

**Project Title:**     **Rebuild Transmission Lines**

**Location:**         **Various**

**Classification:**   **Transmission**

**Project Cost:**     **\$2,315,000**

---

This project consists of a number of items as noted.

**(a) Rebuild 3L (Petty Harbour – Goulds)**

**Cost:** \$364,000

**Description:** This project consists of the replacement of deteriorated poles, hardware and conductor on a 4.7km section of 3L.

**Operating Experience:** 3L was built in 1930. It is a radial line servicing 400 customers in the Petty Harbour area. It also provides a tie between the Petty Harbour hydro plant and the main electrical grid. There have been several unplanned outages on this line during the past 4 or 5 years resulting from deteriorated line components. In 2000, \$10,000 was spent correcting deficiencies identified during that year's inspection. In 2001/2002, one kilometre of line was rebuilt due to deterioration and substandard ground clearances at a cost of \$139,000.

**Justification:** Inspections have determined that there is significant deterioration of the poles, crossarms and other hardware on a 4.7 km section of 3L. Upgrading of this section of line is necessary to ensure continuity of service to customers in the Petty Harbour area as well as provide the hydro plant with a secure connection to the main grid.

**(b) Rebuild 16L (Pepperell – King's Bridge)**

**Cost:** \$197,000

**Description:** This project consists of increasing the conductor size and the replacement of deteriorated poles and hardware on 2.0 km of transmission line 16L.

**Operating Experience:** 124L was built in 1964. Based on inspections, \$15,000, \$40,000 and \$9,000 were spent in 2000, 2001 and 2002 respectively on the replacement of deteriorated line hardware. In addition to this, in 2001 \$322,000 was spent to rebuild a 5 km section of deteriorated line in the Clarenville area.

**Justification:** Inspections have identified deteriorated poles, structures and hardware that require replacement in order to maintain the integrity of this line.

**(c) Replace defective insulators and associated hardware on transmission line 132L (Grand Falls to Bishop's Falls)**

**Cost:** \$66,000

**Description:** This project consists of the replacement of approximately 1,100 insulators and associated hardware on 52 structures of transmission line 132L.

**Operating Experience:** 132L was built in 1976. Based on inspections, replacement of excessively worn or broken parts is completed as necessary. In 2000, \$2,000 was spent and in 2002, \$1,000 was spent. There have been several outages over the past few years caused by failed insulators.

**Justification:** The type of insulator being replaced has a manufacturing defect that leads to mechanical failure. Replacement is necessary in order to maintain the integrity of the line, and reliability of service to customers in the Bishop's Falls area.

**(d) Rebuild 5.1 km of 403L (St. Georges – Lookout Brook)**

**Cost:** \$380,000

**Description:** This project consists of the replacement of deteriorated poles, hardware and conductor on a 5.1 km section as well as selective pole and hardware replacement on a 4 km section of transmission line 403L.