

FILED
October 11, 2018
INDIANA UTILITY
REGULATORY COMMISSION

OFFICIAL
EXHIBIT

Petitioner's Exhibit No. 11
Vectren South
Page 1 of 11

**SOUTHERN INDIANA GAS AND ELECTRIC COMPANY
d/b/a VECTREN ENERGY DELIVERY OF INDIANA, INC.
(VECTREN SOUTH)**

IURC CAUSE NO. 45086

**IURC
PETITIONER'S**
EXHIBIT NO. _____
11-19-18 / _____
DATE REPORTER

**SETTLEMENT TESTIMONY
OF
J. CAS SWIZ
DIRECTOR, RATES AND REGULATORY ANALYSIS**

ON

RATEMAKING AND OTHER TERMS OF THE SETTLEMENT AGREEMENT

**SPONSORING PETITIONER'S EXHIBIT NO. 11
ATTACHMENT JCS-S1**

SETTLEMENT TESTIMONY OF J. CAS SWIZ

1 **I. INTRODUCTION**

2

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

4 A. J. Cas Swiz
5 One Vectren Square
6 Evansville, Indiana 47708

7

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

9 A. I am Director, Rates and Regulatory Analysis of Vectren Utility Holdings, Inc. ("VUHI"),
10 the immediate parent company of Southern Indiana Gas & Electric Company d/b/a
11 Vectren Energy Delivery of Indiana, Inc. ("Vectren South" or the "Company"). I hold the
12 same position with two other utility subsidiaries of VUHI—Indiana Gas Company, Inc.
13 d/b/a Vectren Energy Delivery of Indiana, Inc. ("Vectren North") and Vectren Energy
14 Delivery of Ohio, Inc. ("Vectren Ohio").

15

16 **Q. Are you the same J. Cas Swiz that previously testified on behalf of Vectren South
17 in this proceeding?**

18 A. Yes, I am.

19

20 **Q. What is the purpose of your testimony at this stage of the proceeding?**

21 A. My testimony supports the Stipulation and Settlement Agreement (the "Settlement
22 Agreement") entered into among Vectren South, the Indiana Office of Utility Consumer
23 Counselor ("OUCC") and Citizens Action Coalition of Indiana, Inc. ("CAC") (collectively,
24 the "Settling Parties") resolving all issues in Cause No. 45086 as between the Settling
25 Parties. Specifically, my testimony describes the relief Vectren South is seeking with
26 respect to the Settlement Agreement and the ratemaking approach agreed upon by the
27 Settling Parties. I also describe certain other substantive terms of the Settlement
28 Agreement and explain why I believe approval of the Settlement Agreement, in its
29 entirety, is in the public interest.

30

1 **Q. Are any other Vectren South witnesses sponsoring testimony in support of the**
2 **Settlement Agreement?**

3 A. Yes. Thomas L. Bailey, Director of Industrial Sales & Economic Development for VUHI
4 discusses and provides support for the terms of the Settlement Agreement relating to the
5 use of Renewable Energy Credits ("RECs"), as well as the terms relating to customer
6 specific contracts to purchase energy produced by the Solar Project. Mr. Bailey also
7 generally discusses how the terms of the Settlement Agreement benefit Vectren South's
8 customers as a whole.

9
10 **Q. Are you sponsoring any attachments to your settlement testimony proceeding?**

11 A. Yes. I am sponsoring:
12 • Petitioner's Exhibit No. 11, Attachment JCS-S1: Calculation of Levelized Rate

13
14 **Q. What relief is Vectren South requesting with respect to the Settlement**
15 **Agreement?**

16 A. Vectren South is requesting the Commission find the Settlement Agreement is
17 reasonable, supported by substantial record evidence, and in the public interest, and
18 that the Commission approve the Settlement Agreement in its entirety, without changes
19 or conditions. In addition, and consistent with the Settlement Agreement, Vectren South
20 is requesting that the Commission: (1) find that the Solar Project meets the requirements
21 of Ind. Code § 8-1-8.5-1 *et seq.* and grant Vectren South a Certificate of Public
22 Convenience and Necessity ("CPCN"); and (2) approve the proposed accounting and
23 ratemaking treatment related to constructing, owning, and operating the Solar Project as
24 set forth in the Settlement Agreement, and more fully described in my testimony.

