

# Muskrat Falls Project Oversight Committee

November Reporting  
January 25, 2018

# Project Progress



**% Project Completion**

LCP-Overall 87.8%

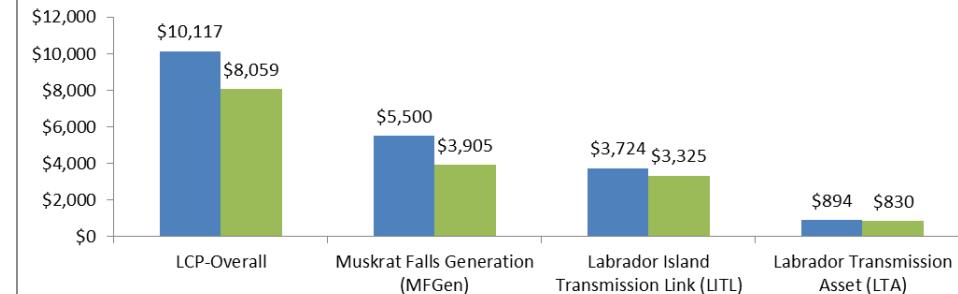
Muskrat Falls Generation (MFGen) 76.9%

Labrador Island Transmission Link (LITL) 96.7%

Labrador Transmission Asset (LTA) 99.1%

**Expenditures**

■ Total Forecast Cost (Millions) ■ Incurred (Millions)



