

Date Filed: April 25, 2014

# Exhibit 6 CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY



Date Filed: April 25, 2014

#### Exhibit 6

#### Tab 1 of 1

## Calculation of Revenue Deficiency or Sufficiency



 File Number:
 EB-2014-0113

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#### REVENUE DEFICIENCY OR SUFFICIENCY

2 STEI's net revenue deficiency is \$761,745. This deficiency is calculated as the difference

- 3 between the 2015TY Base Service Revenue Requirement of \$7,962,742 and the Forecast
- 4 2015TY Base Revenue, at the 2014 approved rates, of \$7,209,267.

6 The revenue deficiency is net of electricity costs.

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#### REVENUE REQUIREMENT

9 STEI's Revenue Requirement consists of the following:

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- Operation & Maintenance Expense
- Administrative & General, Billing & Collecting Expense
- Depreciation Expense
- 14 Property Taxes
- 15 PILs
  - Deemed Interest & Return on Equity (i.e. Return on Rate Base)

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- 18 STEI's base revenue requirement is primarily received through electricity distribution rates and
- offset by revenue from Board approved specific service charges, late payment charges, interest,
- and other operating income.

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#### 22 CALCULATION OF REVENUE DEFICIENCY OR SUFFICIENCY

23 STEI's detailed calculation of the revenue deficiency is provided in the following Table 6-1:



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Table 6-1

#### Revenue Deficiency/Sufficiency

		Initial Appl	ication
Line No.	Particulars	At Current Approved Rates	At Proposed Rates
1	Revenue Deficiency from Below		\$761,745
2	Distribution Revenue	\$6,713,223	\$6,704,953
3	Other Operating Revenue Offsets - net	\$496,044	\$496,044
4	Total Revenue	\$7,209,267	\$7,962,742
5	Operating Expenses	\$5,842,839	<b>\$</b> 5,842,839
6	Deemed Interest Expense	\$886,973	\$886,973
8	Total Cost and Expenses	\$6,729,812	\$6,729,812
9	Utility Income Before Income Taxes	\$479,455	\$1,232,930
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$838,412)	(\$838,412)
11	Taxable Income	(\$358,957)	\$394,518
12	Income Tax Rate	15.50%	15.50%
13	Income Tax on Taxable	(\$55,638)	\$61,150
14	Income Income Tax Credits	•	\$ -
15	Utility Net Income	\$ - \$535,094	\$1,178,768
• • •		804 404 405	#04 404 40F
16	Utility Rate Base	\$31,484,195	\$31,484,195
17	Deemed Equity Portion of Rate Base	\$12,593,678	\$12,593,678
18	Income/(Equity Portion of Rate Base)	4.25%	9.36%
19	Target Return - Equity on Rate Base	9.36%	9.36%
20	Deficiency/Sufficiency in Return on Equity	-5.11%	0.00%
21	Indicated Rate of Return	4.52%	6.56%
22	Requested Rate of Return on	6.56%	6.56%
	Rate Base		
23	Deficiency/Sufficiency in Rate of Return	-2.04%	0.00%
24	Target Return on Equity	\$1,178,768	\$1,178,768
25 26	Revenue Deficiency/(Sufficiency) Gross Revenue Deficiency/(Sufficiency)	\$643,675 \$761,745 <b>(1)</b>	(\$0)

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#### REVENUE DEFICIENCY COST DRIVERS

- 2 The revenue deficiency of \$761,745 is calculated as the difference between the 2015TY base
- 3 service revenue requirement of \$7,962,742 and the forecasted 2015TY base service revenue
- 4 requirement based on the 2014 approved rates. The revenue deficiency represents an 11.4%
- 5 increase vs. Distribution Revenue at current rates.

7 STEI notes there are three primary factors that contribute to the 2015TY revenue deficiency.

#### Restructuring & Incremental Expenses

#### 10 Asset Transfer

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- 12 January 1, 2012 STEI restructured from a virtual utility to a fully operational utility. As a result
- 13 AESI transferred \$1,407,734 in utility specific assets to STEI resulting in an increase in revenue
- requirement of \$188,000. Prior to 2012 STEI operated as a virtual utility in that STEI had no
- 15 employees and acquired services from third parties, primarily affiliates via a Master Services
- 16 Agreement ("MSA").

#### 18 Incremental distribution system operation, maintenance and administration

- 20 The increase in the revenue is required for business planning and asset management; required
- 21 to maintain and operate STEI's distribution assets and the additional costs associated with;
- customer care, including metering, billing and collecting, administrative, regulatory, depreciation
- and taxes as well as the continued investment in STEI's DS Plan, outage management system,
- 24 continued support of public initiatives and to provide financial stability.