25
26
27 **II. CPCN AND RELATED REQUESTS FOR RELIEF**

28
29 **Q. What does the Settlement Agreement provide with respect to Vectren South's**
30 **request for a CPCN?**

31 A. The Settling Parties agree the Commission should grant Vectren South a CPCN
32 pursuant to Ind. Code § 8-1-8.5-1 *et seq.*, to construct the Solar Project. The Settling
33 Parties also agree Vectren South's cost estimate for the Solar Project of \$76.174 million

1 (which was discussed in detail in the direct testimony of Petitioner's witness Wayne D.
2 Games) constitutes a reasonable estimate of the construction costs for the Solar Project
3 and should be approved in accordance with Ind. Code § 8-1-8.5-5. In addition, the
4 Settling Parties agree the Solar Project is a "clean energy project" as defined in Indiana
5 Code § 8-1-8.8-3.
6

7 **Q. Are the foregoing agreements supported by and consistent with the evidence**
8 **submitted by the Settling Parties in this proceeding?**

9 A. Yes. In its case-in-chief, Petitioner provided substantial evidence to support a
10 Commission finding that granting a CPCN for the construction of the Solar Project is in
11 the public interest. Petitioner also supported the estimated cost of the Solar Project as
12 well as the status of the project as a "clean energy project." CAC likewise supported the
13 Commission's granting a CPCN for the Solar Project as proposed in the Company's
14 case-in-chief. OUCC witness Haselden was opposed to the Solar Project largely
15 because he believed the cost to customers for energy produced by the project was too
16 high in comparison to prices that might be negotiated under a purchased power
17 agreement ("PPA"). To that end, Mr. Haselden proposed in his direct testimony that
18 Vectren South "should acquire solar power, from its proposed Solar Project or some
19 other project(s), at the lowest cost to participating customers." As I will discuss below,
20 the Settling Parties agreed upon ratemaking terms that reduce the cost per kilowatt hour
21 ("kWh") of energy produced by the Solar Project and thereby ensure that power from the
22 Solar Project is acquired at a favorable cost for renewable energy consistent with Mr.
23 Haselden's direct testimony.
24

25 **Q. What other agreements did the Settling Parties reach with respect to the**
26 **Commission's granting a CPCN in this proceeding?**

27 A. The Settling Parties agreed to use their best efforts to obtain an Order in this proceeding
28 on or before February 28, 2019. The purpose of this term is to enable Vectren South to
29 give First Solar notice to proceed on the project substation on or before April 1, 2019.
30 Substantial completion of the substation before the end of 2019 and commencement of
31 certain other engineering, procurement and permitting elements of the Solar Project will
32 ensure the Solar Project is eligible for the full 30% Investment Tax Credit ("ITC"). The
33 Settling Parties have agreed upon a non-traditional ratemaking approach which reduces

1 the cost per kWh to customers that is, in part, based on accelerating the flow of this tax
2 benefit to customers.

3
4
5 **III. USE OF LEVELIZED RATE**

6
7 **Q. How does the Settlement Agreement address concerns raised by Mr. Haselden**
8 **regarding the cost of the Solar Project?**

9 A. Based on the special nature of the Solar Project, including the availability of the ITC to
10 offset project costs, the Settling Parties recognized that it presented a unique opportunity
11 to evaluate alternative approaches to traditional ratemaking that would not be applicable
12 to other CPCN projects, including as I will discuss below any future expansions of the
13 Solar Project. Accordingly, the Settling Parties structured the ratemaking terms in the
14 Settlement Agreement to use a fixed levelized rate per kWh of produced energy
15 ("Levelized Rate") for the life of the investment in the Solar Project, subject to adjustment
16 only under limited circumstances.

