

# **Indiana Utility Regulatory Commission**

## **VECTREN SOUTH ELECTRIC RATE CASE**

**Curt Gassert/Jerry Webb**

**September, 2007**

## Revenue Requirement Comparisons - Settlement

	<u>Settlement</u>	<u>VSE</u> <u>Rebuttal</u>	<u>OUCC</u>	<u>Difference</u> <u>Settlement/VSE</u>	<u>Difference Settlement/</u> <u>OUCC</u>
1 Operating Revenue	\$479,915,205	\$493,075,589	\$464,074,256	(\$13,160,384)	\$15,840,949
Expenses:					
2 Fuel and Purchased Power	158,632,230	158,632,230	158,566,112	-	66,118
3 Operation and Maintenance Expense	122,673,095	124,052,941	119,422,508	(1,379,846)	3,250,587
4 Asset Charge	8,558,504	8,906,892	8,233,232	(348,388)	325,272
5 Depreciation Expense	64,274,381	64,274,381	61,955,936	-	2,318,445
6 Taxes Other Than Income Taxes	14,875,486	15,059,291	14,654,254	(183,805)	221,232
7 Income Taxes	34,501,310	39,069,856	30,685,343	(4,568,546)	3,815,967
8 Total Expenses	403,515,006	409,995,591	393,517,385	(6,480,585)	9,997,621
9 Net Operating Income	\$76,400,199	\$83,079,998	\$70,556,871	(\$6,679,799)	\$5,843,328

## Rate Base and Rate Increase Comparisons - Settlement

	<u>Settlement</u>	<u>VSE</u> <u>Rebuttal</u>	<u>OUC</u>	<u>Difference</u> <u>Settlement/</u> <u>VSE</u>	<u>Difference</u> <u>Settlement/</u> <u>OUC</u>
10 Rate Base	\$1,043,718,562	\$1,043,718,562	\$1,042,198,970	-	\$1,519,592
11 Rate of Return	<b>7.32%</b>	<b>7.96%</b>	<b>6.77%</b>	<b>-0.64%</b>	<b>0.55%</b>
12 Net Operating Income (NOI)	76,400,199	83,079,998	70,556,871	(6,679,799)	5,843,328
13 NOI at Present Rates	37,158,487	36,185,372	40,557,926	973,115	(3,399,439)
14 NOI Shortfall	39,241,712	46,894,626	29,998,945	(7,652,914)	9,242,767
15 Revenue Conversion Factor	0.583473	0.583152	0.583473	0.000321	-
16 Revenue Increase	67,255,394	80,415,778	51,414,445	(13,160,383)	15,840,949
17 Less: Municipal Cust. Rev. (GCRA)	(6,460,747)	(13,680,764)	(13,680,764)	7,220,017	7,220,017
18 Adjusted Revenue Increase	\$60,794,647	\$66,735,014	\$37,733,681	(\$5,940,366)	\$23,060,966
19 Revenue at Present Rates	\$412,659,811	\$412,659,811	\$412,659,811	\$412,659,811	\$412,659,811
20 Percent Rate Increase	<b>14.73%</b>	<b>16.17%</b>	<b>9.14%</b>	<b>-1.44%</b>	<b>5.59%</b>
21 Percent Rate Increase - Rounded	<b>15.00%</b>				

## Key Components of Settlement

- Settlement reduced the amount of municipal contract revenues passed back to customers by \$7,220,017.
- OUCC compromised much more than VSE on revenue increase.
- OUCC increased their position by \$23 million while VSE reduced their position by \$5,940,366.
- Even when one considers the \$7,220,017 municipal contract revenue decrease, OUCC compromised more.

## Operation & Maintenance Difference - Settlement

	<u>Settlement</u>	<u>VSE Rebuttal</u>	<u>Oucc</u>	<u>Difference Settlement/ VSE</u>	<u>Difference Settlement/ Oucc</u>
Restricted Stock and Stock Options	\$617,289	\$617,289	\$148,785	\$ -	\$468,504
Incentive Compensation	311,785	311,785	(492,277)	-	804,062
Training Expense	141,468	144,270	133,360	(2,802)	8,108
Incremental Headcount	217,094	344,190	182,679	(127,096)	34,415
Payroll Tax Adder	-	-	8,778	-	(8,778)
Aging Workforce - Power Supply	885,351	909,018	835,330	(23,667)	50,021
Aging Workforce - Energy Delivery	1,287,995	1,287,995	1,165,478	-	122,517
Boiler Outage and Maintenance	1,078,855	1,078,855	970,778	-	108,077
Substation Inspection Program	751,068	823,192	428,484	(72,124)	322,584
Underground Facilities Maintenance	327,162	342,037	271,832	(14,875)	55,330
Line Clearance	1,653,000	1,880,232	1,653,000	(227,232)	-
Overhead Facilities Maintenance	2,478,136	2,682,538	1,773,028	(204,402)	705,108
Reliability Studies and Planning	93,750	102,500	85,000	(8,750)	8,750