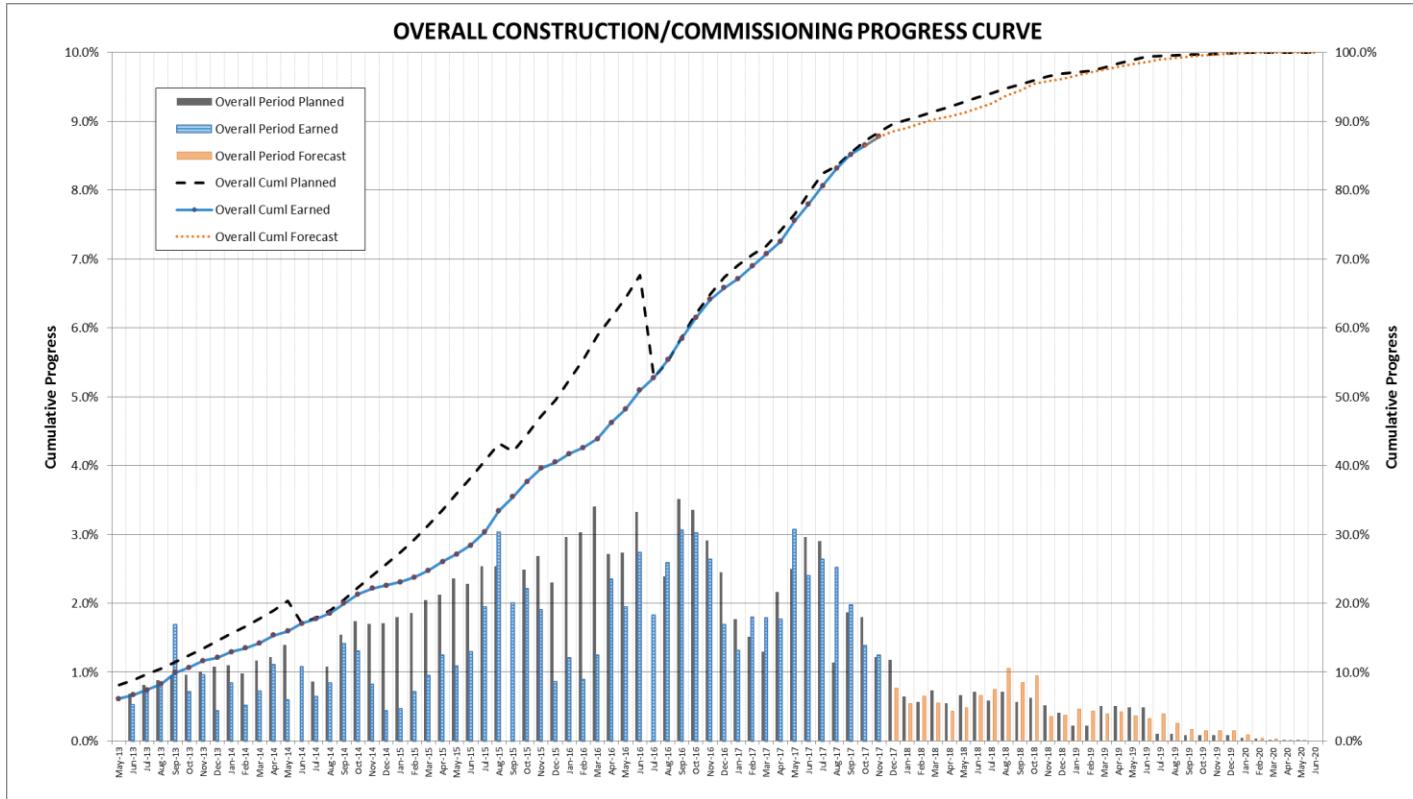
# Project Progress



## Muskrat Falls Project Progress at November 2017

<u>November 2017</u>	<u>Weight Factor %</u>	<u>November 2017 Cumulative %</u>			<u>October 2017 Variance</u>
		<u>Planned</u>	<u>Earned</u>	<u>Variance</u>	
Sub-Project	A	B	C	D = C - B	E
Muskrat Falls Generation (MFGen)	46.3%	100.0%	99.1%	-0.9%	0.1%
Labrador Island Transmission Link (LITL)	43.9%	96.9%	96.7%	-0.2%	-1.3%
Labrador Transmission Asset (LTA)	9.8%	78.0%	76.9%	-1.1%	-1.2%
Muskrat Falls Project - Overall	100.0%	88.4%	87.8%	-0.6%	-0.7%

