

FILED  
December 3, 2018  
INDIANA UTILITY  
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF SOUTHERN INDIANA GAS )  
AND ELECTRIC COMPANY D/B/A VECTREN )  
ENERGY DELIVERY OF INDIANA, INC. FOR (1) )  
APPROVAL OF AN ADJUSTMENT TO ITS GAS )  
SERVICE RATES THROUGH ITS CSIA RATE )  
SCHEDULE, (2) AUTHORITY TO DEFER 20% OF THE )  
APPROVED EXPENDITURES FOR RECOVERY IN )  
PETITIONER'S NEXT GENERAL RATE CASE AND (3) )  
APPROVAL OF PETITIONER'S UPDATED 7-YEAR )  
PLAN, INCLUDING ACTUAL AND PROPOSED )  
ESTIMATED CAPITAL EXPENDITURES AND CSIA )  
COSTS, ALL PURSUANT TO IND. CODE CHPT. 8-1-8.4 )  
AND 8-1-39 AND THE COMMISSION'S ORDER IN )  
CAUSE NO. 44429 )

CAUSE NO. 44429  
TDSIC-009

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

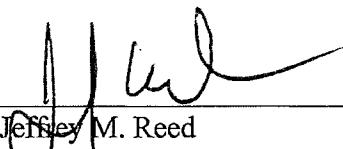
PUBLIC'S EXHIBIT NO. 2

PUBLIC (REDACTED) TESTIMONY OF OUCC WITNESS BRIEN R. KRIEGER

DECEMBER 3, 2018

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PUBLIC'S  
EXHIBIT NO. 2  
DATE 12-20-18 REPORTER CR

Respectfully submitted,

  
Jeffrey M. Reed  
Attorney No. 11651-49  
Deputy Consumer Counselor

**PUBLIC (REDACTED) TESTIMONY OF  
OUCC WITNESS BRIEN R. KRIEGER  
CAUSE NO. 44429 TDSIC-9  
SOUTHERN INDIANA GAS & ELECTRIC COMPANY  
D/B/A VECTREN ENERGY DELIVERY OF INDIANA, INC.  
("VECTREN SOUTH")**

**NOTE:** [REDACTED] INDICATES CONFIDENTIAL INFORMATION

**I. INTRODUCTION**

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

2   **A:**    My name is Brien R. Krieger, and my business address is 115 West Washington  
3           Street, Suite 1500 South, Indianapolis, Indiana 46204.

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

5   **A:**    I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as  
6           a Utility Analyst for the Natural Gas Division. My educational background,  
7           experience, and my preparations for this case are detailed in Appendix BRK-1  
8           attached to this testimony.

9   **Q:**    What is the purpose of your testimony?

10   **A:**    My testimony discusses reasons for cost variances in estimated budgets and actual  
11           dollars spent for Vectren South's Compliance Plan and TDSIC Plan. I reviewed  
12           updates to the 7-Year Plan, including the level of project detail and project cost  
13           support when variances exceed a predetermined threshold. The OUCC continues  
14           to define threshold as "substantial" if the present estimate is either \$100,000 or 20%  
15           above the most recently approved estimate.

16           My analysis of Vectren South's TDSIC Plan updates looks to ensure there  
17           are no new projects included in its 7-Year TDSIC Plan in accordance with the

1 Commission's Order in Cause No. 44429 TDSIC-3, as affirmed by the Court of  
2 Appeals of Indiana in Opinion 93A02-1604-EX-943 issued on April 27, 2017.  
3 Additionally, I reviewed the "multiple-unit" ("MU") projects previously removed  
4 in Cause No. 44429 TDSIC-8.

5 In summary, Vectren South did not add any additional TDSIC projects and  
6 supported the increased costs to Compliance and TDSIC projects with detail. I  
7 validated that MU projects with program categories of: (1) Service Line  
8 Replacements, (2) Anode or Casing test stations of System Improvement, and (3)  
9 Gas Communications Equipment remain excluded as Vectren South did in Cause  
10 No. 44429 TDSIC-8. My testimony recommends the Commission approve  
11 Vectren South's updated 7-Year Plan in this filing for its Compliance projects and  
12 TDSIC-9 projects.

13 **Q: Please describe your understanding of differences between Compliance**  
14 **Projects and TDSIC Projects.**

15 **A:** The Pipeline and Hazardous Materials Safety Administration ("PHMSA")  
16 establishes standards and policies to improve the safety and integrity of the natural  
17 gas system to prevent incidents. Natural gas utilities are required by PHMSA to  
18 improve the integrity of natural gas systems. One PHMSA requirement for natural  
19 gas utilities is to retrofit the pipeline mains for in-line-inspection ("ILI"). For ILI,  
20 an inspection tool is required to fit the interior circumference of the pipe to perform  
21 critical inspections, and thus the utility must replace service stubs, fittings, elbows,  
22 and other components to make ready for continuous passage of the inspection  
23 device.