## Operation & Maintenance Difference – Settlement

continued	<u>Settlement</u>	<u>VSE Rebuttal</u>	<u>OUCC</u>	<u>Difference Settlement/VSE</u>	<u>Difference Settlement/OUCC</u>
Uncollectible Accounts Expense	\$(692,714)	\$(411,959)	\$(733,899)	\$(280,755)	\$41,185
Meter Reading Costs	29,133	39,467	-	(10,334)	29,133
Sales and Marketing Costs	93,000	93,000	95,090	-	(2,090)
Safety Communication Costs	120,000	400,000	120,000	(280,000)	-
MISO Day 1 Deferral Amortization Costs	1,501,694	1,501,694	1,198,460	-	303,234
Injuries and Damages Claims	(833,893)	(720,560)	(678,893)	(113,333)	(155,000)
Other Cost Reductions	(99,680)	(99,680)	(344,680)	-	245,000
Customer Service Costs	93,000	93,000	-	-	93,000
IURC Fee	<u>147,662</u>	<u>162,138</u>	<u>130,237</u>	<u>(14,476)</u>	<u>17,425</u>
Total	\$10,201,155	\$11,581,001	\$6,950,570	(\$1,379,846)	3,250,585
Operation & Maintenance Expense per Settlement				\$122,673,095	\$122,673,095
Less: Operation & Maintenance Expense per VSE Rebuttal and OUCC Direct respectively				<u>124,052,941</u>	<u>119,422,508</u>
VSE Rebuttal/OUCC Direct O&M Expense differences from Settlement O&M Expense				<u>(\$1,379,846)</u>	<u>\$3,250,587</u>

## Vectren South Energy Contested Adjustment Summary

1	Labor Costs: To Reflect Increase in Restricted Stock and Stock Option Expense	\$617,289
2	Labor Costs: To Reflect Increase in Annual Incentive Compensation Expense	\$311,785
3	Training Expenses: To Reflect Increase in Training Expenses	\$145,403
4	Labor Costs: To Reflect Increase in Labor Costs for Increased Headcount	\$1,671,876
5	Labor Costs: To Reflect Power Supply Aging Workforce Costs	\$1,392,899
6	Labor Costs: To Reflect Energy Delivery Aging Workforce Costs	\$1,719,580
7	Boiler Outage and Maintenance Expense: To Reflect Increase in Boiler Outage and Maintenance Expense	\$1,078,855
8	Substation Inspection Program Costs: To Reflect Increase in Substation Inspection Costs	\$1,005,479
9	Underground Facilities Maintenance Expense: To Reflect Increase in Underground Facilities Maintenance Expenses	\$354,280

Continued

## Vectren South Energy Contested Adjustment Summary

	Continued	
10	Line Clearance Expense: To Reflect Increase in Line Clearance Expenses	\$1,880,232
11	Overhead Facilities Maintenance Expense: To Reflect Increase in Overhead Facilities Maintenance Expenses	\$3,160,733
12	Reliability Studies and Planning Costs: To Reflect Increase in Reliability Studies and Planning Costs	\$102,500
13	Uncollectible Accounts Expense: To Reflect Uncollectible Accounts Expense Based on 5-Year Average	(\$372,386)
14	Meter Reading Expense: To Reflect Increase in Meter Reading Expenses	\$39,467
15	Economic Development and Marketing Expense: To Reflect Increase in Economic Development and Marketing Expenses	\$95,090
16	Safety Communication Expense: To Reflect Increase in Safety Communication Expenses	\$400,000
17	MISO Day 1 Costs Amortization: To Reflect Amortization of Deferred MISO Day 1 Costs and Estimated MISO Day 1 Costs from 4/1/06 - 3/31/07	\$1,501,694
18	Claims Expense: To Reflect Decrease in Claims Expense Based on 3 Year Average	(\$678,893)
19	Customer Contact Center Expense: To Reflect Increase in Customer Contact Center Expenses	\$157,036



