



T.J. Moore Law
Professional Corporation

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August 24, 2012

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700,
2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Orangeville Hydro Limited – Application for Service Area Amendment
Board File Number EB-2012-0181
Response to the Board’s Decision on Motion and Procedural Order No. 3**

We act for Orangeville Hydro Limited (“OHL”) in the above-referenced matter.

In response to the Board’s Decision on Motion and Procedural Order No. 3 issued on August 22, 2012, please find enclosed OHL’s revised offer to connect and economic evaluation based on 114 lots.

As requested by the Board, these submissions reflect (a) a detailed description of all capital costs, both non-contestable and contestable, (b) assumptions for projected revenue calculation, and (c) the amount of capital contribution the customer must pay.

To assist the Board in its review of the above information, please also find the following summary documents attached as Schedule A and B, respectively:

- A. A document prepared by OHL which includes:
 - (i) a detailed breakdown of OHL’s non-contestable costs,
 - (ii) a summary table setting out the amount of capital contribution that the customer must pay and the sum of capital costs (including contestable, non-contestable and civil work costs), and
 - (iii) a summary of OHL’s revenue and expense forecasting and the related assumptions.

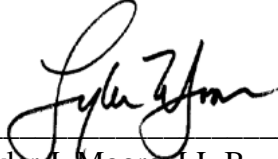
TJMLAW

- B. A document prepared by the customer's engineering firm setting out a detailed description of the customer's contestable and civil costs.

In addition to this electronic copy of the revised application, two (2) paper copies will be delivered via courier.

Yours very truly,

T.J. MOORE LAW PROFESSIONAL CORPORATION

By: 
Tyler J. Moore, LL.B.

Encls.

cc: Irina Kuznetsova, OEB (by email at irina.kuznetsova@ontarioenergyboard.ca)
George Dick, Orangeville Hydro Limited (by email at gdick@orangevillehydro.on.ca)
Andrew Skalski, Hydro One Networks Inc. (by email at andrew.skalski@HydroOne.com)
Paul Heitshu, Thomasfield Homes Limited (by email at paulh@thomasfield.com)
Andrew Roman, Miller Thomson (by email at aroman@millerthomson.com)
J. Wilson, East Luther Grand Valley (by email at jwilson@eastluthergrandvalley.ca)

SCHEDULE A

Revenue Forecasting

Total forecasted customer additions over the Customer Connection Horizon, by class as specified below;

114 residential customers

Customer Revenue Horizon as specified below;

25 years of customer revenue has been utilized

Estimate of average energy and demand per added customer (by project) which reflects the mix of customers to be added – for various classes of customers, this should be carried out by class;

700 kWh's per customer per month for each residential customer has been applied based on the agreed upon estimated usage per residential unit

Customer additions, as reflected in the model for each year of the Customer Connection Horizon;

2012	23 new connections
2013	23 new connections
2014	23 new connections
2015	23 new connections
2016	22 new connections

Rates from the approved rate schedules for the particular distributor reflecting the distribution (wires only) rates;

2011	<u>Monthly Service Charge</u>	<u>Distribution Volumetric</u>
	\$16.14 per customer	.0139 \$/kWh

Capital Costs

An estimate of all capital costs directly associated with the expansion to allow forecast customer additions. Table 1 show the calculation of the non-contestable work. A breakdown of the total capital costs are summarized in Table 2.

Table 1

Non-Contestable Work	Material	Labour & Trucking	Overhead on Labour	Total
Engineering Design				
Subdivision Design Cost	0	1,420	568	\$1,988
Expansion				
Primary Duct - Supply and Install to Limit of Construction	14,000	0	0	14,000
PME-9 - Supply and Install	8,263	1,210	584	10,056
Subdivision Secondary Costs				
Services - Secondary Connections and Related Costs	0	9,484	4,270	13,754
Primary Connections and Related Items	0	1,211	713	1,924
Total Non-Contestable				\$41,723

Table 2

Non--Contestable Work	41,723
Contestable Work	220,430
Civil Work Costs	201,263
Total Capital Costs	463,415
Total Customer Costs	341,742

The contestable work and civil work costs estimated by Gamsby and Mannerow Limited are provided in Appendix A. The contributed capital amount that the customer must pay is \$341,742.

For expansions to the distribution system, costs of the following elements, where applicable, should be included:

	2012
18350 OH Conductors & Devices	\$200
18400 U/G Conduit	\$201,263
18450 U/G Conductors & Devices	\$158,250
18500 Transformers	\$61,980
18550 Services	\$29,380

The economic evaluation model is provided in Appendix B.

Forecasting

Attributable incremental operating and maintenance expenditures -any incremental attributable costs directly associated with the addition of new customers to the system would be included in the operating and maintenance expenditures.

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Annual OM&A Cost per Customer	\$234.52	\$234.52	\$234.52	\$234.52	\$234.52

The following table was used in the EEM for Income and capital taxes based on tax rates underpinning the existing rate schedules; municipal property taxes based on projected levels are not applicable; and the discount rate equal to the incremental after-tax cost of capital, based on the prospective capital mix, debt and preference share cost rates, and the latest approved rate of return on common equity.

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
LDC Debt Ratio (%) Long Term	56.00	56.00	56.00	56.00	56.00
LDC Debt Ratio (%) Short Term	4.00	4.00	4.00	4.00	4.00
Debt Rate (%) Long Term	5.63	5.63	5.63	5.63	5.63
Debt Rate (%) Short Term	2.07	2.07	2.07	2.07	2.07
Equity Rate (%)	9.85	9.85	9.85	9.85	9.85
Municipal Tax Rate (%)					
Capital Tax Rate (%)	0.075	0.075	0.075	0.075	0.075
Income Tax Rate (%)	28.31	28.31	28.31	28.31	28.31

SCHEDULE B

**TAYLOR RITCHIE BEAM
MAYBERRY HILL SUBDIVISION, PHASE 1
TOWNSHIP OF EAST
LUTHER GRAND VALLEY
THOMASFIELD HOMES LTD.
CONTRACT NO. 111-005**

**ESTIMATED COST
HYDRO SERVICING**

GAMSBY AND MANNEROW LIMITED

**TAYLOR RITCHIE BEAM
MAYBERRY HILL SUBDIVISION, PHASE I
HYDRO SERVICING EXCLUDING STREETLIGHTING
PRELIMINARY COST ESTIMATE**

Our File: 111-005

July 9, 2012

Item No.	Description	Qty.	Unit of Measure	Unit Price	Total Price
1	Trenching and backfilling (up to 1350 mm deep x 850 mm wide)	2,985	m	12.00	35,820.00
2	Sanding trench (up to 675 mm deep x 850 mm wide) with mason's sand	2,985	m	8.50	25,372.50
3	Supply and place 2/0 AL single phase primary cable	5,200	m	14.00	72,800.00
4	Supply and place 3/0 AL secondary cable, triplex	3,300	m	8.50	28,050.00
5	Supply and place in trench 100 mm dia. PVC DB-II ducts to apartment block	9,640	m	8.00	77,120.00
6	Supply and place 75 kVA mini-pad transformers	10	each	4,800.00	48,000.00
7	Supply and place transformer concrete vaults	10	each	950.00	9,500.00
8	Supply and place 1 phase, 100 kVA transformer	3	each	8,700.00	26,100.00
9	Supply and place concrete vault for 100 kVA transformer	3	each	1,200.00	3,600.00
10	Supply and place ground rod assemblies for 75 kVA transformers with ground wires	10	each	120.00	1,200.00
11	Supply and place ground road assembly for 100 kVA transformer with ground wires	3	each	150.00	450.00
12	Collect and place lot markers	133.0	each	10.00	1,330.00
13	Supply and place 4-way K-Bar unit	5	each	6,000.00	30,000.00
14	Supply and place ground road assembly fork-bar	5	each	200.00	1,000.00
15	Cable terminations and marking identification at transformers and K-Bar	18	each	1,200.00	21,600.00
16	Connections at 75 kVA transformers	10.0	each	600.00	6,000.00
17	Connection at 100 kVA transformer	3	each	600.00	1,800.00
18	Connections at K-Bar	5	each	600.00	3,000.00
19	Access road crossings	13	each	4,000.00	52,000.00
20	Pole line hardware at riser pole	100%	L.S.	200.00	200.00
21	H1 potting	100%	L.S.	400.00	400.00
22	Contingency allowance	100%	L.S.	5,730.00	5,730.00
SUB-TOTAL					\$ 451,072.50
HST @ 13%					58,639.43
SUB-TOTAL					\$ 509,711.93
ENGINEERING FEE					
TOTAL ESTIMATE					\$ 509,711.93