1 Vectren South's 7-Year Plan provides a plan to comply with the PHMSA  
2 requirements -- Compliance, and a separate plan for TDSIC according to Indiana  
3 Code § 8-1-39-9. The TDSIC portion of the Plan has four major categories: Public  
4 Improvement, System Improvement, Rural Extensions, and Targeted Economic  
5 Development ("TED"). Rural Extensions and TED projects are allowed to be  
6 added to the TDSIC Plan because these projects provide natural gas service to  
7 unserved areas and have positive economic benefit. Vectren South's Compliance  
8 plan is segmented into transmission modernization, distribution modernization,  
9 bare steel and cast iron ("BSCI") projects, and storage modernization.

10 The Compliance Plan is different from Indiana's TDSIC statute in that  
11 Compliance projects may be extended from original scope, can include multiple-  
12 unit projects, and can add new projects as the utility sees fit to comply with PHMSA  
13 regulations. Both the Compliance Plan and the TDSIC Plan require Petitioner to  
14 provide a "best estimate" and receive Commission approval.

15 **Q: Within the context of your understanding of the term "best estimate," please**  
16 **describe your approach in analyzing Vectren South's project cost estimate**  
17 **support and its justification for project cost increases.**

18 **A:** For my analysis of project cost increases, I relied on the Indiana Code and  
19 Commission Orders for what can be considered a "best estimate" of original costs  
20 for the original project definition. Furthermore, Indiana Code § 8-1-39-9(f)  
21 provides that "[a]ctual capital expenditures and TDSIC costs that exceed the  
22 approved capital expenditures and TDSIC costs require specific justification by the  
23 public utility and specific approval by the commission before being authorized for  
24 recovery in customer rates."

1           The Commission's Order in Cause No. 44403 TDSIC-4, page 27, explains  
2           that "...in a Section 9 proceeding, a utility must update its approved plan and  
3           explain any changes in the best estimate of costs, necessity, or incremental  
4           benefits." The Order goes on to state: "[a] TDSIC best estimate should reflect, at a  
5           minimum, costs a utility reasonably could or should have foreseen at the time the  
6           estimate was created." *Id.* at page 28.

7           With regard to showing satisfactory reason for increased cost estimates, the  
8           Commission has stated:

9                     [B]ecause our approval of the plan as reasonable was based on our  
10                    determination of the best estimate of the cost of the eligible  
11                    improvements, whether public convenience and necessity require  
12                    the eligible improvements, and whether the estimated costs of the  
13                    eligible improvements are justified by the incremental benefits, it  
14                    seems reasonable that any update to the plan include changes to  
15                    those factors we considered in approving the plan, i.e., changes in  
16                    an eligible improvement's cost estimate, necessity, and associated  
17                    benefits.<sup>1</sup>

18          The Commission also stated in Cause No. 44403 TDSIC-1: "[t]his does not mean  
19          that the utility may simply detail the reasons why the increase occurred. Rather, the  
20          utility must explain why the increase in best estimated costs (i.e., costs that were  
21          considered to be highly reliable) is reasonable or warranted under the circumstances  
22          presented."<sup>2</sup> Furthermore, the Commission stated in Cause No. 44403 TDSIC-4:

23                    Whether the utility seeks to provide specific justification for  
24                    approval of an increase in the best estimate at the time it seeks cost  
25                    recovery or prior to incurring actual costs, the standard is the same.  
26                    As we explained in the TDSIC-1 Order at 20, a utility may not  
27                    simply detail the reasons for the increase in costs. Instead, it must  
28                    explain why the increase in the best estimated cost, which was

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<sup>1</sup> Cause No. 44430 TDSIC-3, Order at page 5.

<sup>2</sup> Cause No. 44403 TDSIC-1, Order at page 20.

1           considered to be better than all others in quality or value, is  
2           reasonable or warranted under the circumstances presented.<sup>3</sup>

3           In addition to Vectren South's TDSIC projects, I also analyzed its  
4           Compliance projects to determine if adequate explanations had been provided to  
5           justify cost increases for these projects. Within this context, I reviewed each  
6           project, paying particular attention to projects with increased cost estimates, or if a  
7           project's actual costs exceeded Vectren South's previously approved best estimate.

8   **Q: Have you reviewed Vectren South's Compliance plan and TDSIC plan on a**  
9   **project Work Order basis?**

10 A: Yes, I reviewed Vectren South's entire Petition, testimony, workpapers, and the  
11 confidential portions of the filing, including confidential Attachments SAH-4  
12 through SAH-11 that include all project numbers, project categories, the planning  
13 year, the cost estimate variances, and the actual spend variances of the current  
14 period (1/1/18-6/30/18) and since project inception. Additionally, on October 24,  
15 2018, Mr. Ed Rutter and I met with Vectren's South's engineers to understand its  
16 project preparation, the variables that may increase costs, and to specifically discuss  
17 project variances that have increased in this current period by \$100,000 or 20%.  
18 Petitioner was responsive to our questions, provided some detail for projects of  
19 concern in its case-in-chief, and answered additional questions on an informal basis.

20 **Q: What are some of the variables that cause best estimates to increase?**

21 A: Petitioner provides a "best estimate" for TDSIC projects and Compliance projects  
22 during its initial TDSIC filing and provides a "best estimate" when a new project

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<sup>3</sup> Cause No. 44403 TDSIC-4, Order at page 28.

1 is added to the Compliance portion. Changes to the best estimates can be within  
2 the Petitioner's control or not within the Petitioner's control.