# Overall Progress Curve



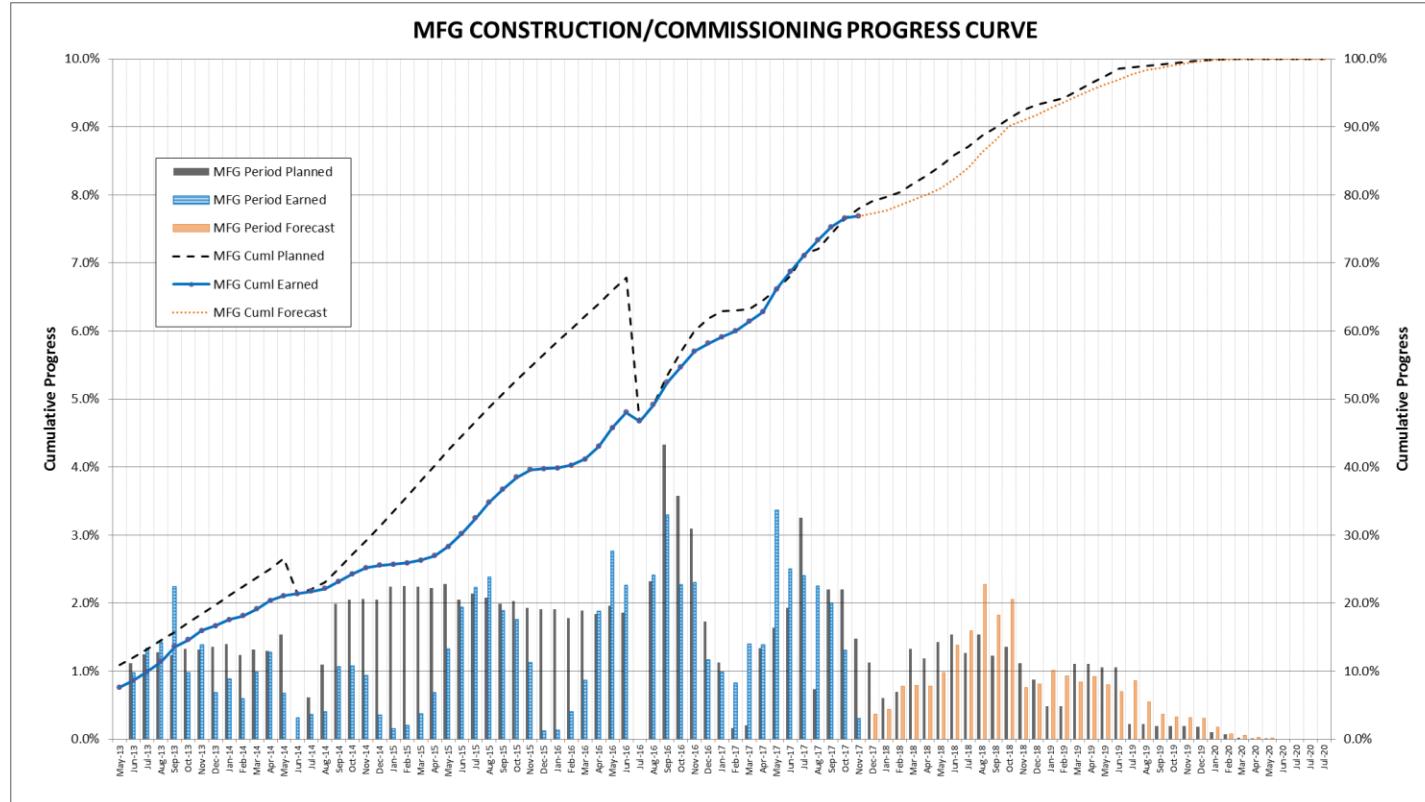
# Earned Progress

## MF Generating Facility



<u>November 2017</u>	Weight Factor %	<u>November 2017 Cumulative %</u>			<u>October 2017 Variance</u>
		<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	
<u>Sub-Project</u>	A	B	C	D = C - B	E
MFG Road/Camp/Constr. Power	8.9%	100.0%	100.0%	0.0%	0.0%
MFG Reservoir Preparation	5.8%	100.0%	100.0%	0.0%	0.0%
MFG Spillway & Gates	12.2%	92.9%	85.3%	-7.6%	-8.0%
MFG North Spur Stabilization	3.9%	100.0%	100.0%	0.0%	0.0%
MFG North Dam	5.7%	63.9%	57.3%	-6.6%	-6.4%
MFG Powerhouse & Intake	61.3%	69.2%	69.7%	0.5%	2.3%
MFG South Dam	1.1%	100.0%	99.2%	-0.8%	-0.9%
MFG Misc:Eng/ 315kV/Site Rest./logistic	1.1%	78.0%	75.5%	-2.5%	-2.5%
MFGen - Overall	100.0%	78.0%	76.9%	-1.1%	0.1%