17
18 **Q. What is the agreed upon Levelized Rate?**

19 A. The initial agreed upon Levelized Rate is \$0.05452 per kWh. As I will discuss below,
20 this rate is subject to adjustment, but only under specific limited circumstances.

21
22 **Q. How does the Levelized Rate compare to the cost per kWh set forth in Petitioner's**
23 **case-in-chief?**

24 A. The Levelized Rate approach results in a lower cost for customers than as proposed in
25 Vectren South's case-in-chief. The average cost of the Solar Project as set forth in
26 Vectren South's case-in-chief was approximately 7.1 cents per kWh over the life of the
27 asset. The Levelized Rate is even slightly lower than the rate Mr. Haselden calculated
28 using a discounted cash flow analysis in his direct testimony (*i.e.*, approximately 5.5
29 cents per kWh). As with Mr. Haselden's discounted cash flow analysis, the methodology
30 agreed upon in the Settlement Agreement achieves a lower cost of energy by, in part,
31 accelerating the flow of the ITC benefit to customers.

32

1 **Q. Aside from accelerating recognition of the ITC benefit, how else does the**
2 **Levelized Rate result in a lower cost per kWh?**

3 A. For purposes of compromise, certain other adjustments were made to the return on
4 equity ("ROE") and weighted average cost of capital ("WACC"), which further reduces
5 the Levelized Rate. In addition, the projected life of the project was extended from 30-
6 years to 35-years. A spreadsheet showing how the Levelized Rate was determined is
7 attached as Petitioner's Exhibit No. 11, Attachment JCS-S1. The adjustments shown in
8 Petitioner's Exhibit No. 11, Attachment JCS-S1 were made solely as a compromise in
9 this proceeding and in recognition of the unique characteristics of the Solar Project.
10 Based on the nature of the Solar Project and eligibility for ITCs, Vectren South was
11 willing to compromise on certain ratemaking components that would not otherwise be
12 modified outside of a base rate case. To that end, the Settlement Agreement contains
13 non-precedential language typical in settlement agreements presented to the
14 Commission.

15
16 **Q. In your opinion, does the Levelized Rate have benefits over rates that might be**
17 **included in a PPA with a merchant generator?**

18 A. Yes. In my opinion, the Levelized Rate is beneficial because it will not be subject to an
19 annual escalator like rates typically included in a PPA. In addition, as described by
20 Petitioner's witness Justin M. Joiner in his rebuttal testimony, Vectren South believes
21 development of the Solar Project as a Company-owned generation source is superior to
22 entering into a PPA or feed-in type arrangements. We believe that owning the resource
23 allows maximum operational flexibility to react to market and system conditions.
24 Furthermore, we believe that owning a renewable project interconnected with Vectren
25 South's system has substantial benefits with respect to congestion and other issues.

26
27 **Q. Please describe the circumstances under which the Levelized Rate could be**
28 **adjusted.**

29 A. The Levelized Rate can be adjusted in just three instances: (i) upon issuance of any
30 final order in a future base rate proceeding to capture the impact of changes to the
31 Company's approved ROE; (ii) if any adjustments are made to the law governing Indiana
32 State and/or Federal Income Tax Rates that result in a change to other approved tariff
33 rates; and (iii) to the extent First Solar Electric, LLC ("First Solar") pays Vectren South

1 Liquidated Damages as a result of the Solar Project failing to achieve the Minimum
2 Guaranteed Capacity or Guaranteed Capacity established in the Engineering,
3 Procurement and Construction Agreement ("EPC Agreement").
4

5 **Q. What is the purpose of these agreed-upon adjustment triggers?**

6 A. The adjustments are designed to ensure customers benefit from changes that might
7 reduce the Levelized Rate – or in the alternative, that the Company is not unfairly
8 burdened by such changes (*i.e.*, an increase in State or Federal Income Tax Rates).
9

10 **Q. In your opinion, is the Settling Parties' agreement to use a Levelized Rate**
11 **approach reasonable and in the public interest?**