Notes:

- Secondary cables are in 100 mm PVC duct and terminates at lot lines
- One spare 100 mm PVC duct included
- Unit prices are based on 1st quarter 2012 rates
- Gamsby and Mannerow fees are not included

Breakdown:

1, 2, 3, 4, 5 = \$270,253.63
6, 7, 8, 9, 10, 11, 13, 14, 15,
16, 17, & 18= \$172,042.50
12, 19, 20, 21 & 22 = \$67,415.80

ORANGEVILLE HYDRO LIMITED

OFFER TO CONNECT



Date: July 18th, 2012

To: Thomasfield Homes Ltd.
P.O. Box 1112, 295 Southgate Drive
Guelph, Ontario
N1G 3M5

Re: Preliminary Offer to Connect – Mayberry Hills Subdivision – Grand Valley

Orangeville Hydro Limited ("Orangeville Hydro") is providing a Preliminary Offer to Connect ("Offer") to Thomasfield Homes Ltd. ("Developer") with respect to the connection of above stated Subdivision project. All costs associated with this Offer are estimates and will be revised once actual costs are known. The costs associated with this Offer are assuming the Developer will construct all applicable Contestable Costs as stated in the Request for Electrical System Connection Form dated July 13th, 2012.

Capital Contribution required prior to work for Non-Contestable Work: The upfront Capital Contribution for Non-Contestable Work required from the Developer is **\$0**. This amount is due prior to Orangeville Hydro starting work. See Schedule 1 for details.

The estimate for Non-Contestable Work consists of:

- a) Engineering and Design
- b) Supply and install 1 – PME-9 switchgear c/w grounding and connections
- c) Supply and install duct to Limit of Construction c/w marking tape and sand cover
- d) Inspection and energization of all Developer installed equipment
- e) Inspection and connection of 114 residential lots

Expansion Deposit: The Expansion Deposit required from the Developer in the form of a Letter of Credit is **\$390,682** as per the CHEC Economic Evaluation. See Schedule 2 for details.

As previously stated, the Developer will construct all Contestable Work according to Orangeville Hydro standards and the Ontario Electrical Safety Code. The Developer is responsible to:

Civil Work

- a) Supply and install joint use trench
- b) Supply and install road crossings
- c) Supply and install 11 – concrete transformer vaults c/w grounding
- d) Supply and install 5 – three phase junction bases c/w grounding

Transformers and Junctions

- e) Supply and install 9 – 75 kVA, 7200/120/240V, padmount transformers
- f) Supply and install 2 – 100 kVA, 7200/120/240V, padmount transformers
- g) Supply and install 5 – primary three phase junction

Primary and Secondary Distribution

- h) Supply and install 3/0 and 250 MCM aluminum secondary c/w marking tape and sand cover
- i) Supply and install 2/0 aluminum primary cable in duct c/w marking tape and sand cover
- j) Supply and install primary and secondary terminations

Estimated Connection Date: As stated in the Request for Electrical System Connection Form, the Estimated Connection Date is within the month of December 2012.



Preliminary Transfer Price and Contributed Capital: The preliminary transfer price for the Developer installed assets of \$451,073 and preliminary contributed capital is calculated as \$341,742 based on 114 lots. The Developer cost per lot is estimated at \$2,997.73. The difference of the Developer installed assets (transfer price) and the cost to the Developer (contributed capital) results in an amount due to the Developer of \$109,331 (\$959.04 per lot).

The final transfer price and contributed capital will be based on actual costs after the completion of construction and energization. The final transfer price will be applied to connections made within the 5-Year Connection Horizon. See Schedule 2 for details.

The Developer can revise the Request for Electrical System Connection prior to the execution of this Offer.

Your signature implies acceptance of the above mentioned Offer and will instruct Orangeville Hydro to begin work on the *CONSTRUCTION AGREEMENT DEVELOPER CONSTRUCTED (Alternative Bid)*.

Signature

Print Name

Title

Date

If you have any questions or concerns regarding the Offer, please do not hesitate to contact our office.

Yours Truly,

ORIGINAL SIGNED BY BOB NOBLE

Bob Noble
Manager of Operations
Orangeville Hydro Limited

Please note said estimate is valid for 60 (sixty) days from the above mentioned date.



SCHEDULE 1

OFFER TO CONNECT NON CONTESTABLE ELECTRICAL PLANT INSTALLATION

July 18th, 2012

To: Thomasfield Homes Ltd.
P.O. Box 1112, 295 Southgate Drive
Guelph, Ontario
N1G 3M5

Attention: Paul Heitshu

Re: Preliminary Offer to Connect – Mayberry Hills Subdivision – Grand Valley

The estimate below consists of the following:

- a) Engineering and Design
- b) Supply and install 1 – PME-9 switchgear c/w grounding and connections
- c) Supply and install duct to Limit of Construction c/w marking tape and sand cover
- d) Inspection and energization of all Developer installed equipment
- e) Inspection and connection of 114 residential lots

Material	\$22,262.50
HST	<u>\$2,894.13</u>
Total	\$25,156.63

Labour & Trucking	\$19,460.16
HST	<u>\$2,529.82</u>
Total	\$21,989.98

Subtotal	\$41,722.66
HST	<u>\$5,423.95</u>
Total	\$47,146.60

The Subtotal of \$41,722.66 is used in the CHEC Economic Evaluation model. These costs will reduce the amount due to Developer upon energization.

Payment to Orangeville Hydro, in the amount of **\$0** is required upon execution of this Offer.



SCHEDULE 2

Expansion - CHEC Economic Evaluation Model

Developer Summary

Thomas Field Homes - Mayberry Hills Subdivision

Section 1 This calculation and transaction takes place when the model is first run with estimated costs and updated at energization with actual costs.

Expansion Deposit (due to LDC prior to commencement of construction)	\$390,682
Warranty Holdback (10% of Expansion Deposit for 2 years if Developer Installed)	\$39,068
Expansion Deposit Available on Connection	\$351,613

Section 2 This transaction takes place at energization based on the actual costs of the project.

Transfer Price if Developer Installed (due to Developer)	\$451,073
Capital Contribution (shortfall due to LDC)	\$341,742
Net Due to Developer upon energization	\$109,331

Section 3 The transaction noted in Section 2 is based on inputted information from the Electrical System Connection Form provided by the Developer. When actual calculations are made there may be applicable impacts that the Developer is responsible for.

