

Monte Carlo Applied to Delayed Decommissioning Decision

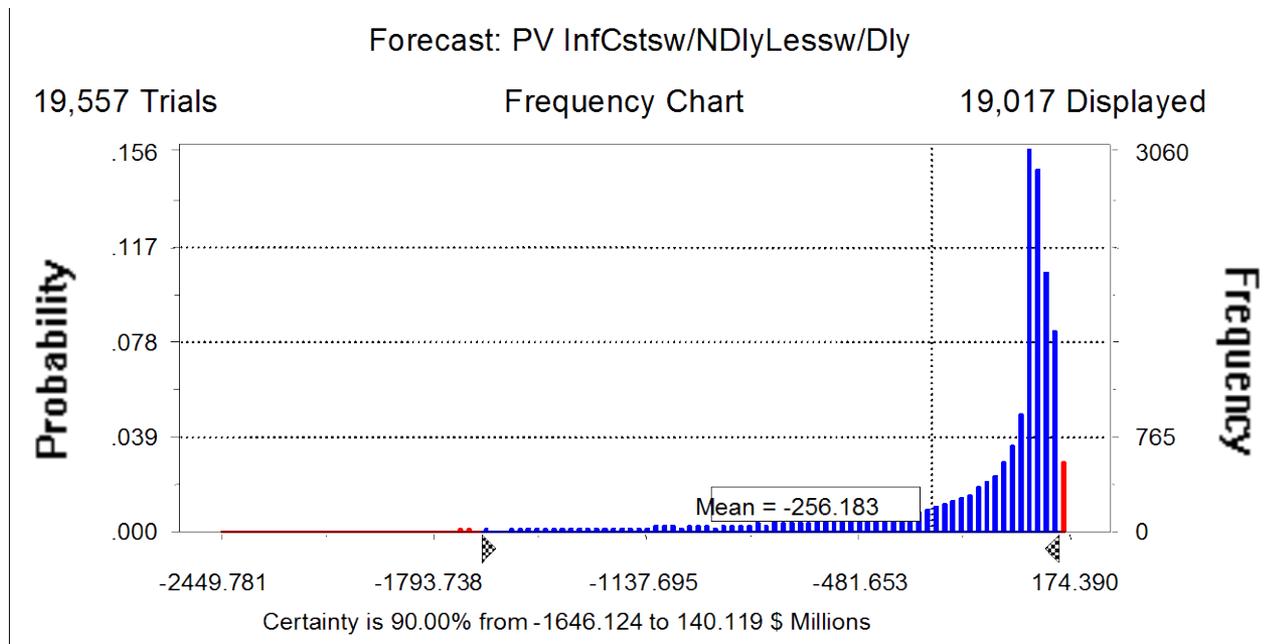
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FIGURE 1a

Excess of Present Value of Initial Decommissioning Costs with No Decommissioning Delay over Present Value of Total Decommissioning Costs with 20-Year Delay

In Present Value Million 2004 Dollars



MODEL RESULTS (CONTINUED)