12 A. Yes. The Levelized Rate approach reduces the overall impact of the Solar Project on
13 customer rates, while still making the Project feasible from the Company's perspective.
14 In my opinion, the approach represents a reasonable compromise between Vectren
15 South's and the OUCC's respective positions in this proceeding.
16
17

18 **IV. LEVELIZED RATE RECOVERED THROUGH CECA**
19

20 **Q. How will the Levelized Rate be applied to customer bills?**

21 A. The Levelized Rate will be incorporated into the Clean Energy Cost Adjustment
22 ("CECA") mechanism, which the Commission approved on August 16, 2017 in Cause
23 No. 44909 for renewable energy projects. Upon Commission approval of an Order in this
24 proceeding, the CECA will be used to recover: (i) the revenue requirement associated
25 with the three solar energy projects totaling approximately 4.3 MWac and two energy
26 storage systems approved in Cause No. 44909 (the "Cause No. 44909 Projects"); and
27 (b) the approved revenue requirement for the Solar Project. Vectren South is not
28 making any changes to the CECA mechanism as approved in Cause No. 44909 except
29 as necessary to support the incorporation of the Solar Project. The revenue requirement
30 for the Cause No. 44909 Projects will be determined in the manner approved in Cause
31 No. 44909.
32

33 **Q. How will the Solar Project component of the CECA be derived?**

1 A. The Solar Project component of the CECA will be derived by multiplying the then
2 effective Levelized Rate per kWh, by the projected kWh produced by the Solar Project
3 during the upcoming twelve (12) month period, grossed up for Indiana Utility Receipts
4 Tax ("IURT"). The projected kWh produced by the Solar Project during each of the 35-
5 year life of the Solar Project (the "Production Baseline") is set forth in a table included in
6 the Settlement Agreement.

7
8 **Q. Will the projected kWh produced by the Solar Project each year be reconciled to**
9 **the actual amount of energy generated?**

10 A. Under certain circumstances, yes. However, the intent of the Settling Parties is for
11 customers to pay a fixed rate per kWh for energy generated by the Solar Project.
12 Therefore, the projected kWh is subject to adjustment only to the extent that actual
13 annual production from the Solar Project for a rolling three-year period is less than 90%,
14 or greater than 110%, of the Production Baseline set forth in the table in the Settlement
15 Agreement for the same rolling three-year period. If actual annual production from the
16 Solar Project for a rolling three-year period is less than 90% of the Production Baseline,
17 customers will be entitled to a credit so long as the difference is not caused by a *force*
18 *majeure* event. This credit will be calculated by taking the difference between the
19 Production Baseline and actual production for the rolling three-year period multiplied by
20 the applicable Levelized Rate. Alternatively, if actual annual production from the Solar
21 Project for a rolling three-year period is greater than 110% of the Production Baseline,
22 an additional charge calculated in the same manner will be included in recoverable
23 CECA costs to recover the difference. In essence, the Settlement Agreement provides
24 for a symmetrical review of actual production so that customers pay less if production is
25 materially reduced and Vectren South is rewarded if production is materially higher than
26 projected such that the Solar Project provides more energy without fuel cost.

27
28 **Q. Are there other circumstances under which the projected kWh produced by the**
29 **Solar Project might be adjusted?**

30 A. Yes. To the extent Vectren South were to receive Liquidated Damages under the EPC
31 Agreement with First Solar due to decreased Solar Project production, and those
32 Liquidated Damages were used as an offset to revenue requirements, a corresponding

1 adjustment will be made to the annual Production Baseline for the impacted year(s) to
2 match the recalculated Levelized Rate due to decreased Solar Project production.
3

4 **Q. How will the CECA be allocated to the customer classes?**

5 A. As approved in Cause No. 44909, the CECA will be allocated to Vectren South's various
6 retail Rate Schedules using the 4CP allocation percentages approved in Vectren South's
7 most recent base rate case, modified to reflect the migration of a large customer to
8 Vectren South's LP rate schedule. The allocation factors are set forth in a table included
9 in the Settlement Agreement.
10

