilities that Decreased Customer Charge		3			
29	<u>Among Utilities with Updated Rates since May 2015:</u>					
30	Median		\$11.00	\$12.69		
31	# Utilities that Increased Customer Charge		8			
32	# Utilities that Kept Customer Charge Constant		6			
33	# Utilities that Decreased Customer Charge		1			
34	<u>AGA Report Date:</u>		5/31/2015			
35	Sources: Utility tariffs					

Northern Indiana Public Service Company
Class Cost of Service Study
Phase II Test Year Ending 12/31/2018

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. 428	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Rate Base									
1	Plant in Service	\$ 2,931,233,313	\$ 1,830,942,419	\$ 16,025,307	\$ 518,537,316	\$ 80,180,483	\$ 461,038,281	\$ 198,060	\$ 24,311,447
2	Accumulated Reserve	(1,524,896,207)	(1,070,451,405)	(8,944,369)	(270,977,202)	(35,265,899)	(129,872,392)	(116,344)	(9,268,595)
3	Other Rate Base Items	113,872,189	64,802,307	614,649	32,300,618	10,261,569	5,611,844	1,914	279,289
4	Total Rate Base	\$ 1,520,209,295	\$ 825,293,322	\$ 7,695,586	\$ 279,860,732	\$ 55,176,153	\$ 336,777,733	\$ 83,630	\$ 15,322,140
Margin at Current Rates									
5	Delivery Sales Margin	253,890,377	161,226,006	1,748,693	52,486,271	8,601,429	26,355,285	368,385	3,104,307
6	TDSIC Margin	30,889,257	20,761,654	368,794	7,263,627	1,494,654	749,464	-	251,063
7	Other Riders Exclucing TDSIC	7,017,960	4,605,622	53,977	1,910,637	447,724	-	-	0
8	Miscellaneous Revenues Margin	6,653,764	4,277,223	46,343	980,929	159,243	1,155,750	2,109	32,167
9	Total Margin	\$ 298,451,358	\$ 190,870,506	\$ 2,217,806	\$ 62,641,465	\$ 10,703,051	\$ 28,260,499	\$ 370,494	\$ 3,387,538
10	Total Margin Exclucing Misc. Revenues	\$ 291,797,594	\$ 186,593,282	\$ 2,171,463	\$ 61,660,536	\$ 10,543,808	\$ 27,104,749	\$ 368,385	\$ 3,355,371
11	Gas Costs (Trackable)	316,907,620	\$ 207,808,679	\$ 2,403,993	\$ 84,370,019	\$ 20,731,302	\$ 1,434,877	\$ -	\$ 158,748
12	Total Sales Revenue	\$ 615,358,978	\$ 398,679,185	\$ 4,621,799	\$ 147,011,484	\$ 31,434,353	\$ 29,695,376	\$ 370,494	\$ 3,546,286
Expenses at Current Rates									
13	Operation and Maintenance	201,760,740	139,383,666	1,168,501	35,128,025	4,423,958	19,413,076	65,456	2,178,060
14	Amortization and Depreciation Expense	75,739,074	50,795,598	423,433	12,616,872	1,767,496	9,588,923	5,304	541,449
15	Taxes Other Than Income	26,901,840	17,573,018	161,851	4,933,996	720,673	3,232,715	14,808	264,780
16	Other Tax Adjustments	-	-	-	-	-	-	-	-
17	Income Taxes	(10,106,527)	(9,535,723)	95,403	1,419,293	821,641	(3,026,724)	84,052	35,530
18	Total Expenses - Current	\$ 294,295,128	\$ 198,216,559	\$ 1,849,189	\$ 54,098,186	\$ 7,733,768	\$ 29,207,990	\$ 169,618	\$ 3,019,818
19	Operating Income - Current	\$ 4,156,230	\$ (7,346,053)	\$ 368,618	\$ 8,543,279	\$ 2,969,283	\$ (947,491)	\$ 200,876	\$ 367,719
20	Current Rate of Return	0.27%	-0.89%	4.79%	3.05%	5.38%	-0.28%	240.20%	2.40%
Present Revenue Requirement at Equal Rates of Return									
21	Present Return	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
22	Present Operating Income @ Equal Return	\$ 4,156,230	\$ 2,256,340	\$ 21,040	\$ 765,135	\$ 150,851	\$ 920,745	\$ 229	\$ 41,891
23	Income Taxes	(10,106,527)	(5,486,645)	(51,161)	(1,860,546)	(366,817)	(2,238,937)	(556)	(101,863)
24	Other Expenses	304,401,655	207,752,282	1,753,785	52,678,893	6,912,127	32,234,713	85,567	2,984,288
25	Total Margin @ Equal Rates of Return	\$ 298,451,358	\$ 204,521,977	\$ 1,723,664	\$ 51,583,482	\$ 6,696,160	\$ 30,916,521	\$ 85,239	\$ 2,924,315
26	Delivery Margin @ Equal Rates of Return	\$ 291,797,594	\$ 200,244,753	\$ 1,677,320	\$ 50,602,552	\$ 6,536,917	\$ 29,760,771	\$ 83,131	\$ 2,892,149
27	Present (Subsidies)/Excesses	\$ (0)	\$ (13,651,471)	\$ 494,143	\$ 11,057,983	\$ 4,006,891	\$ (2,656,022)	\$ 285,255	\$ 463,222

**Northern Indiana Public Service Company
Class Cost of Service Study
Phase II Test Year Ending 12/31/2018**

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. 428	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Revenue Requirement at Equal Rates of Return									
28	Required Return	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%
29	Required Operating Income	\$ 104,894,469	\$ 56,945,254	\$ 530,996	\$ 19,310,396	\$ 3,807,156	\$ 23,237,670	\$ 5,770	\$ 1,057,228
30	Operating Income (Deficiency) / Surplus	\$ (100,738,239)	\$ (64,291,307)	\$ (162,378)	\$ (10,767,117)	\$ (837,873)	\$ (24,185,160)	\$ 195,105	\$ (689,509)
Expenses at Required Return									
31	Operation and Maintenance	\$ 201,760,740	\$ 139,383,666	\$ 1,168,501	\$ 35,128,025	\$ 4,423,958	\$ 19,413,076	\$ 65,456	\$ 2,178,060
32	Uncollectible Account Increase	419,808	\$ 372,244	\$ 2,499	\$ 43,691	\$ 1,331	\$ 42	\$ -	\$ -
33	Amortization and Depreciation Expense	75,739,074	50,795,598	423,433	12,616,872	1,767,496	9,588,923	5,304	541,449
34	Taxes Other Than Income	26,901,840	17,573,018	161,851	4,933,996	720,673	3,232,715	14,808	264,780
35	Other Tax Adjustments	-	-	-	-	-	-	-	-
36	Tax Increases	2,117,717	1,344,797	14,586	437,792	71,745	219,831	3,073	25,893
37	Income Taxes	24,751,913	13,437,353	125,299	4,556,668	898,373	5,483,385	1,362	249,474
38	Total Expenses - Required	\$ 331,691,093	\$ 222,906,676	\$ 1,896,169	\$ 57,717,043	\$ 7,883,576	\$ 37,937,972	\$ 90,001	\$ 3,259,655
39	Total Revenue Requirement at Equal Return	\$ 436,585,562	\$ 279,851,930	\$ 2,427,164	\$ 77,027,439	\$ 11,690,732	\$ 61,175,641	\$ 95,772	\$ 4,316,883
40	Current Miscellaneous Revenues Margin	\$ 6,653,764	\$ 4,277,223	\$ 46,343	\$ 980,929	\$ 159,243	\$ 1,155,750	\$ 2,109	\$ 32,167
41	Additional Miscellaneous Revenues Margin	\$ 201,259	\$ 189,400	\$ 1,324	\$ 10,504	\$ 16	\$ 2	\$ 9	\$ 3
42	Delivery Margin @ Equal Rates of Return	\$ 429,730,539	\$ 275,385,307	\$ 2,379,497	\$ 76,036,005	\$ 11,531,473	\$ 60,019,889	\$ 93,653	\$ 4,284,714
43	Revenue (Deficiency)/Surplus	\$ (138,134,204)	\$ (88,792,025)	\$ (208,034)	\$ (14,375,470)	\$ (987,665)	\$ (32,915,140)	\$ 274,732	\$ (929,343)
44	Rate Schedule Margin as Proposed	\$ 429,730,539	\$ 273,450,242	\$ 2,379,497	\$ 88,962,126	\$ 13,491,823	\$ 46,215,315	\$ 368,385	\$ 4,863,150
45	Miscellaneous Revenues Margin	6,855,023	4,466,623	47,668	991,434	159,259	1,155,752	2,118	32,169
46	Total Margin as Proposed	\$ 436,585,562	\$ 277,916,865	\$ 2,427,164	\$ 89,953,560	\$ 13,651,082	\$ 47,371,067	\$ 370,504	\$ 4,895,320
47	Current Revenue to Cost Ratio	0.68	0.68	0.91	0.81	0.91	0.45	3.93	0.78
48	Current Parity Ratio	1.00	1.00	1.34	1.19	1.35	0.67	5.79	1.15
49	Proposed Revenue to Cost Ratio	1.00	0.99	1.00	1.17	1.17	0.77	3.93	1.14
50	Proposed Margin Increase	\$ 138,134,204	\$ 86,856,960	\$ 208,034	\$ 27,301,591	\$ 2,948,015	\$ 19,110,566	\$ -	\$ 1,507,779
51	Percent Margin Change	47.34%	46.55%	9.58%	44.28%	27.96%	70.51%	0.00%	44.94%
52	2018 Estimated Gas Costs - See Attach. 15-H	\$ 1,140,704,025	\$ 253,286,838	\$ 3,081,831	\$ 128,440,152	\$ 47,569,477	\$ 692,239,681	\$ 864,453	\$ 15,221,592
53	Total Bill Before Increase	\$ 1,432,501,619	\$ 439,880,120	\$ 5,253,294	\$ 190,100,688	\$ 58,113,285	\$ 719,344,430	\$ 1,232,839	\$ 18,576,963
54	Percent Total Bill Increase	9.64%	19.75%	3.96%	14.36%	5.07%	2.66%	0.00%	8.12%
55	Income Prior to Taxes	\$ 101,522,510	\$ 53,179,615	\$ 513,926	\$ 31,615,761	\$ 5,645,120	\$ 8,686,092	\$ 280,317	\$ 1,601,678
56	Income Taxes	\$ 24,751,913	\$ 12,965,570	\$ 125,299	\$ 7,708,148	\$ 1,376,321	\$ 2,117,731	\$ 68,343	\$ 390,501
57	Operating Income	\$ 104,894,469	\$ 55,481,972	\$ 530,996	\$ 29,085,036	\$ 5,289,558	\$ 12,798,749	\$ 213,521	\$ 1,494,637
58	Proposed Return	6.90%	6.72%	6.90%	10.39%	9.59%	3.80%	255.32%	9.75%

Northern Indiana Public Service Company
Proposed Test Year Without Gas
Functional Revenue Requirement