The costs required to continue providing the customer with the safe and reliable services that they are accustomed to receiving is estimated to be \$234,000.



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(The revenue increase associated with the asset transfer of \$188,000 represents the total additional costs, it is important to note that these assets were included in the 2011 Board-approved capital costs as third party costs. Therefore the net of the difference would be less than the \$188,000 presented. The difference would reduce the asset value transfer amount and increase the amount identified as incremental distribution system operating, maintenance and administration costs).

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#### Smart Meter Transfer

An increase in the revenue requirement of \$340,000 to recover the capital and operating costs and to earn a fair return on the assets associated with the mandated smart meter implementation. The recovery of costs associated with smart meters was the subject of a Smart Meter Prudence Review application (EB-2012-0348). The outcome of that application was a Board decision that approved smart Rate Rider for Disposition of Residual Historical Smart Meter Costs that expires April 30, 2014 and a Rate Rider for Recovery of Smart Meter Incremental Revenue that expires with STEI's 2015 Cost of Service Application.



Exhibit: 6
Tab: 1
Schedule: 1

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#### Attachment 1 of 1

**OEB RRWF Model** 





Version

<b>Utility Name</b>	St. Thomas Energy Inc.	
Service Territory		
Assigned EB Number	EB-2014-0113	
Name and Title	Robert Kent, Director Finance and Regulatory Affairs	
Phone Number	1-519-631-5550 x 5258	
Email Address	rkent@sttenergy.com	

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While this model has been provided in Excel format and is required to be filed with the applications, the onus remains on the applicant to ensure the accuracy of the data and the



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results.



1. Info 6. Taxes\_PILs

2. Table of Contents 7. Cost\_of\_Capital

3. Data Input Sheet 8. Rev Def Suff

4. Rate\_Base 9. Rev\_Reqt

5. Utility Income

#### Notes:

(1) Pale green cells represent inputs

Pale green boxes at the bottom of each page are for additional notes

(3) Pale yellow cells represent drop-down lists

(4) Please note that this model uses MACROS. Before starting, please ensure that macros have been enabled.

(5) Completed versions of the Revenue Requirement Work Form are required to be filed in working Microsoft Excel



#### Data Input (1)

		Initial Application	(2)			(6)	Per Board Decision	_
1	Rate Base							
	Gross Fixed Assets (average) Accumulated Depreciation (average)	\$52,172,331 (\$25,737,485)	(5)	\$	52,172,331 (\$25,737,485)		\$52,172,331 (\$25,737,485)	)
	Allowance for Working Capital: Controllable Expenses Cost of Power	\$4,634,620 \$34,206,528		\$ \$	4,634,620 34,206,528		\$4,634,620 \$34,206,528	
	Working Capital Rate (%)	13.00%	(9)		13.00%	(9)	13.00%	(9)
2	<u>Utility Income</u> Operating Revenues:							
	Distribution Revenue at Current Rates Distribution Revenue at Proposed Rates Other Revenue:	\$6,713,223 \$7,466,698						
	Specific Service Charges Late Payment Charges	\$67,401 \$120,000						
	Other Distribution Revenue Other Income and Deductions	\$308,643						
	Total Revenue Offsets	\$496,044	(7)					
	Operating Expenses:							
	OM+A Expenses	\$4,532,520		\$	4,532,520		\$4,532,520	
	Depreciation/Amortization	\$1,208,219		\$	1,208,219		\$1,208,219	
	Property taxes	\$102,100		\$	102,100		\$102,100	
	Other expenses	\$ -			0		\$0	
3	Taxes/PILs							
	Taxable Income:	( <b>0000 440</b> )	(2)					
	Adjustments required to arrive at taxable income	(\$838,412)	(3)					
	Utility Income Taxes and Rates:							
	Income taxes (not grossed up)	\$45,767						
	Income taxes (grossed up)	\$54,162						
	Federal tax (%) Provincial tax (%)	4.50% 11.00%						
	Income Tax Credits	11.0070						
4	Capitalization/Cost of Capital Capital Structure:							
	Long-term debt Capitalization Ratio (%)	56.0%						
	Short-term debt Capitalization Ratio (%)	4.0%	(8)			(8)		(8)
	Common Equity Capitalization Ratio (%)	40.0%						
	Prefered Shares Capitalization Ratio (%)	100.0%						
	Cost of Capital							
	Long-term debt Cost Rate (%)	4.88%						
	Short-term debt Cost Rate (%)	2.11%						
	Common Equity Cost Rate (%) Prefered Shares Cost Rate (%)	9.36%						
	Prefered Shares Cost Rate (%)							

#### Notes:

General Data inputs are required on Sheets 3. Data from Sheet 3 will automatically complete calculations on sheets 4 through 9 (Rate Base through Revenue Requirement). Sheets 4 through 9 do not require any inputs except for notes that the Applicant may wish to enter to support the results. Pale green cells are available on sheets 4 through 9 to enter both footnotes beside key cells and the related text for the notes at the bottom of each sheet.

