

January 13, 2005

Mr. Berk Gursoy  
Senior Transmission Engineer  
Great Lakes Power Ltd – T&D Division

Dear Mr. Gursoy

*Switchgear and Transformer Refurbishment Project at Hollingsworth TS - Notification of Approval of Connection Proposal*

**CAA ID Number: 2004-EX210**

Thank you for the detailed information that you provided on the switchgear and transformer replacement project at Hollingsworth TS. As your documentation indicated (see attachment), the project will include the replacement of existing disconnect switches 997 and 998 and the addition of a new motorized switch to service transformer T2. The project also includes the replacement of transformer T1 with a new and larger transformer.

We have reviewed your proposal and concluded that the project falls under the category of “like-for-like” replacements and a formal Connection Assessment Study is not warranted, because:

- the new switchgear will have the same operating parameters as the current switchgear and thus continue to meet the market rules requirements;
- the new transformer, with increased transfer capability, has operating parameters that satisfy the market rules requirements; and
- the proposed upgrade does not have a material impact on the IESO-controlled grid.

The IESO is therefore pleased to grant **conditional approval** for the installation of the new equipment. Any material changes to your proposal may require a re-assessment by the IESO in accordance with Market Manual 2.10, and may nullify your conditional approval.

**Final approval** will be granted upon successful completion of the IESO Facility Registration process. During facility registration you will be expected to demonstrate that the project you have installed is materially unchanged from the proposal assessed by the IESO. Contact [facility.registration@ieso.ca](mailto:facility.registration@ieso.ca) if you have not received a Facility Registration Summary package within the next 10 days.

To commence the construction process, you are advised to follow the necessary procedures and obtain the required approvals, licences and permits as may be required by the OEB and other regulatory authorities.

For further information, please contact the undersigned.

Yours truly,

Bob Gibbons  
Manager - Long Term Forecasts & Assessments  
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# **Description<sup>1</sup> of Hollingsworth TS Refurbishment Project & Single Line Diagrams for the IMO Expedited System Impact Assessment Application (ESIAA)**

## **1.0 Introduction**

The focus of this Expedited SIA is to review the system impact of the refurbishment of Hollingsworth TS. The refurbished station will essentially have the same configuration as the existing station with one new 44 kV motorized disconnect switch on T2. The existing single line diagram is shown in Figure 1 and the proposed single line diagram is shown in Figure 2.

## **2.0 Station Reconfiguration**

**Hollingsworth TS** (Figure 2) refurbishment:

- Transformer T1 will be replaced with a new transformer T1 rated 28 MVA.
- Manual 115kV disconnect switch 997 and ground switch 998 will be replaced with new manual 115kV switches 997 and 997-GR
- A new 44 kV motorized disconnect switch 998 will be installed for T2
- 44 kV bus from 1050 to T2 and GT1 will have the station structures replaced
- The switchyard fence will be extended to include PT2 and SS with a new control building constructed within the fence

## **3.0 Protection System Description**

The existing protections, which are currently located in Hollingsworth GS, will be moved to the new Control Building. New B protections will be added for the Hollingsworth 115 kV line using a SEL321 relay and for Transformer T1 and T2 using SEL387E relays.

## **4.0 AC & DC System**

- The existing SS transformer will be used for AC station service.
- There will be a single 125Vdc battery and charger system installed in the new Control Building including monitoring of the DC system via SCADA.

## **5.0 Control System Description**

A new SCADA RTU will be installed in the new Control Building. Existing monitoring and control points for Hollingsworth TS will be transferred from the existing RTU which is located in Hollingsworth G.S. The existing RTU will remain in service to control and monitor the generating station.

The new T1 transformer (monitoring and metering), 115kV line/transformer disconnect switch (status), line ground switch (status) and 44kV line/transformer disconnect switch (control and status) will be added to the new RTU for Hollingsworth TS. This will allow GLP to meet the IMO Monitoring Requirements as outlined in the Market Rules Chapter 4 Appendix 4.16.

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<sup>1</sup> Attachment provided by the market participant

### Status of new equipment to the IMO:

- 115kV Transformer Disconnect Switch 997
- 44kV Transformer Disconnect Switch 998

## 6.0 Customer Impact Assessment (CIA)

The project is essentially a like-for-like equipment replacement without any impact to supply voltages, system configuration, capacity or short circuit levels. Therefore GLP will not conduct a CIA unless recommended by the IMO.

## 7.0 Single Line Diagrams

The following Single Line Diagrams are being provided to show the existing and proposed configurations.

**Figure 1 – Existing Single Line Diagram for Hollingsworth TS**

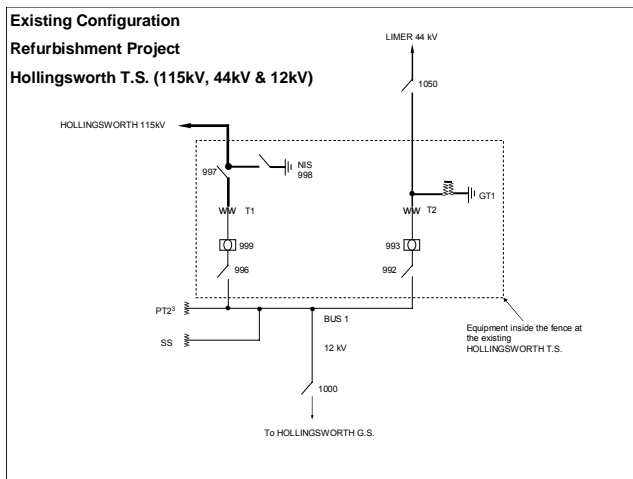
**Figure 2 – Proposed Single Line Diagram for Hollingsworth TS**

## 8.0 Tentative Schedule

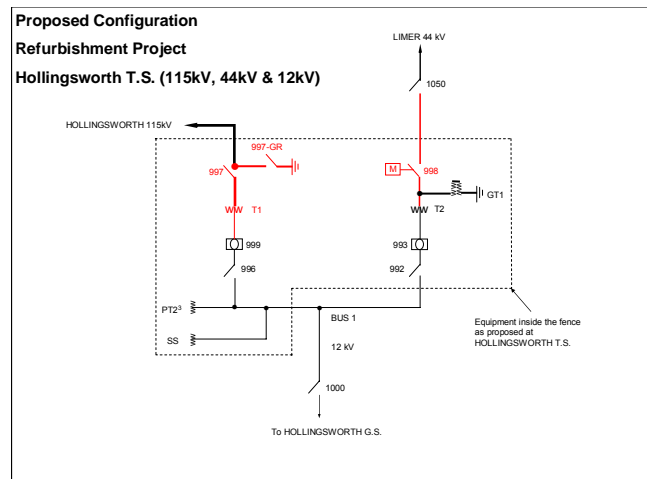
The entire project will take approximately eight months to complete with the station construction and in service scheduled to be completed by the end of October 2005.

## 9.0 Preliminary Construction Outage Details

A detailed construction schedule will be developed for the proposed changes. The schedule will be planned to minimize outages to Hollingsworth G.S.



**Figure 1 – Existing Single Line Diagram for Hollingsworth TS**



**Figure 2 – Proposed Single Line Diagram for Hollingsworth TS**