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. 428	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Storage									
1	Demand	\$ 7,530,294	\$ 4,814,947	\$ 57,966	\$ 2,213,118	\$ 444,262	\$ -	\$ -	\$ -
2	Commodity	\$ 7,123,913	\$ 3,934,082	\$ 38,517	\$ 2,330,198	\$ 821,116	\$ -	\$ -	\$ -
3	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Sub-total	\$ 14,654,206	\$ 8,749,029	\$ 96,483	\$ 4,543,317	\$ 1,265,378	\$ -	\$ -	\$ -
LNG									
5	Demand	\$ 7,582,353	\$ 4,767,828	\$ 56,996	\$ 2,221,918	\$ 535,610	\$ -	\$ -	\$ -
6	Commodity	\$ 3,188,678	\$ 1,760,903	\$ 17,240	\$ 1,043,001	\$ 367,533	\$ -	\$ -	\$ -
7	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Sub-total	\$ 10,771,031	\$ 6,528,731	\$ 74,236	\$ 3,264,920	\$ 903,143	\$ -	\$ -	\$ -
Transmission									
9	Demand	\$ 81,968,293	\$ 25,681,066	\$ 307,758	\$ 12,041,978	\$ 3,012,662	\$ 39,747,398	\$ -	\$ 1,177,429
10	Commodity	\$ 2,115,016	\$ 383,948	\$ 4,672	\$ 194,725	\$ 75,184	\$ 1,423,877	\$ 1,299	\$ 31,310
11	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Sub-total	\$ 84,083,309	\$ 26,065,014	\$ 312,431	\$ 12,236,703	\$ 3,087,847	\$ 41,171,276	\$ 1,299	\$ 1,208,739
Distribution									
13	Demand	\$ 71,735,186	\$ 36,714,514	\$ 427,733	\$ 16,064,536	\$ 3,613,608	\$ 13,793,990	\$ 15,341	\$ 1,105,464
14	Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Customer	\$ 255,341,830	\$ 201,794,642	\$ 1,516,281	\$ 40,917,963	\$ 2,820,756	\$ 6,210,376	\$ 79,132	\$ 2,002,680
16	Sub-total	\$ 327,077,015	\$ 238,509,156	\$ 1,944,014	\$ 56,982,499	\$ 6,434,364	\$ 20,004,366	\$ 94,473	\$ 3,108,144
TOTAL									
17	Demand	\$ 168,816,125	\$ 71,978,355	\$ 850,454	\$ 32,541,551	\$ 7,606,142	\$ 53,541,388	\$ 15,341	\$ 2,282,893
18	Commodity	\$ 12,427,607	\$ 6,078,934	\$ 60,429	\$ 3,567,925	\$ 1,263,833	\$ 1,423,877	\$ 1,299	\$ 31,310
19	Customer	\$ 255,341,830	\$ 201,794,642	\$ 1,516,281	\$ 40,917,963	\$ 2,820,756	\$ 6,210,376	\$ 79,132	\$ 2,002,680
20	TOTAL REVENUE REQUIREMENT	\$ 436,585,562	\$ 279,851,930	\$ 2,427,164	\$ 77,027,439	\$ 11,690,732	\$ 61,175,641	\$ 95,772	\$ 4,316,883
Functional Revenue Requirement After Other Revenue Credit									
	Other Revenue	\$ 6,855,023	\$ 4,466,623	\$ 47,668	\$ 991,434	\$ 159,259	\$ 1,155,752	\$ 2,118	\$ 32,169
TOTAL									
21	Demand	\$ 166,099,262	\$ 70,829,533	\$ 833,751	\$ 32,122,703	\$ 7,502,526	\$ 52,529,865	\$ 15,002	\$ 2,265,881
22	Commodity	\$ 12,239,094	\$ 5,981,910	\$ 59,243	\$ 3,522,001	\$ 1,246,616	\$ 1,396,977	\$ 1,270	\$ 31,076
23	Customer	\$ 251,392,183	\$ 198,573,865	\$ 1,486,503	\$ 40,391,301	\$ 2,782,330	\$ 6,093,047	\$ 77,381	\$ 1,987,756
24	TOTAL REVENUE REQUIREMENT	\$ 429,730,539	\$ 275,385,307	\$ 2,379,497	\$ 76,036,005	\$ 11,531,473	\$ 60,019,889	\$ 93,653	\$ 4,284,714

Northern Indiana Public Service Company
Proposed Test Year Without Gas
Unit Costs

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. 428	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Storage									
1	Demand (per Design Day)	\$ 0.3517	\$ 0.6197	\$ 0.6310	\$ 0.6161	\$ 0.5291	\$ -	\$ -	\$ -
2	Commodity (per therm)	\$ 0.0021	\$ 0.0063	\$ 0.0051	\$ 0.0074	\$ 0.0067	\$ -	\$ -	\$ -
3	Customer (per customer per month)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Demand and Commodity (per therm)	\$ 0.0043	\$ 0.0141	\$ 0.0127	\$ 0.0144	\$ 0.0104	\$ -	\$ -	\$ -
Transmission									
5	Demand (per Design Day)	\$ 3.8281	\$ 3.3051	\$ 3.3503	\$ 3.3523	\$ 3.5880	\$ 4.5021	\$ -	\$ 4.0609
6	Commodity (per therm)	\$ 0.0006	\$ 0.000617	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006
7	Customer (per customer per month)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Demand and Commodity (per therm)	\$ 0.0245	\$ 0.0419	\$ 0.0413	\$ 0.0388	\$ 0.0253	\$ 0.0178	\$ 0.0006	\$ 0.0238
Distribution									
9	Demand (per Design Day)	\$ 3.3502	\$ 4.7251	\$ 4.6563	\$ 4.4722	\$ 4.3037	\$ 1.5624	\$ -	\$ 3.8127
10	Commodity (per therm)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Customer (per customer per month)	\$ 25.73	\$ 22.28	\$ 24.94	\$ 51.50	\$ 345.56	\$ 3,299.88	\$ 2,637.72	\$ 1,775.43
12	Demand and Commodity (per therm)	\$ 0.0209	\$ 0.0590	\$ 0.0565	\$ 0.0509	\$ 0.0297	\$ 0.0060	\$ 0.0073	\$ 0.0218
TOTAL									
13	Demand (per Design Day)	\$ 7.5299	\$ 8.6498	\$ 8.6376	\$ 8.4406	\$ 8.4208	\$ 6.0645	\$ -	\$ 7.8735
14	Commodity (per therm)	\$ 0.0027	\$ 0.0069	\$ 0.0057	\$ 0.0080	\$ 0.0074	\$ 0.0006	\$ 0.0006	\$ 0.0006
15	Customer (per customer per month)	\$ 25.73	\$ 22.28	\$ 24.94	\$ 51.50	\$ 345.56	\$ 3,299.88	\$ 2,637.72	\$ 1,775.43
16	Demand and Customer (per customer per month)	\$ 42.07	\$ 29.74	\$ 38.16	\$ 91.26	\$ 1,259.96	\$ 31,149.26	\$ 3,079.43	\$ 3,770.96
16	Demand and Commodity (per therm)	\$ 0.0497	\$ 0.1150	\$ 0.1105	\$ 0.1041	\$ 0.0654	\$ 0.0238	\$ 0.0079	\$ 0.0456
17	DESIGN DAY PEAK	21,412,453	7,770,154	91,861	3,592,121	839,647	8,828,725	0	289,945
18	TOTAL THROUGHPUT	3,427,490,303	622,207,258	7,571,986	315,561,686	121,839,923	2,307,465,604	2,105,207	50,738,639
19	NO. OF CUSTOMERS * 12	9,924,627	9,058,064	60,805	794,556	8,163	1,882	30	1,128

Northern Indiana Public Service Company
Revenue Requirement Mitigation
Phase II Test Year Ending 12/31/2018

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line	Class		Pro Forma Rate Schedule Margin Including Riders	Proposed Margin for Equal Rates of Return	Revenue to Cost Ratio	ACOSS Proposed Increase (Decrease) @ 6.74% ROR	ACOSS Rate Increase	Proposed Increase (Decrease) - Post Apportionment	Proposed Revenue to Cost Ratio	Proposed Margin Increase %	Proposed Margin	2018 Estimated Gas Costs	Proposed Revenue Increase % with est. Gas Costs
1	System Total		\$ 291,797,594	\$ 429,730,539	0.68	\$ 138,134,204	47.34%	\$ 138,134,204	1.00	47.34%	\$ 429,730,539	\$ 1,140,704,025	9.64%
2	Residential	411	186,593,282	275,385,307	0.68	88,792,025	47.59%	86,856,960	0.99	46.55%	273,450,242	253,286,838	19.75%
3	Multi-Family	415	2,171,463	2,379,497	0.91	208,034	9.58%	208,034	1.00	9.58%	2,379,497	3,081,831	3.96%
4	General Service Small	421	61,660,536	76,036,005	0.81	14,375,470	23.31%	27,301,591	1.17	44.28%	88,962,126	128,440,152	14.36%
5	General Service Large	425	10,543,808	11,531,473	0.91	987,665	9.37%	2,948,015	1.17	27.96%	13,491,823	47,569,477	5.07%
6	Large Transp.	428	27,104,749	60,019,889	0.45	32,915,140	121.44%	19,110,566	0.77	70.51%	46,215,315	692,239,681	2.66%
7	C&I Off-Peak Interruptib	434	368,385	93,653	3.93	(274,732)	-74.58%	-	3.93	0.00%	368,385	864,453	0.00%
8	General Transportation	438	3,355,371	4,284,714	0.78	929,343	27.70%	1,507,779	1.14	44.94%	4,863,150	15,221,592	8.12%
9	Miscellaneous Revenues Margin		\$ 6,653,764	\$ 6,855,023		\$ 201,259		\$ 201,259	50% Sys. Incr.=	71.01%	\$ 6,855,023	Miscellaneous Revenues Margin	
10	Total Margin		\$ 298,451,358	\$ 436,585,562							\$ 436,585,562	Total Margin	

Note: Column C and D are from ACOSS Results.

Note: Column L 2018 Estimated Gas Costs Derivation Inclusive of Choice and Transport Customers

Rates 411, 415, 421 and 425 2018 Estimated Gas Costs average factors are based on estimated terms, gas costs, bad debt revenues, and URT revenues.

Rate 434 2018 Estimated Gas Costs are based on the same average factor as Rates 421 and 425.

Rates 428 and 438 2018 Estimated Gas Costs factors are based on market research estimate for these transportation customers.

**Northern Indiana Public Service Company
Revenue Proof and Rate Design**

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)	(C) 400 Series Rate	(D) 2018 Total Revenue ("Margins")	Phase II Proposed Rates		(G) Total Revenue ("Margins") 2018
					(E) 2018 Forecasted Billing Determinants (Therms/Bills)	(F) Proposed Rate	
1	Residential - Rate 411						
2	Customer Charge						
3	Customer Charge - 411	9,031,590	\$ 11.00	\$ 99,347,489	9,031,590	\$ 19.50	\$ 176,116,003
4	Customer Charge - 451	26,474	\$ 11.00	\$ 291,211	26,474	\$ 19.50	\$ 516,238
5	Total Customer Charge	9,058,064		\$ 99,638,700	9,058,064		\$ 176,632,242
6	Delivery Charge						
7	All Therms - 411	619,541,105 Therms	\$ 0.09898	\$ 61,323,405	619,541,105 Therms	\$ 0.15560	\$ 96,403,136
8	All Therms - 451	2,666,152 Therms	\$ 0.09898	\$ 263,901	2,666,152 Therms	\$ 0.15560	\$ 414,864
9	Total Delivery Charge	622,207,258 Therms		\$ 61,587,306	622,207,258 Therms		\$ 96,818,001
10	Residential - Rate 411 Sales			<u>\$ 161,226,006</u>			<u>\$ 273,450,242</u>
11	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 4,605,622			
12	Adjustment of Charges for TDSIC			\$ 20,761,654			
13	Total Rider			\$ 25,367,276			\$ -
14		Total Margin		<u>\$ 186,593,282</u>	Total Margin		<u>\$ 273,450,242</u>
15		Revenue Proof		<u>\$ 186,593,282</u>	Target Margin		<u>\$ 273,450,242</u>
16		Over/(Under)		\$ -	Over/(Under)		\$ -
17	Multi-Family - Rate 415						
18	Customer Charge						
19	Customer Charge - 415	60,765	\$ 12.50	\$ 759,567	60,765	\$ 17.50	\$ 1,063,394
20	Customer Charge- 451	40	\$ 12.50	\$ 495	40	\$ 17.50	\$ 692
21	Total Customer Charge	60,805		\$ 760,062	60,805		\$ 1,064,086
22	Delivery Charge						
23	First 45 therms	2,314,726 Therms	\$ 0.16526	\$ 382,537	2,314,726 Therms	\$ 0.17372	\$ 402,116
24	Over 45 therms	5,247,754 Therms	\$ 0.11526	\$ 604,869	5,247,754 Therms	\$ 0.17372	\$ 911,643
25	First 45 Therms - 451	2,565 Therms	\$ 0.16526	\$ 424	2,565 Therms	\$ 0.17372	\$ 446
26	Over 45 Therms - 451	6,942 Therms	\$ 0.11526	\$ 800	6,942 Therms	\$ 0.17372	\$ 1,206
27	Total Delivery Charge	7,571,986 Therms		\$ 988,631	7,571,986 Therms		\$ 1,315,411
28	Multi-Family - Rate 415 Sales			<u>\$ 1,748,693</u>			<u>\$ 2,379,497</u>
29	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 53,977			
30	Adjustment of Charges for TDSIC			\$ 368,794			
31	Total Rider			\$ 422,770			\$ -
32		Total Margin		<u>\$ 2,171,463</u>	Total Margin		<u>\$ 2,379,497</u>
33		Revenue Proof		<u>\$ 2,171,463</u>	Target Margin		<u>\$ 2,379,497</u>
34		Over/(Under)		\$ -	Over/(Under)		\$ -
35	Small General Service - Rate 421						
36	Customer Charge						
37	Customer Charge - 421	794,556	\$ 30.00	\$ 23,836,668	794,556	\$ 53.00	\$ 42,111,447
38	Customer Charge- 451	-	\$ 30.00	\$ -	-	\$ 53.00	\$ -
39	Total Customer Charge	794,556		\$ 23,836,668	794,556		\$ 42,111,447
40	Delivery Charge						
41	All Therms	315,561,686 Therms	\$ 0.09079	\$ 28,649,603	315,561,686 Therms	\$ 0.14847	\$ 46,850,679
42	All Therms - 451	0 Therms	\$ 0.09079	\$ -	0 Therms	\$ 0.14847	\$ -
43	Total Delivery Charge	315,561,686 Therms		\$ 28,649,603	315,561,686 Therms		\$ 46,850,679
44	Small General Service - Rate 421 Sales			<u>\$ 52,486,271</u>			<u>\$ 88,962,126</u>
45	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 1,910,584			
46	Gas Demand-Side Management ("GDSM") Rider - Rider 472			\$ 52			
47	Universal Service Fund Rider - Rider 473			\$ -			
48	Adjustment of Charges for TDSIC			\$ 7,263,627			
49	Total Rider			\$ 9,174,264			\$ -
50		Total Margin		<u>\$ 61,660,536</u>	Total Margin		<u>\$ 88,962,126</u>
51		Revenue Proof		<u>\$ 61,660,536</u>	Target Margin		<u>\$ 88,962,126</u>
52		Over/(Under)		\$ -	Over/(Under)		\$ -