- (1) All inputs are in dollars (\$) except where inputs are individually identified as percentages (%)
- Data in column E is for Application as originally filed. For updated revenue requirement as a result of interrogatory responses, technical or settlement conferences, etc., use
- (2) colimn M and Adjustments in column I
- (3) Net of addbacks and deductions to arrive at taxable income.
- (4) Average of Gross Fixed Assets at beginning and end of the Test Year
- (5) Average of Accumulated Depreciation at the beginning and end of the Test Year. Enter as a negative amount.
- Select option from drop-down list by clicking on cell M10. This column allows for the application update reflecting the end of discovery or Argument-in-Chief. Also, the outcome of any Settlement Process can be reflected.
- (7) Input total revenue offsets for deriving the base revenue requirement from the service revenue requirement
- (8) 4.0% unless an Applicant has proposed or been approved for another amount.
- (9) Starting with 2013, default Working Capital Allowance factor is 13% (of Cost of Power plus controllable expenses). Alternatively, WCA factor based on lead-lag study or approved WCA factor for another distributor, with supporting rationale.



#### **Rate Base and Working Capital**

#### **Rate Base**

Line No.	Particulars	_	Initial Application				Per Board Decision
1	Gross Fixed Assets (average)	(3)	\$52,172,331	\$ -	\$52,172,331	\$ -	\$52,172,331
2	Accumulated Depreciation (average)	(3)	(\$25,737,485)	\$ -	(\$25,737,485)	\$ -	(\$25,737,485)
3	Net Fixed Assets (average)	(3)	\$26,434,845	 \$ -	\$26,434,845	\$ -	\$26,434,845
4	Allowance for Working Capital	(1)	\$5,049,349	 \$ -	\$5,049,349	\$ -	\$5,049,349
5	Total Rate Base	_	\$31,484,195	 \$ <u>-</u>	\$31,484,195	<u> </u>	\$31,484,195

#### (1) Allowance for Working Capital - Derivation

Controllable Expenses		\$4,634,620	\$ -	\$4,634,620	\$ -	\$4,634,620
Cost of Power		\$34,206,528	\$ -	\$34,206,528	\$ -	\$34,206,528
Working Capital Base		\$38,841,148	\$ -	\$38,841,148	\$ -	\$38,841,148
Working Capital Rate %	(2)	13.00%	0.00%	13.00%	0.00%	13.00%
Working Capital Allowance	:	\$5,049,349	\$ -	\$5,049,349	<del></del> -	\$5,049,349

#### <u>Notes</u>

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Some Applicants may have a unique rate as a result of a lead-lag study. The default rate for 2014 cost of service applications is 13%. Average of opening and closing balances for the year.



#### **Utility Income**

Line No.	Particulars	Initial Application				Per Board Decision
1	Operating Revenues: Distribution Revenue (at	\$7,466,698	(\$7,466,698)	\$ -	\$ -	\$ -
2	Proposed Rates) Other Revenue	\$496,044	(\$496,044)	<u> </u>	<u> </u>	\$ -
3	Total Operating Revenues	\$7,962,742	(\$7,962,742)	\$-	\$-	\$ -
	Operating Expenses:					
4	OM+A Expenses	\$4,532,520	\$ -	\$4,532,520	\$ -	\$4,532,520
5	Depreciation/Amortization	\$1,208,219	\$ -	\$1,208,219	\$ -	\$1,208,219
6	Property taxes	\$102,100	\$ -	\$102,100	\$ -	\$102,100
7	Capital taxes	\$ -	\$ -	\$ -	\$ -	\$ -
8	Other expense	\$ -	<u> </u>	<u> </u>	\$-	<u> </u>
9	Subtotal (lines 4 to 8)	\$5,842,839	\$ -	\$5,842,839	\$ -	\$5,842,839
10	Deemed Interest Expense	\$886,973	(\$886,973)	\$-	<u>     \$ -</u>	<u> </u>
11	Total Expenses (lines 9 to 10)	\$6,729,812	(\$886,973)	\$5,842,839	\$-	\$5,842,839
12	Utility income before income taxes	\$1,232,930	(\$7,075,769)	(\$5,842,839)	<u>\$ -</u>	(\$5,842,839)
13	Income taxes (grossed-up)	\$54,162	<u>    \$ -</u>	\$54,162	<u> </u>	\$54,162
14	Utility net income	\$1,178,768	(\$7,075,769)	(\$5,897,001)	<u>\$-</u>	(\$5,897,001)
<u>Notes</u>	Other Revenues / Reven	ue Offsets				
(1)	Specific Service Charges	\$67,401		\$ -		\$ -
` '	Late Payment Charges	\$120,000		\$ -		\$ -
	Other Distribution Revenue	\$308,643		\$ -		\$ -
	Other Income and Deductions	\$ -		<u> </u>		\$ -
	Total Revenue Offsets	\$496,044	<u> </u>	<u>    \$ -</u>	<u> </u>	<u>\$ -</u>