3 Many times underground pipe corrosion conditions extend beyond the  
4 original pipe segment, or undocumented construction is not found until the suspect  
5 pipe is unburied at the project location. Unknown interference from other  
6 underground utilities is not unusual, and is exacerbated when construction is not  
7 updated in municipal or utility maps. Additionally, drainage or sewer pipes are  
8 rerouted during the time of construction as municipalities repair roads affecting the  
9 underground utilities in an unplanned scenario causing the need for "as-built"  
10 drawings.

11 My analysis investigates variances to identify trends, and I focus on  
12 Petitioner's cost support when there is a large variance between the original "best  
13 estimate" and the engineering estimate performed at a time closer to the  
14 construction phase. For Vectren South, an engineering estimate is carried out when  
15 projects are placed in the work order que and after projects have been field  
16 investigated.

17 The original 7-year Plan costs are not typically derived from an engineering  
18 estimate, but based on costs of similar projects. Vectren South does not perform  
19 the refined engineering estimate on most projects until 6 months to 1½ years  
20 (Petitioner's Exhibit No. 1, page 6, line 9) before the construction phase. Vectren  
21 South's refined estimates or engineering estimates are a typical process within the  
22 construction industry in order to finalize the schedule, the labor, the material detail,  
23 and to prepare the work order/bid package.

1   **Q:   What are some of the variables or situations not in Petitioner's control that**  
2   **cause its best estimate to increase?**

3   A;   Vectren South has experienced contract labor shortages, unforeseen rock  
4       formations, fluctuating railroad crossing requirements, extended corrosion and  
5       changed municipal plans (Public Improvement) causing expanded scope or higher  
6       cost time and material contracts.

7           The Public Improvement project category makes up almost 50% of all of  
8       Vectren South's TDSIC projects. These Public Improvement projects are at the  
9       direction of government agencies and restoration scope can expand to include  
10      additional traffic security, drainage, flowable fill, and strip paving.

11           Another variable Vectren South discusses in its Estimate Variance  
12      Commentary is the "jack and bore" requirement to pass underneath railroads. This  
13      requirement changes from a least cost scenario of a horizontal boring installation  
14      of a single natural gas carrier pipe to a casing pipe with the natural gas carrier pipe  
15      pulled inside the casing pipe, thus adding labor and materials costs. Additionally,  
16      many railroad crossings need an exact depth location that is not known until the  
17      permitting process is finalized including site engineering review with railroad  
18      personnel.

19   **Q:   Does Vectren South utilize estimating or bidding practices to attempt to keep**  
20   **costs from rising?**

21   A:   Yes. Petitioner uses competitive bidding for projects estimated to cost more than  
22       \$500,000. After the project is designed, the best estimate may include an adder for  
23       a specifically difficult portion of the project. Additionally, Petitioner may find

original projects are contiguous, or may have special features, such as regulators, that can be bid with adjacent projects and best constructed as a unit.

**Q: Do you have general recommendations concerning Petitioner's estimating or planning process?**

A: My recommendations should be considered, but may be difficult to implement because of manpower constraints or embedded system constraints. It is important for Vectren South to continually improve communication with town and city planners and designers to reiterate that changing plans, or having incomplete plans, typically has negative impacts for the utility and increases the costs to ratepayers. Deviation from plans for wider roads/roundabouts, different ADA accessibility, or new sidewalks or bike paths can cause more expensive time and material contracts or changing restoration requirements for the utility.

Additionally, it may be beneficial for Petitioner to lower the estimated cost threshold for competitive bidding to some lower value, for example \$250,000, because a vast majority of projects are less than the existing \$500,000 threshold. It is important to remember that additional competitive bidding can potentially involve additional construction management costs to Vectren South but should have costs savings as new contractors are vetted with smaller repeatable projects.

**Q: Please describe your analysis of the support provided by Vectren South for actual project costs and cost estimate updates in this Cause.**

A: I reviewed the testimonial and evidentiary support provided by Vectren South. I reviewed all projects and the data contained in Petitioner's confidential attachments looking for new projects, removal of MU's, and variances that exceeded the OUCC's threshold for project cost estimates and actual cost variances. Increases

1 above these thresholds (\$100,000 or 20%) triggered my deeper review of “best  
2 estimate.” Petitioner included detailed commentary in its confidential attachments  
3 describing variances (Petitioner’s Exhibit No. 1, page 9, lines 13-14). I analyzed  
4 Petitioner’s testimonial commentary and asked Petitioner specific questions.

5 My testimony discusses projects that experienced substantial increases over  
6 estimates approved in TDSIC-8, and my analysis focuses on whether Petitioner  
7 should have reasonably foreseen substantial increases at the time the estimates were  
8 last approved.

## II. COMPLIANCE PLAN UPDATES

9 **Q: What cost support information did Vectren South provide in regard to its**  
10 **Compliance Plan projects in this filing?**

11 A: Petitioner’s witness Steven Hoover’s testimony included CONFIDENTIAL  
12 Attachments SAH-4, SAH-5, SAH-6, and SAH-11, which contain information for  
13 the Transmission, Distribution, Bare Steel and Cast Iron, and Storage Compliance  
14 projects, respectively. These attachments contain project description, project type,  
15 prior planned year, current planned year, prior estimated cost, and current estimated  
16 cost.