Northern Indiana Public Service Company
Revenue Proof and Rate Design

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)		(C) 400 Series Rate		(D) 2018 Total Revenue ("Margins")		(E) 2018 Forecasted Billing Determinants (Therms/Bills)		(F) Phase II Proposed Rates Proposed Rate		(G) Total Revenue ("Margins") 2018	
53	General Service Large - Rate 425												
54	Customer Charge												
55	Customer Charge - 425	8,163	\$	250	\$	2,040,705		8,163	\$	400.00	\$	3,265,128	
56	Customer Charge- 451	-	\$	250	\$	-		-	\$	400.00	\$	-	
57	Total Customer Charge	8,163				2,040,705		8,163				3,265,128	
58	Delivery Charge												
59	First 6,000 Therms	42,934,570	Therms	\$	0.05658	\$	2,429,256	42,934,570	Therms	\$	0.09261	\$	3,976,031
60	Next 24,000 Therms	65,746,788	Therms	\$	0.05358	\$	3,522,741	65,746,788	Therms	\$	0.08261	\$	5,431,129
61	Next 60,000 Therms	12,302,656	Therms	\$	0.04658	\$	573,063	12,302,656	Therms	\$	0.06261	\$	770,229
62	All over 90,000 Therms	855,908	Therms	\$	0.04158	\$	35,589	855,908	Therms	\$	0.05761	\$	49,306
63	First 6,000 Therms - Rate 451	0	Therms	\$	0.06	\$	-	0	Therms	\$	0.09261	\$	-
64	Next 24,000 Therms - Rate 451	0	Therms	\$	0.05	\$	-	0	Therms	\$	0.08261	\$	-
65	Next 60,000 Therms - Rate 451	0	Therms	\$	0.05	\$	-	0	Therms	\$	0.06261	\$	-
66	All over 90,000 Therms	0	Therms	\$	0.04	\$	-	0	Therms	\$	0.05761	\$	-
67	Total Delivery Charge	121,839,923	Therms			6,560,650		121,839,923	Therms			10,226,696	
68	General Service Large - Rate 425 Sales					\$ 8,601,354						\$ 13,491,823	
69	Gas Cost Adjustment Rider (GCA) - Rider 470					\$ 447,672							
70	Gas Demand-Side Management ("GDSM") Rider - Rider 472					\$ 52							
71	Universal Service Fund Rider - Rider 473					\$ -							
72	Adjustment of Charges for TDSIC					\$ 1,494,654							
73	Total Rider					\$ 1,942,378						\$ -	
74				Total Margin		\$ 10,543,733				Total Margin		\$ 13,491,823	
75				Revenue Proof		\$ 10,543,733				Target Margin		\$ 13,491,823	
76				Over/(Under)		\$ -				Over/(Under)		\$ -	
77	LargeTransportation - Rate 428												
78	Customer Charge	1,882	\$	350.00	\$	658,700		1,882	\$	1,000.00	\$	1,882,000	
79	Demand Charge							83,404,689	\$	0.12124	\$	10,111,999	
80	Administrative Charges for Balancing Services												
81	Category A & C	335	\$	1,325.00		444,302		335	\$	1,590.00		533,163	
82	Category B	1,547	\$	550.00		850,850		1,547	\$	660.00		1,021,020	
83	Total Administrative Charges for Balancing Ser	1,882				1,295,152						1,554,183	
84	Transportation charge												
85	First 300,000 Therms	321,996,061	Therms	\$	0.02565	8,257,602		321,996,061	Therms	\$	0.03828	12,326,056	
86	All Over 300,000 Therms	1,985,469,543	Therms	\$	0.00765	15,178,997		1,985,469,543	Therms	\$	0.00975	19,358,328	
87	Total Transportation Charge	2,307,465,604	Therms			23,436,599		2,307,465,604	Therms			31,684,384	
88	Pooling Agreement Fee	1,792	\$	50.00		89,579		1,792	\$	60.00		107,494	
89	Company Nomination Exchange	1,711	\$	10.00		17,109		1,711	\$	10.00		17,109	
90	Imbalance Exchange Service Charge	-	\$	10.00		-		-	\$	10.00		-	
91	Pool Adminstration Charge - Cat. A	12	\$	1,000.00		11,528		12	\$	1,000.00		11,528	
92	Pool Adminstration Charge - Cat. B	133	\$	500.00		66,285		133	\$	500.00		66,285	
93	Pool Adminstration Charge - Cat. C	-	\$	250.00		-			\$	250.00		-	
94	Pool Participation Fee - Cat. A	127	\$	2,500.00		317,015		127	\$	2,500.00		317,015	
95	Pool Participation Fee - Cat. B	1,490	\$	87.50		130,373		1,490	\$	87.50		130,373	
96	Pool Participation Fee - Cat. C	127	\$	250.00		31,702		127	\$	250.00		31,702	

**Northern Indiana Public Service Company
Revenue Proof and Rate Design**

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)	(C) 400 Series Rate	(D) 2018 Total Revenue ("Margins")	Phase II Proposed Rates		(G) Total Revenue ("Margins") 2018
					(E) 2018 Forecasted Billing Determinants (Therms/Bills)	(F) Proposed Rate	
97	Imbalance Net Throughput Fee						
98	Volumetric Fee - Cat. A & C	1,706,733,053 Therms	\$ 0.00015	256,010	1,706,733,053 Therms	\$ 0.00015	256,010
99	Volumetric Fee - Cat. B	301,556,580 Therms	\$ 0.00015	45,233	301,556,580 Therms	\$ 0.00015	45,233
100	LargeTransportation - Rate 428 Sales			\$ 26,355,285			\$ 46,215,315
101	Universal Service Fund Rider - Rider 473			\$ -			
102	Adjustment of Charges for TDSIC			\$ 749,464			
103	Total Rider			\$ 749,464			\$ -
104			Total Margin	27,104,749		Total Margin	46,215,315
105			Revenue Proof	\$ 27,104,749		Target Margin	\$ 46,215,315
106			Over/(Under)	\$ -		Over/(Under)	\$ -
107	C&I Off-Peak Interruptible - Rate 434A						
108	Customer Charge						
109	Customer Charge - 434A	30	\$ 350.00	\$ 10,500.00	30	\$ 637.00	\$ 19,110
110	Minimum Charge				0		\$ -
111	Total Customer Charge	30		\$ 10,500.00	30		\$ 19,110
112	Delivery Charge						
113	Off-Peak Interrpt Gas	0 Therms	\$ -	0	0 Therms		\$ -
114	Off-Peak Interrpt Contract	2,105,207 Therms	\$ 0.17000	\$ 357,885.23	2,105,207 Therms	\$ 0.16591	\$ 349,275
115	Total Delivery Charge	2,105,207 Therms		\$ 357,885.23	2,105,207 Therms		\$ 349,275
116	C&I Off-Peak Interruptible - Rate 434A Sales			\$ 368,385			\$ 368,385
117	Gas Cost Adjustment Rider (GCA) - Rider 470						
118	Universal Service Fund Rider - Rider 473						
119	Total Rider			\$ -			\$ -
120			Total Margin	\$ 368,385		Total Margin	\$ 368,385
121			Revenue Proof	\$ 368,385		Target Margin	\$ 368,385
122			Over/(Under)	\$ -		Over/(Under)	\$ -
123	General Transportation & Balancing - Rate 438						
124	Customer Charge	1,128	\$ 250.00	\$ 282,000	1,128	\$ 750.00	\$ 846,000
125	Administrative Charges for Balancing Services	1,090	\$ 200.00	\$ 218,069	1,090	\$ 365.00	\$ 397,975
126	Demand Charge				2,074,885	\$ 0.3099	\$ 642,944
127	Transportation charge						
128	First 6,000 Therms	6,556,648 Therms	\$ 0.05658	\$ 370,978	6,556,648 Therms	\$ 0.05762	\$ 377,806
129	Next 24,000 Therms	24,063,992 Therms	\$ 0.05358	\$ 1,289,359	24,063,992 Therms	\$ 0.05662	\$ 1,362,546
130	Next 60,000 Therms	18,267,408 Therms	\$ 0.04198	\$ 766,874	18,267,408 Therms	\$ 0.05562	\$ 1,016,066
131	All Over 90,000 Therms	1,850,590 Therms	\$ 0.03698	\$ 68,436	1,850,590 Therms	\$ 0.05462	\$ 101,083
132	Total Transportation Charge	50,738,639 Therms		\$ 2,495,646	50,738,639 Therms		\$ 2,857,501
133	General Transportation & Balancing - Rate 438 Sales			\$ 2,995,715			\$ 4,744,420
134	Pooling Agreement Fee	1,006	\$ 50.00	\$ 50,313	1,006	\$ 60.00	\$ 60,376
135	Company Nomination Exchange	450	\$ 10.00	\$ 4,500	450	\$ 10.00	\$ 4,500
136	Pool Administration Charge	105	\$ 250.00	\$ 26,178	105	\$ 250.00	\$ 26,178
137	Pool Participation Fee	877	\$ 25.00	\$ 21,927	877	\$ 25.00	\$ 21,927
138	Imbalance Net-Admin Charge	38,330,520 Therms	\$ 0.00015	\$ 5,750	38,330,520 Therms	\$ 0.00015	\$ 5,750
139	Universal Service Fund Rider - Rider 473			\$ -			
140	Adjustment of Charges for TDSIC			\$ 251,063			
141	Total Rider			\$ 359,731			\$ 118,730
142			Total Margin	\$ 3,355,446		Total Margin	\$ 4,863,150
143			Revenue Proof	\$ 3,355,446		Target Margin	\$ 4,863,150
144			Over/(Under)	\$ -		Over/(Under)	\$ -
145	All Classes						
146			Total Margin	\$ 291,797,594		Total Margin	\$ 429,730,539
147			Revenue Proof	\$ 291,797,594		Target Margin	\$ 429,730,539
148			Over/(Under)	\$ -		Over/(Under)	\$ -