The following indicates the inputs utilized that may or may not need adjustment during the 5 year construction horizon

<u>Construction Costs</u>		<u>Expected Connections</u>		<u>Expected Avg Yrly Load/Cntn</u>
Contestable	\$451,072.50	Year 1	23	0.08
Non-Contestable	\$41,722.66	Year 2	23	0.08
Upstream Costs	\$0.00	Year 3	23	0.08
TOTAL	\$492,795.16	Year 4	23	0.08
		Year 5	22	0.09
		TOTAL	114	

ORANGEVILLE HYDRO LIMITED
ECONOMIC EVALUTATION

Upstream Costs

Monthly kW Load per Customer	2007	2008	2009	2010	2011	2012	2013	2014	2015
Residential						1.94	1.94	1.94	1.94
<50 General Service						0.00	0.00	0.00	0.00
>50 General Service						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00
0						0.00	0.00	0.00	0.00

Number of Connections	2007	2008	2009	2010	2011	2012	2013	2014	2015
Residential						23	23	23	23
<50 General Service						0	0	0	0
>50 General Service						0	0	0	0
0						0	0	0	0
0						0	0	0	0
0						0	0	0	0
0						0	0	0	0
0						0	0	0	0
0						0	0	0	0
0						0	0	0	0

Upstream Cost Calculation

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Capacity / Enhancement Cost	\$0	\$0	\$0	\$0	\$0				
New Capacity Added (kW)									
\$/kW	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Annual kW of New Customer Load						44.72	44.72	44.72	44.72
5 year average \$ per kW					\$0.00				
Upstream cost						\$0.00	\$0.00	\$0.00	\$0.00

2016
1.94
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

2016
22
0
0
0
0
0
0
0
0
0
0

2016

\$0.00

42.78

\$0.00

Inputs For Project

Thomas Field Homes - Mayberry Hills Subdivision

L=LDC Installed C= Customer Installed

C

Year Construction Energized

2012

Naming Conventions

Capital Classes

Capital Class 1	18350 OH Conductors & Devices
Capital Class 2	18400 U/G Conduit
Capital Class 3	18450 U/G Conductors & Devices
Capital Class 4	18500 Transformers
Capital Class 5	18550 Services
Capital Class 6	
Capital Class 7	
Capital Class 8	
Capital Class 9	LDC Upstream Costs
Capital Class 10	LDC Non-Contestable Amounts

Please Note: As outlined below Land is a 'hard coded' capital category because it is the only capital cost to attract municipal tax.

Rate Classes

Rate Class 1	Residential
Rate Class 2	<50 General Service
Rate Class 3	>50 General Service
Rate Class 4	
Rate Class 5	
Rate Class 6	
Rate Class 7	
Rate Class 8	

Revenue Forecasting Inputs

2012	Monthly Service		
	<u>Charge</u>	<u>Volumetric Charge</u>	
	(\$/Customer)	(\$/kWh)	(\$/kW)
	\$16.14	\$0.0139	
	Residential		
	<50 General Service		
	>50 General Service		
	0		
	0		
	0		
2013	Monthly Service		
	<u>Charge</u>	<u>Volumetric Charge</u>	
	(\$/Customer)	(\$/kWh)	(\$/kW)
	\$16.14	\$0.0139	
	Residential		
	<50 General Service		
	>50 General Service		
	0		
	0		
	0		
2014	Monthly Service		
	<u>Charge</u>	<u>Volumetric Charge</u>	
	(\$/Customer)	(\$/kWh)	(\$/kW)
	\$16.14	\$0.0139	
	Residential		
	<50 General Service		
	>50 General Service		
	0		
	0		
	0		
2015	Monthly Service		
	<u>Charge</u>	<u>Volumetric Charge</u>	
	(\$/Customer)	(\$/kWh)	(\$/kW)
	\$16.14	\$0.0139	
	Residential		
	<50 General Service		
	>50 General Service		
	0		
	0		
	0		

0		
	Monthly Service	
2016	<u>Charge</u>	<u>Volumetric Charge</u>
	(\$/Customer)	(\$/kWh) (\$/kW)
Residential	\$16.14	\$0.0139
<50 General Service		
>50 General Service		
0		
0		
0		
0		
0		
0		
0		

Monthly Consumption Assumptions

	Average		
2012	<u>Monthly Consumption</u>		
	(kWh)	(kW)	kW Load
Residential	700		1.94
<50 General Service			0.00
>50 General Service			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00

	Average		
2013	<u>Monthly Consumption</u>		
	(kWh)	(kW)	kW Load
Residential	700		1.94
<50 General Service			0.00
>50 General Service			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00

	Average		
2014	<u>Monthly Consumption</u>		
	(kWh)	(kW)	kW Load
Residential	700		1.94
<50 General Service			0.00
>50 General Service			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00

	Average		
2015	<u>Monthly Consumption</u>		
	(kWh)	(kW)	kW Load
Residential	700		1.94
<50 General Service			0.00
>50 General Service			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00

	Average		
2016	<u>Monthly Consumption</u>		
	(kWh)	(kW)	kW Load
Residential	700		1.94
<50 General Service			0.00
>50 General Service			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00
0			0.00

Estimated Customer Connections

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Total</u>
Residential	23	23	23	23	22	114
<50 General Service						0
>50 General Service						0
0						0
0						0

0						0
0						0
0						0

Total	23	23	23	23	22	114
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Capital Cost Inputs

Actual Capital Costs

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
18350 OH Conductors & Devices	\$200				
18400 U/G Conduit	\$201,263				
18450 U/G Conductors & Devices	\$158,250				
18500 Transformers	\$61,980				
18550 Services	\$29,380				
0					
0					
0					
LDC Upstream Costs	\$0	\$0	\$0	\$0	\$0
LDC Non-Contestable Amounts	41,723				
Land					
Total	\$492,795	\$0	\$0	\$0	\$0

Please Note: Land is a fixed capital category because it is the only capital cost to attract municipal tax
In addition, Land does not depreciation for accounting or income tax purposes. If you do not have Land in the project then leave the input field blank.

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Annual OM&A Cost per Customer	\$234.52	\$234.52	\$234.52	\$234.52	\$234.52
Annual OM&A Cost per kWh					
Annual OM&A Cost per kW					

Financial Assumptions

	Depreciation	Capital Cost
	Rates	Allowance
	<u>%</u>	<u>%</u>
18350 OH Conductors & Devices	4	8
18400 U/G Conduit	4	8
18450 U/G Conductors & Devices	4	8
18500 Transformers	4	8
18550 Services	4	8
0	4	8
0	4	8
0	4	8
LDC Upstream Costs	4	8
LDC Non-Contestable Amounts	4	8
Land		

Please Note: Land will not have a depreciation or CCA rate applied to it because it is a non depreciating asset.
However, provision for a capital overhead rate on Land has been provided if required for evaluation purposes

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
LDC Debt Ratio (%) Long Term	56.00	56.00	56.00	56.00	56.00
LDC Debt Ratio (%) Short Term	4.00	4.00	4.00	4.00	4.00
Debt Rate (%) Long Term	5.63	5.63	5.63	5.63	5.63
Debt Rate (%) Short Term	2.07	2.07	2.07	2.07	2.07
Equity Rate (%)	9.85	9.85	9.85	9.85	9.85

Municipal Tax Rate (%)

Capital Tax Rate (%)	0.075	0.075	0.075	0.075	0.075
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Income Tax Rate (%)	28.31	28.31	28.31	28.31	28.31
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Expansion Deposit Refund Breakdown

	<u>KW</u>	<u># Customers</u>	<u>Total kW</u>	<u>%</u>	<u>Total Refund</u>	<u>Refund Per Connection</u>
See Important Comment in Cell B255						
Residential	1.94	114	221.7	100.00%	\$351,613	\$3,084
<50 General Service	0.00	0	0.0	0.00%	\$0	\$0
>50 General Service		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
0		0	0.0	0.00%	\$0	\$0
	1.94		221.7	100.00%	\$351,613	

Expansion - CHEC Economic Evaluation Model

Developer Summary

Thomas Field Homes - Mayberry Hills Subdivision

Section 1 This calculation and transaction takes place when the model is first run with estimated costs and updated at energization with actual costs.

Expansion Deposit (due to LDC prior to commencement of construction) **\$390,682**

Warranty Holdback (10% of Expansion Deposit for 2 years if Developer Installed) **\$39,068**

Expansion Deposit Available on Connection **\$351,613**

Section 2 This transaction takes place at energization based on the actual costs of the project.

Transfer Price if Developer Installed (due to Developer) **\$451,073**

Capital Contribution (shortfall due to LDC) **\$341,742**

Net Due to Developer upon energization **\$109,331**

Section 3 The transaction noted in Section 2 is based on inputted information from the Electrical System Connection Form provided by the Developer. When actual calculations are made there may be applicable impacts that the Developer is responsible for.