#### Taxes/PILs

Line No.	Particulars	Application		Per Board Decision
	<b>Determination of Taxable Income</b>			
1	Utility net income before taxes	\$1,178,768	\$ -	\$ -
2	Adjustments required to arrive at taxable utility income	(\$838,412)	\$ -	(\$838,412)
3	Taxable income	\$340,356	<u> </u>	(\$838,412)
	Calculation of Utility income Taxes			
4	Income taxes	\$45,767	\$45,767	\$45,767
6	Total taxes	\$45,767	\$45,767	\$45,767
7	Gross-up of Income Taxes	\$8,395	\$8,395	\$8,395
8	Grossed-up Income Taxes	\$54,162	\$54,162	\$54,162
9	PILs / tax Allowance (Grossed-up Income taxes + Capital taxes)	\$54,162	\$54,162	\$54,162
10	Other tax Credits	\$ -	\$ -	\$ -
	Tax Rates			
11 12 13	Federal tax (%) Provincial tax (%) Total tax rate (%)	4.50% 11.00% 15.50%	4.50% 11.00% 15.50%	4.50% 11.00% 15.50%

#### Notes



#### **Capitalization/Cost of Capital**

Line No.	Particulars	Capitalization Ratio		Cost Rate	Return		
		Initial A	pplication				
	Debt	(%)	(\$)	(%)	(\$)		
1 2 3	Long-term Debt Short-term Debt Total Debt	56.00% 4.00% 60.00%	\$17,631,149 \$1,259,368 \$18,890,517	4.88% 2.11% 4.70%	\$860,400 \$26,573 \$886,973		
4 5 6	Equity Common Equity Preferred Shares Total Equity	40.00% 0.00% 40.00%	\$12,593,678 \$ - \$12,593,678	9.36% 0.00% 9.36%	\$1,178,768 \$ - \$1,178,768		
7	Total	100.00%	\$31,484,195	6.56%	\$2,065,741		
1 2 3 4 5 6	Debt Long-term Debt Short-term Debt Total Debt  Equity Common Equity Preferred Shares Total Equity  Total	0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	(%) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	\$ - \$ - \$ - \$ - \$ - \$ - \$ -		
		Per Boa	rd Decision				
8 9 10	Debt  Long-term Debt Short-term Debt Total Debt	(%) 0.00% 0.00% 0.00%	(\$) \$ - \$ - \$ -	(%) 4.88% 2.11% 0.00%	(\$) \$ - \$ - \$ -		
11 12 13	Equity Common Equity Preferred Shares Total Equity  Total	0.00% 0.00% 0.00%	\$ - \$ - \$ - \$ - \$ -	9.36% 0.00% 0.00%	\$ - \$ - \$ - \$ -		
			· ·				

#### Notes (1)

Data in column E is for Application as originally filed. For updated revenue requirement as a result of interrogatory responses, technical or settlement conferences, etc., use colimn M and Adjustments in column I