# Progress Curve MF Generating Facility

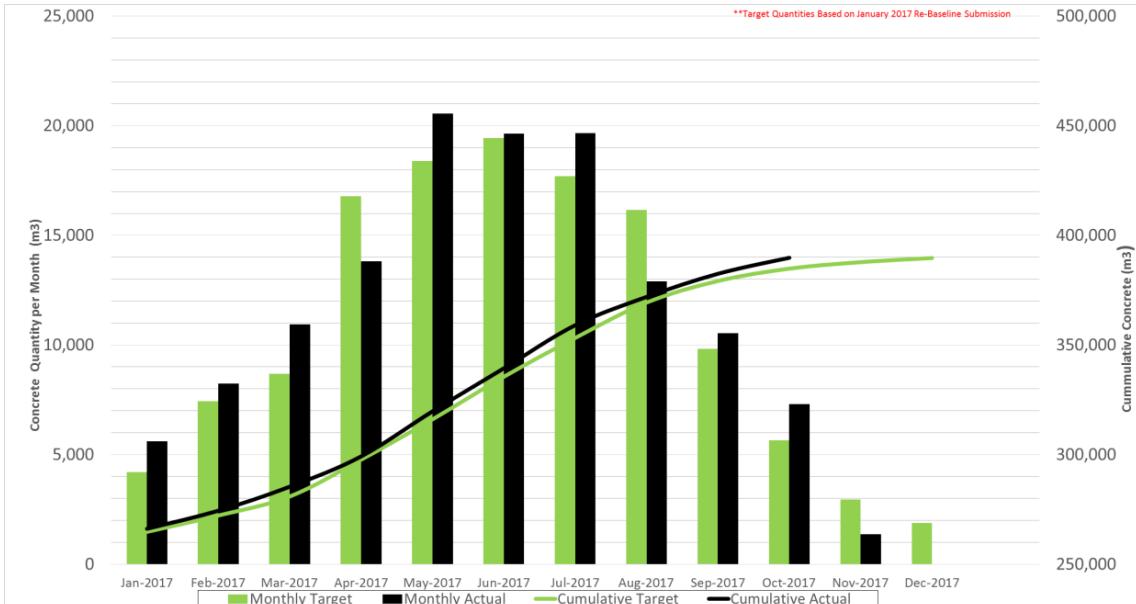


# Astaldi Concrete Production

## CH0007-001 - Concrete Production

Data Date: 02-Dec-2017

Month	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Total
Cumulative Concrete Target	264,822	272,252	280,842	297,727	316,107	335,533	353,225	369,379	379,197	384,843	387,790	389,668	
Cumulative Concrete Placed	266,219	274,455	285,394	299,199	319,753	339,383	359,042	371,947	382,495	389,801			-
Monthly Concrete Target	4,208	7,430	8,690	16,785	18,380	19,426	17,692	16,154	9,818	5,646	2,947	1,878	129,054
Monthly Concrete Placed	5,605	8,236	10,939	13,805	20,554	19,630	19,659	12,905	10,548	7,306	1,376		130,563
Variance - Monthly Target	1,397	806	2,249	(2,980)	2,174	204	1,967	(3,249)	730	1,660	(1,571)		
Variance - Cumulative Target	1,397	2,203	4,452	1,472	3,646	3,850	5,817	2,568	3,298	4,958	3,387		



