

# **Muskrat Falls Project Oversight Committee**

**December 2016 Reporting**

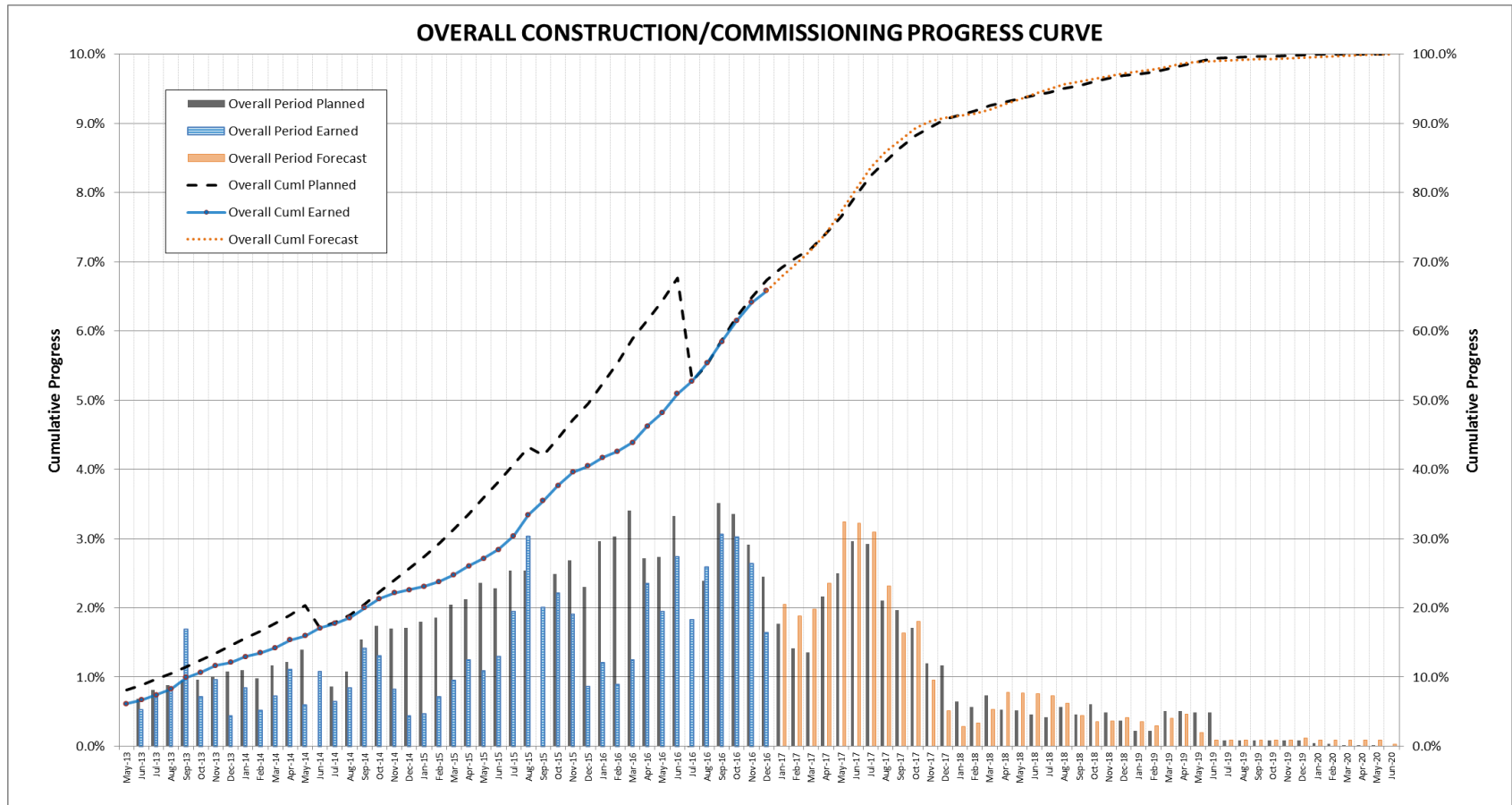
**February 24, 2017**

# Project Progress

## Muskrat Falls Project Progress at December 2016

| <u>December 2016</u>                     | Weight<br>Factor % | <u>December 2016 Cumulative %</u> |               |                 | <u>November</u>                |
|--|--------------------|-----------------------------------|---------------|-----------------|--------------------------------|
|  |                    | <u>Planned</u>                    | <u>Earned</u> | <u>Variance</u> | <u>2016</u><br><u>Variance</u> |
| Sub-Project                              | A                  | B                                 | C             | D = C - B       | E                              |
| Muskrat Falls Generation (MFGen)         | 46.3%              | 61.8%                             | 58.2%         | -3.6%           | -3.0%                          |
| Labrador Island Transmission Link (LITL) | 43.9%              | 68.2%                             | 68.2%         | 0.0%            | 1.1%                           |
| Labrador Transmission Asset (LTA)        | 9.8%               | 90.3%                             | 91.6%         | 1.3%            | 1.2%                           |
| Muskrat Falls Project - Overall          | 100.0%             | 67.4%                             | 65.8%         | -1.6%           | -0.8%                          |

