

C A N A D A

PROVINCE DE QUÉBEC
DISTRICT DE MONTRÉAL

DOSSIER R-3757-2011

RÉGIE DE L'ÉNERGIE

AUTORISATION D'INVESTISSEMENTS DE
TRANSÉNERGIE
EN RACCORDEMENT DES CENTRALES
DU COMPLEXE LA ROMAINE

HYDRO-QUÉBEC

en sa qualité de Transporteur (TransÉnergie,
ci-après *le Transporteur*)

Demanderesse

-et-

STRATÉGIES ÉNERGÉTIQUES (S.É.)

-et-

L'ASSOCIATION QUÉBÉCOISE DE LUTTE
CONTRE LA POLLUTION ATMOSPHERIQUE
(AQLPA)

Intervenantes

PIÈCE SÉ-AQLPA-3, DOCUMENT 1

NEW YORK ISO (NYISO) OPERATING COMMITTEE,

NYISO Operating Study – Winter 2009-10,

December 10, 2009.

http://www.nyiso.com/public/webdocs/market_data/reports_info/operating_studies/thermal_transfers/w2009_operating_study_OC_Final_12-10-09.pdf ,

Extrait (page 10) faisant état de la limite opérationnelle de 1200 MW
de l'interconnexion HQT-MASS.

Déposée pour :

Stratégies Énergétiques (S.É.)

Association québécoise de lutte contre la pollution atmosphérique (AQLPA)

Le 17 mai 2011



NYISO OPERATING STUDY

WINTER 2009-10

Prepared by
Operations Engineering Staff
New York Independent System Operator, Inc.

Approved by NYISO Operating Committee
December 10, 2009

100 MW compared to Winter 2008-09. The direct tie interface limits remained the same.

The thermal limit from New York to Ontario, with respect to IESO facilities, has decreased approximately by approximately 950 MW for normal transfer. Changes in IESO dispatch as well as a base New York to Ontario flow of 300MW caused this decrease.

Transient Stability Limitations

Transient stability limits for the NYISO - IESO interconnection are reported in "NYPP-OH TRANSIENT STABILITY TESTING REPORT on DIRECT TIE TRANSFER CAPABILITY - OCTOBER 1993."

b) Ontario – Michigan PARs

Phase Angle Regulating transformers are in service on the interconnections between Ontario and Michigan:

Lambton – St.Clair 345kV	L4D
Lambton – St.Clair 230kV	L51D
Keith – Waterman 230kV	J5D

The phase angle regulators controlling the Lambton – St Clair circuits (L4D and L51D) are in-service and are represented in the powerflow base case holding fixed angle (free-flow MW). These PARs will not be available to regulate power flow during normal operation on the Ontario – Michigan interface until an operating agreement among the parties has been finalized. Ontario and Michigan currently have an agreement in place to operate L4D and L51D off neutral tap in emergency conditions. The existing PAR controlling the Keith – Waterman (J5D) circuit is controlling a schedule of 0 MW in the base case.

The Bunce Creek – Scott 230 kV circuit B3N is assumed to be out of service due to a planned outage in December 2009. The phase angle regulating transformer controlling this circuit expected to be replaced in 2010.

c) Generation Rejection for Loss of L33P/L34P-St. Lawrence Ties

The interface limits were determined for a particular load, transmission and generation pattern. When system conditions vary from those forecast in the study, normal interface limits may vary. Generation rejection special protection systems (SPSs) are available at Beauharnois, St. Lawrence/Saunders, and St. Lawrence/FDR to reject generation for the loss of the L33P and/or L34P interconnections. Ontario or NYPA operators consistent with system conditions can select these SPSs.

Of the two circuits, L33P is more limiting. At 40 degrees phase shift the limiting STE rating is 363 MVA (PAR Rating). The outage distribution factor for the loss of L34P is 0.538 and based on this, the maximum pre-contingency flow on each circuit should not exceed 236 MW.

4. TRANSÉNERGIE–NEW YORK INTERFACE

Thermal transfer limits between TransÉnergie (Hydro-Quebec) and New York are not analyzed as part of this study. Respecting the NYSRC and NYISO operating reserve requirements, the maximum allowable delivery into the NYCA from TransÉnergie on the Chateauguay – Massena (MSC-7040) 765kV tie is limited to 1200 MW. However in real-time the total flow is limited to 1800 MW; the additional flow is a “wheel-through” transaction to another Balancing Authority Area. Maximum delivery from NYCA to Quebec on the 7040 line is 1000 MW.