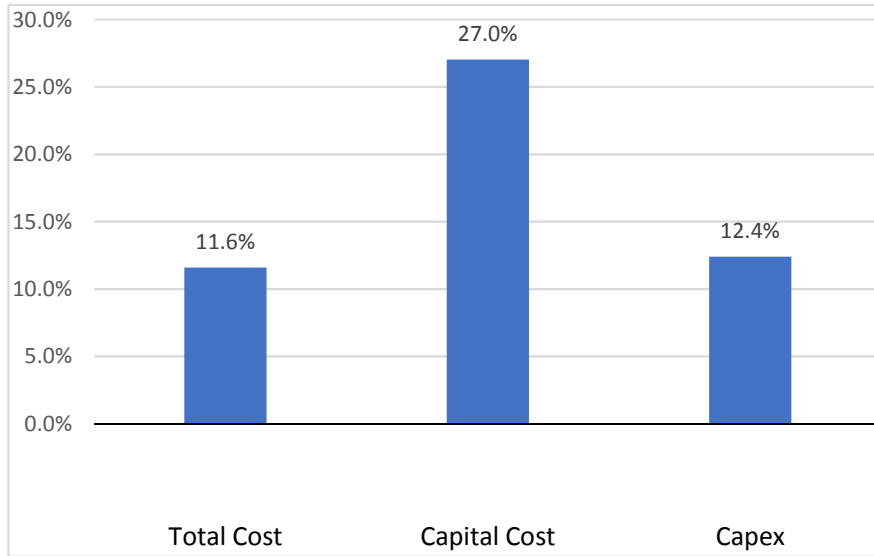


Benchmarking Results for Toronto Hydro's Proposed Costs (2020-2024)



Total Cost Performance of THESL

Year	Percent Difference ¹
2005	-39.5%
2006	-38.8%
2007	-34.2%
2008	-31.9%
2009	-29.6%
2010	-22.3%
2011	-14.8%
2012	-16.5%
2013	-11.5%
2014	-9.8%
2015	-7.6%
2016	-3.1%
2017	-0.2%
<i>2018</i>	<i>3.5%</i>
<i>2019</i>	<i>4.8%</i>
<i>2020</i>	<i>7.5%</i>
<i>2021</i>	<i>9.4%</i>
<i>2022</i>	<i>11.8%</i>
<i>2023</i>	<i>13.8%</i>
<i>2024</i>	<i>15.4%</i>
Annual Averages	
2005-2017	-20.0%
2015-2017	-3.6%
2020-2024	11.6%

¹ Formula for benchmark comparison is $\ln(\text{Cost}^{\text{THESL}}/\text{Cost}^{\text{Bench}})$.

Note: Italicized numbers are projections/proposals.

Capital Cost Performance of THESL

Year	Percent Difference ¹
2005	-37.6%
2006	-34.6%
2007	-31.7%
2008	-26.1%
2009	-24.7%
2010	-20.5%
2011	-13.1%
2012	-12.4%
2013	-8.6%
2014	-3.1%
2015	0.5%
2016	7.3%
2017	11.7%
<i>2018</i>	<i>17.1%</i>
<i>2019</i>	<i>18.8%</i>
<i>2020</i>	<i>21.4%</i>
<i>2021</i>	<i>23.8%</i>
<i>2022</i>	<i>27.3%</i>
<i>2023</i>	<i>30.1%</i>
<i>2024</i>	<i>32.5%</i>
Annual Averages	
2005-2017	-14.8%
2015-2017	6.5%
2020-2024	27.0%

¹ Formula for benchmark comparison is $\ln(\text{Cost}^{\text{THESL}}/\text{Cost}^{\text{Bench}})$.

Note: Italicized numbers are projections/proposals.