# Progress Curve Muskrat Falls

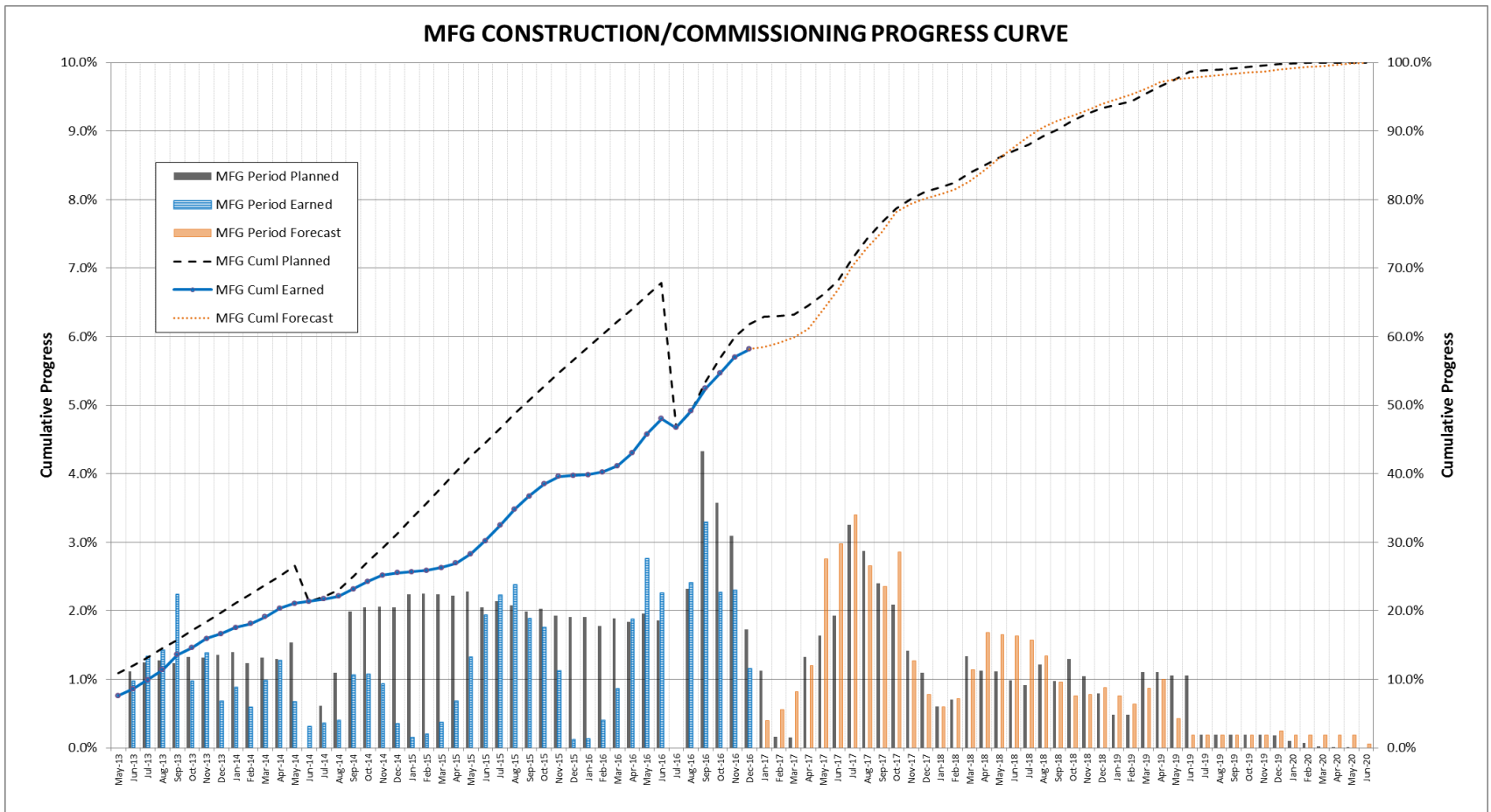


# Earned Progress MF Generating Facility



| <u>December 2016</u>                       | Weight<br>Factor % | <u>December 2016 Cumulative %</u> |               |                 | <u>November</u>                |
|--|--------------------|-----------------------------------|---------------|-----------------|--------------------------------|
|  |                    | <u>Plan</u>                       | <u>Earned</u> | <u>Variance</u> | <u>2016</u><br><u>Variance</u> |
| <i>Sub-Project</i>                         | 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%                            | 95.1%         | -4.9%           | -5.9%                          |
| MFG Spillway & Gates                       | 12.2%              | 84.2%                             | 84.5%         | 0.3%            | -0.1%                          |
| MFG North Spur Stabilization               | 3.9%               | 99.0%                             | 98.2%         | -0.8%           | -0.8%                          |
| MFG North Dam                              | 5.7%               | 36.3%                             | 24.2%         | -12.1%          | -12.1%                         |
| MFG Powerhouse & intake                    | 61.3%              | 47.9%                             | 43.7%         | -4.2%           | -3.2%                          |
| MFG South Dam                              | 1.1%               | 71.6%                             | 68.3%         | -3.3%           | -3.3%                          |
| MFG Misc:Eng/ 315kV/Site<br>Rest./logistic | 1.1%               | 65.9%                             | 64.5%         | -1.4%           | 4.2%                           |
| MFGGen - Overall                           | 100.0%             | 61.8%                             | 58.2%         | -3.6%           | -3.0%                          |