**Northern Indiana Public Service Company
Residential Customer Monthly Bill Comparison**

Line No.	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
1	Description	January	February	March	April	May	June	July	August	September	October	November	December	Total
2	Volumes (therms)	147	155	118	89	49	26	18	17	17	20	48	119	824
3	Current Revenues	90.91	94.99	75.04	59.51	37.77	24.97	20.95	20.00	20.22	21.84	37.21	75.66	579.06
4	Proposed Revenues	102.84	107.09	86.29	70.09	47.42	34.07	29.87	28.88	29.12	30.81	46.83	86.93	700.23
5	Difference	11.93	12.10	11.24	10.58	9.65	9.10	8.93	8.89	8.90	8.96	9.62	11.27	121.16
6	Avg. Monthly Increase	10.10												

	Residential - Rate 411					
7	(A)	(B)	(C)	(D)	(E)	(F)
8	Customer Charge Delivery Charge TDSIC Charge GDSM Charge Average Gas Charge	Present Rates	Proposed Rates			
9						
10		\$11.00	\$19.50			
11		\$0.09898	\$0.15560			
12		\$0.03337	\$0.00000			
13		\$0.00668	\$0.00668			
14	\$0.40352	\$0.40352				
15	ANNUAL CONSUMPTION (Therms)	REVENUE AT PRESENT RATES	REVENUE AT PROPOSED RATES	REVENUE		Customers
16				AMOUNT	PERCENT	
17						
18	100	\$ 186	\$ 291	\$ 104	56.01%	7,038
19	200	\$ 241	\$ 347	\$ 107	44.34%	8,924
20	300	\$ 295	\$ 404	\$ 109	36.97%	17,211
21	400	\$ 349	\$ 460	\$ 111	31.89%	31,509
22	500	\$ 403	\$ 517	\$ 114	28.18%	52,393
23	600	\$ 458	\$ 573	\$ 116	25.34%	74,384
24	700	\$ 512	\$ 630	\$ 118	23.11%	87,508
25	800	\$ 566	\$ 687	\$ 121	21.31%	85,821
26	900	\$ 620	\$ 743	\$ 123	19.82%	73,327
27	1,000	\$ 675	\$ 800	\$ 125	18.57%	57,873
28	1,100	\$ 729	\$ 856	\$ 128	17.51%	42,767
29	1,200	\$ 783	\$ 913	\$ 130	16.59%	30,566
30	1,300	\$ 837	\$ 970	\$ 132	15.79%	21,714
31	1,400	\$ 892	\$ 1,026	\$ 135	15.09%	15,236
32	1,500	\$ 946	\$ 1,083	\$ 137	14.47%	10,595
33	1,600	\$ 1,000	\$ 1,139	\$ 139	13.92%	7,362
34	1,700	\$ 1,054	\$ 1,196	\$ 142	13.42%	5,112
35	1,800	\$ 1,109	\$ 1,252	\$ 144	12.98%	3,888
36	1,900	\$ 1,163	\$ 1,309	\$ 146	12.57%	2,707
37	2,000	\$ 1,217	\$ 1,366	\$ 149	12.20%	1,985

**Northern Indiana Public Service Company
Bill Impacts**

Multi-Family - Rate 415						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
29	Customer Charge	\$12.50	\$17.50			
30	Delivery Charge					
31	First 45 therms	\$0.16526	\$0.17372			
32	Over 45 therms	\$0.11526	\$0.17372			
33	TDSIC Charge	\$0.04871	\$0.00000			
34	GDSM Charge	\$0.00283	\$0.00283			
35	Average Gas Cost	\$0.40352	\$0.40352			
36	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
37	CONSUMPTION	PRESENT	PROPOSED			
38	(Therms)	RATES	RATES	AMOUNT	PERCENT	Customers
39	100	\$ 212	\$ 268	\$ 56	26.40%	44
40	500	\$ 456	\$ 500	\$ 44	9.67%	381
41	800	\$ 626	\$ 674	\$ 48	7.63%	509
42	1,000	\$ 742	\$ 790	\$ 48	6.50%	417
43	1,500	\$ 1,029	\$ 1,080	\$ 51	4.99%	1,158
44	2,000	\$ 1,315	\$ 1,370	\$ 55	4.20%	778
45	2,500	\$ 1,602	\$ 1,660	\$ 58	3.64%	429
46	3,000	\$ 1,888	\$ 1,950	\$ 62	3.30%	195
47	3,500	\$ 2,171	\$ 2,240	\$ 69	3.20%	98
48	4,000	\$ 2,458	\$ 2,530	\$ 72	2.93%	50
49	5,000	\$ 3,029	\$ 3,110	\$ 82	2.70%	38
50	6,000	\$ 3,599	\$ 3,690	\$ 92	2.54%	11
51	9,000	\$ 5,310	\$ 5,431	\$ 121	2.27%	14

**Northern Indiana Public Service Company
Bill Impacts**

Small General Service - Rate 421						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
52	Customer Charge	\$30.00	\$53.00			
53	Delivery Charge	\$0.09079	\$0.14847			
54	TDSIC Charge	\$0.02302	\$0.00000			
55	GDSM Charge	\$0.00522	\$0.00522			
56	Average Gas Cost	\$0.41063	\$0.41063			
57	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
58	CONSUMPTION	PRESENT	PROPOSED			
59	(Therms)	RATES	RATES	AMOUNT	PERCENT	Customers
60	500	\$ 625	\$ 918	\$ 293	46.95%	8,525
61	1,500	\$ 1,154	\$ 1,482	\$ 328	28.41%	15,556
62	2,500	\$ 1,684	\$ 2,047	\$ 363	21.53%	6,978
63	3,500	\$ 2,214	\$ 2,611	\$ 397	17.95%	4,076
64	4,000	\$ 2,479	\$ 2,893	\$ 415	16.73%	1,486
65	5,000	\$ 3,008	\$ 3,458	\$ 449	14.94%	2,224
66	7,500	\$ 4,332	\$ 4,868	\$ 536	12.37%	3,295
67	10,000	\$ 5,657	\$ 6,279	\$ 623	11.01%	1,936
68	12,000	\$ 6,716	\$ 7,408	\$ 692	10.30%	981
69	14,000	\$ 7,775	\$ 8,537	\$ 761	9.79%	741
70	16,000	\$ 8,835	\$ 9,665	\$ 831	9.40%	569
71	18,000	\$ 9,894	\$ 10,794	\$ 900	9.10%	424
72	19,500	\$ 10,688	\$ 11,640	\$ 952	8.91%	275
73	25,000	\$ 13,602	\$ 14,744	\$ 1,143	8.40%	720
74	30,000	\$ 16,250	\$ 17,566	\$ 1,316	8.10%	450
75	35,000	\$ 18,898	\$ 20,387	\$ 1,489	7.88%	320
76	40,000	\$ 21,546	\$ 23,209	\$ 1,662	7.72%	198
77	45,000	\$ 24,195	\$ 26,030	\$ 1,836	7.59%	184
78	50,000	\$ 26,843	\$ 28,852	\$ 2,009	7.48%	137
79	60,000	\$ 32,140	\$ 34,495	\$ 2,356	7.33%	197
80	70,000	\$ 37,436	\$ 40,139	\$ 2,702	7.22%	135
81	80,000	\$ 42,733	\$ 45,782	\$ 3,049	7.13%	83
82	90,000	\$ 48,030	\$ 51,425	\$ 3,395	7.07%	56

**Northern Indiana Public Service Company
Bill Impacts**

General Service Large - Rate 425						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
83	Customer Charge	\$250.00	\$400.00			
	Delivery Charge					
84	First 6,000 Therms	\$0.05658	\$0.09261			
85	Next 24,000 Therms	\$0.05358	\$0.08261			
86	Next 60,000 Therms	\$0.04658	\$0.06261			
87	All over 90,000 Therms	\$0.04158	\$0.05761			
88	TDSIC Charge	\$0.01227	\$0.00000			
89	GDSM Charge	\$0.00522	\$0.00522			
90	Average Gas Cost	\$0.41063	\$0.41063			
91	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
92	CONSUMPTION	PRESENT	PROPOSED			
93	(Therms)	RATES	RATES	AMOUNT	PERCENT	Customers
94	1,250	\$ 3,606	\$ 5,436	\$ 1,830	50.74%	3
95	2,500	\$ 4,212	\$ 6,071	\$ 1,859	44.15%	8
96	5,000	\$ 5,424	\$ 7,342	\$ 1,919	35.38%	3
97	10,000	\$ 7,847	\$ 9,885	\$ 2,038	25.97%	6
98	20,000	\$ 12,694	\$ 14,969	\$ 2,275	17.92%	7
99	30,000	\$ 17,530	\$ 20,016	\$ 2,486	14.18%	5
100	40,000	\$ 22,387	\$ 25,134	\$ 2,748	12.27%	8
101	50,000	\$ 27,212	\$ 30,145	\$ 2,934	10.78%	13
102	60,000	\$ 32,044	\$ 35,181	\$ 3,137	9.79%	25
103	70,000	\$ 36,874	\$ 40,210	\$ 3,335	9.04%	34
104	80,000	\$ 41,676	\$ 45,142	\$ 3,466	8.32%	33
105	90,000	\$ 46,539	\$ 50,282	\$ 3,742	8.04%	41
106	100,000	\$ 51,361	\$ 55,282	\$ 3,921	7.63%	23
107	125,000	\$ 63,429	\$ 67,827	\$ 4,398	6.93%	52
108	150,000	\$ 75,471	\$ 80,289	\$ 4,818	6.38%	54
109	175,000	\$ 87,439	\$ 92,522	\$ 5,083	5.81%	44
110	200,000	\$ 99,556	\$ 105,212	\$ 5,656	5.68%	33
111	250,000	\$ 123,596	\$ 130,006	\$ 6,410	5.19%	47
112	300,000	\$ 147,657	\$ 154,860	\$ 7,203	4.88%	30
113	350,000	\$ 171,395	\$ 178,791	\$ 7,396	4.31%	30
114	400,000	\$ 194,784	\$ 201,725	\$ 6,940	3.56%	11
115	450,000	\$ 219,314	\$ 227,919	\$ 8,605	3.92%	10
116	500,000	\$ 243,016	\$ 251,783	\$ 8,767	3.61%	8
117	550,000	\$ 266,822	\$ 275,873	\$ 9,051	3.39%	7
118	700,000	\$ 337,495	\$ 346,786	\$ 9,291	2.75%	1