### 17 **BEST ESTIMATES**

18 **Q: Have there been changes, variances or additions, between Vectren South’s**  
19 **most recently approved 2018 Compliance Plan project estimates (4/2/2018) for**  
20 **plan year 2018 and the current 2018 Compliance Plan estimates.**

21 A: Yes, but only “new” 2018 projects. There are no increased cost estimates for  
22 existing 2018 Compliance projects; however, there are new Compliance projects

signified with "N/A" in the "Previous Planned Year (4/2/18)" column signifying a new project for 2018.

During my analysis of the Compliance Plan in Vectren South's case-in-chief, I identified two new prioritized to 2018 Transmission Modernization Projects (Petitioner's Exhibit No. 1, Confidential Attachment SAH-4) and two "new" Distribution Modernization Projects, one reprioritized and one new (Petitioner's Exhibit No. 1, Confidential Attachment SAH-5). The new/reprioritized projects are listed in Table 1 as determined by a "N/A" in the Previous Planned Year column and with a variance of "N/A" over the previous capital estimate in Petitioner's case-in-chief. The Bare Steel Cast Iron (BSCI) has one new 2018 project, S-2446. Storage Modernization had no new projects added. All new projects comply with requirements as a federally mandated project.

**Table 1: Compliance Plan Projects– New in 2018 or Reprioritized into 2018**

	Database Project Number	Category	Current Planned Year	Previous Capital Estimate (Confidential)	Current Capital Estimate (Confidential)	Variance (%)
Trans	4236	Valves/Ops/Remote Control	2018			
Trans	4171	Obsolete Equipment	2018			
Trans	4250	ILI Retrofits	2018			
Dist	4279	Exposures	2018			
Dist	4280	Regulator Station	2018			
BSCI	S-2446	12" main corroded	2018			

**Q: Are there changes between Vectren South's most recently approved Compliance Plan estimates (4/2/2018) and the current 2019 and 2020 Compliance Plan projects for Transmission or Distribution Modernization?**

**A:** Yes. There are budget estimate variances for existing 2019 and 2020 Transmission and Distribution projects and additionally these years have new or reprioritized

projects into these years. The vast majority of next year's projects with increased estimates have occurred in the Distribution Modernization category with most variances being a function of railroad crossings and bridge crossings with the "jack-and-bore" additional requirement as discussed earlier and the need to circumnavigate drainage culverts. The increased estimates are reasonable for Transmission or Distribution Modernization projects. These projects are listed in Table 2 below.

**Table 2: Distribution Modernization with Estimate Variance Due to Railroad Crossings**

	Database Project Number	Current Planned Year	Previous Capital Estimate (Confidential)			Current Capital Estimate (Confidential)			Variance (%)		
1	3689	2019									
2	3697	2019									
3	3699	2019									
4	3700	2019									
5	3709	2019									
6	4189	2019									

There are four other project variance estimates in the Distribution Modernization category that exceed the OUCC threshold – see Table 3. All of the increases are a function of completing detailed engineering estimates with site review. I am satisfied the projects reflect additional costs that were not characterized in the original estimate because detailed site visits were not performed during original estimate. Also pipe inspections were not performed along the entire length of suspect pipe until the entire length of pipe was exposed.

1           **Table 3: Distribution Modernization – Non-Railroad with Estimate Variance**

	Database Project Number	Current Planned Year	Previous Capital Estimate (Confidential)	Current Capital Estimate (Confidential)	Variance	Description
1	3694	2019	██████	██████	██████	Additional Main required - corrosion found
2	3968	2019	██████	██████	██████	Remove Main from bridge - reliability
3	528	2019	██████	██████	██████	Site engineering estimate – remove main off bridge
4	790	2019	██████	██████	██████	Site engineering estimate – welding & creek bore

2           There is only one Transmission Modernizations estimate variance of  
3           concern – Project ID 3464. Project IDs 3395, 4078, and 3467 were bundled with  
4           ID 3464 ILI Retrofits which now includes filters and a filter separator at the  
5           contiguous location of the Rockport/Midway/Chisney, Indiana improvement  
6           project. The updated estimate is less than the prior total of the four projects and the  
7           new estimate is reasonable.

8   **Q:   Please summarize your Bare Steel and Cast Iron Compliance findings**  
9   **concerning estimate variances.**

10   **A:**   The bare steel “best estimate” of the 2017 and 2018 planned projects have zero  
11           variance between the previous estimate date of 4/2/18 and this updated estimate.  
12           All of the 2017 bare steel projects are in service and under budget with some final  
13           restoration remaining.

14           Only four of the 2019 individual projects have “best estimate” increases  
15           greater than 20% based on field inspections where additional main footage is  
16           required with services. The 2020 BSCI projects have zero increases from “best

estimate” and have zero dollars spent. There are four 2019 Bare Steel Cast Iron Project estimate variances that exceed the threshold, shown in Table 4. Petitioner explained all four as additional main and services required based on site inspection and engineering estimates. Petitioner has substantiated the increased estimates for Bare Steel and Cast Iron projects and I find this satisfactory.