# Progress Curve MF Generating Facility



# Earned Progress

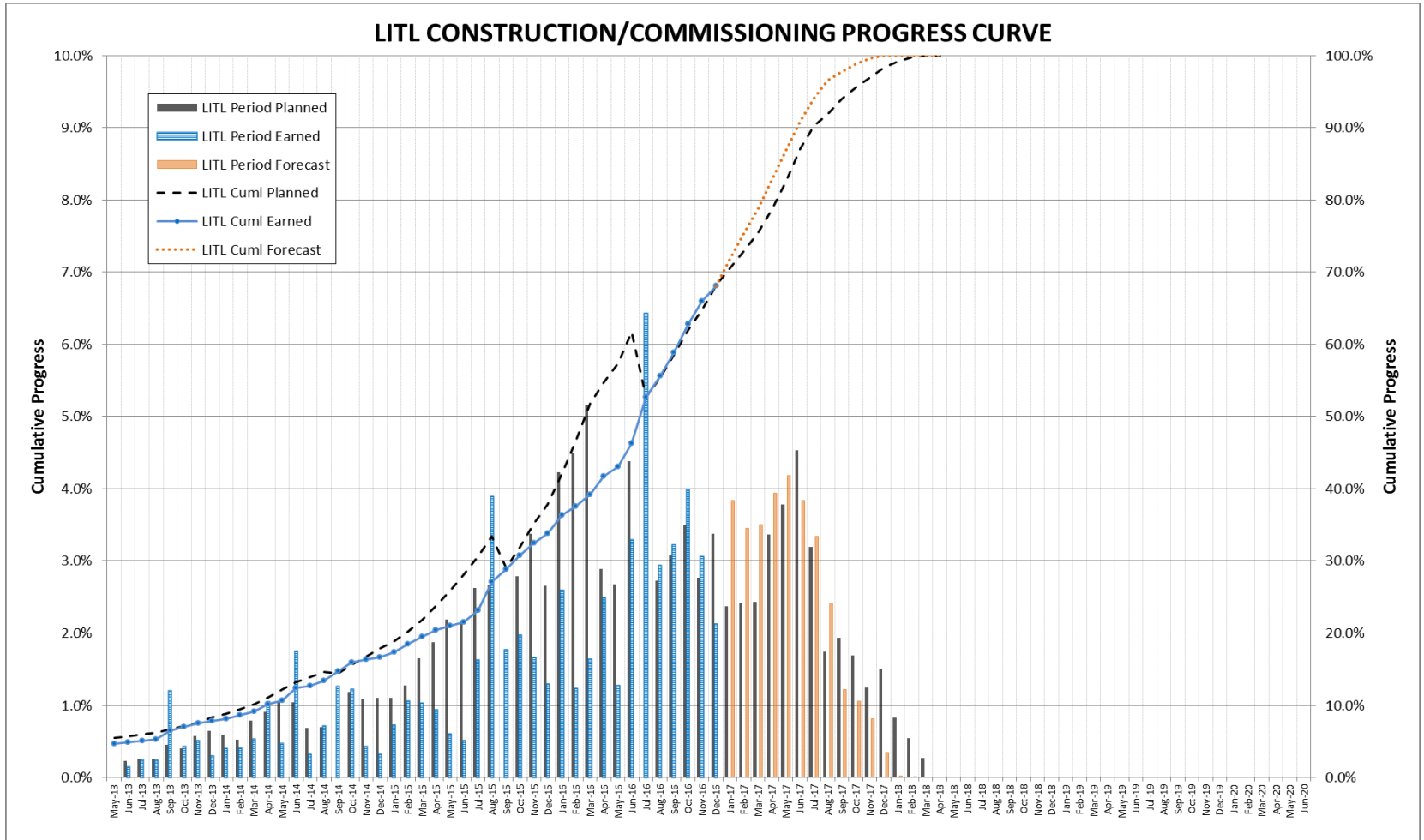
## Labrador Island Transmission Link



| <u>December 2016</u>                  | Weight   | <u>December 2016 Cumulative %</u> |        |           | <u>November</u> |
|---------------------------------------|----------|-----------------------------------|--------|-----------|-----------------|
|                                       | Factor % | Plan                              | Earned | Variance  | 2016 Variance   |
| <i>Sub-Project</i>                    | A        | B                                 | C      | D = C - B | E               |
| LITL Muskrat Falls Converter          | 6.1%     | 28.1%                             | 28.1%  | 0.0%      | 0.1%            |
| LITL Soldiers Pond Converter          | 5.5%     | 28.8%                             | 29.7%  | 0.9%      | 0.9%            |
| LITL HVdc Transmission Line Seg 1/2   | 26.8%    | 95.0%                             | 90.9%  | -4.1%     | -3.2%           |
| LITL HVdc Transmission Line Seg 3/4/5 | 34.2%    | 44.7%                             | 48.2%  | 3.5%      | 4.9%            |
| LITL Electrode Sites                  | 0.8%     | 75.0%                             | 75.0%  | 0.0%      | 0.0%            |
| LITL Transition Compounds             | 1.7%     | 62.1%                             | 62.1%  | 0.0%      | 0.0%            |
| LITL SOBI Cable Crossing              | 17.7%    | 99.8%                             | 100.0% | 0.2%      | 0.3%            |
| LITL Soldiers Pond Switchyard         | 2.7%     | 72.6%                             | 83.9%  | 11.3%     | 15.0%           |
| LITL Soldiers Pond Sync. Condenser    | 3.1%     | 60.4%                             | 48.3%  | -12.1%    | -3.4%           |
| LITL Misc                             | 1.4%     | 69.0%                             | 63.9%  | -5.1%     | -7.0%           |
| LITL- Overall                         | 100.0%   | 68.2%                             | 68.2%  | 0.0%      | 1.1%            |