The following indicates the inputs utilized that may or may not need adjustment during the 5 year constructin horizon

<u>Construction Costs</u>		<u>Expected Connections</u>		<u>Expected Avge Yrly Load/Cntn</u>	
Contestable	\$451,072.50	Year 1	23		0.08
Non-Contestable	\$41,722.66	Year 2	23		0.08
Upstream Costs	\$0.00	Year 3	23		0.08
TOTAL	\$492,795.16	Year 4	23		0.08
		Year 5	22		0.09
		TOTAL	114		

Expansion - CHEC Economic Evaluation Model

Summary of Results For	Thomas Field Homes - Mayberry Hills Subdivision		Important Note
Capital Costs	Total Expansion Cost / Transfer Price	%	Contributed Capital Allocation if Negative
18350 OH Conductors & Devices	\$200	0%	-\$139
18400 U/G Conduit	\$201,263	41%	-\$139,571
18450 U/G Conductors & Devices	\$158,250	32%	-\$109,743
18500 Transformers	\$61,980	13%	-\$42,982
18550 Services	\$29,380	6%	-\$20,374
0	\$0	0%	\$0
0	\$0	0%	\$0
0	\$0	0%	\$0
LDC Upstream Costs	\$0	0%	\$0
LDC Non-Contestable Amounts	\$41,723	8%	-\$28,934
Land	\$0	0%	\$0
Total	\$492,795	100%	-\$341,742
Capital Contribution Required ONLY if Negative			-\$341,742 Shortfall
Transfer Price Payment if Customer Installed			\$451,073 This should be the sum of only the items from B9:B19 inst
EXPANSION DEPOSIT			\$390,682
Warranty Holdback - 10%			\$39,068 Refund later of: 2 years after last connection or 2 years af
Expansion Deposit Available on Connection			\$351,613

EXPANSION DEPOSIT REFUND - Performed Annually based on ACTUAL Connections

	Refund/Conn	2012	2013	2014	2015	2016	
Residential	3,084	23	23	23	23	23	115
<50 General Service	0						0
>50 General Service	0						0
0	0						0
0	0						0
0	0						0
0	0						0
0	0						0
0	0						0
0	0						0
		\$70,940	\$70,940	\$70,940	\$70,940	\$70,940	\$354,700

alled at the customers cost

ter connection horizon ends

Expansion - CHEC Economic Evaluation Model

Distribution Revenue Model

Rate Class: Residential

	Monthly Service	Volumetric Charge	
	<u>Charge</u> (\$/Customer)	<u>(\$/kWh)</u>	<u>(\$/kW)</u>
2012	\$16.14	\$0.0139	\$0.0000
2013	\$16.14	\$0.0139	\$0.0000
2014	\$16.14	\$0.0139	\$0.0000
2015	\$16.14	\$0.0139	\$0.0000
2016	\$16.14	\$0.0139	\$0.0000

	Average	
	<u>Monthly Consumption</u> (kWh)	<u>(kW)</u>
2012	700	0
2013	700	0
2014	700	0
2015	700	0
2016	700	0

	Annual	Accum.	Monthly	Monthly	Annual	Annual	Annual	Total
	Connections	Connections	Energy (kWh)	Demand (kW)	Service Charge Revenue	Energy Charge Revenue	Demand Charge Revenue	Revenue
2012	23	23	16,100	0	\$4,455	\$2,685	\$0	\$7,140
2013	23	46	32,200	0	\$8,909	\$5,371	\$0	\$14,280
2014	23	69	48,300	0	\$13,364	\$8,056	\$0	\$21,420
2015	23	92	64,400	0	\$17,819	\$10,742	\$0	\$28,560
2016	22	114	79,800	0	\$22,080	\$13,311	\$0	\$35,390

Rate Class: <50 General Service

	Monthly Service	Volumetric Charge	
	<u>Charge</u> (\$/Customer)	<u>(\$/kWh)</u>	<u>(\$/kW)</u>
2012	\$0.00	\$0.0000	\$0.0000
2013	\$0.00	\$0.0000	\$0.0000
2014	\$0.00	\$0.0000	\$0.0000
2015	\$0.00	\$0.0000	\$0.0000
2016	\$0.00	\$0.0000	\$0.0000

	Average	
	<u>Monthly Consumption</u> (kWh)	<u>(kW)</u>

2012
2013
2014
2015
2016

0
0
0
0
0

0
0
0
0
0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: >50 General Service

	Monthly Service Charge (\$/Customer)	Volumetric Charge	
		(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge	Volumetric Charge	
	(\$/Customer)	(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge	Volumetric Charge	
	(\$/Customer)	(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge (\$/Customer)	Volumetric Charge	
		(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge (\$/Customer)	Volumetric Charge	
		(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00

2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge	Volumetric Charge	
	(\$/Customer)	(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0

2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge	Volumetric Charge	
	(\$/Customer)	(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

	Average Monthly Consumption	
	(kWh)	(kW)
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0

	Annual Connections	Accum. Connections	Monthly Energy (kWh)	Monthly Demand (kW)	Annual Service Charge Revenue	Annual Energy Charge Revenue	Annual Demand Charge Revenue	Total Revenue
2012	0	0	0	0	\$0	\$0	\$0	\$0
2013	0	0	0	0	\$0	\$0	\$0	\$0
2014	0	0	0	0	\$0	\$0	\$0	\$0
2015	0	0	0	0	\$0	\$0	\$0	\$0
2016	0	0	0	0	\$0	\$0	\$0	\$0

Rate Class: 0

	Monthly Service Charge	Volumetric Charge	
	(\$/Customer)	(\$/kWh)	(\$/kW)
2012	\$0.00	\$0.00	\$0.00
2013	\$0.00	\$0.00	\$0.00
2014	\$0.00	\$0.00	\$0.00
2015	\$0.00	\$0.00	\$0.00
2016	\$0.00	\$0.00	\$0.00

Average
Monthly Consumption

2016

0

0

0

0

0

0

0

0

0

0

0

Annual

193,200
386,400
579,600
772,800
957,600

0
0
0
0

Expansion - CHEC Economic Evaluation Model

OM&A Calculation

Year	OM&A per Customer	New Customers	Accum Cust Connections	Accum OM&A on per Customer Basis	OM&A per kWh	New Annual kWhs	Accum OM&A on per kWh Basis	OM&A per kW	New Annual kW	Accum OM&A on per kW Basis
2012	\$234.52	23	23	\$5,394	\$0.00	193,200	\$0	\$0.00	0	\$0
2013	\$234.52	23	46	\$10,788	\$0.00	193,200	\$0	\$0.00	0	\$0
2014	\$234.52	23	69	\$16,182	\$0.00	193,200	\$0	\$0.00	0	\$0
2015	\$234.52	23	92	\$21,576	\$0.00	193,200	\$0	\$0.00	0	\$0
2016	\$234.52	22	114	\$26,735	\$0.00	184,800	\$0	\$0.00	0	\$0

Total
OM&A

\$5,394

\$10,788

\$16,182

\$21,576

\$26,735

Expansion - CHEC Economic Evaluation Model

Municipal Tax Calculations

	Land Capital	Accum	Municipal	
	Costs	Land Costs	Tax Rate	Municipal Taxes
2012	\$0	\$0	0%	\$0
2013	\$0	\$0	0%	\$0
2014	\$0	\$0	0%	\$0
2015	\$0	\$0	0%	\$0
2016	\$0	\$0	0%	\$0

Expansion - CHEC Economic Evaluation Model

Capital Cost Allowance and Capital Tax Calculation

Total Capital Costs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
18350 OH Conductors & Devices						18400 U/G Conduit				18450 U/G Conductors & Devices				18500 Transformers				18550 Services				0		0		0		LDC Upstream Costs				LDC Non-Contestable Amounts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
2012	\$200					\$201,263					\$158,250					\$61,980					\$29,380					\$0		\$0		\$0		\$0		\$41,723																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA	Closing UCC	Opening UCC	CCA

