



CONNECTION ASSESSMENT & APPROVAL PROCESS ASSESSMENT SUMMARY

Applicant: Ontario Power Generation Inc.

**Project: Stewartville GS – Replacement of Step-up
Transformer T3**

CAA ID: 2002-EX047

Long Term Forecasts & Assessments Department

Date: July 18, 2002

Assessment Summary

Ontario Power Generation Inc.

Stewartville GS – Replacement of Step-up Transformer T3

1.0 Description of Proposal

The existing 27 MVA, 115-13.2 kV, 3-phase generation step-up transformer T3 at Stewartville GS has deteriorated to the point that no remedial action can restore its performance to acceptable level. Ontario Power Generation Inc. is, therefore, proposing to replace the unit with a new transformer of similar ratings. There will be no change to the present protection scheme or to other connection facilities within the generating station and the associated 115 kV switchyard.

The replacement step-up transformer ratings are:

Construction:	Core
Configuration:	3-Phase
Temperature Rise:	65°C
Thermal Rating:	27 MVA
Connection:	H – Wye; L – Delta
Impedance to Ground:	H – 0; L – Ungrounded
Rated Voltage:	H – 115 kV; L – 13.2 kV
Positive Sequence Impedance:	R=0; X=9.55% @ 27 MVA
Zero Sequence Impedance:	R=0; X=8.15% @ 27 MVA
In-service Off Load Tap:	127 kV

The scheduled in-service date for the work is August 2, 2002.

2.0 Assessment

The intent of this proposal is to replace equipment that has reached the end of its useful life. The existing transformer T3 is being replaced by a unit with similar ratings. Neither the present protection scheme nor other connection facilities within Stewartville GS will be changed or modified. This proposal is essentially a like-for-like replacement of existing facilities and will have no adverse impacts on the IMO-controlled grid.

3.0 Notification of Approval

Based on the above assessment, it is recommended that a Notification of Approval for the proposed work be issued to the applicant.