**Table 4: Bare Steel Cast Iron– Non-Railroad with Estimate Variances**

	Database Project Number	Current Planned Year	Previous Capital Estimate (Confidential)	Current Capital Estimate (Confidential)	Variance
1	S-1199	2019	██████	██████	████
2	S-1201	2019	██████	██████	████
3	S-1982	2019	██████	██████	████
4	S-2169	2019	██████	██████	████

**Q: Please list the new or reprioritized 2019 and 2020 Compliance Projects.**

A: During my analysis of the Compliance Plan information provided in Vectren South’s case-in-chief, I identified 2019 and 2020 projects listed in Table 5 with a variance of “N/A” over the previous capital estimate and represent new Compliance Plan projects added since Vectren South’s most recent approved Plan. There are no new storage modernization projects. All new projects comply with requirements as federally mandated projects.

1      **Table 5: Compliance Plan Projects– New or Reprioritized 2019/2020 Projects**

	Database Project Number	Category	Current Planned Year	Previous Capital Estimate (Confidential)	Current Capital Estimate (Confidential)	Variance (%)
Trans	3392	Gas Quality/ Conditioning	2019	██████	██████	████
Trans	3394	Gas Quality/ Conditioning	2019	██████	██████	████
Trans	4299	Gas Quality/ Conditioning	2020	██████	██████	████
Trans	4186	Gas Quality/ Conditioning	2020	██████	██████	████
Trans	4288	Exposures	2020	██████	██████	████
Trans	3108	Pressure Test	2020	██████	██████	████
Dist	527	Bridge Crossing	2020	██████	██████	████
Dist	1688	Non- Commercially Available Pipe Size	2020	██████	██████	████
Dist	3616	Ineffectively Coated Steel	2020	██████	██████	████
Dist	3766	Encroachments	2020	██████	██████	████
Dist	4128	Obsolete Equipment	2020	██████	██████	████
Dist	4180	Shallow Pipe	2020	██████	██████	████
Dist	4203	Shallow Pipe	2020	██████	██████	████
Dist	4226	Bridge Crossing	2020	██████	██████	████
Dist	4227	Bridge Crossing	2020	██████	██████	████
Dist	4235	Exposures	2020	██████	██████	████
BSCI	S-1232	BSCI - risk	2020	██████	██████	████
BSCI	S-1233	BSCI - risk	2020	██████	██████	████

2      **Q:    Do you have any concerns with Petitioner's support for increased "best**  
3      **estimate" budgets for Compliance projects?**

4      **A:**    No. Petitioner has a sound process for refining project costs originally estimated  
5      to an engineered "best estimate" for the upcoming construction season. My  
6      understanding from Petitioner's cost support, and my discussion with Petitioner, is  
7      that each individual railroad crossing is unique and not defined until the application

for a railroad crossing is approved by the railroad. Other adequately supported increases are based on actual field investigations including current material and labor prices along with restoration requirements.

#### ACTUAL SPEND

**Q: In your analysis of Vectren South's Compliance Plan – Transmission Modernization Projects, are there actual costs that have exceeded the budget by \$100,000 or 20% in this current period (1/1/18-6/30/18) and have not been addressed previously?**

**A:** Yes. There is one project that has exceeded the 20% threshold – Project ID 3396.

Petitioner explains the threshold variance is an accounting error and will be corrected next period. I accept this as an acceptable explanation and will validate this information in the next filing.

**Table 6: Transmission Modernization – Actual Cost Variance**

	Database Project Number	Current Planned Year	Inception to Date Actual Spend (Confidential)	Previous Capital Estimate (Confidential)	Variance	Description
1	3396	2018	████████	████████	████	Accounting error from other Odorizer Project ID's – correction to follow in next filing

**Q: In your analysis of Vectren South's Compliance Plan – Distribution Modernization Projects, are there actual costs for prior year projects that have exceeded the budget by \$100,000 or 20% in this current period (1/1/18-6/30/18) and have not been addressed previously?**

**A:** Yes. First, there is one on-going 2017 project that exceeds the OUCC update threshold for the current period, Project ID 795, which had \$████████ spent in this period causing it to exceed the 20% threshold, as shown in Table 7 below. The majority of the 2017 projects are in service and some may have minor restoration

on-going. There are seven project IDs (1401 – SW inside meters, 1422 – sw isolated services, 1446 – sw obsolete services, 2078 - scada , 2940 - scada, 4074 – priority pipe , and 4084 – bridge crossings) that previously exceeded the OUCC threshold and have zero or less than \$1,500 dollars spent in this current period. These 2017 variances are reasonable. There was also one 2016 project (3720 – obsolete equipment) that previously exceeded the OUCC threshold and has less than \$1,500 spent in the current period. This additional cost in this period is reasonable; however I recommend in the future projects be closed out two years after the plan year and no additional costs added at that time.

**Table 7: Distribution Modernization (2017) – Actual Cost Variance**

	Database Project Number	Current Planned Year	Inception to Date Actual Spend (Confidential)	Previous Capital Estimate (Confidential)	Variance	Description
1	795	2017	██████	██████	██████	Obsolete material discovered (extruded tube)

The majority of 2018 projects do not exceed the OUCC's threshold for more investigation. There are three projects (ID 498, ID 2117, and ID 2858) that exceed the OUCC threshold, but the increases have been reasonably supported by Petitioner. Project ID 498 moves inside meters to outside the premises. Moving the meters includes some interior pipe restoration that was not fully understood and completed until the actual construction phase causing some of the higher actual costs. Project ID 2117 is █████ over budget and in service with additional spot holes and open trenching required to find other utilities. Project ID 2858 is █████ over

budget because of required time and material rates due to the complexity of bores, tie-ins, and forced sewer proximity.