**Northern Indiana Public Service Company
Revenue Proof and Rate Design**

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)	(C) 400 Series Rate	(D) 2018 Total Revenue ("Margins")	Phase I Proposed Rates		(G) Total Revenue ("Margins") 2018
					(E) 2018 Forecasted Billing Determinants (Therms/Bills)	(F) Proposed Rate	
1	Residential - Rate 411						
2	Customer Charge						
3	Customer Charge - 411	9,031,590	\$ 11.00	\$ 99,347,489	9,031,590	\$ 19.50	\$ 176,116,003
4	Customer Charge - 451	26,474	\$ 11.00	\$ 291,211	26,474	\$ 19.50	\$ 516,238
5	Total Customer Charge	9,058,064		\$ 99,638,700	9,058,064		\$ 176,632,242
6	Delivery Charge						
7	All Therms - 411	619,541,105 Therms	\$ 0.09898	\$ 61,323,405	619,541,105 Therms	\$ 0.12840	\$ 79,546,481
8	All Therms - 451	2,666,152 Therms	\$ 0.09898	\$ 263,901	2,666,152 Therms	\$ 0.12840	\$ 342,323
9	Total Delivery Charge	622,207,258 Therms		\$ 61,587,306	622,207,258 Therms		\$ 79,888,804
10	Residential - Rate 411 Sales			<u>\$ 161,226,006</u>			<u>\$ 256,521,045</u>
11	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 4,605,622			
12	Adjustment of Charges for TDSIC			\$ 20,761,654			
13	Total Rider			\$ 25,367,276			\$ -
14		Total Margin		<u>\$ 186,593,282</u>	Total Margin		<u>\$ 256,521,045</u>
15		Revenue Proof		<u>\$ 186,593,282</u>	Target Margin		<u>\$ 256,521,045</u>
16		Over/(Under)		\$ -	Over/(Under)		\$ -
17	Multi-Family - Rate 415						
18	Customer Charge						
19	Customer Charge - 415	60,765	\$ 12.50	\$ 759,567	60,765	\$ 17.50	\$ 1,063,394
20	Customer Charge- 451	40	\$ 12.50	\$ 495	40	\$ 17.50	\$ 692
21	Total Customer Charge	60,805		\$ 760,062	60,805		\$ 1,064,086
22	Delivery Charge						
23	First 45 therms	2,314,726 Therms	\$ 0.16526	\$ 382,537	2,314,726 Therms	\$ 0.15427	\$ 357,082
24	Over 45 therms	5,247,754 Therms	\$ 0.11526	\$ 604,869	5,247,754 Therms	\$ 0.15427	\$ 809,548
25	First 45 Therms - 451	2,565 Therms	\$ 0.16526	\$ 424	2,565 Therms	\$ 0.15427	\$ 396
26	Over 45 Therms - 451	6,942 Therms	\$ 0.11526	\$ 800	6,942 Therms	\$ 0.15427	\$ 1,071
27	Total Delivery Charge	7,571,986 Therms		\$ 988,631	7,571,986 Therms		\$ 1,168,097
28	Multi-Family - Rate 415 Sales			<u>\$ 1,748,693</u>			<u>\$ 2,232,183</u>
29	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 53,977			
30	Adjustment of Charges for TDSIC			\$ 368,794			
31	Total Rider			\$ 422,770			\$ -
32		Total Margin		<u>\$ 2,171,463</u>	Total Margin		<u>\$ 2,232,183</u>
33		Revenue Proof		<u>\$ 2,171,463</u>	Target Margin		<u>\$ 2,232,183</u>
34		Over/(Under)		\$ -	Over/(Under)		\$ -
35	Small General Service - Rate 421						
36	Customer Charge						
37	Customer Charge - 421	794,556	\$ 30.00	\$ 23,836,668	794,556	\$ 53.00	\$ 42,111,447
38	Customer Charge- 451	-	\$ 30.00	\$ -	-	\$ 53.00	\$ -
39	Total Customer Charge	794,556		\$ 23,836,668	794,556		\$ 42,111,447
40	Delivery Charge						
41	All Therms	315,561,686 Therms	\$ 0.09079	\$ 28,649,603	315,561,686 Therms	\$ 0.13101	\$ 41,343,069
42	All Therms - 451	0 Therms	\$ 0.09079	\$ -	0 Therms	\$ 0.13101	\$ -
43	Total Delivery Charge	315,561,686 Therms		\$ 28,649,603	315,561,686 Therms		\$ 41,343,069
44	Small General Service - Rate 421 Sales			<u>\$ 52,486,271</u>			<u>\$ 83,454,516</u>
45	Gas Cost Adjustment Rider (GCA) - Rider 470			\$ 1,910,584			
46	Gas Demand-Side Management ("GDSM") Rider - Rider 472			\$ 52			
47	Universal Service Fund Rider - Rider 473			\$ -			
48	Adjustment of Charges for TDSIC			\$ 7,263,627			
49	Total Rider			\$ 9,174,264			\$ -
50		Total Margin		<u>\$ 61,660,536</u>	Total Margin		<u>\$ 83,454,516</u>
51		Revenue Proof		<u>\$ 61,660,536</u>	Target Margin		<u>\$ 83,454,516</u>
52		Over/(Under)		\$ -	Over/(Under)		\$ -

Northern Indiana Public Service Company
Revenue Proof and Rate Design

Phase I Proposed Rates													
(A)		(B)		(C)	(D)	(E)		(F)		(G)			
Line No.	Description	2018 Forecasted Billing Determinants (Bills or Therms)		400 Series Rate	2018 Total Revenue ("Margins")	2018 Forecasted Billing Determinants (Therms/Bills)		Proposed Rate		Total Revenue ("Margins") 2018			
53	General Service Large - Rate 425												
54	Customer Charge												
55	Customer Charge - 425	8,163	\$	250	\$	2,040,705	8,163	\$	400.00	\$	3,265,128		
56	Customer Charge- 451	-	\$	250	\$	-	-	\$	400.00	\$	-		
57	Total Customer Charge	8,163			\$	2,040,705	8,163			\$	3,265,128		
58	Delivery Charge												
59	First 6,000 Therms	42,934,570	Therms	\$	0.05658	\$	2,429,256	42,934,570	Therms	\$	0.08575	\$	3,681,693
60	Next 24,000 Therms	65,746,788	Therms	\$	0.05358	\$	3,522,741	65,746,788	Therms	\$	0.07575	\$	4,980,402
61	Next 60,000 Therms	12,302,656	Therms	\$	0.04658	\$	573,063	12,302,656	Therms	\$	0.05575	\$	685,889
62	All over 90,000 Therms	855,908	Therms	\$	0.04158	\$	35,589	855,908	Therms	\$	0.05075	\$	43,438
63	First 6,000 Therms - Rate 451	0	Therms	\$	0.06	\$	-	0	Therms	\$	0.08575	\$	-
64	Next 24,000 Therms - Rate 451	0	Therms	\$	0.05	\$	-	0	Therms	\$	0.07575	\$	-
65	Next 60,000 Therms - Rate 451	0	Therms	\$	0.05	\$	-	0	Therms	\$	0.05575	\$	-
66	All over 90,000 Therms	0	Therms	\$	0.04	\$	-	0	Therms	\$	0.05075	\$	-
67	Total Delivery Charge	121,839,923	Therms			\$	6,560,650	121,839,923	Therms			\$	9,391,422
68	General Service Large - Rate 425 Sales					\$	8,601,354				\$	12,656,550	
69	Gas Cost Adjustment Rider (GCA) - Rider 470					\$	447,672						
70	Gas Demand-Side Management ("GDSM") Rider - Rider 472					\$	52						
71	Universal Service Fund Rider - Rider 473					\$	-						
72	Adjustment of Charges for TDSIC					\$	1,494,654						
73	Total Rider					\$	1,942,378				\$	-	
74				Total Margin		\$	10,543,733			Total Margin		\$	12,656,550
75				Revenue Proof		\$	10,543,733			Target Margin		\$	12,656,550
76				Over/(Under)		\$	-			Over/(Under)		\$	-
77	LargeTransportation - Rate 428												
78	Customer Charge	1,882	\$	350.00	\$	658,700	1,882	\$	1,000.00	\$	1,882,000		
79	Demand Charge						83,404,689	\$	0.12124	\$	10,111,999		
80	Administrative Charges for Balancing Services												
81	Category A & C	335	\$	1,325.00		444,302	335	\$	1,590.00		533,163		
82	Category B	1,547	\$	550.00		850,850	1,547	\$	660.00		1,021,020		
83	Total Administrative Charges for Balancing Ser	1,882				1,295,152					1,554,183		
84	Transportation charge												
85	First 300,000 Therms	321,996,061	Therms	\$	0.02565	8,257,602	321,996,061	Therms	\$	0.02939	9,464,884		
86	All Over 300,000 Therms	1,985,469,543	Therms	\$	0.00765	15,178,997	1,985,469,543	Therms	\$	0.00975	19,358,328		
87	Total Transportation Charge	2,307,465,604	Therms			23,436,599	2,307,465,604	Therms			28,823,212		
88	Pooling Agreement Fee	1,792	\$	50.00		89,579	1,792	\$	60.00		107,494		
89	Company Nomination Exchange	1,711	\$	10.00		17,109	1,711	\$	10.00		17,109		
90	Imbalance Exchange Service Charge	-	\$	10.00		-	-	\$	10.00		-		
91	Pool Adminstration Charge - Cat. A	12	\$	1,000.00		11,528	12	\$	1,000.00		11,528		
92	Pool Adminstration Charge - Cat. B	133	\$	500.00		66,285	133	\$	500.00		66,285		
93	Pool Adminstration Charge - Cat. C	-	\$	250.00		-		\$	250.00		-		
94	Pool Participation Fee - Cat. A	127	\$	2,500.00		317,015	127	\$	2,500.00		317,015		
95	Pool Participation Fee - Cat. B	1,490	\$	87.50		130,373	1,490	\$	87.50		130,373		
96	Pool Participation Fee - Cat. C	127	\$	250.00		31,702	127	\$	250.00		31,702		

**Northern Indiana Public Service Company
Revenue Proof and Rate Design**

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)	(C) 400 Series Rate	(D) 2018 Total Revenue ("Margins")	Phase I Proposed Rates			(G) Total Revenue ("Margins") 2018
					(E) 2018 Forecasted Billing Determinants (Therms/Bills)	(F) Proposed Rate		
97	Imbalance Net Throughput Fee							
98	Volumetric Fee - Cat. A & C	1,706,733,053 Therms	\$ 0.00015	256,010	1,706,733,053 Therms	\$ 0.00015		256,010
99	Volumetric Fee - Cat. B	301,556,580 Therms	\$ 0.00015	45,233	301,556,580 Therms	\$ 0.00015		45,233
100	LargeTransportation - Rate 428 Sales			\$ 26,355,285				\$ 43,354,143
101	Universal Service Fund Rider - Rider 473			\$ -				
102	Adjustment of Charges for TDSIC			\$ 749,464				
103	Total Rider			\$ 749,464				\$ -
104			Total Margin	27,104,749		Total Margin		43,354,143
105			Revenue Proof	\$ 27,104,749		Target Margin		\$ 43,354,143
106			Over/(Under)	\$ -		Over/(Under)		\$ -
107	C&I Off-Peak Interruptible - Rate 434A							
108	Customer Charge							
109	Customer Charge - 434A	30	\$ 350.00	\$ 10,500.00	30	\$ 637.00	\$	19,110
110	Minimum Charge				0		\$	-
111	Total Customer Charge	30		\$ 10,500.00	30		\$	19,110
112	Delivery Charge							
113	Off-Peak Interrpt Gas	0 Therms	\$ -	0	0 Therms		\$	-
114	Off-Peak Interrpt Contract	2,105,207 Therms	\$ 0.17000	\$ 357,885.23	2,105,207 Therms	\$ 0.15508	\$	326,469
115	Total Delivery Charge	2,105,207 Therms		\$ 357,885.23	2,105,207 Therms		\$	326,469
116	C&I Off-Peak Interruptible - Rate 434A Sales			\$ 368,385				\$ 345,579
117	Gas Cost Adjustment Rider (GCA) - Rider 470							
118	Universal Service Fund Rider - Rider 473							
119	Total Rider			\$ -				\$ -
120			Total Margin	\$ 368,385		Total Margin	\$	345,579
121			Revenue Proof	\$ 368,385		Target Margin	\$	345,579
122			Over/(Under)	\$ -		Over/(Under)	\$	-
123	General Transportation & Balancing - Rate 438							
124	Customer Charge	1,128	\$ 250.00	\$ 282,000	1,128	\$ 750.00	\$	846,000
125	Administrative Charges for Balancing Services	1,090	\$ 200.00	\$ 218,069	1,090	\$ 365.00	\$	397,975
126	Demand Charge				2,074,885	\$ 0.3099	\$	642,944
127	Transportation charge							
128	First 6,000 Therms	6,556,648 Therms	\$ 0.05658	\$ 370,978	6,556,648 Therms	\$ 0.05169	\$	338,900
129	Next 24,000 Therms	24,063,992 Therms	\$ 0.05358	\$ 1,289,359	24,063,992 Therms	\$ 0.05069	\$	1,219,754
130	Next 60,000 Therms	18,267,408 Therms	\$ 0.04198	\$ 766,874	18,267,408 Therms	\$ 0.04969	\$	907,670
131	All Over 90,000 Therms	1,850,590 Therms	\$ 0.03698	\$ 68,436	1,850,590 Therms	\$ 0.04869	\$	90,101
132	Total Transportation Charge	50,738,639 Therms		\$ 2,495,646	50,738,639 Therms		\$	2,556,425
133	General Transportation & Balancing - Rate 438 Sales			\$ 2,995,715				\$ 4,443,344
134	Pooling Agreement Fee	1,006	\$ 50.00	\$ 50,313	1,006	\$ 60.00	\$	60,376
135	Company Nomination Exchange	450	\$ 10.00	\$ 4,500	450	\$ 10.00	\$	4,500
136	Pool Administration Charge	105	\$ 250.00	\$ 26,178	105	\$ 250.00	\$	26,178
137	Pool Participation Fee	877	\$ 25.00	\$ 21,927	877	\$ 25.00	\$	21,927
138	Imbalance Net-Admin Charge	38,330,520 Therms	\$ 0.00015	\$ 5,750	38,330,520 Therms	\$ 0.00015	\$	5,750
139	Universal Service Fund Rider - Rider 473			\$ -				
140	Adjustment of Charges for TDSIC			\$ 251,063				
141	Total Rider			\$ 359,731				\$ 118,730
142			Total Margin	\$ 3,355,446		Total Margin	\$	4,562,074
143			Revenue Proof	\$ 3,355,446		Target Margin	\$	4,562,074
144			Over/(Under)	\$ -		Over/(Under)	\$	-
145	All Classes							
146			Total Margin	\$ 291,797,594		Total Margin	\$	403,126,090
147			Revenue Proof	\$ 291,797,594		Target Margin	\$	403,126,090
148			Over/(Under)	\$ -		Over/(Under)	\$	-