# Earned Progress

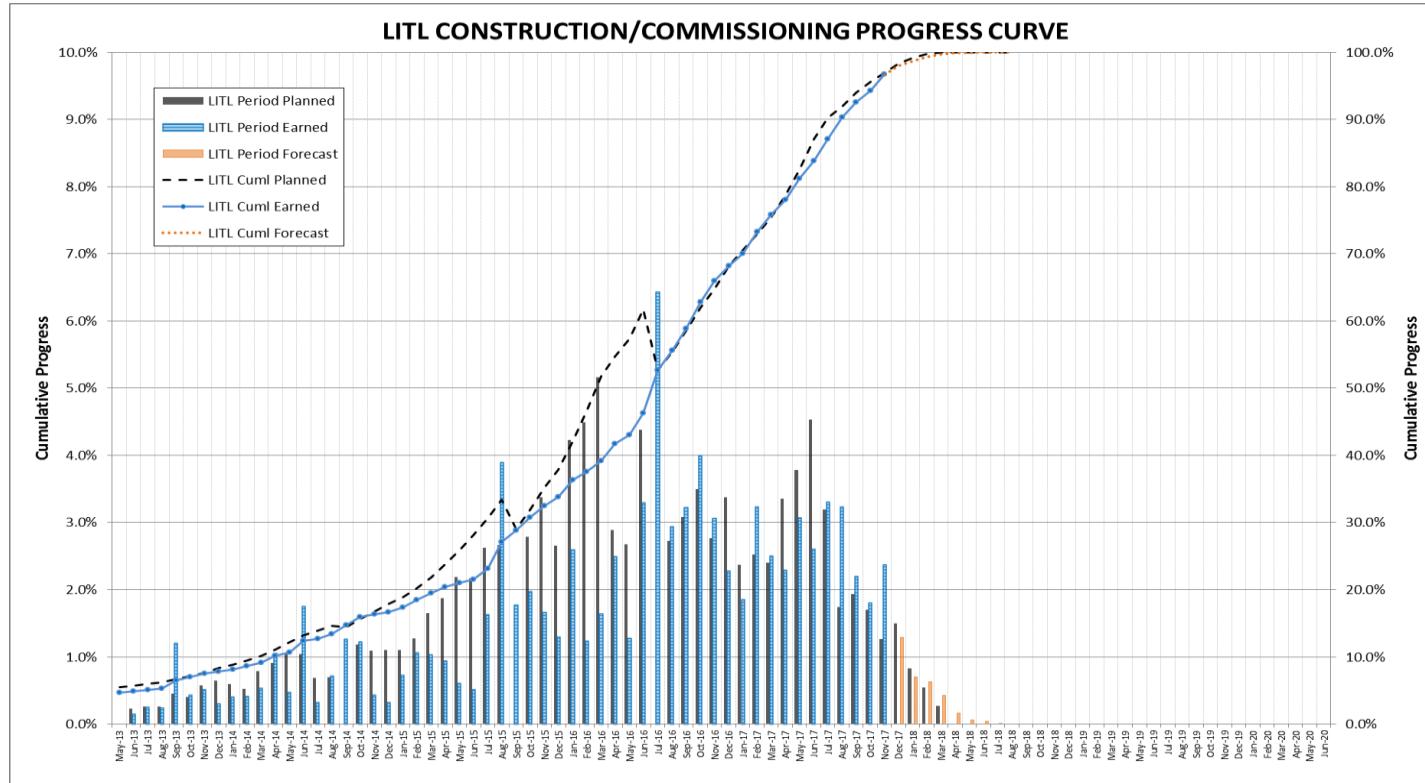
## Labrador Island Transmission Link



<u>November 2017</u>	Weight	<u>November 2017 Cumulative %</u>			<u>October 2017</u>
	<u>Factor %</u>	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	<u>Variance</u>
	A	B	C	D = C - B	E
<i>Sub-Project</i>					
LITL Muskrat Falls Converter	6.1%	98.6%	78.9%	-19.7%	-30.5%
LITL Soldiers Pond Converter	5.5%	97.3%	83.8%	-13.5%	-17.3%
LITL HVdc Transmission Line Seg 1/2	26.8%	100.0%	100.0%	0.0%	0.0%
LITL HVdc Transmission Line Seg 3/4/5	34.2%	91.6%	99.7%	8.1%	7.8%
LITL Electrode Sites	0.8%	100.0%	93.6%	-6.4%	-11.8%
LITL Transition Compounds	1.7%	98.0%	90.8%	-7.2%	-13.5%
LITL SOBI Cable Crossing	17.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Switchyard	2.7%	100.0%	100.0%	0.0%	0.0%
LITL Soldiers Pond Sync. Condensors	3.1%	100.0%	81.2%	-18.8%	-18.8%
LITL Misc	1.4%	100.0%	81.2%	-18.8%	-21.7%
LITL- Overall	100.0%	96.9%	96.7%	-0.2%	-1.3%