# Progress Curve

## Labrador Island Transmission Link



# Earned Progress Labrador Transmission Assets

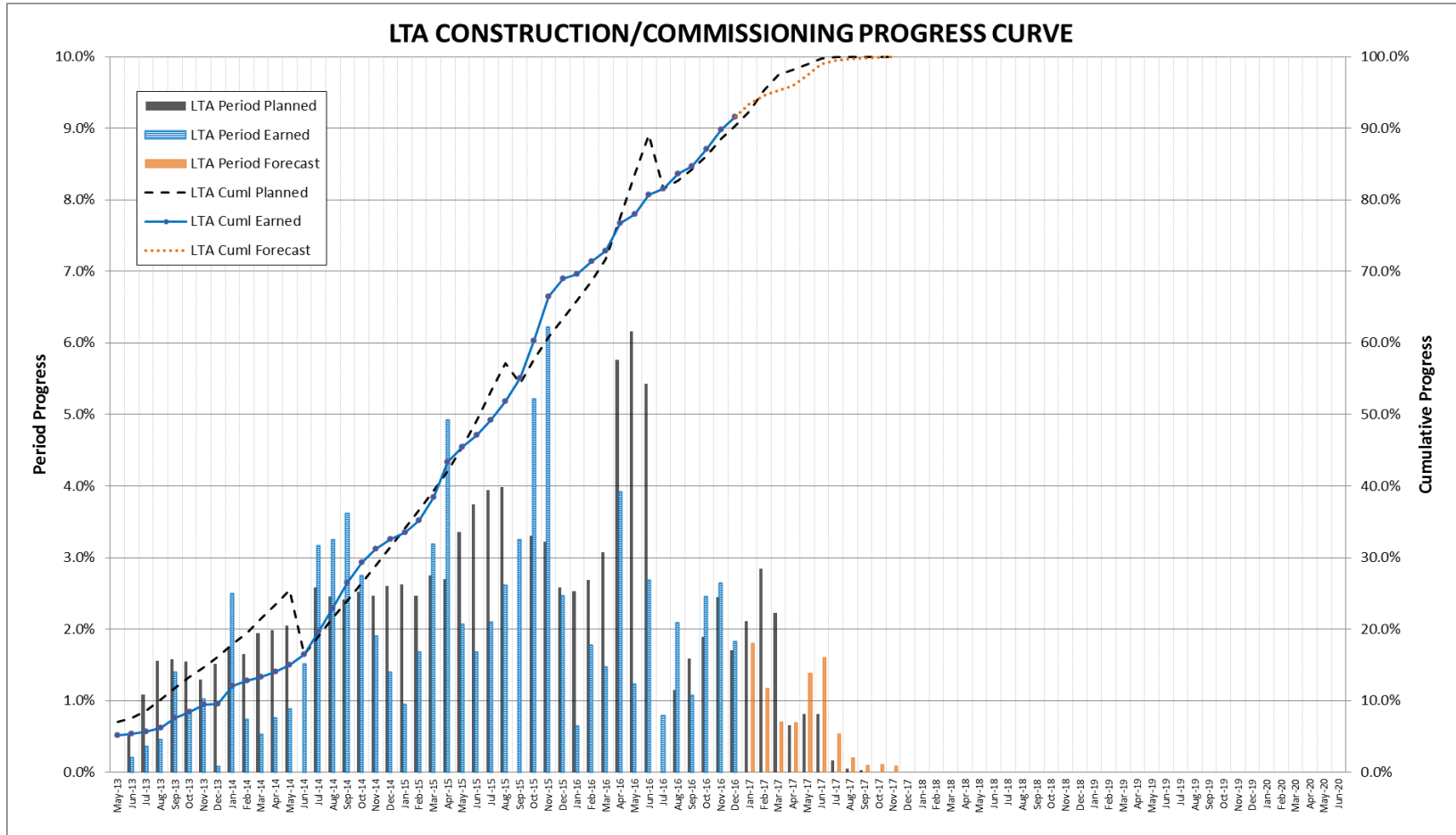


| <u>December 2016</u>                         | Weight   | December 2016 Cumulative % |        |           | November         |
|--|----------|----------------------------|--------|-----------|------------------|
|  | Factor % | Plan                       | Earned | Variance  | 2016<br>Variance |
| Sub-Project                                  | A        | B                          | C      | D = C - B | E                |
| LTA CF Accommodations                        | N/A      | N/A                        | N/A    | N/A       | N/A              |
| 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%    | 75.9%                      | 83.4%  | 7.5%      | 7.6%             |
| LTA Muskrat Falls Switchyard                 | 13.4%    | 67.0%                      | 71.3%  | 4.3%      | 3.9%             |
| LTA Misc                                     | 2.1%     | 97.4%                      | 53.4%  | -44.0%    | -47.9%           |
| LTA - Overall                                | 100.0%   | 90.3%                      | 91.6%  | 1.3%      | 1.2%             |



# Progress Curve

## Labrador Transmission Assets



# Project Costs

## Muskrat Falls Project Costs at December 2016 (\$000's)

| Muskrat Falls Project: Sub-Project | Percentage of Total Budget | Project Budget at June 2016 | Planned Costs as of November 2016 | Incurred Costs as of November 2016 | Percentage of Budget Incurred | Variance Planned vs. Incurred Costs | Variance as % of Planned Costs | Project Forecast Cost |
|------------------------------------|----------------------------|-----------------------------|-----------------------------------|------------------------------------|-------------------------------|-------------------------------------|--------------------------------|-----------------------|