**Northern Indiana Public Service Company
Residential Customer Monthly Bill Comparison**

Line No.	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
1	Description	January	February	March	April	May	June	July	August	September	October	November	December	Total
2	Volumes (therms)	147	155	118	89	49	26	18	17	17	20	48	119	824
3	Current Revenues	90.91	94.99	75.04	59.51	37.77	24.97	20.95	20.00	20.22	21.84	37.21	75.66	579.06
4	Proposed Revenues	98.83	102.88	83.08	67.65	46.07	33.37	29.37	28.43	28.65	30.26	45.52	83.69	677.81
5	Difference	7.92	7.89	8.03	8.15	8.30	8.40	8.43	8.43	8.43	8.42	8.31	8.03	98.74
6	Avg. Monthly Increase	8.23												

	Residential - Rate 411					
7	(A)	(B)	(C)	(D)	(E)	(F)
8	Customer Charge Delivery Charge TDSIC Charge GDSM Charge Average Gas Chrg	Present Rates	Proposed Rates			
9						
10		\$11.00	\$19.50			
11		\$0.09898	\$0.12840			
12		\$0.03337	\$0.00000			
13		\$0.00668	\$0.00668			
14		\$0.40352	\$0.40352			
15	ANNUAL CONSUMPTION (Therms)	REVENUE AT PRESENT RATES	REVENUE AT PROPOSED RATES	REVENUE		Customers
16				AMOUNT	PERCENT	
17						
18	100	\$ 186	\$ 288	\$ 102	54.55%	7,038
19	200	\$ 241	\$ 342	\$ 101	42.08%	8,924
20	300	\$ 295	\$ 396	\$ 101	34.20%	17,211
21	400	\$ 349	\$ 449	\$ 100	28.77%	31,509
22	500	\$ 403	\$ 503	\$ 100	24.80%	52,393
23	600	\$ 458	\$ 557	\$ 100	21.78%	74,384
24	700	\$ 512	\$ 611	\$ 99	19.39%	87,508
25	800	\$ 566	\$ 665	\$ 99	17.46%	85,821
26	900	\$ 620	\$ 719	\$ 98	15.87%	73,327
27	1,000	\$ 675	\$ 773	\$ 98	14.53%	57,873
28	1,100	\$ 729	\$ 826	\$ 98	13.40%	42,767
29	1,200	\$ 783	\$ 880	\$ 97	12.42%	30,566
30	1,300	\$ 837	\$ 934	\$ 97	11.57%	21,714
31	1,400	\$ 892	\$ 988	\$ 96	10.82%	15,236
32	1,500	\$ 946	\$ 1,042	\$ 96	10.16%	10,595
33	1,600	\$ 1,000	\$ 1,096	\$ 96	9.57%	7,362
34	1,700	\$ 1,054	\$ 1,150	\$ 95	9.04%	5,112
35	1,800	\$ 1,109	\$ 1,203	\$ 95	8.56%	3,888
36	1,900	\$ 1,163	\$ 1,257	\$ 94	8.13%	2,707
37	2,000	\$ 1,217	\$ 1,311	\$ 94	7.73%	1,985

**Northern Indiana Public Service Company
Bill Impacts**

Multi-Family - Rate 415						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
29	Customer Charge	\$12.50	\$17.50			
30	Delivery Charge					
31	First 45 therms	\$0.16526	\$0.15427			
32	Over 45 therms	\$0.11526	\$0.15427			
33	TDSIC Charge	\$0.04871	\$0.00000			
34	GDSM Charge	\$0.00283	\$0.00283			
35	Average Gas Cost	\$0.40352	\$0.40352			
36	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
37	CONSUMPTION	PRESENT	PROPOSED			
38	(Therms)	RATES	RATES	AMOUNT	PERCENT	Customers
39	100	\$ 212	\$ 266	\$ 54	25.48%	44
40	500	\$ 456	\$ 490	\$ 34	7.54%	381
41	800	\$ 626	\$ 658	\$ 32	5.14%	509
42	1,000	\$ 742	\$ 771	\$ 29	3.88%	417
43	1,500	\$ 1,029	\$ 1,051	\$ 22	2.16%	1,158
44	2,000	\$ 1,315	\$ 1,331	\$ 16	1.24%	778
45	2,500	\$ 1,602	\$ 1,612	\$ 10	0.61%	429
46	3,000	\$ 1,888	\$ 1,892	\$ 4	0.21%	195
47	3,500	\$ 2,171	\$ 2,172	\$ 1	0.06%	98
48	4,000	\$ 2,458	\$ 2,452	\$ (6)	-0.24%	50
49	5,000	\$ 3,029	\$ 3,013	\$ (16)	-0.51%	38
50	6,000	\$ 3,599	\$ 3,574	\$ (25)	-0.70%	11
51	9,000	\$ 5,310	\$ 5,256	\$ (54)	-1.02%	14

**Northern Indiana Public Service Company
Bill Impacts**

Small General Service - Rate 421						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
52	Customer Charge	\$30.00	\$53.00			
53	Delivery Charge	\$0.09079	\$0.13101			
54	TDSIC Charge	\$0.02302	\$0.00000			
55	GDSM Charge	\$0.00522	\$0.00522			
56	Average Gas Cost	\$0.41063	\$0.41063			
57	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
58	CONSUMPTION	PRESENT	PROPOSED			
59	(Therms)	RATES	RATES	AMOUNT PERCENT		Customers
60	500	\$ 625	\$ 909	\$ 285 45.55%		8,525
61	1,500	\$ 1,154	\$ 1,456	\$ 302 26.14%		15,556
62	2,500	\$ 1,684	\$ 2,003	\$ 319 18.94%		6,978
63	3,500	\$ 2,214	\$ 2,550	\$ 336 15.19%		4,076
64	4,000	\$ 2,479	\$ 2,823	\$ 345 13.91%		1,486
65	5,000	\$ 3,008	\$ 3,370	\$ 362 12.03%		2,224
66	7,500	\$ 4,332	\$ 4,738	\$ 405 9.35%		3,295
67	10,000	\$ 5,657	\$ 6,105	\$ 448 7.92%		1,936
68	12,000	\$ 6,716	\$ 7,198	\$ 482 7.18%		981
69	14,000	\$ 7,775	\$ 8,292	\$ 517 6.65%		741
70	16,000	\$ 8,835	\$ 9,386	\$ 551 6.24%		569
71	18,000	\$ 9,894	\$ 10,480	\$ 586 5.92%		424
72	19,500	\$ 10,688	\$ 11,300	\$ 612 5.72%		275
73	25,000	\$ 13,602	\$ 14,308	\$ 706 5.19%		720
74	30,000	\$ 16,250	\$ 17,042	\$ 792 4.88%		450
75	35,000	\$ 18,898	\$ 19,776	\$ 878 4.65%		320
76	40,000	\$ 21,546	\$ 22,511	\$ 964 4.48%		198
77	45,000	\$ 24,195	\$ 25,245	\$ 1,050 4.34%		184
78	50,000	\$ 26,843	\$ 27,979	\$ 1,136 4.23%		137
79	60,000	\$ 32,140	\$ 33,448	\$ 1,308 4.07%		197
80	70,000	\$ 37,436	\$ 38,917	\$ 1,480 3.95%		135
81	80,000	\$ 42,733	\$ 44,385	\$ 1,653 3.87%		83
82	90,000	\$ 48,030	\$ 49,854	\$ 1,825 3.80%		56

**Northern Indiana Public Service Company
Bill Impacts**

General Service Large - Rate 425						
Line No.	(a)	(b)	(c)	(d)	(e)	(f)
		Present Rates	Proposed Rates			
83	Customer Charge	\$250.00	\$400.00			
	Delivery Charge					
84	First 6,000 Therms	\$0.05658	\$0.08575			
85	Next 24,000 Therms	\$0.05358	\$0.07575			
86	Next 60,000 Therms	\$0.04658	\$0.05575			
87	All over 90,000 Therms	\$0.04158	\$0.05075			
88	TDSIC Charge	\$0.01227	\$0.00000			
89	GDSM Charge	\$0.00522	\$0.00522			
90	Average Gas Cost	\$0.41063	\$0.41063			
91	ANNUAL	REVENUE AT	REVENUE AT	REVENUE CHANGE		
92	CONSUMPTION	PRESENT	PROPOSED			
93	(Therms)	RATES	RATES	AMOUNT	PERCENT	Customers
94	1,250	\$ 3,606	\$ 5,427	\$ 1,821	50.50%	3
95	2,500	\$ 4,212	\$ 6,054	\$ 1,842	43.74%	8
96	5,000	\$ 5,424	\$ 7,308	\$ 1,885	34.75%	3
97	10,000	\$ 7,847	\$ 9,816	\$ 1,969	25.09%	6
98	20,000	\$ 12,694	\$ 14,832	\$ 2,138	16.84%	7
99	30,000	\$ 17,530	\$ 19,810	\$ 2,280	13.01%	5
100	40,000	\$ 22,387	\$ 24,860	\$ 2,473	11.05%	8
101	50,000	\$ 27,212	\$ 29,803	\$ 2,591	9.52%	13
102	60,000	\$ 32,044	\$ 34,769	\$ 2,725	8.51%	25
103	70,000	\$ 36,874	\$ 39,730	\$ 2,855	7.74%	34
104	80,000	\$ 41,676	\$ 44,593	\$ 2,918	7.00%	33
105	90,000	\$ 46,539	\$ 49,665	\$ 3,125	6.72%	41
106	100,000	\$ 51,361	\$ 54,596	\$ 3,235	6.30%	23
107	125,000	\$ 63,429	\$ 66,970	\$ 3,541	5.58%	52
108	150,000	\$ 75,471	\$ 79,261	\$ 3,790	5.02%	54
109	175,000	\$ 87,439	\$ 91,323	\$ 3,884	4.44%	44
110	200,000	\$ 99,556	\$ 103,841	\$ 4,285	4.30%	33
111	250,000	\$ 123,596	\$ 128,292	\$ 4,696	3.80%	47
112	300,000	\$ 147,657	\$ 152,803	\$ 5,146	3.49%	30
113	350,000	\$ 171,395	\$ 176,391	\$ 4,996	2.92%	30
114	400,000	\$ 194,784	\$ 198,983	\$ 4,198	2.16%	11
115	450,000	\$ 219,314	\$ 224,834	\$ 5,520	2.52%	10
116	500,000	\$ 243,016	\$ 248,355	\$ 5,339	2.20%	8
117	550,000	\$ 266,822	\$ 272,103	\$ 5,281	1.98%	7
118	700,000	\$ 337,495	\$ 341,987	\$ 4,493	1.33%	1

Northern Indiana Public Service Company
Class Cost of Service Study
Phase II Test Year Ending 12/31/2018