**Table 8: Distribution Modernization (2018) – Actual Cost Variance**

	Database Project Number	Current Planned Year	Inception to Date Actual Spend (Confidential)	Previous Capital Estimate (Confidential)	Variance	Description
1	498	2018	████████	████████	████	Additional restoration cost do to rerouting main from “best estimate”.
2	2117	2018	████████	████████	████	Additional restoration required after complexity of spot holes and some open trench do to complexity of other utilities in ground.
3	2858	2018	████████	████████	████	New time and materials contract do to complexity.

The Compliance Plan – Distribution Modernization Projects information provided in Vectren South’s case-in-chief supports the three cost overruns experienced to date. The 2019 and beyond projects have not had any actual dollars charged against the planned project ID.

**Q: In your analysis of Vectren South’s Compliance Plan – Bare Steel and Cast Iron Projects, are there actual costs for prior year projects that have exceeded the budget by \$100,000 or 20% in this current period (1/1/18-6/30/18) and have not been addressed previously?**

**A:** There is one 2017 project (S-1194) and one 2016 project (S-1206) with actual costs previously over budget. Both of these projects have zero actual costs recorded in this period for recovery. Project S–2041 has an additional ██████ in actual costs

1 for this period and now is [REDACTED] over budget with the vast majority of over  
2 budget spent in prior periods This additional cost in this period is reasonable;  
3 however I recommend in the future projects be closed out two years after the plan  
4 year and no additional costs added at that time.

5 **Q: In your analysis of Vectren South's Compliance Plan – Bare Steel Cast Iron**  
6 **Projects, are there actual costs that have exceeded the budget by \$100,000 or**  
7 **20% in this current period (1/1/18-6/30/18) and have not been addressed**  
8 **previously?**

9 A: Yes, there is one – ID S-1177, as shown in Table 9 below. Petitioner has not  
10 updated the estimate which remains at \$ [REDACTED] and did not provided any Actual  
11 Cost Variance explanation in Petitioner's Exhibit No. 1, Confidential Attachment  
12 SAH-6. This project is now \$ [REDACTED] over budget and is not in service. I  
13 recommend Petitioner be proactive and explain large variances such as this in the  
14 future when they occur between 6-month updates and the project is not in service.  
15 Upon informal request Petitioner provided the following explanation for this  
16 project:

- 17 • It was necessary to install a portion of 4" MP PE main in the street on Maple Street  
18 due to water and sewer main conflicts in road right of way / green space - these  
19 conflicts were not identified by pre-design locate efforts. Installation in the street  
20 required additional spot holes and street restoration.
- 21 • Much of the 2" main had to be installed by open cut method rather than planned  
22 horizontal directional drilling due to inability to locate all sewers. This resulted in  
23 additional restoration costs. Sewer locating success is dependent upon cleanliness  
24 of mains and laterals.
- 25 • An additional segment of 4" main on Flora Street was installed in order to retire a  
26 leaking gate valve found during construction.

27 Petitioner's explanation is satisfactory for increases incurred in this period.

**Table 9: Bare Steel Cast Iron—with Actual Spend Variance**

	Database Project Number	Current Planned Year	Inception to Date Actual Spend (Confidential)	Previous Capital Estimate (Confidential)	Variance
1	S-1177	2018	██████	██████	██████

Approximately 40% of 2018 projects have actual spends of greater than \$100,000 in this period (1/1/18 – 6/30/18) but remain under budget and with Petitioner commentary “trending on target to estimate.” The remaining 60% of 2018 projects have no dollars spent to date or minor dollars and thus the project is just starting as Petitioner states in commentary – “scheduled to start the fall 2018.”

The 2019 and 2020 BSCI projects have zero dollars spent with most projects having decreased estimated costs because of substantial main footage removed from the original estimate due to site condition inspections.

**Q: In your analysis of Vectren South’s Compliance Plan – Storage Modernization Projects, are there actual costs that exceeded the budget by \$100,000 or 20%?**

A: No. During my review of the Compliance Plan – Storage Modernization Projects information provided in Vectren South’s case-in-chief there are only five of twenty-five projects that have charges from project inception to date. No Storage Modernization Projects met my threshold for a more in-depth review.

There are no variance estimate changes or actual spend variances in the Storage Modernization projects category, and no new projects added. The majority of these projects have not started and therefore have no charges against the project.

1   **Q:   Do you have any concerns with Petitioner's support for increased Actual**  
2   **Spend Variances for Compliance projects?**

3   A:   No.

### **III. TDSIC PLAN UPDATES**

4   **Q:   Please describe the Commission's 44429 TDSIC-3 Order in regard to Vectren**  
5   **South's new or emergent projects.**

6   A:   In that Order the Commission concluded in regard to "AMR and Other New  
7       Projects" that "[a]s neither the AMR Project nor the other new projects identified  
8       by the OUCC were included in Petitioner's original Plan or in TDSIC-1, we decline  
9       to designate them as eligible improvements in this Section 9 proceeding."<sup>4</sup> The  
10      Commission's Order in 44429 TDSIC-3 was affirmed by the Court of Appeals of  
11      Indiana in Opinion 93A02-1604-EX-943 issued on April 27, 2017.