## Uncollectible Expense

- To calculate the uncollectible expense (or level of bad debt), Vectren South Energy (VSE) utilized the five years ending with the test year and determined an average of 0.38% of revenues.
- OUCC proposed to use the three years ending with the test year, which resulted in 0.26%. The OUCC argued the first two years of the five years had unusually high levels, 0.58% and 0.65% respectively. Furthermore, VSE indicated it had taken steps recently to improve collections and minimize bad debt such as:
  - Using an outside firm specializing in automated calling for payment management to make pre-disconnect calls to customers to encourage timely payment.
  - Implementing positive identification and credit verification upon account initialization
  - Requiring paid deposits from new customers failing to meet IURC approved deposit requirements or from customers with a previous non-payment history.
  - Requiring deposits to be paid in advanced before service is reconnected following disconnection for non-payment.
  - Requiring deposits of twice the average monthly bill for residential and twice the highest monthly bill for commercial customers.
- On Rebuttal VSE argued despite all the improved practices, for the most recent 12-month period, the actual ratio was 0.28% and the most recent three year average was 0.31%. VSE recommends 0.31%.
- In Settlement, VSE agreed with the OUCC's 0.26%.

# Cost of Common Equity Models

## Discounted Cash Flow Model

The DCF model is used by investors to determine the appropriate price to pay for a specific security. The model assumes that the price of the security is determined by expected cash flows discounted by the company's cost of common equity.

$$K = D_1/P_0 + g$$

K = cost of common equity

$D_1$  = anticipated dividends

$P_0$  = price of security

g = growth of dividends (models may assume constant growth rate or two-stage growth rate)

## Capital Asset Pricing Model

CAPM is based on the premise that investors require a higher return for assuming additional risk. Total risk is divided into two categories: unsystematic risk which is unique to the company (strikes, merger, individual financing, management errors, etc.) and systematic risk which affects the entire market (inflation, monetary policy, politics, etc.)

$$K = R_f + \beta (R_m - R_f)$$

$R_f$  = risk free rate of return

$\beta$  (Beta) = relationship of the volatility of one company's stock price relative to the overall market

$R_m$  = market return

$(R_m - R_f)$  = expected market equity risk premium

## Risk Premium

The Risk Premium method recognizes that common equity is more risky than debt from an investor's standpoint, and that investors require higher returns on stocks than bonds to compensate for the additional risk.

$$K = R_f + (\text{historical bond-equity spread})$$

## Comparable Earnings

Supreme Court cases, such as *Hope*, decreed that allowable return on (or cost of) common equity should be commensurate with returns on investments in other firms having comparable risk, and that the allowed return should be sufficient to assure confidence in the financial integrity of the firm, in order to maintain credit worthiness and ability to attract capital on reasonable terms.

## Common Adjustments

- Size Adjustment – Historically small companies are more riskier than large companies
- Floatation Costs – Costs associated when a company issues stock

## Cost of Common Equity -- Differences

	<b>VSE</b>	<b>OUCC</b>	<b>Industrial Group</b>	
<b>Cost of Common Equity</b>	<b>12%</b>	<b>9.25%</b>	<b>9.8%</b>	
Models relied upon	DCF, CAPM, Risk Premium, and Comparable Earnings	DCF and CAPM	DCF, CAPM, and Risk Premium	
<b>DCF</b>	<b>10.58%</b>	<b>9.25%</b>	Constant Growth	Two Stage
			<b>9.7%</b>	<b>9.1%</b>
Dividend Yield	4.32% ( Dec'05-May'06)	3.9% (Sep'06-Feb'07)	Relied on quarterly dividend	
Growth rate	5.5%	5.25%	5.8%	
<b>CAPM</b>	<b>12.62%</b>	<b>8.7%</b>	<b>10.3%</b>	
$\beta$ (Beta)	0.94	0.88	0.80	
Risk free rate of return	5.50%	5. %	5.1%	
Equity Risk premium	6.27%	4.15%	6.5%	
Adjustments	Upward for size (1.02%) and floatation rate (0.21%)	None	None	
<b>Risk Premium</b>	<b>11.71%</b>	-	<b>10%</b>	
<b>Comparable Earnings</b>	<b>15.25%</b>	-	-	

## Capital Structure -- Settlement

	Amount (\$000's)	Weight	Cost	Weighted Cost
Common Equity	\$549,508	47.05 %	<b>10.40 %</b>	4.89%
Long Term Debt	451,347	38.65 %	6.04%	2.34%
Customer Deposits	5,601	0.48%	5.39%	0.03%
Cost Free Capital	152,477	13.06 %	0.00%	0.00%
Post 1979 Job Development Investment Tax Credit	8,920	0.76%	8.43%	0.06%
	<b>\$1,167,85</b>			<b>7.32%</b>