

**FILED**  
October 11, 2018  
**INDIANA UTILITY  
REGULATORY COMMISSION**

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**

**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 Parities") 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 leveled 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.

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       (ii) 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  
majeure* event. This credit will be calculated by taking the difference between the  
18 Production Baseline and actual production for the rolling three-year period multiplied by  
19 the applicable Levelized Rate. Alternatively, if actual annual production from the Solar  
20 Project for a rolling three-year period is greater than 110% of the Production Baseline,  
21 an additional charge calculated in the same manner will be included in recoverable  
22 CECA costs to recover the difference. In essence, the Settlement Agreement provides  
23 for a symmetrical review of actual production so that customers pay less if production is  
24 materially reduced and Vectren South is rewarded if production is materially higher than  
25 projected such that the Solar Project provides more energy without fuel cost.

26  
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 1<sup>st</sup> 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    Q. **What reports will Vectren South file with respect to the Solar Project?**

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

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

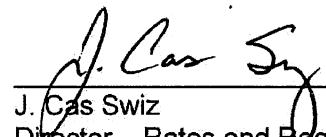
- 20    • generation output of the Solar Project (with monthly detail);  
21    • the actual revenue requirement during the twelve (12) months covered by the report  
22    (the "Reporting Period") based upon the Levelized Rate per kWh and the estimated  
23    production for the twelve (12) month period;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

30    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

Leveled Revenue Requirement	\$ 5,886,451
Leveled Production	\$ 10,297,737
Leveled Rate per kWh Produced (Excluding IURT)	\$ 0.05452
Leveled Rate per kWh Produced (Including IURT)	\$ 0.05533

	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
--	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------

#### 1 Base Assumptions:

#### 2 Plant Investment

#### 3 Total Depreciable Base

#### 4 MW AC

#### 5 Cost per MW

#### 6 ITC Eligible Percentage

#### 7 ITC Base

#### 8 ITC Percentage - 2019

#### 9 Investment Tax Credit Total

#### 10 State Tax Rate

#### 11 Federal Tax Rate

#### 12 Effective Tax Rate

#### 13 Production

#### 14 MW AC

#### 15 Capacity Factor

#### 16 Estimated Capacity (MW)

#### 17 Annual Hours

#### 18 Annual Estimated kWh

#### 19 Panel Degradation

#### 20 kWh Produced

#### 21 Depreciation

#### 22 Book Life - Years

#### 23 Annual Depreciation Rate

#### 24 Annual Book Depreciation Expense

#### 25 Net Book Value - End of Year

#### 26 MACRS Depreciation - 5 Years

#### 27 Gross Asset Balance

#### 28 50% of ITC Credit (Federal Only)

#### 29 Federal Tax Basis

#### 30 Federal Tax Depreciation

#### 31 Federal Tax Book Value - End of Year

#### 32 MACRS Depreciation - 5 Years

#### 33 Gross Asset Balance

#### 34 50% of ITC Credit (Federal Only)

#### 35 Federal Tax Basis

#### 36 Federal Tax Depreciation

#### 37 Federal Tax Book Value - End of Year

#### 38 MACRS Depreciation - 5 Years

#### 39 Gross Asset Balance

#### 40 50% of ITC Credit (State)

#### 41 State Tax Basis

#### 42 State Tax Depreciation

#### 43 State Tax Book Value - End of Year

#### 44 Investment Tax Credit Life

#### 45 Investment Tax Credit Amortization

#### 46 ITCA Liability - End of Year

#### 47 Deferred Taxes

#### 48 DIT Liability/(Asset) Activity - ITC Liability

#### 49 ADIT Liability/(Asset) Balance - ITC Liability

#### 50 DIT Liability/(Asset) Activity - Federal Basis Reduction

#### 51 ADIT Liability/(Asset) Balance - Federal Basis Reduction

#### 52 DIT Liability/(Asset) Activity - Federal Depreciation

#### 53 ADIT Liability/(Asset) Balance - Federal Depreciation

#### 54 DIT Liability/(Asset) Activity - Federal Basis Reduction

#### 55 ADIT Liability/(Asset) Balance - Federal Basis Reduction

#### 56 DIT Liability/(Asset) Activity - Federal Depreciation

#### 57 ADIT Liability/(Asset) Balance - Federal Depreciation

#### 58 DIT Liability/(Asset) Activity - State Depreciation

#### 59 ADIT Liability/(Asset) Balance - State Depreciation

#### 60 DIT Liability/(Asset) Activity - State Depreciation

#### 61 ADIT Liability/(Asset) Balance - State Depreciation

#### 62 DIT Liability/(Asset) Activity - State Depreciation Impact to Federal

#### 63 ADIT Liability/(Asset) Balance - State Depreciation Impact to Federal

#### 64 DIT Liability/(Asset) Activity - State Depreciation Impact to Federal

#### 65 ADIT Liability/(Asset) Balance - State Depreciation Impact to Federal

#### 66 DIT Liability/(Asset) Activity

#### 67 ADIT Liability/(Asset) Balance

#### 68 Expenses

#### 69 O&M Escalation Annual

#### 70 O&M Expense

#### 71 Asset Township Location

#### 72 Property Tax Rate

#### 73 Ad Valorem Tax Floor?

#### 74 Assessed Value Floor Percentage

#### 75 Abatement Percentage

#### 76 Effective Property Tax Rate

#### 77 Taxable Value (If Yes, Gross Plant - If No, Tax Basis)

#### 78 Property Tax Expense

#### 79 Capital Structure

#### 80 Weighting

#### 81 Cost

#### 82 After-Tax WACC

#### 83 Pre-Tax WACC

#### 84 After-Tax WACC without Tax Shield

#### 85 Debt

#### 86 Equity

#### 87 Cost Free

#### 88 Other

#### 89 100.0%