| Muskrat Falls Generating Facility  | 54.0%                      | \$5,071,414                 | \$2,943,651                       | \$2,943,964                        | 58.1%                         | \$313                               | 0.0%                           | \$5,071,414           |
| Labrador-Island Transmission Link  | 36.7%                      | \$3,447,394                 | \$2,446,873                       | \$2,428,239                        | 70.4%                         | (\$18,634)                          | -0.8%                          | \$3,447,394           |
| Labrador Transmission Assets       | 9.3%                       | \$877,557                   | \$799,088                         | \$749,843                          | 85.4%                         | (\$49,245)                          | -6.2%                          | \$877,557             |
| <b>Total</b>                       | <b>100.0%</b>              | <b>\$9,396,365</b>          | <b>\$6,189,612</b>                | <b>\$6,122,046</b>                 | <b>65.2%</b>                  | <b>(\$67,566)</b>                   | <b>-1.1%</b>                   | <b>\$9,396,365</b>    |

- MFGen budget increased by \$270 million
- Final Forecast Cost overall remains unchanged based on Dec 2016 MFGen increase

# Contingency Allocation

## Contingency Budget at December 2016 (\$ 000's)

| Muskrat Falls Project Overall | Project Budget June 2016 | Project Forecast Cost November 2016 | Project Forecast Cost December 2016 | Change from Previous Period | Variance PFC from Budget |
|-------------------------------|--------------------------|-------------------------------------|-------------------------------------|-----------------------------|--------------------------|
| Total Project                 | \$386,151                | \$310,990                           | \$297,428                           | (\$13,562)                  | (\$88,723)               |