Expansion - CHEC Economic Evaluation Model

Depreciation and Interest Calculations

Total Capital Costs

18350 OH Conductors & Devices				18400 U/G Conduit				18450 U/G Conductors & Devices				18500 Transformers				18550 Services				LDC Non-Contestable Amounts																		
2012	\$200			\$201,263					\$158,250					\$61,980					\$29,380					\$41,723														
2013	\$0			\$0					\$0					\$0					\$0					\$0														
2014	\$0			\$0					\$0					\$0					\$0					\$0														
2015	\$0			\$0					\$0					\$0					\$0					\$0														
2016	\$0			\$0					\$0					\$0					\$0					\$0														
				Accumulated					Accumulated					Accumulated					Accumulated					Accumulated					Accumulated			Net Plant	Net Plant	Debt	Ratio	Debt	Interest	Interest
	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Net Plant	Gross Plant	Depreciation	Depreciation	Excl Land	Land	Incl Land	Long	Short	Component	Rate	Cost			
2012	\$200	\$4	\$4	\$196	\$201,263	\$4,025	\$4,025	\$197,237	\$158,250	\$3,165	\$3,165	\$155,085	\$61,980	\$1,240	\$1,240	\$60,740	\$29,380	\$588	\$588	\$28,792	\$41,723	\$834	\$834	\$40,888	\$492,795	\$9,856	\$9,856	\$482,939	\$0	\$482,939	56%	4%	\$289,764	5.63%	\$16,314			
2013	\$200	\$8	\$12	\$188	\$201,263	\$8,051	\$12,076	\$189,187	\$158,250	\$6,330	\$9,495	\$148,755	\$61,980	\$2,479	\$3,719	\$58,261	\$29,380	\$1,175	\$1,763	\$27,617	\$41,723	\$1,669	\$2,503	\$39,219	\$492,795	\$19,712	\$29,568	\$463,227	\$0	\$463,227	56%	4%	\$277,936	5.63%	\$15,648			
2014	\$200	\$8	\$20	\$180	\$201,263	\$8,051	\$20,126	\$181,136	\$158,250	\$6,330	\$15,825	\$142,425	\$61,980	\$2,479	\$6,198	\$55,782	\$29,380	\$1,175	\$2,938	\$26,442	\$41,723	\$1,669	\$4,172	\$37,550	\$492,795	\$19,712	\$49,280	\$443,516	\$0	\$443,516	56%	4%	\$266,109	5.63%	\$14,982			
2015	\$200	\$8	\$28	\$172	\$201,263	\$8,051	\$28,177	\$173,086	\$158,250	\$6,330	\$22,155	\$136,095	\$61,980	\$2,479	\$8,677	\$53,303	\$29,380	\$1,175	\$4,113	\$25,267	\$41,723	\$1,669	\$5,841	\$35,881	\$492,795	\$19,712	\$68,991	\$423,804	\$0	\$423,804	56%	4%	\$254,282	5.63%	\$14,316			
2016	\$200	\$8	\$36	\$164	\$201,263	\$8,051	\$36,227	\$165,035	\$158,250	\$6,330	\$28,485	\$129,765	\$61,980	\$2,479	\$11,156	\$50,824	\$29,380	\$1,175	\$5,288	\$24,092	\$41,723	\$1,669	\$7,510	\$34,213	\$492,795	\$19,712	\$88,703	\$404,092	\$0	\$404,092	56%	4%	\$242,455	5.63%	\$13,650			
2017	\$200	\$8	\$44	\$156	\$201,263	\$8,051	\$44,278	\$156,985	\$158,250	\$6,330	\$34,815	\$123,435	\$61,980	\$2,479	\$13,636	\$48,344	\$29,380	\$1,175	\$6,464	\$22,916	\$41,723	\$1,669	\$9,179	\$32,544	\$492,795	\$19,712	\$108,415	\$384,380	\$0	\$384,380	56%	4%	\$230,628	5.63%	\$12,984			
2018	\$200	\$8	\$52	\$148	\$201,263	\$8,051	\$52,328	\$148,934	\$158,250	\$6,330	\$41,145	\$117,105	\$61,980	\$2,479	\$16,115	\$45,865	\$29,380	\$1,175	\$7,639	\$21,741	\$41,723	\$1,669	\$10,848	\$30,875	\$492,795	\$19,712	\$128,127	\$364,668	\$0	\$364,668	56%	4%	\$218,801	5.63%	\$12,318			
2019	\$200	\$8	\$60	\$140	\$201,263	\$8,051	\$60,379	\$140,884	\$158,250	\$6,330	\$47,475	\$110,775	\$61,980	\$2,479	\$18,594	\$43,386	\$29,380	\$1,175	\$8,814	\$20,566	\$41,723	\$1,669	\$12,517	\$29,206	\$492,795	\$19,712	\$147,839	\$344,957	\$0	\$344,957	56%	4%	\$206,974	5.63%	\$11,653			
2020	\$200	\$8	\$68	\$132	\$201,263	\$8,051	\$68,429	\$132,833	\$158,250	\$6,330	\$53,805	\$104,445	\$61,980	\$2,479	\$21,073	\$40,907	\$29,380	\$1,175	\$9,989	\$19,391	\$41,723	\$1,669	\$14,186	\$27,537	\$492,795	\$19,712	\$167,550	\$325,245	\$0	\$325,245	56%	4%	\$195,147	5.63%	\$10,987			
2021	\$200	\$8	\$76	\$124	\$201,263	\$8,051	\$76,480	\$124,783	\$158,250	\$6,330	\$60,135	\$98,115	\$61,980	\$2,479	\$23,552	\$38,428	\$29,380	\$1,175	\$11,164	\$18,216	\$41,723	\$1,669	\$15,855	\$25,868	\$492,795	\$19,712	\$187,262	\$305,533	\$0	\$305,533	56%	4%	\$183,320	5.63%	\$10,321			
2022	\$200	\$8	\$84	\$116	\$201,263	\$8,051	\$84,530	\$116,732	\$158,250	\$6,330	\$66,465	\$91,785	\$61,980	\$2,479	\$26,032	\$35,948	\$29,380	\$1,175	\$12,340	\$17,040	\$41,723	\$1,669	\$17,524	\$24,199	\$492,795	\$19,712	\$206,974	\$285,821	\$0	\$285,821	56%	4%	\$171,493	5.63%	\$9,655			
2023	\$200	\$8	\$92	\$108	\$201,263	\$8,051	\$92,581	\$108,682	\$158,250	\$6,330	\$72,795	\$85,455	\$61,980	\$2,479	\$28,511	\$33,469	\$29,380	\$1,175	\$13,515	\$15,865	\$41,723	\$1,669	\$19,192	\$22,530	\$492,795	\$19,712	\$226,686	\$266,109	\$0	\$266,109	56%	4%	\$159,666	5.63%	\$8,989			
2024	\$200	\$8	\$100	\$100	\$201,263	\$8,051	\$100,631	\$100,631	\$158,250	\$6,330	\$79,125	\$79,125	\$61,980	\$2,479	\$30,990	\$30,990	\$29,380	\$1,175	\$14,690	\$14,690	\$41,723	\$1,669	\$20,861	\$20,861	\$492,795	\$19,712	\$246,398	\$246,398	\$0	\$246,398	56%	4%	\$147,839	5.63%	\$8,323			
2025	\$200	\$8	\$108	\$92	\$201,263	\$8,051	\$108,682	\$92,581	\$158,250	\$6,330	\$85,455	\$72,795	\$61,980	\$2,479	\$33,469	\$28,511	\$29,380	\$1,175	\$15,865	\$13,515	\$41,723	\$1,669	\$22,530	\$19,192	\$492,795	\$19,712	\$266,109	\$226,686	\$0	\$226,686	56%	4%	\$136,011	5.63%	\$7,657			
2026	\$200	\$8	\$116	\$84	\$201,263	\$8,051	\$116,732	\$84,530	\$158,250	\$6,330	\$91,785	\$66,465	\$61,980	\$2,479	\$35,948	\$26,032	\$29,380	\$1,175	\$17,040	\$12,340	\$41,723	\$1,669	\$24,199	\$17,524	\$492,795	\$19,712	\$285,821	\$206,974	\$0	\$206,974	56%	4%	\$124,184	5.63%	\$6,992			
2027	\$200	\$8	\$124	\$76	\$201,263	\$8,051	\$124,783	\$76,480	\$158,250	\$6,330	\$98,115	\$60,135	\$61,980	\$2,479	\$38,428	\$23,552	\$29,380	\$1,175	\$18,216	\$11,164	\$41,723	\$1,669	\$25,868	\$15,855	\$492,795	\$19,712	\$305,533	\$187,262	\$0	\$187,262	56%	4%	\$112,357	5.63%	\$6,326			
2028	\$200	\$8	\$132	\$68	\$201,263	\$8,051	\$132,833	\$68,429	\$158,250	\$6,330	\$104,445	\$53,805	\$61,980	\$2,479	\$40,907	\$21,073	\$29,380	\$1,175	\$19,391	\$9,989	\$41,723	\$1,669	\$27,537	\$14,186	\$492,795	\$19,712	\$325,245	\$167,550	\$0	\$167,550	56%	4%	\$100,530	5.63%	\$5,660			
2029	\$200	\$8	\$140	\$60	\$201,263	\$8,051	\$140,884	\$60,379	\$158,250	\$6,330	\$110,775	\$47,475	\$61,980	\$2,479	\$43,386	\$18,594	\$29,380	\$1,175	\$20,566	\$8,814	\$41,723	\$1,669	\$29,206	\$12,517	\$492,795	\$19,712	\$344,957	\$147,839	\$0	\$147,839	56%	4%	\$88,703	5.63%	\$4,994			
2030	\$200	\$8	\$148	\$52	\$201,263	\$8,051	\$148,934	\$52,328	\$158,250	\$6,330	\$117,105	\$41,145	\$61,980	\$2,479	\$45,865	\$16,115	\$29,380	\$1,175	\$21,741	\$7,639	\$41,723	\$1,669	\$30,875	\$10,848	\$492,795	\$19,712	\$364,668	\$128,127	\$0	\$128,127	56%	4%	\$76,876	5.63%	\$4,328			
2031	\$200	\$8	\$156	\$44	\$201,263	\$8,051	\$156,985	\$44,278	\$158,250	\$6,330	\$123,435	\$34,815	\$61,980	\$2,479	\$48,344	\$13,636	\$29,380	\$1,175	\$22,916	\$6,464	\$41,723	\$1,669	\$32,544	\$9,179	\$492,795	\$19,712	\$384,380	\$108,415	\$0	\$108,415	56%	4%	\$65,049	5.63%	\$3,662			
2032	\$200	\$8	\$164	\$36	\$201,263	\$8,051	\$165,035	\$36,227	\$158,250	\$6,330	\$129,765	\$28,485	\$61,980	\$2,479	\$50,824	\$11,156	\$29,380	\$1,175	\$24,092	\$5,288	\$41,723	\$1,669	\$34,213	\$7,510	\$492,795	\$19,712	\$404,092	\$88,703	\$0	\$88,703	56%	4%	\$53,222	5.63%	\$2,996			
2033	\$200	\$8	\$172	\$28	\$201,263	\$8,051	\$173,086	\$28,177	\$158,250	\$6,330	\$136,095	\$22,155	\$61,980	\$2,479	\$53,303	\$8,677	\$29,380	\$1,175	\$25,267	\$4,113	\$41,723	\$1,669	\$35,881	\$5,841	\$492,795	\$19,712	\$423,804	\$68,991	\$0	\$68,991	56%	4%	\$41,395	5.63%	\$2,331			
2034	\$200	\$8	\$180	\$20	\$201,263	\$8,051	\$181,136	\$20,126	\$158,250	\$6,330	\$142,425	\$15,825	\$61,980	\$2,479	\$55,782	\$6,198	\$29,380	\$1,175	\$26,442	\$2,938	\$41,723	\$1,669	\$37,550	\$4,172	\$492,795	\$19,712	\$443,516	\$49,280	\$0	\$49,280	56%	4%	\$29,568	5.63%	\$1,665			
2035	\$200	\$8	\$188	\$12	\$201,263	\$8,051	\$189,187	\$12,076	\$158,250	\$6,330	\$148,755	\$9,495	\$61,980	\$2,479	\$58,261	\$3,719	\$29,380	\$1,175	\$27,617	\$1,763	\$41,723	\$1,669	\$39,219	\$2,503	\$492,795	\$19,712	\$463,227	\$29,568	\$0	\$29,568	56%	4%	\$17,741	5.63%	\$999			
2036	\$200	\$8	\$196	\$4	\$201,263	\$8,051	\$197,237	\$4,025	\$158,250	\$6,330	\$155,085	\$3,165	\$61,980	\$2,479	\$60,740	\$1,240	\$29,380	\$1,175	\$28,792	\$588	\$41,723	\$1,669	\$40,888	\$834	\$492,795	\$19,712	\$482,939	\$9,856	\$0	\$9,856	56%	4%	\$5,914	5.63%	\$333			