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. DP 428a	Large Transp. HP 428b	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Rate Base										
1	Plant in Service	\$ 2,931,233,313	\$ 1,830,942,419	\$ 16,025,307	\$ 518,537,316	\$ 80,180,483	\$ 143,137,746	\$ 317,900,535	\$ 198,060	\$ 24,311,447
2	Accumulated Reserve	(1,524,896,207)	(1,070,451,405)	(8,944,369)	(270,977,202)	(35,265,899)	(49,652,774)	(80,219,617)	(116,344)	(9,268,595)
3	Other Rate Base Items	113,872,189	64,802,307	614,649	32,300,618	10,261,569	1,695,408	3,916,436	1,914	279,289
4	Total Rate Base	\$ 1,520,209,295	\$ 825,293,322	\$ 7,695,586	\$ 279,860,732	\$ 55,176,153	\$ 95,180,380	\$ 241,597,354	\$ 83,630	\$ 15,322,140
Margin at Current Rates										
5	Delivery Sales Margin	253,890,377	161,226,006	1,748,693	52,486,271	8,601,429	6,258,922	20,096,362	368,385	3,104,307
6	TDSIC Margin	30,889,257	20,761,654	368,794	7,263,627	1,494,654	78,273	671,191	-	251,063
7	Other Riders Excluding TDSIC	7,017,960	4,605,622	53,977	1,910,637	447,724	-	-	-	0
8	Miscellaneous Revenues Margin	6,653,764	4,277,223	46,343	980,929	159,243	133,000	1,022,750	2,109	32,167
9	Total Margin	\$ 298,451,358	\$ 190,870,506	\$ 2,217,806	\$ 62,641,465	\$ 10,703,051	\$ 6,470,196	\$ 21,790,303	\$ 370,494	\$ 3,387,538
10	Total Margin Exclucing Misc. Revenues	\$ 291,797,594	\$ 186,593,282	\$ 2,171,463	\$ 61,660,536	\$ 10,543,808	\$ 6,337,196	\$ 20,767,553	\$ 368,385	\$ 3,355,371
11	Gas Costs (Trackable)	316,748,872	207,808,679	2,403,993	84,370,019	20,731,302	1,434,877	-	-	-
12	Total Sales Revenue	\$ 615,200,230	\$ 398,679,185	\$ 4,621,799	\$ 147,011,484	\$ 31,434,353	\$ 7,905,073	\$ 21,790,303	\$ 370,494	\$ 3,387,538
Expenses at Current Rates										
13	Operation and Maintenance	201,760,740	139,383,666	1,168,501	35,128,025	4,423,958	6,346,646	13,066,430	65,456	2,178,060
14	Amortization and Depreciation Expense	75,739,074	50,795,598	423,433	12,616,872	1,767,496	3,065,114	6,523,809	5,304	541,449
15	Taxes Other Than Income	26,901,840	17,573,018	161,851	4,933,996	720,673	949,287	2,283,428	14,808	264,780
16	Other Tax Adjustments	-	-	-	-	-	-	-	-	-
17	Income Taxes	(10,106,527)	(9,535,723)	95,403	1,419,293	821,641	(1,676,312)	(1,350,412)	84,052	35,530
18	Total Expenses - Current	\$ 294,295,128	\$ 198,216,559	\$ 1,849,189	\$ 54,098,186	\$ 7,733,768	\$ 8,684,735	\$ 20,523,255	\$ 169,618	\$ 3,019,818
19	Operating Income - Current	\$ 4,156,230	\$ (7,346,053)	\$ 368,618	\$ 8,543,279	\$ 2,969,283	\$ (2,214,539)	\$ 1,267,048	\$ 200,876	\$ 367,719
20	Current Rate of Return	0.27%	-0.89%	4.79%	3.05%	5.38%	-2.33%	0.52%	240.20%	2.40%
Present Revenue Requirement at Equal Rates of Return										
21	Present Return	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
22	Present Operating Income @ Equal Return	\$ 4,156,230	\$ 2,256,340	\$ 21,040	\$ 765,135	\$ 150,851	\$ 260,222	\$ 660,524	\$ 229	\$ 41,891
23	Income Taxes	(10,106,527)	(5,486,645)	(51,161)	(1,860,546)	(366,817)	(632,770)	(1,606,167)	(556)	(101,863)
24	Other Expenses	304,401,655	207,752,282	1,753,785	52,678,893	6,912,127	10,361,047	21,873,666	85,567	2,984,288
25	Total Margin @ Equal Rates of Return	\$ 298,451,358	\$ 204,521,977	\$ 1,723,664	\$ 51,583,482	\$ 6,696,160	\$ 9,988,498	\$ 20,928,023	\$ 85,239	\$ 2,924,315
26	Delivery Margin @ Equal Rates of Return	\$ 291,797,594	\$ 200,244,753	\$ 1,677,320	\$ 50,602,552	\$ 6,536,917	\$ 9,855,498	\$ 19,905,273	\$ 83,131	\$ 2,892,149
27	Present (Subsidies)/Excesses	\$ (0)	\$ (13,651,471)	\$ 494,143	\$ 11,057,983	\$ 4,006,891	\$ (3,518,302)	\$ 862,280	\$ 285,255	\$ 463,222

Northern Indiana Public Service Company
Class Cost of Service Study
Phase II Test Year Ending 12/31/2018

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. DP 428a	Large Transp. HP 428b	C&I Off-Peak Interruptible 434	General Transp. 438
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Revenue Requirement at Equal Rates of Return										
28	Required Return	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%
29	Required Operating Income	\$ 104,894,469	\$ 56,945,254	\$ 530,996	\$ 19,310,396	\$ 3,807,156	\$ 6,567,448	\$ 16,670,222	\$ 5,770	\$ 1,057,228
30	Operating Income (Deficiency) / Surplus	\$ (100,738,239)	\$ (64,291,307)	\$ (162,378)	\$ (10,767,117)	\$ (837,873)	\$ (8,781,987)	\$ (15,403,174)	\$ 195,105	\$ (689,509)
Expenses at Required Return										
31	Operation and Maintenance	\$ 201,760,740	\$ 139,383,666	\$ 1,168,501	\$ 35,128,025	\$ 4,423,958	\$ 6,346,646	\$ 13,066,430	\$ 65,456	\$ 2,178,060
32	Uncollectible Account Increase	419,808	\$ 372,244	\$ 2,499	\$ 43,691	\$ 1,331	\$ 27	\$ 16	\$ -	\$ -
33	Amortization and Depreciation Expense	75,739,074	50,795,598	423,433	12,616,872	1,767,496	3,065,114	6,523,809	5,304	541,449
34	Taxes Other Than Income	26,901,840	17,573,018	161,851	4,933,996	720,673	949,287	2,283,428	14,808	264,780
35	Other Tax Adjustments	-	-	-	-	-	-	-	-	-
36	Tax Increases	2,117,717	1,344,797	14,586	437,792	71,745	52,206	167,625	3,073	25,893
37	Income Taxes	24,751,913	13,437,353	125,299	4,556,668	898,373	1,549,719	3,933,667	1,362	249,474
38	Total Expenses - Required	\$ 331,691,093	\$ 222,906,676	\$ 1,896,169	\$ 57,717,043	\$ 7,883,576	\$ 11,962,998	\$ 25,974,974	\$ 90,001	\$ 3,259,655
39	Total Revenue Requirement at Equal Return	\$ 436,585,562	\$ 279,851,930	\$ 2,427,164	\$ 77,027,439	\$ 11,690,732	\$ 18,530,446	\$ 42,645,196	\$ 95,772	\$ 4,316,883
40	Current Miscellaneous Revenues Margin	\$ 6,653,764	\$ 4,277,223	\$ 46,343	\$ 980,929	\$ 159,243	\$ 133,000	\$ 1,022,750	\$ 2,109	\$ 32,167
41	Additional Miscellaneous Revenues Margin	\$ 201,259	\$ 189,400	\$ 1,324	\$ 10,504	\$ 16	\$ 2	\$ -	\$ 9	\$ 3
42	Delivery Margin @ Equal Rates of Return	\$ 429,730,539	\$ 275,385,307	\$ 2,379,497	\$ 76,036,005	\$ 11,531,473	\$ 18,397,444	\$ 41,622,446	\$ 93,653	\$ 4,284,714
43	Revenue (Deficiency)/Surplus	\$ (138,134,204)	\$ (88,792,025)	\$ (208,034)	\$ (14,375,470)	\$ (987,665)	\$ (12,060,248)	\$ (20,854,893)	\$ 274,732	\$ (929,343)
44	Rate Schedule Margin as Proposed	\$ 429,730,539	\$ 273,450,242	\$ 2,379,497	\$ 88,962,126	\$ 13,491,823	\$ 10,805,325	\$ 35,409,990	\$ 368,385	\$ 4,863,150
45	Miscellaneous Revenues Margin	6,855,023	4,466,623	47,668	991,434	159,259	133,002	1,022,750	2,118	32,169
46	Total Margin as Proposed	\$ 436,585,562	\$ 277,916,865	\$ 2,427,164	\$ 89,953,560	\$ 13,651,082	\$ 10,938,328	\$ 36,432,739	\$ 370,504	\$ 4,895,320
47	Current Revenue to Cost Ratio	0.68	0.68	0.91	0.81	0.91	0.34	0.50	3.93	0.78
48	Current Parity Ratio	1.00	1.00	1.34	1.19	1.35	0.51	0.73	5.79	1.15
49	Proposed Revenue to Cost Ratio	1.00	0.99	1.00	1.17	1.17	0.59	0.85	3.93	1.14
50	Proposed Margin Increase	\$ 138,134,204	\$ 86,856,960	\$ 208,034	\$ 27,301,591	\$ 2,948,015	\$ 4,468,129	\$ 14,642,436	\$ -	\$ 1,507,779
51	Percent Margin Change	47.34%	46.55%	9.58%	44.28%	27.96%	70.51%	70.51%	0.00%	44.94%
52	2018 Estimated Gas Costs - See Attach. 15-H	\$ 434,107,206	\$ 253,286,838	\$ 3,081,831	\$ 128,440,152	\$ 47,569,477			\$ 864,453	\$ 864,453
53	Total Bill Before Increase	\$ 698,800,051	\$ 439,880,120	\$ 5,253,294	\$ 190,100,688	\$ 58,113,285			\$ 1,232,839	\$ 4,219,824
54	Percent Total Bill Increase	19.77%	19.75%	3.96%	14.36%	5.07%			0.00%	35.73%
55	Income Prior to Taxes	\$ 101,805,970	\$ 53,179,615	\$ 513,926	\$ 31,615,761	\$ 5,645,120	\$ (1,235,789)	\$ 9,921,881	\$ 280,317	\$ 1,601,678
56	Income Taxes	\$ 24,751,913	\$ 12,929,470	\$ 124,950	\$ 7,686,686	\$ 1,372,489	\$ (300,455)	\$ 2,412,290	\$ 68,153	\$ 389,413
57	Operating Income	\$ 104,894,469	\$ 55,518,072	\$ 531,344	\$ 29,106,498	\$ 5,293,391	\$ 825,503	\$ 11,979,142	\$ 213,711	\$ 1,495,725
58	Proposed Return	6.90%	6.73%	6.90%	10.40%	9.59%	0.87%	4.96%	255.54%	9.76%

Northern Indiana Public Service Company
Proposed Test Year Without Gas
Functional Revenue Requirement

