

Distribution

Q. Given that the 1999 to 2001 three year average annual expenditure for the “Replacement of Standby Substation Equipment” is \$310,000, provide a complete explanation, including specific evidence of equipment inspections and any assessments of NP’s current stock of spare equipment, to show why the subsequent, 2002 to 2008 seven year, average annual expenditure for the same category is forecast to be \$2,206,000, an increase of six hundred and seventeen percent (617%) over the immediately preceding period.

A. There are a number of factors that have influenced the increase in average annual expenditures in the Replacement & Standby Substation Equipment for the 2002 to 2008 period compared to expenditures during the 1999 to 2001 period.

One factor is the inclusion in this category of a program to replace small substation equipment (potential transformers, metering tanks, service transformers) that contains more than 50 ppm of PCB contaminated oil. The oil in this equipment cannot be easily removed and thus necessitates replacement of the equipment itself.

A second factor impacting the increase in expenditures is the fact that the average age of much of the substation equipment is increasing. A significant amount of substation equipment was purchased in the early to mid 1970s when the electrical system was growing at a higher rate. Consequentially, more equipment is approaching the end of its reliable service life. With the introduction over the past couple of years of condition-based testing of substation equipment (involving analysis of oil to determine the condition of the equipment prior to failure), the Company is able to predict with a greater degree of accuracy when equipment such as power transformers or breakers are likely to fail. As a result, the Company is being proactive in planning for the replacement of such equipment. This has resulted in an increase in equipment and/or component replacement requirements over past years when replacements were done on a reactive basis.