

1 Q. Please provide any internal studies that compare contracted engineering cost
2 versus internal FTE engineering cost, for similar functions, for Newfoundland
3 Hydro's Engineering Services organization.

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6 A. An internal analysis to compare contracted versus internal FTE engineering cost for
7 Hydro Engineering Services organization was completed in October 2017. Please
8 refer to PUB-Nalcor-147, Attachment 1.

Engineering Services

Embedded Contractor Analysis
October 2017

Outline

- Safety Moment
- Overview
- 2011-2022 Capital Expenditures
- Embedded Contractor definition
- Assumptions
- 2016 Contractor/Employee Analysis
- 2017 Contractor/Employee Analysis
- Contractor – Employee Transitions
- 2017-2019 Plan

Safety Moment – Does your car have an outstanding recall?

- Approximately one in six cars on Canadian roads has an outstanding recall.
 - <http://www.cbc.ca/news/investigates/vehicles-canada-safety-recall-1.3882337>
- In 2015, five million cars has a safety related issue that required a recall notification in accordance with the Canadian Motor Vehicle Safety Act.
- Check your car against the Motor Vehicle Safety Recalls Database. You will need the make, model and year.
 - <http://www.tc.gc.ca/eng/motorvehiclesafety/recalls-motor-vehicles.html>

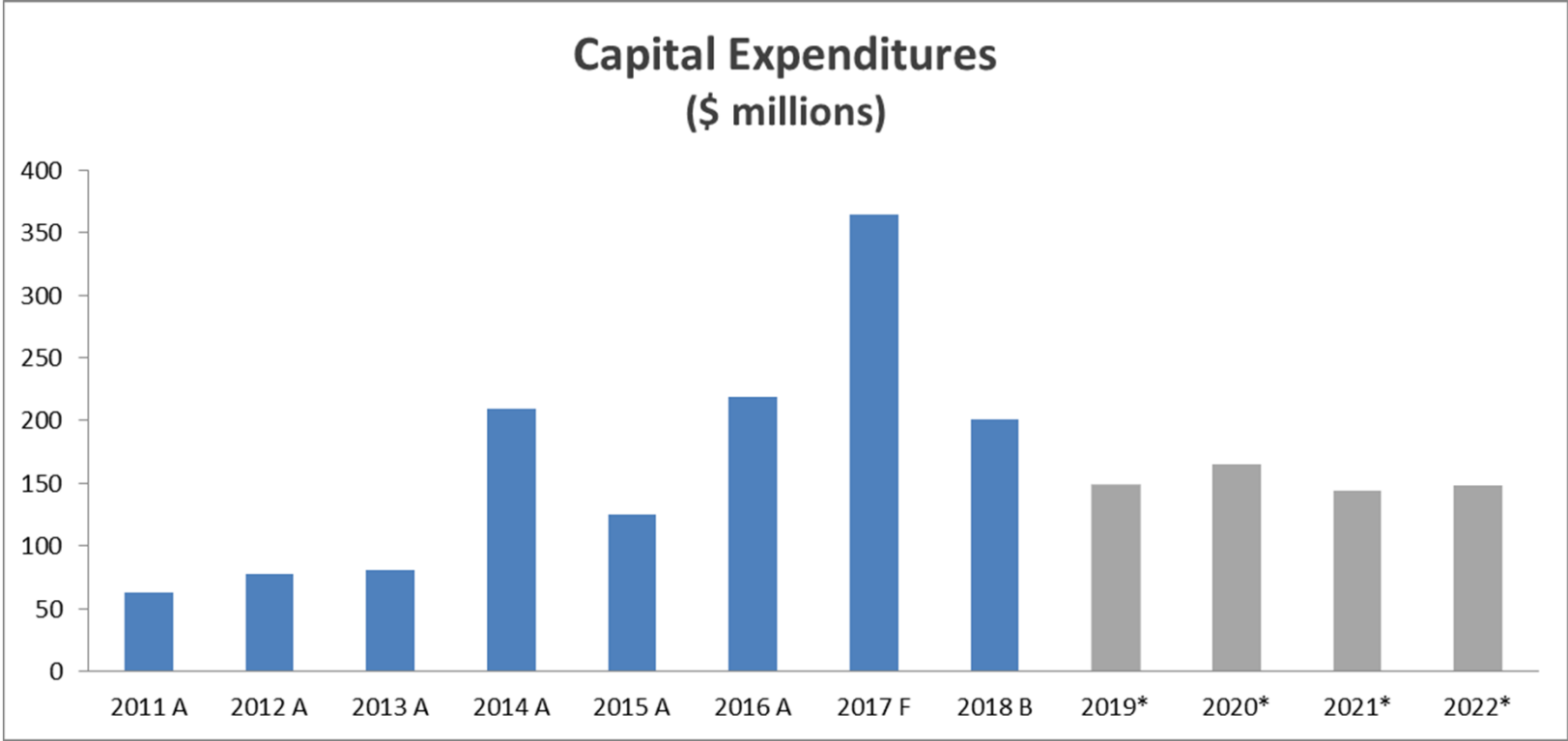
Safety Moment – Does your car have an outstanding recall?

