UNDERTAKING JT 1.3

Undertaking

To explain 6 to 8 cent result from Monte Carlo analysis.

Response

As noted in Ex. D2-T2-S1, Attachment 4, the input variables (e.g., refurbishment costs, post-refurbishment costs and performance, and post-refurbishment station life) used in calculating the LUEC for the Darlington Refurbishment project are fairly uncertain at this early stage. These uncertainties are represented by probability distributions (also called S-curves) or range estimates in some cases. Monte Carlo Analysis is a technique often used to combine a set of uncertain variables in mathematical computations (in this case, LUEC calculations). In a Monte Carlo Analysis, the calculation is performed numerous times (usually thousands) by randomly selecting the values of the input variables for each calculation. The frequency of a value being selected for any particular input variable is a function of its distribution curve (or range estimate). Each of these calculations produces a LUEC result. A probability distribution or S-curve can be plotted for these thousands of LUEC results as shown in Figure 1 on page 8 of Ex. D2-T2-S1. From the chart, it can be seen that a LUEC range of 6 to 8 cents/kWh represents medium to high confidence results.