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Gull Island: Why NL develop Gull Island first?

Key Factors

For years the province has tried to proceed with the Gull Island development. Without transmission access through Quebec the project is not yet feasible. Gull Island's 2,250 megawatt (MW) generating capacity is far greater than Newfoundland and Labrador will require in the near future. Therefore, export sales through Quebec are essential for project success. These and other issues are considered in greater detail in this paper and are highlighted below:

- inability to obtain access through Quebec
- Since development of the Upper Churchill project, there have been various Lower Churchill Project configurations studied and commercial negotiations attempted without success.
- Gull Island represents a significant hydroelectric resource with 2,250 MW of generating capacity.
- The Ontario market is currently the best prospect for Gull Island exports. Ontario needs new sources of electricity and is in the midst of making important decisions about long-term supply. Gull Island power could be part of Ontario's supply if Quebec would allow fair access to its transmission.
- Domestic Newfoundland and Labrador load growth, as currently forecast, would not be sufficient to fully use all of Gull Island's output. There is potential for major expansion in Labrador mining that could consume a significant portion of Gull Island power, but that potential must progress to firm power purchase commitments in order to justify developing Gull Island. → significant overbuild
- Maritime market for Gull Island power involves significant uncertainty, including transmission upgrades across multiple jurisdictions
- NF utilizes existing transmission through NS and NB and does not require significant upgrades

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GULL ISLAND PAPER

p.1 - Key factors - no transmission access through Quebec Gulf not yet feasible
- 2250 MW more than is needed in near future to export through Quebec essential
- various lower Churchill configurations
- Ontario market currently no short prospect
- domestic NL load growth not sufficient to play up Gulf
- potential for Labrador Mining must progress to firm power purchase commitment.

p. 2-5 - Introduction
p.2 - Since 1972 every premier has considered one project or another
- 9 MW Act from 1972-2003
- Royal Commission's report by John Churchill in March 2003
p.3 - Frank Moores' attempts
- LCDC formed in 1978 (51% NLH, 49% Fed Govt)
- attempts by Peckford through courts
- 92A → generation and production of electrical energy
p.3 - Tobin's attempt in 1998
p.4 - Grimes' deal in 2002
- One place in Canada's comments about Grimes' deal and Quebec

p.4 - Vic Young's 1980 recommendation to develop Churchill Falls
- Gull Island's size (3X MF) has actually limited its potential
- project can only succeed if access to secured long-term contracts
p.5 - Market Falls overview → smaller generation capacity allows it to economically supply portions of long term power
- now export but main purpose of project is to meet energy demands in NL

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p. 6 - Gull Island Project Overview
- Gull needs export markets to be economic → MF does not require external transmission to be an economic proposition

p. 7 - Industrial Load Growth in Labrador → if all projects proceeded Gull increase Lab requirements by 900 - 1300 MW
- insufficient firm power requests by proponents to justify large new investments in Gull

- only 22% of Gull power contracted by existing customers
p. 8 - commitments from mining companies not firm enough → significant over-build if Labrador mining loads were not to materialize

- transmission capacity required to export surplus power in range of 1500 - 2000 MW
- even in most optimistic forecast of 1700 MW by 2020 there are 300 - 600 MW of available export capacity → require an export route through Quebec

p. 8 - Export Market Opportunities
p. 9-10 - HQ Transmission System Access
- 265 MW of capacity to block was already being sold on HQ system and did not require additional capacity

- Nalcor's OATT applications before Regie

p. 10-11 - Maritime Link Transmission Option and Limitations
→ MF will utilize existing transmission through NS and NB which do not require significant upgrades to accomodate MF power

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- if Gull Island built transmission assets would need to be upgraded & resized
- NS system would require significant system upgrades to handle 1500 - 2000 MW
- further work required on transmission capacity b/w NS & NB
- transmission constraints associated w/ a Maritime route that avoids Quebec for a Gull Island project would represent an economic challenge.
- Maritime route involving Gull Island has uncertainties of transmission system upgrades across multiple jurisdictions.

p. 10-11 - Conclusion

- Gull Island has MV ~~[illegible]~~ exceeded to date b/c of inability to obtain access through Quebec
- No transmission assets to export markets MV economically viable to develop Gull
- External markets remain critical for project

- MV energy from power requests in Labrador
- if Voisey developed Gull also from commitments and new mining load did not materialize due to a downturn in commodity markets or other investment factors there would be a significant overbuild
- Even w/ significant new power requirements for Labrador markets still need access to external markets through Quebec
- NLH currently has 265 MW of capacity on the transmission system

- Maritime route for Gull involves significant uncertainty