- In 2016, defects ranged from windshield wiper failure to rear axle fracture and metal fragments passing through airbags.
- Some recalls may seem minor in comparison to defects that increase the risk of a crash or injury, but all recalls are issued for the safety of you, your passengers and other drivers.
- Please take the time to check your vehicle.

Overview

- Due to the significant growth of Hydro's capital portfolio since 2011, Engineering Services has utilized "Embedded Contractors" to supplement its Project Execution teams primarily in the areas of:
 - Project Management
 - Project Engineering and
 - Planning

2011-2022 Capital Expenditures



** Based on 2018 CBA 5 Year Plan*

Embedded Contractor Definition

- An external person that is:
 - seconded from third party for a distinct period of time;
 - obtained through an RFI process and competitively bid
 - a dedicated resource that performs work only for Newfoundland and Labrador Hydro;
 - physically located at Hydro Place and
 - reports to and receives direction from a Hydro supervisor/manager.

Assumptions

- Hours are primarily based on contractor invoicing and include forecasted hours for the remainder of 2017
- Equivalent FTE's are based on 1500 hrs
- Hay Grades have been assigned to each contract position and then loading has been applied (68%) for comparison purposes

2016 Contractor/Employee Analysis

2016						
Job Discipline	Hours	FTE	Contract Cost	Employee Cost	Diff \$'s	Diff %
Engineer - Mechanical	12,155.0	8.1	\$ 1,502,030	\$ 1,252,945	\$ (249,085)	-17%
Engineer - Electrical	9,196.3	6.1	\$ 1,095,815	\$ 900,658	\$ (195,157)	-18%
Engineer - P&C	2,530.0	1.7	\$ 316,128	\$ 264,053	\$ (52,075)	-16%
Engineer	3,447.0	2.3	\$ 495,710	\$ 374,973	\$ (120,737)	-24%
Planner/ Scheduler	5,051.0	3.4	\$ 472,184	\$ 411,080	\$ (61,104)	-13%
Engineer - Communications	1,505.5	1.0	\$ 195,715	\$ 163,670	\$ (32,045)	-16%
Engineer - Civil	11,719.5	7.8	\$ 1,200,308	\$ 1,103,401	\$ (96,907)	-8%
Electrical Design Tech	236.0	0.2	\$ 15,340	\$ 19,093	\$ 3,753	24%
Total	45,840.3	30.6	\$ 5,293,230	\$ 4,489,873	\$ (803,357)	-15%

2017 Contractor/Employee Analysis

2017							
Job Discipline	Hours	FTE	Contract Cost	Employee Cost	Diff \$'s	Diff %	
Engineer - Mechanical	12,394.5	8.3	\$ 1,553,000	\$ 1,264,710	\$ (288,290)	-19%	
Engineer - Electrical	9,048.0	6.0	\$ 1,055,944	\$ 876,843	\$ (179,101)	-17%	
Engineer - P&C	7,029.0	4.7	\$ 901,559	\$ 727,977	\$ (173,582)	-19%	
Engineer	4,017.0	2.7	\$ 538,881	\$ 414,730	\$ (124,151)	-23%	
Planner/ Scheduler	6,831.5	4.6	\$ 605,286	\$ 530,945	\$ (74,341)	-12%	
Engineer - Communications	1,799.5	1.2	\$ 233,935	\$ 195,633	\$ (38,302)	-16%	
Engineer - Civil	8,633.0	5.8	\$ 814,957	\$ 796,701	\$ (18,256)	-2%	
Electrical Design Tech	1,914.5	1.3	\$ 124,443	\$ 154,888	\$ 30,445	24%	
Total	51,667.0	34.4	\$ 5,828,005	\$ 4,962,427	\$ (865,578)	-15%	

Contractor – Employee Transitions

- The following 5 embedded contractors have transitioned to permanent staff through posted job competitions:
 - Ryan Furlong – Civil Engineering (Oct 2016)
 - Linus Kelly – T&D Engineering (Dec 2016)
 - Mark Howell – Mechanical Engineering (Jan 2017)
 - Jody Stewart – Electrical Engineering (Feb 2017)
 - Jeff Green – Gas Turbines and Diesels (Apr 2017)

Questions?

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