Expansion - CHEC Economic Evaluation Model

Income Tax Calculations

Year	Revenue	O&M	Municipal Tax	Capital Tax	Interest	CCA	Taxable Income Excl CCA	Tax Rate	Taxes Payable	Tax Shield on Gross Capital CCA x Tax Rate
2012	\$7,140	\$5,394	\$0	\$355	\$16,314	\$19,712	-\$14,922	28.31%	-\$4,225	\$5,580
2013	\$14,280	\$10,788	\$0	\$326	\$15,648	\$37,847	-\$12,482	28.31%	-\$3,534	\$10,714
2014	\$21,420	\$16,182	\$0	\$300	\$14,982	\$34,819	-\$10,044	28.31%	-\$2,843	\$9,857
2015	\$28,560	\$21,576	\$0	\$276	\$14,316	\$32,033	-\$7,608	28.31%	-\$2,154	\$9,069
2016	\$35,390	\$26,735	\$0	\$254	\$13,650	\$29,471	-\$5,250	28.31%	-\$1,486	\$8,343
2017	\$35,390	\$26,735	\$0	\$234	\$12,984	\$27,113	-\$4,563	28.31%	-\$1,292	\$7,676
2018	\$35,390	\$26,735	\$0	\$215	\$12,318	\$24,944	-\$3,879	28.31%	-\$1,098	\$7,062
2019	\$35,390	\$26,735	\$0	\$198	\$11,653	\$22,949	-\$3,196	28.31%	-\$905	\$6,497
2020	\$35,390	\$26,735	\$0	\$182	\$10,987	\$21,113	-\$2,514	28.31%	-\$712	\$5,977
2021	\$35,390	\$26,735	\$0	\$168	\$10,321	\$19,424	-\$1,834	28.31%	-\$519	\$5,499
2022	\$35,390	\$26,735	\$0	\$154	\$9,655	\$17,870	-\$1,154	28.31%	-\$327	\$5,059
2023	\$35,390	\$26,735	\$0	\$142	\$8,989	\$16,440	-\$476	28.31%	-\$135	\$4,654
2024	\$35,390	\$26,735	\$0	\$130	\$8,323	\$15,125	\$201	28.31%	\$57	\$4,282
2025	\$35,390	\$26,735	\$0	\$120	\$7,657	\$13,915	\$877	28.31%	\$248	\$3,939
2026	\$35,390	\$26,735	\$0	\$110	\$6,992	\$12,802	\$1,553	28.31%	\$440	\$3,624
2027	\$35,390	\$26,735	\$0	\$102	\$6,326	\$11,778	\$2,228	28.31%	\$631	\$3,334
2028	\$35,390	\$26,735	\$0	\$93	\$5,660	\$10,835	\$2,902	28.31%	\$821	\$3,068
2029	\$35,390	\$26,735	\$0	\$86	\$4,994	\$9,969	\$3,575	28.31%	\$1,012	\$2,822
2030	\$35,390	\$26,735	\$0	\$79	\$4,328	\$9,171	\$4,248	28.31%	\$1,203	\$2,596
2031	\$35,390	\$26,735	\$0	\$73	\$3,662	\$8,437	\$4,920	28.31%	\$1,393	\$2,389
2032	\$35,390	\$26,735	\$0	\$67	\$2,996	\$7,762	\$5,592	28.31%	\$1,583	\$2,198
2033	\$35,390	\$26,735	\$0	\$62	\$2,331	\$7,141	\$6,263	28.31%	\$1,773	\$2,022
2034	\$35,390	\$26,735	\$0	\$57	\$1,665	\$6,570	\$6,934	28.31%	\$1,963	\$1,860
2035	\$35,390	\$26,735	\$0	\$52	\$999	\$6,044	\$7,604	28.31%	\$2,153	\$1,711
2036	\$35,390	\$26,735	\$0	\$48	\$333	\$5,561	\$8,274	28.31%	\$2,342	\$1,574

