OFFICIAL EXHIBITS

FILED
March 17, 2016
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF DUKE ENERGY INDIANA, INC. FOR; (1) APPROVAL OF PETITIONER'S 7-YEAR PLAN FOR ELIGIBLE TRANSMISSION, DISTRIBUTION AND STORAGE SYSTEM IMPROVEMENTS, PURSUANT TO IND. CODE § 8-1-39-10; (2) APPROVAL OF A TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE IMPROVEMENT COST RATE ADJUSTMENT AND DEFERRALS, PURSUANT TO IND. CODE § 8-1-39-9; (3) APPROVAL OF CERTAIN REGULATORY ASSETS; (4) APPROVAL OF VOLUNTARY DYNAMIC PRICING RIDERS; (5) APPROVAL OF A NEW DEPRECIATION RATE FOR ADVANCED METERS	CAUSE NO. 44720

IURC
INTERVENOR'S -SDI
EXHIBIT NO. 2
5-2-16 AT
DATE REPORTER

PREFILED SETTLEMENT TESTIMONY OF:

KEVIN C. HIGGINS

ON BEHALF OF

STEEL DYNAMICS, INC.

MARCH 17, 2016

PREFILED DIRECT TESTIMONY OF KEVIN C. HIGGINS

INTRODUCTION

Q. Please state your name and business address.

A. Kevin C. Higgins, 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

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

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

Q. Are you the same Kevin C. Higgins who prefiled direct testimony in this proceeding on behalf of Steel Dynamics, Inc. ("Steel Dynamics")?

A. Yes, I am. My prefiled testimony was filed on February 18, 2016 and was amended through an Errata filing on March 17. 2016.

Q. What is the purpose of your settlement testimony?

A. Steel Dynamics is a signatory to the settlement agreement submitted on March 7, 2016 ("Settlement Agreement") in this proceeding for the Commission's review and consideration. My testimony supports adoption of the Settlement Agreement and recommends approval by the Commission. I will also explain in detail why Paragraph 7d ("Allocation Factors") to the Settlement Agreement is reasonable and in the public interest.

OVERALL SETTLEMENT AGREEMENT

Q. What is your recommendation concerning the Settlement Agreement?

A. The Settlement Agreement reflects a reasonable balancing of interests among the parties and produces a result that is in the public interest. The Settlement Agreement reasonably addresses the issues I raised in my prefiled direct testimony concerning overall funding levels, Advanced Metering Infrastructure ("AMI"), proper recognition of voltage differentiation in the Transmission, Distribution, and Storage System Improvement Charge ("TDSIC") revenues allocated to HLF customers, and adherence to the revenue allocation requirements of the statute providing for the TDSIC. Through negotiation among the parties, the overall TDSIC funding level has been reduced relative to DEI's initial filing, AMI costs have been removed from TDSIC funding while allowing for capped deferrals of specified AMI costs, and voltage differentiation is properly recognized for HLF and LLF customers in the TDSIC rider, among other things.

I recommend that the Commission find that the Settlement Agreement is reasonable, equitable, and in the public interest. I further recommend that the Commission approve the Settlement Agreement in its entirety, without changes or conditions.

ALLOCATION FACTORS

Q. Please describe Paragraph 7d of the Settlement Agreement, which is entitled "Allocation Factors."

A. Paragraph 7d addresses the allocation factors used for recovering the TDSIC rider from the customer classes. This paragraph states as follows:

> **Allocation Factors.** There are no changes to Duke Energy Indiana's proposed allocation factors for the TDSIC rider among rate classes. Duke Energy Indiana agrees to modify its proposed allocation factors and allocate the T&D Plan revenue recovery for rate HLF and LLF customers

> using the respective delivery voltage revenue levels approved in Duke Energy Indiana's last base rate case (IURC Cause No. 42359). Other rate groups are unaffected by this change. The Settling Parties agree that using such factors complies with the TDSIC statute. Regarding the Steel Dynamics Inc. special contract, the TDSIC Rider will be applicable to the HLF portion of their demand, but not to the Day-Ahead Pricing portion.