12   **Q:   How did the Supreme Court Opinion resolve the eligibility of multiple-unit-**  
13   **projects for TDSIC cost recovery?**

14   A:   First, it is important to point out that Vectren South removed multiple-unit projects  
15      in its TDSIC-8 filing. The Supreme Court Opinion states:

16               We conclude the TDSIC Statute does not apply to project categories  
17               or multiple-unit projects described using ascertainable criteria. The  
18               Statute requires the Commission to "designate" eligible projects in  
19               a threshold seven-year plan under Section 10. The only  
20               interpretation of "designate" that satisfies the dual statutory  
21               requirements of particularity and cost justification is one requiring  
22               projects to be identified with specificity from the outset. In addition,  
23               Section 9 "update" petitions enable the utility to obtain rate  
24               adjustments as it completes the approved projects and incurs the  
25               additional budgeted costs. The only projects consistent with Section  
26               10's preapproval requirement are those the utility specified at the  
27               beginning of the plan, and not "new" projects or those requiring the  
28               passage of time to specify later. The Commission erred when it  
29               authorized multiple-unit-project categories in a Section 10

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<sup>4</sup> Cause No. 44429 TDSIC-3, Order, pages 6-7.

1 proceeding and approved NIPSCO's later specification of projects  
2 under Section 9.

3 *Id.*, Slip Op. 10 - 11.

4 **Q: Has Vectren South included any new or emergent work or multiple-unit**  
5 **projects in its updated TDSIC Plan in this filing?**

6 A: No. My analysis confirmed Vectren South has not included any new or emergent  
7 work or multiple-unit projects in its updated 7-Year TDSIC Plan.

8 **Q: Have there been increases between Vectren South's most recently approved 7-**  
9 **Year TDSIC Plan previous project estimates (4/2/2018) and the current**  
10 **estimates?**

11 A: No. In fact there are only three project estimate changes for Petitioner's TDSIC  
12 "best estimates" and all of these projects (ID 12622617, 12631889 and ID  
13 15659599) have decreased estimates based on "detailed design" or "final road  
14 construction plans" (Petitioner's Exhibit No. 1, Confidential Attachment SAH-8).  
15 Project ID 12622617 was unbundled into one additional project (Project  
16 ID16063252). The combined current estimate total of the two projects is  
17 approximately \$600,000 less than the single original project estimate.

18 **Q: How does the 2018 TDSIC current update period (January 1 – June 30, 2018)**  
19 **Actual Spend for plan year 2018 compare to current estimates for the 2018**  
20 **TDSIC plan year?**

21 A: Petitioner's TDSIC 2018 Projects – 7 Year Plan Update (Petitioner's Exhibit No.  
22 1, Attachment SAH-9) has a 2018 updated plan budget of \$3,490,031. I confirmed  
23 Petitioner removed \$1,649,000 from the 7-Year Plan update for previously included  
24 MU projects as found by totaling Services Replacements and Gas Communication  
25 Equipment of SAH-9, Prior Plan - Fall 2017. Vectren South has invested \$463,061  
26 for the TDSIC projects in this update period of January 1 – June 30, 2018

(Petitioner's Exhibit No. 1, Attachment SAH-7), and none of the 2018 projects have exceeded the OUCC threshold during this current period, 1/1/18-6/30/18.

**Q: In your analysis of Vectren South's TDSIC Project category, are there actual costs that increased by \$100,000 or 20% in this period?**

A: Yes. I identified one TDSIC Project from 2017 (ID 12344251) and one TDSIC project from 2016 (ID JS101) from Attachment SAH-8 that show cost increases of \$100,000 or 20% from prior periods but have increases of less than 2.6% in this period and both of these projects are in service as of this filing. Both projects have minimal actual spending in the current period.

**Q: In your analysis of Vectren South's TDSIC Project category, are there any large projects specifically called out by Petitioner as potential to exceed "best estimate"?**

A: Yes. Petitioner has identified the Oliver Disposal Well - Project ID 317. The current estimated cost for this 2018 project is \$[REDACTED]. Project ID 317 has spent 90% of budget and Petitioner did not provide an updated budget. Petitioner's commentary on Petitioner's Exhibit No. 1, Attachment SAH-8 says the to-date charges have included preliminary engineering and partial material costs only. Petitioner goes on to say the project started in September 2018, significant issues have been encountered during the construction phase, and costs are trending above estimates. Petitioner says it has encountered construction challenges relating to well completion, and indicated the project will exceed the current estimate (Petitioner Exhibit No. 1, page 18, lines 5-8).

**IV. CONCLUSIONS AND RECOMMENDATIONS**

1   **Q:   Please summarize your recommendations.**

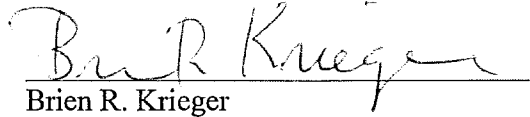
2   A:   For the reasons stated above, I recommend the Commission approve Vectren  
3       South's Updated 7-Year Plan. I also recommend Petitioner proactively engage the  
4       OUCC when a TDSIC project cost "best estimate" is over \$800,000 and the project  
5       is in early construction phase while the project is trending to exceed the OUCC  
6       threshold variances as discussed in my testimony for Compliance BSCI Project ID  
7       S-1177.