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. DP 428a	Large Transp. HP 428b	C&I Off-Peak Interruptible 434	C&I Off-Peak Interruptible 434
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(h)	(h)
Storage										
1	Demand	\$ 7,530,294	\$ 4,814,947	\$ 57,966	\$ 2,213,118	\$ 444,262	\$ -	\$ -	\$ -	\$ -
2	Commodity	\$ 7,123,913	\$ 3,934,082	\$ 38,517	\$ 2,330,198	\$ 821,116	\$ -	\$ -	\$ -	\$ -
3	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Sub-total	\$ 14,654,206	\$ 8,749,029	\$ 96,483	\$ 4,543,317	\$ 1,265,378	\$ -	\$ -	\$ -	\$ -
LNG										
5	Demand	\$ 7,582,353	\$ 4,767,828	\$ 56,996	\$ 2,221,918	\$ 535,610	\$ -	\$ -	\$ -	\$ -
6	Commodity	\$ 3,188,678	\$ 1,760,903	\$ 17,240	\$ 1,043,001	\$ 367,533	\$ -	\$ -	\$ -	\$ -
7	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Sub-total	\$ 10,771,031	\$ 6,528,731	\$ 74,236	\$ 3,264,920	\$ 903,143	\$ -	\$ -	\$ -	\$ -
Transmission										
9	Demand	\$ 81,968,293	\$ 25,681,066	\$ 307,758	\$ 12,041,978	\$ 3,012,662	\$ 7,364,087	\$ 32,383,311	\$ -	\$ 1,177,429
10	Commodity	\$ 2,115,016	\$ 383,948	\$ 4,672	\$ 194,725	\$ 75,184	\$ 148,708	\$ 1,275,169	\$ 1,299	\$ 31,310
11	Customer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Sub-total	\$ 84,083,309	\$ 26,065,014	\$ 312,431	\$ 12,236,703	\$ 3,087,847	\$ 7,512,795	\$ 33,658,480	\$ 1,299	\$ 1,208,739
Distribution										
13	Demand	\$ 71,735,186	\$ 36,714,514	\$ 427,733	\$ 16,064,536	\$ 3,613,608	\$ 8,255,951	\$ 5,538,039	\$ 15,341	\$ 1,105,464
14	Commodity	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Customer	\$ 255,341,830	\$ 201,794,642	\$ 1,516,281	\$ 40,917,963	\$ 2,820,756	\$ 2,761,699	\$ 3,448,676	\$ 79,132	\$ 2,002,680
16	Sub-total	\$ 327,077,015	\$ 238,509,156	\$ 1,944,014	\$ 56,982,499	\$ 6,434,364	\$ 11,017,650	\$ 8,986,715	\$ 94,473	\$ 3,108,144
TOTAL										
17	Demand	\$ 168,816,125	\$ 71,978,355	\$ 850,454	\$ 32,541,551	\$ 7,606,142	\$ 15,620,038	\$ 37,921,350	\$ 15,341	\$ 2,282,893
18	Commodity	\$ 12,427,607	\$ 6,078,934	\$ 60,429	\$ 3,567,925	\$ 1,263,833	\$ 148,708	\$ 1,275,169	\$ 1,299	\$ 31,310
19	Customer	\$ 255,341,830	\$ 201,794,642	\$ 1,516,281	\$ 40,917,963	\$ 2,820,756	\$ 2,761,699	\$ 3,448,676	\$ 79,132	\$ 2,002,680
20	TOTAL REVENUE REQUIREMENT	\$ 436,585,562	\$ 279,851,930	\$ 2,427,164	\$ 77,027,439	\$ 11,690,732	\$ 18,530,446	\$ 42,645,196	\$ 95,772	\$ 4,316,883
Functional Revenue Requirement After Other Revenue Credit										
	Other Revenue	\$ 6,855,023	\$ 4,466,623	\$ 47,668	\$ 991,434	\$ 159,259	\$ 133,002	\$ 1,022,750	\$ 2,118	\$ 32,169
TOTAL										
21	Demand	\$ 166,089,213	\$ 70,829,533	\$ 833,751	\$ 32,122,703	\$ 7,502,526	\$ 15,507,925	\$ 37,011,891	\$ 15,002	\$ 2,265,881
22	Commodity	\$ 12,234,345	\$ 5,981,910	\$ 59,243	\$ 3,522,001	\$ 1,246,616	\$ 147,641	\$ 1,244,587	\$ 1,270	\$ 31,076
23	Customer	\$ 251,406,981	\$ 198,573,865	\$ 1,486,503	\$ 40,391,301	\$ 2,782,330	\$ 2,741,877	\$ 3,365,968	\$ 77,381	\$ 1,987,756
24	TOTAL REVENUE REQUIREMENT	\$ 429,730,539	\$ 275,385,307	\$ 2,379,497	\$ 76,036,005	\$ 11,531,473	\$ 18,397,444	\$ 41,622,446	\$ 93,653	\$ 4,284,714

Northern Indiana Public Service Company
Proposed Test Year Without Gas
Unit Costs

Line No.	Description	Total Company	Res 411	Multi-Fam 415	Gen. Serv. Small 421	Gen. Serv. Large 425	Large Transp. DP 428a	Large Transp. HP 428b	C&I Off-Peak Interruptible 434	C&I Off-Peak Interruptible 434
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(h)	(h)
Storage										
1	Demand (per Design Day)	\$ 0.3517	\$ 0.6197	\$ 0.6310	\$ 0.6161	\$ 0.5291	\$ -	\$ -	\$ -	\$ -
2	Commodity (per therm)	\$ 0.0021	\$ 0.0063	\$ 0.0051	\$ 0.0074	\$ 0.0067	\$ -	\$ -	\$ -	\$ -
3	Customer (per customer per month)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Demand and Commodity (per therm)	\$ 0.0043	\$ 0.0141	\$ 0.0127	\$ 0.0144	\$ 0.0104	\$ -	\$ -	\$ -	\$ -
Transmission										
5	Demand (per Design Day)	\$ 3.8281	\$ 3.3051	\$ 3.3503	\$ 3.3523	\$ 3.5880	\$ 3.5595	\$ -	\$ -	\$ -
6	Commodity (per therm)	\$ 0.0006	\$ 0.000617	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006
7	Customer (per customer per month)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Demand and Commodity (per therm)	\$ 0.0245	\$ 0.0419	\$ 0.0413	\$ 0.0388	\$ 0.0253	\$ 0.0312	\$ 0.0163	\$ 0.0006	\$ 0.0238
Distribution										
9	Demand (per Design Day)	\$ 3.3502	\$ 4.7251	\$ 4.6563	\$ 4.4722	\$ 4.3037	\$ 3.9906	\$ -	\$ -	\$ -
10	Commodity (per therm)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Customer (per customer per month)	\$ 25.73	\$ 22.28	\$ 24.94	\$ 51.50	\$ 345.56	\$ 2,328.58	\$ 4,954.99	\$ 2,637.72	\$ 1,775.43
12	Demand and Commodity (per therm)	\$ 0.0209	\$ 0.0590	\$ 0.0565	\$ 0.0509	\$ 0.0297	\$ 0.0343	\$ 0.0027	\$ 0.0073	\$ 0.0218
TOTAL										
13	Demand (per Design Day)	\$ 7.5299	\$ 8.6498	\$ 8.6376	\$ 8.4406	\$ 8.4208	\$ 7.5501	\$ -	\$ -	\$ -
14	Commodity (per therm)	\$ 0.0027	\$ 0.0069	\$ 0.0057	\$ 0.0080	\$ 0.0074	\$ 0.0006	\$ 0.0006	\$ 0.0006	\$ 0.0006
15	Customer (per customer per month)	\$ 25.73	\$ 22.28	\$ 24.94	\$ 51.50	\$ 345.56	\$ 2,328.58	\$ 4,954.99	\$ 2,637.72	\$ 1,775.43
	Demand and Customer (per customer per month)	\$ 42.07	\$ 29.74	\$ 38.16	\$ 91.26	\$ 1,259.96	\$ 15,387.69	\$ 58,014.17	\$ 3,079.43	\$ 3,770.96
16	Demand and Commodity (per therm)	\$ 0.0497	\$ 0.1150	\$ 0.1105	\$ 0.1041	\$ 0.0654	\$ 0.0654	\$ 0.0190	\$ 0.0079	\$ 0.0456
17	DESIGN DAY PEAK	21,412,453	7,770,154	91,861	3,592,121	839,647	2,068,842	6,759,882	0	289,945
18	TOTAL THROUGHPUT	3,427,490,303	622,207,258	7,571,986	315,561,686	121,839,923	240,989,554	2,066,476,050	2,105,207	50,738,639
19	NO. OF CUSTOMERS * 12	9,924,627	9,058,064	60,805	794,556	8,163	1,186	696	30	1,128

Northern Indiana Public Service Company
Revenue Requirement Mitigation - Alternative
Phase II Test Year Ending 12/31/2018

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Line	Class		Pro Forma Rate Schedule Margin Including Riders	Proposed Margin for Equal Rates of Return	Revenue to Cost Ratio	ACOSS Proposed Increase (Decrease) @ 6.74% ROR	ACOSS Rate Increase	Proposed Increase (Decrease) - Post Apportionment	Proposed Revenue to Cost Ratio	Proposed Margin Increase %	Proposed Margin	Less Pooling and Nomination Revenues	Targeted Base Rate Margin
1	Large Transp.	428	27,104,749	60,019,889	0.45	32,915,140	121.44%	19,110,566	0.77	70.51%	46,215,315	875,254	45,340,061
2	Large Transp. - DP	428a	6,337,196	\$ 18,397,444	0.34	12,060,248	190.31%	4,468,129	0.59	70.51%	10,805,325	547,419	10,257,906
3	Large Transp. - HP	428b	20,767,553	\$ 41,622,446	0.50	20,854,893	100.42%	14,642,436	0.85	70.51%	35,409,990	327,835	35,082,154
4	428a and 428b Total		27,104,749	60,019,889		32,915,140		19,110,566			46,215,315	875,254	45,340,061
5	Delta		-	0		0		-			-	(0)	-

Note: Column C and D are from ACOSS Results.

The total proposed margin includes revenues from pooling and nomination charges which is not discernable between the distribution pressure and high pressure customers.
This amount was credited to the distribution pressure and high pressure customers prior to setting the Targeted Base Rate Margin for each group.

Line No.	(A) Description	(B) 2018 Forecasted Billing Determinants (Bills or Therms)	(C) 400 Series Rate	(D) 2018 Total Revenue ("Margins")	(E) 2018 Forecasted Billing Determinants (Therms/Bills)	(F) Proposed Rate	(G) Total Revenue ("Margins") 2018
1	LargeTransportation - Rate 428 - Distribution Pressure						
2	Customer Charge	1177	\$ 350.00	\$ 411,977	1177	\$ 1,000.00	\$ 1,177,078
3	Demand Charge				9,765,042	\$ 0.2332	\$ 2,277,058
4	Administrative Charges for Balancing Services						
5	Category A & C	53	\$ 1,325.00	69,994	53	\$ 1,590.00	83,992
6	Category B	1,124	\$ 550.00	617,967	1,124	\$ 660.00	741,560
7	Total Administrative Charges for Balancing	1,176		687,960	1,176		825,553
8	Transportation charge						
9	First 300,000 Therms	169,479,808 Therms	\$ 0.02565	4,346,317	169,479,808 Therms	\$ 0.03020	5,118,904
10	All Over 300,000 Therms	71,509,746 Therms	\$ 0.00765	546,695	71,509,746 Therms	\$ 0.01104	789,575
11	Total Transportation Charge	240,989,554 Therms		4,893,012	240,989,554 Therms		5,908,479
12	Pooling Agreement Fee	1,162	\$ 50.00	58,115	1,162	\$ 60.00	69,738
24	LargeTransportation - Rate 428 Sales			\$ 6,051,065			\$ 10,257,906
25	Universal Service Fund Rider - Rider 473			\$ -			
26	Adjustment of Charges for TDSIC	240,989,554 Therms	0.000325	\$ 78,273			
27	Total Rider			\$ 78,273			\$ -
28		Total Margin		6,129,338	Total Margin		10,257,906
29					Target Margin		\$ 10,257,906
30					Over/(Under)		\$ -
31	LargeTransportation - Rate 428 - High Pressure						
32	Customer Charge	705	\$ 350.00	\$ 246,723	705	\$ 1,000.00	\$ 704,922
33	Demand Charge				73,639,646	\$ 0.1069	\$ 7,871,899
34	Administrative Charges for Balancing Services						
35	Category A & C	282	\$ 1,325.00	374,309	282	\$ 1,590.00	449,171
36	Category B	423	\$ 550.00	232,883	423	\$ 660.00	279,460
37	Total Administrative Charges for Balancing	706		607,192	706		728,630
38	Transportation charge						
39	First 300,000 Therms	152,516,253 Therms	\$ 0.02565	3,911,286	152,516,253 Therms	\$ 0.03020	4,605,961
40	All Over 300,000 Therms	1,913,959,797 Therms	\$ 0.00765	14,632,302	1,913,959,797 Therms	\$ 0.01104	21,132,987
41	Total Transportation Charge	2,066,476,050 Therms		18,543,588	2,066,476,050 Therms		25,738,948
42	Pooling Agreement Fee	629	\$ 50.00	31,463	629	\$ 60.00	37,756
54	LargeTransportation - Rate 428 Sales			\$ 19,428,966			\$ 35,082,154
55	Universal Service Fund Rider - Rider 473			\$ -			
56	Adjustment of Charges for TDSIC	2,066,476,050 Therms	0.000325	\$ 671,191			
57	Total Rider			\$ 671,191			\$ -
58		Total Margin		20,100,157	Total Margin		35,082,154
59					Revenue Proof		\$ 35,082,154
60					Over/(Under)		\$ -
61	LargeTransportation - Rate 428 - Distribution Pressure						10,257,906
62	LargeTransportation - Rate 428 - High Pressure						35,082,154
63	428 Pooling and Nomination Revenue						\$ 875,254
64	Total						46,215,315