#### **Revenue Deficiency/Sufficiency**

Initial Application
---------------------

#### **Per Board Decision**

						`	
Line No.	Particulars	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates	At Current Approved Rates	At Proposed Rates
1 2 3	Revenue Deficiency from Below Distribution Revenue Other Operating Revenue Offsets - net	\$6,713,223 \$496,044	\$761,745 \$6,704,953 \$496,044	\$6,713,223 \$ -	(\$1,024,176) \$8,490,874 \$-	\$ - \$ -	\$5,842,839 (\$5,842,839) \$-
4	Total Revenue	\$7,209,267	\$7,962,742	\$6,713,223	\$7,466,698	\$ -	\$ -
5 6 8	Operating Expenses Deemed Interest Expense Total Cost and Expenses	\$5,842,839 \$886,973 \$6,729,812	\$5,842,839 \$886,973 \$6,729,812	\$5,842,839 \$ - \$5,842,839	\$5,842,839 \$ - \$5,842,839	\$5,842,839 \$ - \$5,842,839	\$5,842,839 \$ - \$5,842,839
9	Utility Income Before Income Taxes	\$479,455	\$1,232,930	\$870,384	\$1,623,859	(\$5,842,839)	(\$5,842,839)
10	Tax Adjustments to Accounting Income per 2013 PILs model	(\$838,412)	(\$838,412)	(\$838,412)	(\$838,412)	\$ -	\$ -
11	Taxable Income	(\$358,957)	\$394,518	\$31,972	\$785,447	(\$5,842,839)	(\$5,842,839)
12 13	Income Tax Rate	15.50% (\$55,638)	15.50% \$61,150	15.50% \$4,956	15.50% \$121,744	15.50% (\$905,640)	15.50% (\$905,640)
	Income Tax on Taxable Income	•			•		•
14 15	Income Tax Credits Utility Net Income	\$ - \$535,094	\$ - \$1,178,768	<u>\$ -</u> \$865,428	\$ - (\$5,897,001)	\$ - (\$4,937,199)	\$ - (\$5,897,001)
16	Utility Rate Base	\$31,484,195	\$31,484,195	\$31,484,195	\$31,484,195	\$31,484,195	\$31,484,195
17	Deemed Equity Portion of Rate Base	\$12,593,678	\$12,593,678	\$ -	\$ -	\$ -	\$ -
18	Income/(Equity Portion of Rate Base)	4.25%	9.36%	0.00%	0.00%	0.00%	0.00%
19	Target Return - Equity on Rate Base	9.36%	9.36%	0.00%	0.00%	0.00%	0.00%
20	Deficiency/Sufficiency in Return on Equity	-5.11%	0.00%	0.00%	0.00%	0.00%	0.00%
21 22	Indicated Rate of Return Requested Rate of Return on Rate Base	4.52% 6.56%	6.56% 6.56%	2.75% 0.00%	0.00% 0.00%	-15.68% 0.00%	0.00% 0.00%
23	Deficiency/Sufficiency in Rate of Return	-2.04%	0.00%	2.75%	0.00%	-15.68%	0.00%
24 25 26	Target Return on Equity Revenue Deficiency/(Sufficiency) Gross Revenue Deficiency/(Sufficiency)	\$1,178,768 \$643,675 \$761,745 <b>(1)</b>	\$1,178,768 (\$0)	\$ - (\$865,428) (\$1,024,176) <b>(1)</b>	\$ - \$ -	\$ - \$4,937,199 \$5,842,839 <b>(1)</b>	\$ - \$ -

#### Notes: (1)

Revenue Deficiency/Sufficiency divided by (1 - Tax Rate)



#### **Revenue Requirement**

Line No.	Particulars	Application				Per Board Decision	
1 2 3 5 6 7	OM&A Expenses Amortization/Depreciation Property Taxes Income Taxes (Grossed up) Other Expenses Return	\$4,532,520 \$1,208,219 \$102,100 \$54,162 \$ -		\$4,532,520 \$1,208,219 \$102,100 \$54,162 \$ -		\$4,532,520 \$1,208,219 \$102,100 \$54,162 \$-	
•	Deemed Interest Expense Return on Deemed Equity	\$886,973 \$1,178,768		\$ - \$ -		\$ - \$ -	
8	Service Revenue Requirement (before Revenues)	\$7,962,742		\$5,897,001		\$5,897,001	
9 10	Revenue Offsets Base Revenue Requirement (excluding Tranformer Owership Allowance credit adjustment)	\$496,044 \$7,466,698		\$ - \$5,897,001		\$ - \$5,897,001	
11 12	Distribution revenue Other revenue	\$7,466,698 \$496,044		\$ - \$ -		\$ - \$ -	
13	Total revenue	\$7,962,742		\$ -		\$ -	
14	Difference (Total Revenue Less Distribution Revenue Requirement before Revenues)	(\$0)	(1)	(\$5,897,001)	(1)	(\$5,897,001)	(1)
Notes (1)	Line 11 - Line 8						