8   **Q:   Does this conclude your testimony?**

9   A:   Yes, it does.

**AFFIRMATION**

I affirm, under the penalties for perjury, that the foregoing representations are true.



Brien R. Krieger

Utility Analyst II

Indiana Office of Utility Consumer Counselor

Cause No. 44429 TDSIC-009

Vectren South

11/30/18

Date

**APPENDIX BRK-1 TO THE TESTIMONY OF**  
**OUCC WITNESS BRIEN R. KRIEGER**

1   **Q:   Please describe your educational background and experience.**

2   A:   I graduated from Purdue University in West Lafayette, Indiana with a Bachelor of Science  
3       Degree in Mechanical Engineering in May 1986, and a Master of Science Degree in  
4       Mechanical Engineering in August 2001 from Purdue University at the IUPUI campus.

5       From 1986 through mid-1997, I worked for PSI Energy and Cinergy progressing to  
6       a Senior Engineer. After the initial four years as a field engineer and industrial  
7       representative in Terre Haute, Indiana, I accepted a transfer to corporate offices in  
8       Plainfield, Indiana where my focus changed to industrial energy efficiency implementation  
9       and power quality. Early Demand Side Management (“DSM”) projects included ice  
10      storage for Indiana State University, Time of Use rates for industrials, and DSM  
11      Verification and Validation reporting to the IURC. I was an Electric Power Research  
12      Institute committee member on forums concerning electric vehicle batteries/charging,  
13      municipal water/wastewater, and adjustable speed drives. I left Cinergy and worked  
14      approximately two years for the energy consultant, ESG, and then worked for the OUCC  
15      from mid-1999 to mid-2001.

16      I completed my Masters in Engineering in 2001, with a focus on power generation  
17      including aerospace turbines and left the OUCC to gain experience and practice in turbines.  
18      I was employed by Rolls-Royce (2001-2008) in Indianapolis working in an engineering  
19      capacity for military engines. This work included: fuel-flight regime performance,  
20      component failure mode analysis, and military program control account management.

1 From 2008 to 2016 my employment included substitute teaching in the Plainfield,  
2 Indiana school district, grades 3 through 12. I passed the math Praxis exam requirement  
3 for teaching secondary school. During this period, I also performed contract engineering  
4 work for Duke Energy and Air Analysis.

5 Over my career I have attended various continuing education workshops at the  
6 University of Wisconsin and written technical papers. While previously employed at the  
7 OUCC, I completed Week 1 of NARUC's Utility Rate School hosted by the Institute of  
8 Public Utilities at Michigan State University. In 2016, I attended two cost of service/rate  
9 making courses: Rate Making Workshop (ISBA Utility Law Section) and Financial  
10 Management: Cost of Service Rate-Making (AWWA). In 2017, I attended the AGA Rate  
11 School sponsored by the Center for Business and Regulation in the College of Business &  
12 Management at the University of Illinois Springfield and attended Camp NARUC Week 2,  
13 Intermediate Course held at Michigan State University. I attended the 2018 Midwest  
14 Damage Prevention Training Conference November 14-16, 2018.

15 My current responsibilities include reviewing and analyzing Cost of Service  
16 Studies ("COSS") relating to cases filed with the Commission by natural gas, electric and  
17 water utilities. Additionally, I have taken on engineering responsibilities within the  
18 OUCC's Natural Gas Division.

19 **Q: Have you previously filed testimony with the Commission?**

20 **A:** Yes. I have provided written testimony concerning cost of service studies in Cause Nos.  
21 44731, 44880, 44988, 45027, 45072, and others. While previously employed by the OUCC,  
22 I wrote testimony concerning the Commission's investigation into merchant power plants,  
23 power quality, Midwest Independent System Operator power plants, power quality, and

1 other procedures. Additionally, I prepared testimony and position papers supporting the

2 OUCC's position on various electric and water rate cases during those same years.

3 **Q: Please describe the general review you conducted to prepare this testimony.**

4 A: I reviewed Petitioner's 7-Year TDSIC plan, TDSIC-8 and other Indiana TDSIC petitions.

5 I reviewed and analyzed Petitioner's prefiled direct testimony and confidential Attachments

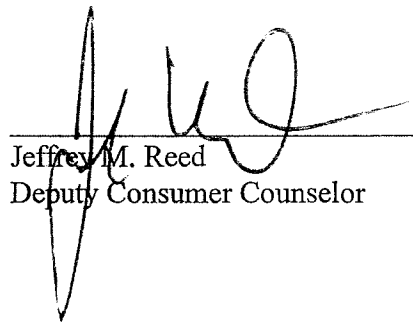
6 for TDSIC-9. Additionally I reviewed Indiana Code § 8-1-39.

**CERTIFICATE OF SERVICE**

This is to certify that a copy of the foregoing *Indiana Office of Consumer Counselor Public's Exhibit No. 2 Public (Redacted) Testimony of OUCC Witness Brien R. Krieger* has been served upon the following counsel of record in the captioned proceeding by electronic service on December 3, 2018.

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