11 I would note that the allocation factors will be updated based on the results of a 4CP
12 Demand study to be presented in a subdocket to Cause No. 43354-MCRA21. Upon
13 Commission approval of the updated 4CP Allocation Factors, the revised factors will be
14 applied to the CECA in the next annual CECA filing
15

16 **Q. Please describe the process for filing the CECA.**

17 A. The CECA will be filed annually as a subdocket in Cause No. 44909, which is consistent
18 with the terms of the Order in Cause No. 44909. The initial CECA filing will be made on
19 February 1, 2019 for investments made and completed through December 31, 2018,
20 with initial CECA rates to be effective June 1, 2019. On February 1, 2020, Vectren
21 South will make the second CECA filing and propose two sets of rates for approval: (i)
22 the first set of rates, effective June 1, 2020, will recover the revenue requirement
23 associated with the Cause No. 44909 Projects only; and (ii) the second set of rates,
24 effective on the date of in-service of the Solar Project, will recover the revenue
25 requirement associated with both the Cause No. 44909 Projects as well as the Solar
26 Project. Thereafter, Vectren South will make CECA filings annually on February 1st of
27 each year. The CECA will be reconciled as a part of each annual CECA filing, with any
28 over- or under-recovery collection variances returned to or recovered from customers in
29 the Company's subsequent CECA filings as described in Cause No. 44909.
30
31

32 **V. FUTURE IMPROVEMENTS TO THE SOLAR PROJECT AND REPORTING**
33

1 **Q. To the extent future improvements are made to the Solar Project, will those**
2 **improvements be accounted for in the CECA?**

3 A. No. In the event an investment is made at a later date to either expand the Solar Project
4 to increase production or add technological improvements (e.g., battery storage or other
5 investments to extend the life of the Solar Project beyond that which is contemplated in
6 the Settlement Agreement), such investments will be included within standard Vectren
7 South rate base to be proposed for recovery in a future proceeding before the
8 Commission. This agreement reflects that the unique ratemaking arrangements made in
9 the Settlement Agreement are not applicable to other investments not eligible for the
10 ITC.
11

12 **Q. What reports will Vectren South file with respect to the Solar Project?**

13 A. Vectren South agrees to file public quarterly reports following the issuance of an Order in
14 this proceeding. The public quarterly reports will include information on the actual costs
15 incurred to date, projected costs through the end of construction of the Solar Project,
16 and anticipated completion (in-service) date of the Solar Project. In addition, Vectren
17 South will notify the Commission within 60 days of the project's in-service date.
18

19 After these initial filings, Vectren South will provide public informational updates to the
20 Commission and other stakeholders in its ongoing CECA filings. The information to be
21 included in the ongoing CECA public filings is as follows:

- 22 • generation output of the Solar Project (with monthly detail);
- 23 • the actual revenue requirement during the twelve (12) months covered by the report
24 (the "Reporting Period") based upon the Levelized Rate per kWh and the estimated
25 production for the twelve (12) month period;
- 26 • the actual production of the Solar Project compared to the Baseline Production over
27 a three-year rolling period;
- 28 • the total RECs proceeds (in U.S. dollars), if any, associated with solar generation at
29 the Solar Project; and
- 30 • the average annual billing impact on all customer classes

31
32
33 **VI. CONCLUSION**

1

2 **Q. In your opinion is the Settlement Agreement in the public interest?**

3 A. Yes. Vectren South engaged in good faith negotiations with the OUCC and CAC to
4 resolve the issues in this proceeding. The result is a Settlement Agreement that is good
5 for customers and will allow Vectren South to recover its prudently incurred costs
6 associated with the Solar Project. In particular, the agreed upon ratemaking terms
7 provide for reasonable cost recovery while providing related benefits and protections for
8 customers. Furthermore, the Commission and the public will be informed of the status of
9 the project through the initial informational filings and the ongoing CECA filings. The
10 Settlement Agreement provides a reasonable balance to the issues presented in this
11 proceeding.