The second sentence of this paragraph provides for a modification to DEI's allocation factors *within* the HLF and LLF customer groups to reflect voltage differentiation. This provision in the Settlement Agreement addresses the argument raised in my direct testimony that the TDSIC rider for HLF customers should be modified to properly reflect voltage differentiation and that this should be accomplished using the cost allocation factors determined in DEI's most recent general rate case, Cause No. 42359. This paragraph accepts the modification I proposed for HLF and properly extends the modification to LLF customers, whose rates and cost allocation are also differentiated by voltage.

The paragraph goes on to underscore that reflecting voltage differentiation in the TDSIC charge for the HLF and LLF customer groups does not affect the revenue allocation to other rate groups. Finally, the paragraph specifies which portion of the Steel Dynamics special contract load will be subject to the TDSIC rider.

Q. Why is it necessary for the TDSIC rider for HLF and LLF customers to be differentiated by voltage?

A. Differentiating the TDSIC rider by voltage for these customer groups is consistent with the principle of cost causation. In my opinion, it is also necessary to comply fully with the statutory requirements to "use the customer class revenue allocation factor based on firm load approved in the public utility's most recent retail base rate case order" in allocating TDSIC revenue responsibility to customer classes.[1]

Q. Why is differentiating the TDSIC rider by voltage for HLF and LLF customer groups consistent with the principle of cost causation?

A. Electric rates throughout the United States, including DEI's service territory, are generally differentiated by voltage in accordance with the ratemaking principle of cost causation. Simply put, customers that take service at higher voltages do not use the portion of the power delivery system that is constructed to deliver power at lower voltages. For example, customers taking delivery at transmission voltage typically do not use any part of the distribution system. Consequently, in a properly-prepared class cost-of-service study, higher-voltage customers are not assigned cost responsibility for the investments on the lower-voltage portion of the delivery system.

Q. Is this the case for DEI and its HLF and LLF customers?

A. Yes. The HLF and LLF rate schedules today charge different prices to customers depending on whether the customer takes delivery at secondary, primary, or transmission voltage. As I stated above, this type of price differentiation is the conventional practice throughout the country and has a direct nexus to cost causation. For example, HLF customers taking delivery at the transmission-common voltage level, which corresponds to service at 138 kV and above,[2] do not use DEI's distribution system at all. Consequently, these customers appropriately were not allocated any distribution costs (except for meter costs) in the compliance, or "as approved," class cost of service study

[1] *See* IND. CODE § 8-1-39-9(a).
[2] *See* Cause No. 42359, Prefiled Case-in-Chief Testimony of Kent K. Freeman, p. 20, lines 12-14.

("compliance class cost-of-service study")[3] used for setting final rates in Cause No. 42359. Therefore, these customers do not pay for distribution system costs (except meters) in their HLF tariff rates.

Q. Why is the voltage differentiation provision in the Settlement Agreement necessary to comply fully with the statutory requirements to "use the customer class revenue allocation factor based on firm load approved in the public utility's most recent retail base rate case order" in allocating TDSIC revenue responsibility to customer classes?

A. The voltage differentiation provision in the Settlement Agreement is necessary for full compliance with the statute because the compliance cost-of-service study in DEI's most recent general rate case, Cause No. 42359, allocated cost responsibility to HLF and LLF customers on a voltage-differentiated basis. For full compliance with the statute, the TDSIC rider should be allocated in the same manner.

Q. What is the basis for your opinion that the compliance cost-of-service study in DEI's most recent general rate case, Cause No. 42359, allocated cost responsibility to HLF and LLF customers on a voltage-differentiated basis?

A. I have reviewed the detail of the compliance class cost-of-service study. In that study, cost allocation factors were developed separately for each HLF and LLF voltage category. Specifically, distinct cost allocation factors were developed for the following voltage categories in the compliance class cost-of-service study: HLF-Secondary, HLF-Primary (Bulk), HLF-Primary (Common), HLF-Transmission (Bulk), HLF-Transmission

[3] The compliance, or "as approved," class cost of service study used for setting final rates in Cause No. 42359 is dated May 18, 2004. The output of this study is provided in Attachment SDI-3.5d to DEI's Third Supplemental Response to SDI Data request 3.5. Henceforth my references to the "compliance class cost-of-service study" or "compliance cost-of-service study" pertain to this compliance study.

