

NEEDS FOR AND ALTERNATIVES TO (NFAT)**Manitoba Hydro Undertaking #38**

Manitoba Hydro will clarify the amounts spent in each of the three years to provide a better picture of how those costs are calculated.

Response:

Worksheet Tab 22 of Excel Spreadsheet, “LCA_MH I-308 Att1.xlsx” that was attached to Manitoba Hydro’s response to LCA/MH I-308 provides a summary of annual capital and operating costs for a 65 MW Onshore Wind Project sorted by cost groups. The information in Tab 22 provides a more representative breakdown of costs than Tab 16 of the Excel Spreadsheet, which appears as page 49 of GAC’s Volume 2 – Alternatives Book of Documents.

In Tab 22, the cashflow for the wind project extends over three years with the majority of expenditures occurring in year 2. Year 1 includes environmental monitoring and permitting, topographic and geotechnical surveys as well as the start of engineering design. Year 2 includes the procurement of wind turbine generators, construction of civil and electrical works and the initiation of wind project commissioning. The commissioning of the wind project as well as the completion of transmission station and transmission line construction extend into year 3. It should be noted that the cashflow is based on a schedule that does not include any allowance for construction delays.