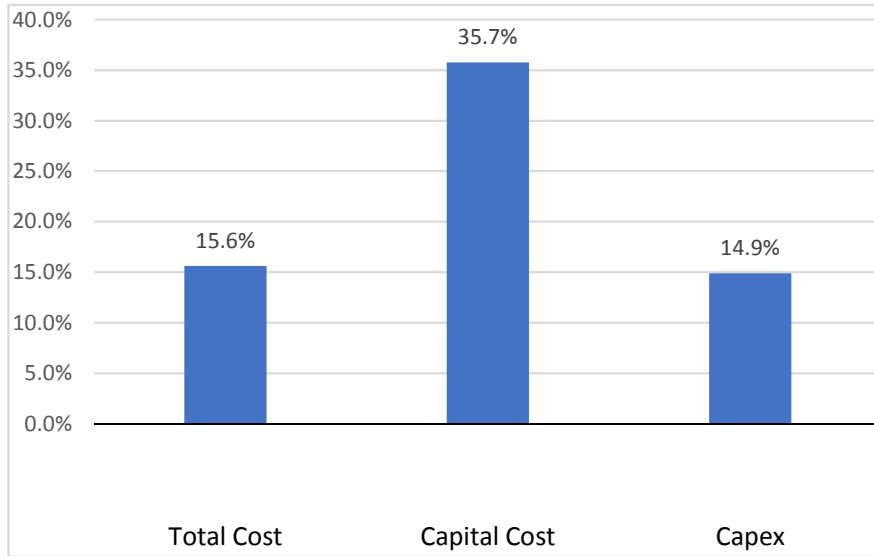


Benchmarking Results for Toronto Hydro's Proposed Costs (2020-2024)



Total Cost Performance of THESL

Year	Percent Difference ¹
2005	-38.5%
2006	-37.5%
2007	-30.9%
2008	-29.1%
2009	-27.5%
2010	-20.0%
2011	-12.2%
2012	-13.9%
2013	-8.7%
2014	-6.9%
2015	-4.6%
2016	0.8%
2017	3.7%
<i>2018</i>	<i>7.5%</i>
<i>2019</i>	<i>8.7%</i>
<i>2020</i>	<i>11.4%</i>
<i>2021</i>	<i>13.4%</i>
<i>2022</i>	<i>15.9%</i>
<i>2023</i>	<i>17.8%</i>
<i>2024</i>	<i>19.5%</i>
Annual Averages	
2005-2017	-17.3%
2015-2017	0.0%
2020-2024	15.6%

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	-34.9%
2006	-31.3%
2007	-25.2%
2008	-20.1%
2009	-19.5%
2010	-15.1%
2011	-7.2%
2012	-6.4%
2013	-2.2%
2014	3.5%
2015	7.5%
2016	15.4%
2017	20.0%
2018	25.5%
2019	27.2%
2020	30.0%
2021	32.4%
2022	36.0%
2023	38.9%
2024	41.4%
Annual Averages	
2005-2017	-8.9%
2015-2017	14.3%
2020-2024	35.7%

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	-103.0%
2006	-38.1%
2007	-6.1%
2008	-11.9%
2009	-67.7%
2010	-12.2%
2011	24.9%
2012	-51.9%
2013	0.6%
2014	17.6%
2015	5.9%
2016	42.5%
2017	18.3%
2018	32.5%
2019	-10.4%
2020	7.6%
2021	6.0%
2022	24.6%
2023	19.6%
2024	16.5%
Annual Averages	
2005-2017	-13.9%
2015-2017	22.2%
2020-2024	14.9%

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

Note: Italicized numbers are projections/proposals.

PEG's Latest 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	0.606	29.053	0.000
N*N	0.501	6.414	0.000
D	0.346	16.273	0.000
D*D	0.564	6.828	0.000
D*N	-0.515	-6.593	0.000
PCTCU	14.484	7.659	0.000
AREA_OTHER	0.019	3.138	0.002
PCTFOREST	0.042	13.573	0.000
PCTELEC	0.088	4.885	0.000
PCTAMI	0.028	2.729	0.006
ELEVSTD	0.032	6.399	0.000
Trend	-0.004	-7.809	0.000
Constant	19.777	2074.058	0.000

Adjusted R² 0.970

Sample Period 1995-2017

Number of Observations 1907

PEG's Latest 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	0.531	40.125	0.000
N*N	-0.106	-1.891	0.059
D	0.421	30.529	0.000
D*D	0.127	2.161	0.031
D*N	0.006	0.111	0.911
PCTCU	23.833	15.025	0.000
AREA_OTHER	0.069	15.069	0.000
PCTFOREST	0.036	14.521	0.000
PCTELEC	0.046	5.224	0.000
PCTAMI	0.027	5.009	0.000
ELEVSTD	0.016	4.554	0.000
Trend	-0.005	-15.629	0.000
Constant	17.413	2753.493	0.000

Adjusted R² 0.964

Sample Period 1995-2017

Number of Observations 1907

PEG's Latest 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	0.494	9.195	0.000
N*N	0.279	1.121	0.263
D	0.569	9.738	0.000
D*D	0.384	1.405	0.160
D*N	-0.254	-0.996	0.319
PCTCU	44.993	8.364	0.000
ELEVSTD	0.055	4.373	0.000
NGROWTH	0.567	2.956	0.003
PCTAMIGROWTH	0.020	3.393	0.001
DGROWTH	0.317	2.441	0.015
Trend	-0.003	-1.751	0.080
Constant	14.492	503.923	0.000

Adjusted R² 0.868

Sample Period 1996-2017

Number of Observations 1306