(Common), LLF-Secondary, LLF-Primary (Bulk),[4] LLF-Primary (Common), LLF-Transmission (Bulk), and LLF-Transmission (Common). Notably, each of the HLF and LLF voltage categories is charged distinct rates in the DEI tariff, consistent with their differing cost characteristics. Sample entries from the voluminous compliance cost-of-service study are presented in SDI Exhibit 1 (KCH), attached to my direct testimony in this Cause.

Q. Please explain what information is included in SDI Exhibit 1 (KCH) attached to your direct testimony and why it is significant.

A. The sample entries in SDI Exhibit 1 (KCH) are part of a voluminous document provided by DEI in its Third Supplemental Response to SDI Data Request 3.5 in which the Company provided the source material used for its proposed revenue allocation in this Cause. The sample entries are a subset of the compliance cost-of-service study prepared by DEI in Cause No. 42359.

The first page of the exhibit presents summary information regarding the composition of LLF and HLF customers, among other things. Lines 217-221 on this page identify the categories of LLF service by voltage that are used throughout the compliance cost-of-service study. Lines 235-239 on this page identify the categories of HLF service by voltage that are used throughout the compliance cost-of-service study.

On page 2 of the exhibit, lines 217-221 show the total distribution plant allocated to each voltage category of LLF customer in the compliance cost-of-service study and lines 235-239 show the total distribution plant allocated to each voltage category of HLF customer in the compliance cost-of-service study.

[4] While LLF-Primary (Bulk) is identified separately as a voltage group in the compliance cost-of-service study, there were no customers in this group.

These same lines on pages 3 through 8 of the exhibit show each category of distribution plant that is allocated to the five LLF and five HLF voltage categories in the compliance cost-of-service study. Note that in every instance except meters, the distribution plant allocated to LLF-Transmission-Common, LLF-Transmission-Bulk, and HLF-Transmission-Common is zero. Also note that in every instance except meters and step-down substations, the distribution plant allocated to HLF-Transmission-Bulk is zero. Finally note that the total distribution plant allocated to LLF-Transmission-Common, LLF-Transmission-Bulk, and HLF-Transmission-Common is identical to the amount of meter plant and the total distribution plant allocated to HLF-Transmission-Bulk is identical to the amount of meter plant plus step-down substations.

Q. Is this information consistent with the *workpapers* used by DEI to prepare its TDSIC revenue allocation in its direct filing in this Cause?

A. Yes. SDI Exhibit 2 (KCH) attached to my direct testimony presents a DEI workpaper prepared in this Cause that summarizes the compliance revenue requirement from Cause No. 42359. This workpaper was provided by DEI in Response to SDI Data Request 1.13.d. For example, Page 3, line 7, of the exhibit shows that no distribution costs (except meters) were allocated to "HLF transmission-common" customers in the compliance class cost-of-service study, consistent with my statements above. Also, consistent with the principle of cost causation, these customers are charged lower base rates in DEI's tariff than HLF customers taking service at distribution voltage.

Further, page 3, line 8, of the exhibit shows that no distribution costs except meters and step-down substations were allocated to "HLF transmission-bulk" customers in the compliance class cost-of-service study, also consistent with my statements above.

These HLF customers taking service off the bulk transmission system use only a small piece of the distribution system, namely step-down substations, and therefore are allocated only a small portion of distribution system costs corresponding to this single cost component, plus meters. Consequently, these HLF customers are also charged lower base rates than HLF customers taking service at distribution voltage.

Thus, with the minor exception of step-down substation costs, the entirety of the distribution system costs (except meters) allocated to HLF in DEI's compliance cost-of-service study was attributable to the HLF load served at *distribution* voltage. Except for meters, the transmission voltage customers were allocated either zero distribution costs (in the case of transmission-common) or very few costs (in the case of transmission-bulk). In the case of LLF, transmission voltage customers were not allocated any distribution costs at all, except for meters.

Q. Please summarize your conclusions regarding the recognition of voltage differentiated rates for HLF and LLF customers in the TDSIC rider.

A. Failure to recognize voltage differentiation in the TDSIC rider as provided in the Settlement Agreement would be inconsistent with the principles of cost causation and would be inconsistent with the statutory requirement to use the customer class revenue allocation factor based on firm load approved in the public utility's most recent retail base rate case order. Absent recognition of voltage differentiation in the TDSIC rider, each HLF customer would pay the same TDSIC rider charge for the distribution system cost category, irrespective of the voltage at which the customer takes service. Similarly, absent recognition of voltage differentiation in the TDSIC rider, each LLF customer would pay the same TDSIC rider charge for the distribution system cost category, irrespective of the voltage at which the customer takes service. Such outcomes would be fundamentally unreasonable.