Sum of columns	\$428,844	-\$12,752	-\$3,610	\$121,406
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(\$45,866)

Expansion - CHEC Economic Evaluation Model

EXPANSION DEPOSIT IF CAPITAL CONTRIBUTION REQUIRED

Year	Revenue	PV Factor utilizing mid year discounting	Net Present Value	Cumulative Net Present Value
2012	\$7,140	1.031298008	\$6,923	\$6,923
2013	\$14,280	1.095853155	\$13,031	\$19,955
2014	\$21,420	1.164449197	\$18,395	\$38,350
2015	\$28,560	1.237339078	\$23,082	\$61,432
2016	\$35,390	1.314791576	\$26,917	\$88,349
2017	\$35,390	1.397092291	\$25,331	\$113,680
2018	\$35,390	1.484544703	\$23,839	\$137,519
2019	\$35,390	1.577471287	\$22,435	\$159,954
2020	\$35,390	1.676214706	\$21,113	\$181,067
2021	\$35,390	1.781139069	\$19,869	\$200,937
2022	\$35,390	1.892631279	\$18,699	\$219,636
2023	\$35,390	2.011102458	\$17,597	\$237,233
2024	\$35,390	2.13698946	\$16,561	\$253,794
2025	\$35,390	2.270756488	\$15,585	\$269,379
2026	\$35,390	2.412896798	\$14,667	\$284,046
2027	\$35,390	2.563934525	\$13,803	\$297,849
2028	\$35,390	2.724426613	\$12,990	\$310,839
2029	\$35,390	2.894964866	\$12,225	\$323,064
2030	\$35,390	3.076178134	\$11,505	\$334,568
2031	\$35,390	3.268734631	\$10,827	\$345,395
2032	\$35,390	3.473344398	\$10,189	\$355,584
2033	\$35,390	3.690761921	\$9,589	\$365,173
2034	\$35,390	3.921788914	\$9,024	\$374,197
2035	\$35,390	4.167277278	\$8,492	\$382,689
2036	\$35,390	4.428132234	\$7,992	\$390,682

Per Section 3.2.20 of the Distribution System Code effective Jan 23, 2007

EXPANSION DEPOSIT IF CAPITAL CONTRIBUTION NOT REQUIRED

Year	Capital	O&M	Municipal Tax	Capital Tax	Income Taxes	Total	PV Factor utilizing mid year discounting	Net Present Value	Cumulative Net Present Value
2012	\$492,795	\$5,394	\$0	\$355	-\$4,225	\$494,319	1.031298008	\$479,318	\$479,318
2013	\$0	\$10,788	\$0	\$326	-\$3,534	\$7,581	1.095853155	\$6,918	\$486,235
2014	\$0	\$16,182	\$0	\$300	-\$2,843	\$13,639	1.164449197	\$11,713	\$497,948
2015	\$0	\$21,576	\$0	\$276	-\$2,154	\$19,698	1.237339078	\$15,920	\$513,868
2016	\$0	\$26,735	\$0	\$254	-\$1,486	\$25,503	1.314791576	\$19,397	\$533,265
2017		\$26,735	\$0	\$234	-\$1,292	\$25,677	1.397092291	\$18,379	\$551,644
2018		\$26,735	\$0	\$215	-\$1,098	\$25,852	1.484544703	\$17,414	\$569,059
2019		\$26,735	\$0	\$198	-\$905	\$26,029	1.577471287	\$16,500	\$585,559
2020		\$26,735	\$0	\$182	-\$712	\$26,206	1.676214706	\$15,634	\$601,193
2021		\$26,735	\$0	\$168	-\$519	\$26,384	1.781139069	\$14,813	\$616,005
2022		\$26,735	\$0	\$154	-\$327	\$26,563	1.892631279	\$14,035	\$630,040
2023		\$26,735	\$0	\$142	-\$135	\$26,742	2.011102458	\$13,297	\$643,338
2024		\$26,735	\$0	\$130	\$57	\$26,923	2.13698946	\$12,598	\$655,936
2025		\$26,735	\$0	\$120	\$248	\$27,104	2.270756488	\$11,936	\$667,872
2026		\$26,735	\$0	\$110	\$440	\$27,285	2.412896798	\$11,308	\$679,180
2027		\$26,735	\$0	\$102	\$631	\$27,467	2.563934525	\$10,713	\$689,893
2028		\$26,735	\$0	\$93	\$821	\$27,650	2.724426613	\$10,149	\$700,042
2029		\$26,735	\$0	\$86	\$1,012	\$27,833	2.894964866	\$9,614	\$709,656
2030		\$26,735	\$0	\$79	\$1,203	\$28,017	3.076178134	\$9,108	\$718,764
2031		\$26,735	\$0	\$73	\$1,393	\$28,201	3.268734631	\$8,627	\$727,392
2032		\$26,735	\$0	\$67	\$1,583	\$28,385	3.473344398	\$8,172	\$735,564
2033		\$26,735	\$0	\$62	\$1,773	\$28,570	3.690761921	\$7,741	\$743,305
2034		\$26,735	\$0	\$57	\$1,963	\$28,755	3.921788914	\$7,332	\$750,637
2035		\$26,735	\$0	\$52	\$2,153	\$28,940	4.167277278	\$6,945	\$757,581
2036		\$26,735	\$0	\$48	\$2,342	\$29,126	4.428132234	\$6,577	\$764,159

CCA Tax Shield on Gross Capital

\$75,975

\$688,184

▲ -\$297,502

If negative, there is a Shortfall between the NPV of the Revenues and the NPV of the Total Costs and the PV of the Revenues at cell E30 is used to calculate the Expansion Deposit otherwise the PV of the Costs at cell P32 is used.
This is an interim value since if negative the impact of the Capital contribution has to be reflected in the CCA Tax Shield and the Capital Tax which is originally calculated on the Gross Capital.
The final Capital Contribution amount is calculated on worksheet "Contribtiun CCA and Cap Tax".