12

13 **Q. Does this conclude your rebuttal testimony?**

14 A. Yes, at the present time.

VERIFICATION

I, J. Cas Swiz, Director – Rates and Regulatory Analysis for Vectren Utility Holdings, Inc., under the penalties for perjury, affirm that the answers in the foregoing Settlement Testimony are true to the best of my knowledge, information and belief.



J. Cas Swiz
Director – Rates and Regulatory Analysis

Levelized Revenue Requirement \$ 8,886,461
Levelized Production 104,297,379
Levelized Rate per kWh Produced (Excluding IURT) \$ 0.084622
Levelized Rate per kWh Produced (Including IURT) \$ 0.08533

	Year 0 2020	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039
Base Assumptions:																				
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
34																				
35																				
36																				
37																				
38																				
39																				
40																				
41																				
42																				
43																				
44																				
45																				
46																				
47																				
48																				
49																				
50																				
51																				
52																				
53																				
54																				
55																				
56																				
57																				
58																				
59																				
60																				
61																				
62																				
63																				
64																				
65																				
66																				
67																				
68																				
69																				
70																				
71																				
72																				
73																				
74																				
75																				
76																				
77																				
78																				
79																				
80																				
81																				
82																				
83																				
84																				
85																				
86																				
87																				
88																				
89																				
90																				
91																				
92																				
93																				
94																				
95																				
96																				
97																				
98																				
99																				
100																				
101																				
102																				
103																				
104																				
105																				
106																				
107																				
108																				
109																				
110																				
111																				
112																				
113																				
114																				
115																				
116																				
117																				
118																				
119																				
120																				
121																				
122																				
123																				
124																				
125																				
126																				
127																				
128																				
129																				
130																				
131																				
132																				
133																				
134																				
135																				
136																				
137																				
138																				
139																				
140																				
141																				
142																				
143																				
144																				
145																				
146																				
147																				
148																				
149																				
150																				
151																				
152																				
153																				
154																				
155																				
156																				
157																				
158																				
159																				
160																				
161																				
162																				
163																				
164																				
165																				
166																				
167																				
168																				
169																				
170																				
171																				
172																				
173																				
174																				
175																				
176																				
177																				
178																				
179																				
180																				
181																				
182																				
183																				
184																				
185																				
186																				
187																				
188																				
189																				
190																				
191																				
192																				
193																				
194																				
195																				
196																				
197																				
198																				
199																				
200																				

	Weighting	Cost	Abs-Tax WACC	Pre-Tax WACC	Abs-Tax WACC	without Tax Effects
1	51.00%	4.63%	4.46%	2.85%	4.50%	4.50%
2	49.00%	10.00%	4.90%	6.32%	4.90%	4.90%
3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	100.00%		7.36%	8.90%	8.90%	8.75%

Licensed Revenue Requirement \$ 6,656,451
 Licensed Production 104,297,372
 Licensed Rate per kWh Produced (Excluding IRT) \$ 0.0642
 Licensed Rate per kWh Produced (Including IRT) \$ 0.0933

	Year 0 2020	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	
80																					
81																					
82																					
83																					
84																					
85																					
86																					
87																					
88																					
89																					
90																					
91																					
92																					
93																					
94																					
95																					
96																					
97																					
98																					
99																					
100																					
101																					
102																					
103																					
104																					
105																					
106																					
107																					
108																					
109																					
110																					
111																					
112																					
113																					
114																					
115																					
116																					
117																					
118																					
119																					
120																					
121																					
122																					
123																					
124																					
125																					
126																					
127																					
128																					
129																					
130																					
131																					
132																					
133																					
134																					
135																					
136																					
137																					
138																					
139																					
140																					
141																					
142																					
143																					
144																					
145																					
146																					
147																					
148																					
149																					
150																					
151																					
152																					
153																					
154																					
155																					
156																					
157																					
158																					
159																					
160																					