# Progress Curve

## Labrador Island Transmission Link



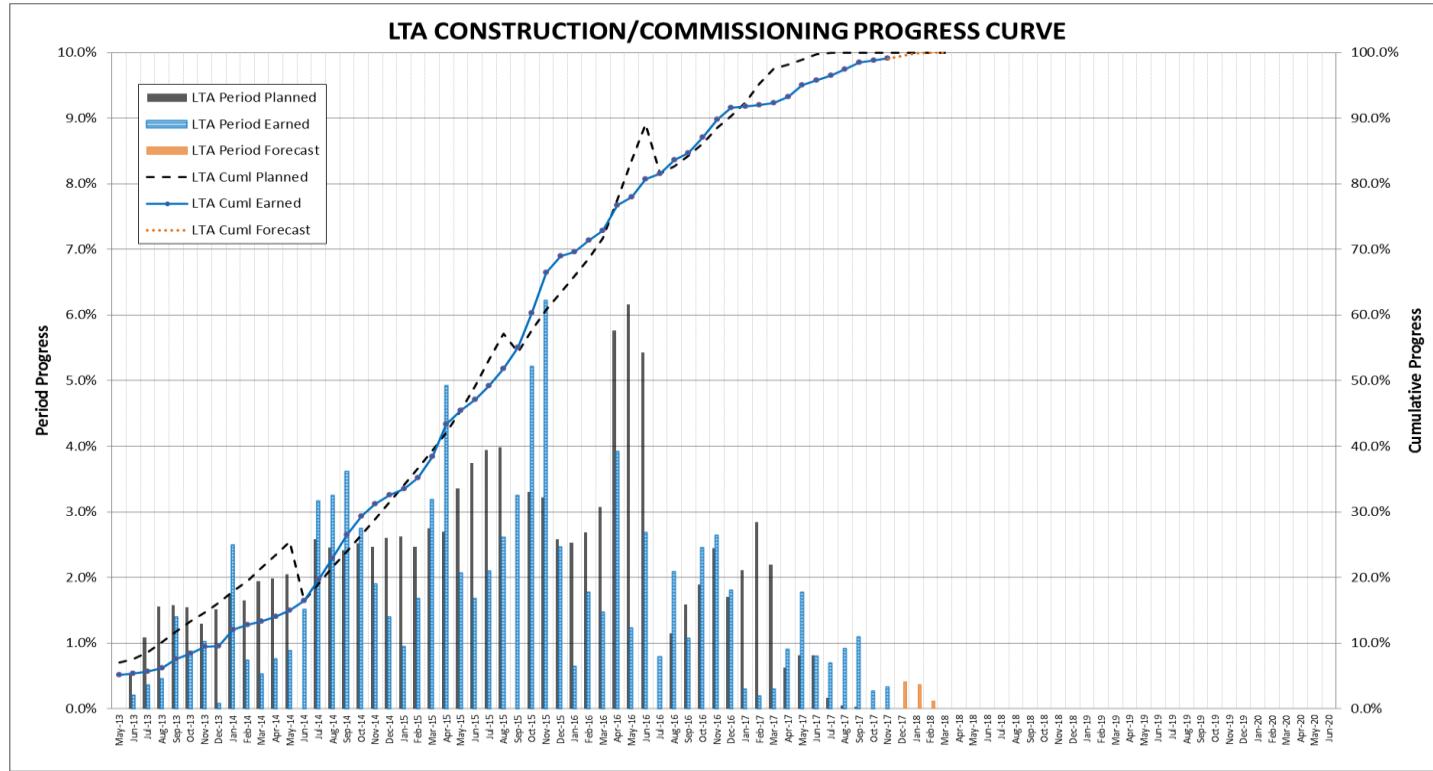
# Earned Progress

## Labrador Transmission Assets



<u>November 2017</u>	Weight	<u>November 2017 Cumulative %</u>			<u>October 2017 Variance</u>
	<u>Factor %</u>	<u>Plan</u>	<u>Earned</u>	<u>Variance</u>	
Sub-Project	A	B	C	D = C - B	E
LTA HVac Transmission Line Seg1/2 - MF to CF	62.8%	100.0%	100.0%	0.0%	0.0%
LTA Churchill Falls Switchyard	21.7%	100.0%	99.3%	-0.7%	-1.5%
LTA Muskrat Falls Switchyard	13.4%	100.0%	95.3%	-4.7%	-5.1%
LTA Misc	2.1%	100.0%	94.8%	-5.2%	-10.5%
LTA - Overall	100.0%	100.0%	99.1%	-0.9%	-1.2%

# Progress Curve Labrador Transmission Assets



# Project Costs



## Muskrat Falls Project Costs at November 2017 (\$000's)

Muskrat Falls Project: Sub-Project	Percentage of Total Budget	Project Budget at June 2017	Planned Costs as of November 2017	Incurred Costs as of November 2017	Percentage of Budget Incurred	Variance Planned vs. Incurred Costs	Variance as % of Planned Costs	Project Forecast Cost
Muskrat Falls Generating Facility	54.36%	\$5,500,056	\$3,848,896	\$3,904,771	71.0%	\$55,875	1.5%	\$5,500,056
Labrador-Island Transmission Link	36.81%	\$3,723,716	\$3,394,027	\$3,324,514	89.3%	(\$69,513)	-2.0%	\$3,723,716
Labrador Transmission Assets	8.83%	\$893,556	\$869,293	\$829,604	92.8%	(\$39,689)	-4.6%	\$893,556
<b>Total</b>	<b>100.0%</b>	<b>\$10,117,328</b>	<b>\$8,112,216</b>	<b>\$8,058,889</b>	<b>79.7%</b>	<b>(\$53,327)</b>	<b>-0.7%</b>	<b>\$10,117,328</b>

Final Forecast Cost unchanged from June 2017 AFE

# Contingency Allocation



## Contingency Budget at November 2017 (\$ 000's)

Muskrat Falls: Sub-project	Project Budget June 2017	Project Forecast Cost October 2017	Project Forecast Cost November 2017	Change from Previous Period	Variance PFC from Budget
Muskrat Falls Generating Facility	\$226,400	\$215,101	\$206,180	(\$8,921)	(\$20,220)
Labrador-Island Transmission Link	\$102,750	\$73,278	\$80,530	\$7,252	(\$22,220)
Labrador Transmission Assets	\$10,012	\$13,055	\$7,155	(\$5,900)	(\$2,857)
<b>Total Project</b>	<b>\$339,162</b>	<b>\$301,434</b>	<b>\$293,865</b>	<b>(\$7,569)</b>	<b>(\$45,297)</b>