Year	Revenue	Capital	O&M	Municipal Tax	Capital Tax	Income Taxes	After Tax Cash Flow	PV Factor utilizing mid year discounting	PV of After Tax Cash Flow	CCA Tax Shield	Cumulative Net Present Value
2012	\$7,140	\$492,795	\$5,394	\$0	\$355	-\$4,225	-487,179	1.031298	-472,394		-472,394
2013	\$14,280	\$0	\$10,788	\$0	\$326	-\$3,534	6,700	1.095853	6,114		-466,281
2014	\$21,420	\$0	\$16,182	\$0	\$300	-\$2,843	7,782	1.164449	6,683		-459,598
2015	\$28,560	\$0	\$21,576	\$0	\$276	-\$2,154	8,862	1.237339	7,162		-452,436
2016	\$35,390	\$0	\$26,735	\$0	\$254	-\$1,486	9,887	1.314792	7,520		-444,916
2017	\$35,390		\$26,735	\$0	\$234	-\$1,292	9,713	1.397092	6,952		-437,964
2018	\$35,390		\$26,735	\$0	\$215	-\$1,098	9,538	1.484545	6,425		-431,539
2019	\$35,390		\$26,735	\$0	\$198	-\$905	9,362	1.577471	5,935		-425,605
2020	\$35,390		\$26,735	\$0	\$182	-\$712	9,184	1.676215	5,479		-420,125
2021	\$35,390		\$26,735	\$0	\$168	-\$519	9,006	1.781139	5,057		-415,069
2022	\$35,390		\$26,735	\$0	\$154	-\$327	8,828	1.892631	4,664		-410,405
2023	\$35,390		\$26,735	\$0	\$142	-\$135	8,648	2.011102	4,300		-406,105
2024	\$35,390		\$26,735	\$0	\$130	\$57	8,467	2.136989	3,962		-402,142
2025	\$35,390		\$26,735	\$0	\$120	\$248	8,286	2.270756	3,649		-398,493
2026	\$35,390		\$26,735	\$0	\$110	\$440	8,105	2.412897	3,359		-395,134
2027	\$35,390		\$26,735	\$0	\$102	\$631	7,923	2.563935	3,090		-392,044
2028	\$35,390		\$26,735	\$0	\$93	\$821	7,740	2.724427	2,841		-389,203
2029	\$35,390		\$26,735	\$0	\$86	\$1,012	7,557	2.894965	2,610		-386,593
2030	\$35,390		\$26,735	\$0	\$79	\$1,203	7,373	3.076178	2,397		-384,196
2031	\$35,390		\$26,735	\$0	\$73	\$1,393	7,189	3.268735	2,199		-381,996
2032	\$35,390		\$26,735	\$0	\$67	\$1,583	7,005	3.473344	2,017		-379,980
2033	\$35,390		\$26,735	\$0	\$62	\$1,773	6,820	3.690762	1,848		-378,132
2034	\$35,390		\$26,735	\$0	\$57	\$1,963	6,635	3.921789	1,692		-376,440
2035	\$35,390		\$26,735	\$0	\$52	\$2,153	6,450	4.167277	1,548		-374,892
2036	\$35,390		\$26,735	\$0	\$48	\$2,342	6,265	4.428132	1,415	-75,975	-297,502

Expansion - CHEC Economic Evaluation Model

Mid Year Present Value Factor Calculations

	2012	2013	2014	2015	2016	2017	2018
Equity %	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
Debt % Long Term	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%
Debt % Short Term	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Cost of Equity	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%
Cost of Debt - Long Term	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%
Cost of Debt - Short Term	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
Tax Rate	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%
Cost of Capital after tax	3.13%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%
Discount Factor	1.0313	1.0959	1.1644	1.2373	1.3148	1.3971	1.4845

2019	2020	2021	2022	2023	2024	2025	2026	2027
40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%
4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%
5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%
2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%
6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%
1.5775	1.6762	1.7811	1.8926	2.0111	2.1370	2.2708	2.4129	2.5639

2028	2029	2030	2031	2032	2033	2034	2035	2036
40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%	56.00%
4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%	9.85%
5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%	5.63%
2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%	28.31%
6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%	6.26%
2.7244	2.8950	3.0762	3.2687	3.4733	3.6908	3.9218	4.1673	4.4281

Capital & CCA Tax Effect of Capital Contribution Netting

	Total Additions	%	CCA rate
18350 OH Conductors & Devices	200	0.0%	8.0%
18400 U/G Conduit	201,263	40.8%	8.0%
18450 U/G Conductors & Devices	158,250	32.1%	8.0%
18500 Transformers	61,980	12.6%	8.0%
18550 Services	29,380	6.0%	8.0%
0	0	0.0%	8.0%
0	0	0.0%	8.0%
0	0	0.0%	8.0%
LDC Upstream Costs	0	0.0%	8.0%
LDC Non-Contestable Amounts	41,723	8.5%	8.0%
Land	0	0.0%	0.0%
Total	492,795	100.0%	8.0%

								Capital Tax	
	Opening UCC	CCA	Closing UCC	Tax Rate	Tax Impact	PV Factor	PV	Rate	Amount
2012	-\$297,502	-\$11,900	-\$285,602	28.31%	(\$3,369)	1.031298	(\$3,267)	0.0750%	-\$223
2013	-\$285,602	-\$22,848	-\$262,754	28.31%	(\$6,468)	1.095853	(\$5,903)	0.0750%	-\$214
2014	-\$262,754	-\$21,020	-\$241,734	28.31%	(\$5,951)	1.164449	(\$5,110)	0.0750%	-\$197
2015	-\$241,734	-\$19,339	-\$222,395	28.31%	(\$5,475)	1.237339	(\$4,425)	0.0750%	-\$181
2016	-\$222,395	-\$17,792	-\$204,603	28.31%	(\$5,037)	1.314792	(\$3,831)	0.0750%	-\$167
2017	-\$204,603	-\$16,368	-\$188,235	28.31%	(\$4,634)	1.397092	(\$3,317)	0.0750%	-\$153
2018	-\$188,235	-\$15,059	-\$173,176	28.31%	(\$4,263)	1.484545	(\$2,872)	0.0750%	-\$141
2019	-\$173,176	-\$13,854	-\$159,322	28.31%	(\$3,922)	1.577471	(\$2,486)	0.0750%	-\$130
2020	-\$159,322	-\$12,746	-\$146,576	28.31%	(\$3,608)	1.676215	(\$2,153)	0.0750%	-\$119
2021	-\$146,576	-\$11,726	-\$134,850	28.31%	(\$3,320)	1.781139	(\$1,864)	0.0750%	-\$110
2022	-\$134,850	-\$10,788	-\$124,062	28.31%	(\$3,054)	1.892631	(\$1,614)	0.0750%	-\$101
2023	-\$124,062	-\$9,925	-\$114,137	28.31%	(\$2,810)	2.011102	(\$1,397)	0.0750%	-\$93
2024	-\$114,137	-\$9,131	-\$105,006	28.31%	(\$2,585)	2.136989	(\$1,210)	0.0750%	-\$86
2025	-\$105,006	-\$8,401	-\$96,606	28.31%	(\$2,378)	2.270756	(\$1,047)	0.0750%	-\$79
2026	-\$96,606	-\$7,728	-\$88,877	28.31%	(\$2,188)	2.412897	(\$907)	0.0750%	-\$72
2027	-\$88,877	-\$7,110	-\$81,767	28.31%	(\$2,013)	2.563935	(\$785)	0.0750%	-\$67
2028	-\$81,767	-\$6,541	-\$75,226	28.31%	(\$1,852)	2.724427	(\$680)	0.0750%	-\$61
2029	-\$75,226	-\$6,018	-\$69,208	28.31%	(\$1,704)	2.894965	(\$589)	0.0750%	-\$56
2030	-\$69,208	-\$5,537	-\$63,671	28.31%	(\$1,567)	3.076178	(\$510)	0.0750%	-\$52
2031	-\$63,671	-\$5,094	-\$58,577	28.31%	(\$1,442)	3.268735	(\$441)	0.0750%	-\$48
2032	-\$58,577	-\$4,686	-\$53,891	28.31%	(\$1,327)	3.473344	(\$382)	0.0750%	-\$44
2033	-\$53,891	-\$4,311	-\$49,580	28.31%	(\$1,221)	3.690762	(\$331)	0.0750%	-\$40
2034	-\$49,580	-\$3,966	-\$45,614	28.31%	(\$1,123)	3.921789	(\$286)	0.0750%	-\$37
2035	-\$45,614	-\$3,649	-\$41,964	28.31%	(\$1,033)	4.167277	(\$248)	0.0750%	-\$34
2036	-\$41,964	-\$3,357	-\$38,607	28.31%	(\$950)	4.428132	(\$215)	0.0750%	-\$31
							(\$45,866)		
Capital Contribution, before tax impacts due to netting		297,502							
Add: PV of CCA impact		45,866							
Less: PV of Capital Tax impact		(1,627)							
Capital Contribution after CCA impact		\$341,742							

PV
(\$216)
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