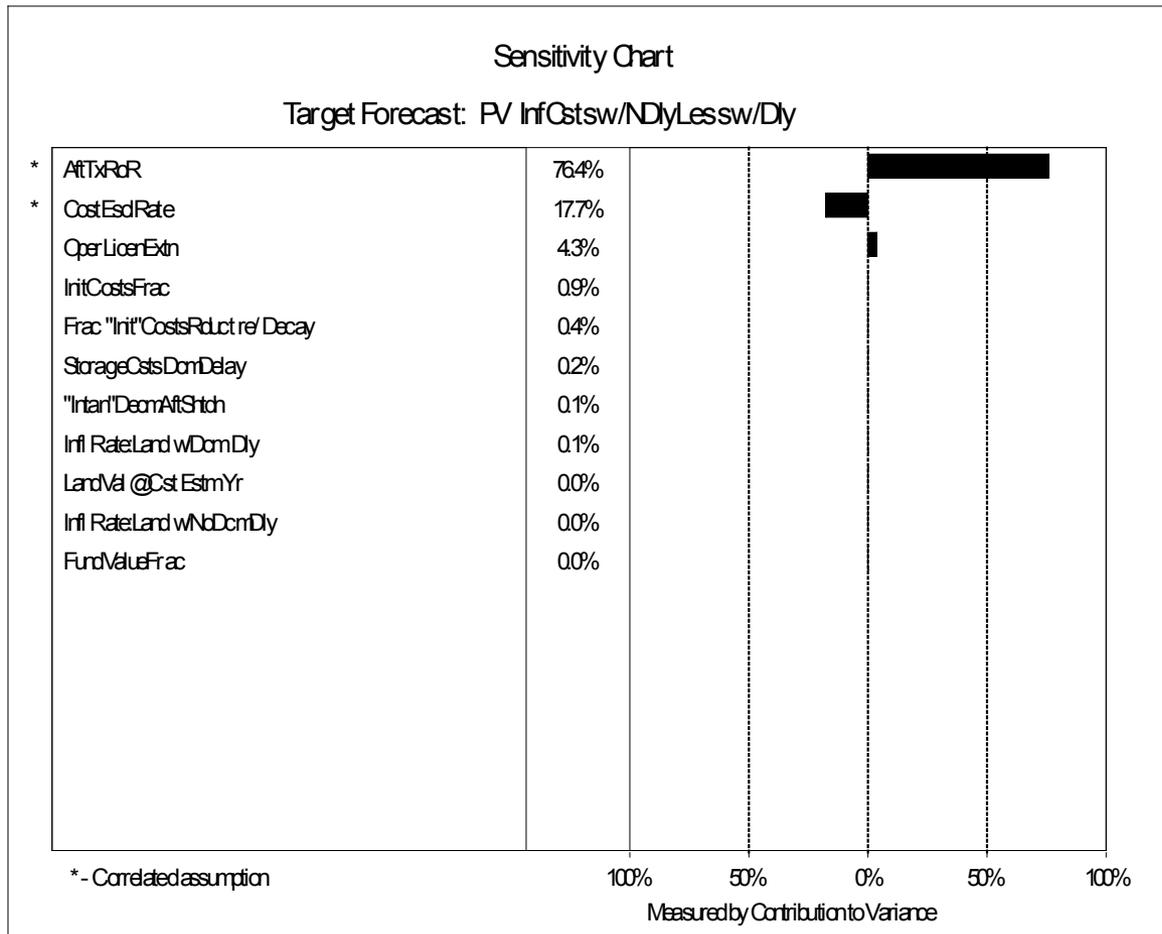
FIGURE 1a:

- **90%** confidence interval results for this (PV) cost-difference, as of **2004**:
-**\$1,646** million to **\$140** million. Results extremely skewed left.
- About **45%** of outcomes are negative: delaying decommissioning is more costly.
- About **55%** of outcomes are positive: not delaying decommissioning is more costly.
- With **55/45** odds, plant owner should choose to delay decommissioning for 20 years to reduce the PV costs of decommissioning.
- But, **45** out of **100** times this choice would be wrong!

FIGURE 1b

Assumption's Percentage Contribution to Variance of Target Forecast Variable

(As the assumption value increases, target forecast increases if "bar" is to the right, decreases if to the left)



MODEL RESULTS (CONTINUED)

FIGURE 1b: “Contribution to Variance” results.

- Only two (of eleven) assumption variables substantially affect forecast result.
- After-tax rate-of-return explains most (**76.4** percent) of statistical variance.
- Cost-escalation rate explains **17.7** percent, nearly all the rest.
- Directional effects (i.e., bar right, or left) for these two assumptions make “economic” sense.
 1. As rate of return increases, PV cost difference is more positive.
 2. Reason: the delay in decommissioning scenario becomes less costly at a faster rate than does the not delay scenario become less costly.
 3. For cost escalation, effects are reversed; as cost escalation rate increases, PV cost difference is more negative.