Capex Performance of THESL

Year	Percent Difference ¹
2005	-87.7%
2006	-43.1%
2007	-40.4%
2008	-7.3%
2009	-54.6%
2010	-14.5%
2011	20.8%
2012	-53.8%
2013	-2.5%
2014	14.7%
2015	3.1%
2016	31.0%
2017	15.6%
2018	29.9%
2019	-13.0%
2020	5.1%
2021	3.5%
2022	22.1%
2023	17.2%
2024	14.1%
Annual Averages	
2005-2017	-16.8%
2015-2017	16.6%
2020-2024	12.4%

¹ Formula for benchmark comparison is $\ln(\text{Cost}^{\text{THESL}}/\text{Cost}^{\text{Bench}})$.

Note: Italicized numbers are projections/proposals.

PEG Alternative Econometric Total Cost Model

VARIABLE KEY

N = Number of customers
D = Ratcheted maximum peak demand
PCTCU = % service territory congested urban
AREA_OTHER = Service territory area multiplied by (1-PCTCU)
PCTFOREST = % service territory forested
PCTELEC = % electric customers
PCTAMI = % of customers with AMI meters
ELEVSTD = Elevation standard deviation
Trend = Time trend

EXPLANATORY VARIABLE	PARAMETER ESTIMATE	T-STATISTIC	P-VALUE
N	0.623	30.709	0.000
N*N	0.565	7.426	0.000
D	0.329	15.516	0.000
D*D	0.597	7.295	0.000
D*N	-0.567	-7.352	0.000
PCTCU	13.672	7.014	0.000
AREA_OTHER	0.015	2.380	0.017
PCTFOREST	0.041	12.108	0.000
PCTELEC	0.099	5.458	0.000
PCTAMI	0.025	2.359	0.018
ELEVSTD	0.034	6.776	0.000
Trend	-0.005	-8.098	0.000
Constant	19.782	2054.026	0.000

Adjusted R² 0.969

Sample Period 1995-2017

Number of Observations 1907

PEG's Alternative Econometric Capital Cost Model

VARIABLE KEY

N = Number of customers
D = Ratcheted maximum peak demand
PCTCU = % service territory congested urban
AREA_OTHER = Service territory area multiplied by (1-PCTCU)
PCTFOREST = % service territory forested
PCTELEC = % electric customers
PCTAMI = % of customers with AMI meters
ELEVSTD = Elevation standard deviation
Trend = Time trend

EXPLANATORY VARIABLE	PARAMETER ESTIMATE	T-STATISTIC	P-VALUE
N	0.568	41.020	0.000
N*N	-0.116	-2.064	0.039
D	0.382	25.788	0.000
D*D	0.120	2.035	0.042
D*N	0.010	0.170	0.865
PCTCU	22.675	16.929	0.000
AREA_OTHER	0.059	12.486	0.000
PCTFOREST	0.033	11.495	0.000
PCTELEC	0.066	6.799	0.000
PCTAMI	0.025	4.592	0.000
ELEVSTD	0.013	3.661	0.000
Trend	-0.005	-14.285	0.000
Constant	17.536	2600.670	0.000

Adjusted R² 0.962

Sample Period 1995-2017

Number of Observations 1907

PEG's Alternative Econometric Capex Model

VARIABLE KEY

N = Number of customers
D = Ratcheted maximum peak demand
PCTCU = % service territory congested urban
ELEVSTD = Elevation standard deviation
NGROWTH = % change in number of customers over last ten years
PCTAMIGROWTH = % change in PCTAMI from 2002 to 2017
DGROWTH = % change in D over sample period
Trend = Time trend

EXPLANATORY VARIABLE	PARAMETER ESTIMATE	T-STATISTIC	P-VALUE
N	0.478	8.827	0.000
N*N	0.409	1.623	0.105
D	0.583	10.014	0.000
D*D	0.476	1.723	0.085
D*N	-0.367	-1.424	0.155
PCTCU	42.974	8.327	0.000
ELEVSTD	0.051	4.116	0.000
NGROWTH	0.542	2.730	0.006
PCTAMIGROWTH	0.020	3.270	0.001
DGROWTH	0.360	2.725	0.007
Trend	-0.004	-1.838	0.066
Constant	14.610	491.194	0.000

Adjusted R² 0.867

Sample Period 1996-2017

Number of Observations 1306