LLF customers taking scrvice off thc transmission system and HLF customers taking service from the common transmission system <u>should not be assigned any</u> TDSIC revenue requirement responsibility for costs related to the distribution system. Nor should HLF customers taking service from the bulk transmission system be assigned any TDSIC revenue requirement responsibility for costs related to the distribution system, but for a very small share associated with the allocation of step-down substation costs these customers received in the compliance cost-of-service study. Rather, the share of TDSIC revenue requirement allocated to HLF and LLF for recovering distribution system costs should be recovered almost exclusively from those HLF and LLF customers that are served at distribution system voltage.

The Settlement Agreement appropriately and reasonably addresses this matter by modifying DEI's initially-proposed allocation factors to allocate the T&D Plan revenue recovery for rate HLF and LLF customers using the respective delivery voltage revenue levels approved in Cause No. 42359. Further, as I demonstrated in my direct testimony, this modification does not affect the total TDSIC costs allocated to HLF (or LLF), nor does it affect the total TDSIC costs allocated to any other customer group. The incorporation of this modification into the Settlement Agreement produces a result that is clearly in the public interest.

Q. Are you familiar with the decision of the Indiana Court of Appeals regarding the treatment of voltage differentiation in the NIPSCO TDSIC case, Cause No. 44371?

A. Yes. I discuss this decision in my prefiled direct testimony in this Cause.[5]

Q. Is the Court's decision in the NIPSCO case contrary to your recommendations in this Cause?

A. I believe not. As I am not an attorney, I cannot offer a legal interpretation of the Court's decision. However, based on my experience and knowledge of the principles of ratemaking and logic, I see a clear factual distinction between the NIPSCO case and this case. The NIPSCO Court found that the stipulated cost allocation in the general rate case before the Commission did not differentiate between transmission and distribution voltage and that NIPSCO's attempt to incorporate such a differentiation in its TDSIC rates violated the statutory requirement to use the customer class revenue allocation factor based on firm load approved in the public utility's most recent retail base rate case order. In reaching this conclusion, the Court did not opine on the merits of differentiating TDSIC rates based on voltage *per se*, but rather on the need for *consistency* between the allocation (i) ordered by the Commission in its last general rate case order, and (ii) in the TDSIC case. In contrast, with respect to DEI, the compliance class cost-of-service study that is the basis of DEI's class revenue allocation in Cause No. 42359, does take into account transmission and distribution voltage differences in allocating revenues to HLF customers. Consequently, not only is the NIPSCO court's decision not contrary to my recommendations in this Cause, that decision fully supports my recommendations in this Cause.

Q. Why does the Settlement Agreement provide that the TDSIC Rider will be applicable to the HLF portion of the Steel Dynamics Inc. special contract demand, but not to the Day-Ahead Pricing portion?

[5] *See* direct testimony of Kevin C. Higgins, p. 25, line 1 – p. 27, line 2.

A. Steel Dynamics was not a DEI customer in 2004 when the revenue allocation in DEI's most recent general rate case, Cause No. 42359, was set. The compliance cost-of-service study in that Cause allocated costs separately to individual special contracts. Because the Steel Dynamics special contract did not exist at that time, there were no costs allocated to what is now the Day-Ahead Pricing portion of SDI's special contract. As the TDSIC statute requires use of the customer class revenue allocation factor based on firm load approved in the public utility's most recent retail base rate case order, and there is no such factor with respect to the Day-Ahead Pricing portion of SDI's special contract, no allocation can be made to the Day-Ahead Pricing portion of SDI's load. Nevertheless, under the terms of the Settlement Agreement, the majority of Steel Dynamics' load will be subject to the HLF-Transmission-Bulk charge.

Q. Does this conclude your settlement testimony?

A. Yes, it does.

VERIFICATION

I hereby verify under the penalties of perjury that the foregoing representations are true to the best of my knowledge, information and belief.

Signed: ______________________ Dated: 3-17-16
Kevin C. Higgins

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing testimony has been served electronically upon the following counsel of record this 17th day of March 2016.

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