To the IESO Market Engagement Office:

Thank you for the opportunity to participate in the Sudbury/Algoma Region Planning Presentation.

I have attended a couple of the session's Hydro One hosted pertaining to the redevelopment and expansion of Mississagi TS including the construction of a new 500Kv line from Hanmer TS, potentially reconductoring the X74P circuit to operate at 500 KV, the construction of a new 500 KV switchyard, and the construction of 2 additional circuits to run from Mississagi TS to Third Line TS in Sault Ste Marie. This is fantastic news for Sault Ste Marie, Sudbury and for the grid itself, but the net economic benefit to the smaller communities of the north shore is relatively net zero -other than the for the restaurants, motels, some campgrounds and a very small number of temporary labourers during the construction phase. There will be no additional long-term jobs for operation and maintenance of the equipment as service personnel will continue to travel to site as required on a weekly or emergency basis and return to Sudbury or the Sault when work is complete. There is no real enhancement of the local distribution network due to this work.

In the late 1940's the T1B 115 KV circuit was strung from Blind River TS located at Algoma Mills to the newly constructed GW Rayner dam with Northshore DS and Sowerby DS tapped off it to supply local loads from Blind River to Thessalon. As a single circuit, much like its sister the S2B from Sudbury to Blind River with a spur feeding Espanola and Manitoulin Island it was prone to outages, both for planned maintenance and for forced outages due to equipment failure and storms. Unlike the B4B/B3E/B4E circuits that ran to Elliot Lake for the mines and local load which had few sectionalizing abilities due to the twin circuits offering redundancy. These 2 circuits had multiple switches and LLO's cut into it to permit sectionalizing the required sections and permitting it to be fed radially from either end either tied to the gird or as an electrical island from Rayner Generating Station. When Red Rock GS was constructed in the late 50's and commissioned in the early 60's, the ability to island was enhanced for additional stability with better voltage and frequency control. When the major East-west tied expansion occurred in the late 1960's as well as the construction of the Aubrey Falls and well generating stations at roughly the same time, there was really no additional work done to the S2B and T1B circuits except to re-terminate them at Algoma TS from Blind River TS which as about a km away and tie them into a new 115 KV ring and auto-transformers to help facilitate injecting up to 80 mw's of generation into the 230 KV grid or supplying the north-shore loads when neither Rayner or Red Rock were generating.

Up until 2022, the operation of the T1B remained virtually unchanged since 1950 in that when it was required to sectional the T1B circuit, the two generating stations could be relied on to supply power to the affected customers in an electrical island. Since 2022, this is no longer the case. Now when an outage is required on a portion of the circuit, those on the affected part, if not being able to switched over to a DS that remains energized, must endure a power outage. Admittedly, outages are usually limited to one Sunday in the summer and doing without power for a day, while an inconvenience is not the end of the world and in fact it helps everyone to realize how reliant on electricity we all have become. My major question is what has changed sine 2022 to require this new operating philosophy? For over 70 years this approach seemed to work fine and in fact it was a great opportunity for the electrical operators to hone their operating skills as lessons learned during a planned island were extremely useful when dealing with system restoration events. What are the

potential implications if the residents of the north shore were hit by a major weather event such as the ice storms that plagued Peterborough and the Kawarthas last winter/spring? As this is a fairly low density area in regards to population, I assume the restoration of the 230KV grid would take precedence over a lowly 115KV circuit so would we be left without power for several days?

Another point is the T1B circuit is loaded to its limits with generation as local load demand has fallen drastically since the 1980's. However, the circuit being loaded as such, has meant several proposals for additional generation from sources such as wind, solar or even battery have been located to other jurisdictions because of capacity limits. Not only does the north-shore area have much of the flat vacant land that is unsuitable for agriculture, and that is sparsely populated and well suited to those kind of developments but also those are valuable jobs needed by our small local communities as well as potential tax revenue that would certainly be appreciated as local councils strive to pay for increasing service demands on bare-bones budgets. At a time when everyone is giving lip service to going green, it is disheartening to have opportunities walk on by especially to our cash strapped municipalities.

The last point, again refers to the proposed upgrade of the grid at Mississagi TS, is that the two new 230 KV circuits proposed route will run from Mississagi TS to the Sault through the unorganized townships to the north of where most of the population on the north shore dwells. This is a logical route as most of the land is owned by the crown and not deeded land, as well as the route is the shortest and probably most direct. The short fall is that any major development for the communities from Iron Bridge to Echo Bay, including St Joseph's Island would require a major investment to provide upgraded power networks which would almost assuredly eliminate those communities as contenders for any of this type of development. Again, economic development for an area that truly needs it is thwarted.

With these 3 points in mind, I would urge the IESO, in consultation with Hydro One investigate the possibility of creating a 115 KV switch yard at Mississagi TS with a step-down transformer(s) to permit the T1B circuit to be terminated there with the existing 1 to 2 km spur to Rayner GS being also terminated there. This would reduce loading on the circuit to permit future opportunities for additional green generation projects to be developed, would allow customers during a sectional outage on portions of the T1B to still have power supplied as the circuit could be supplied radially from either end and would permit a 115 KV ring bus to potentially permit addition local circuits if and when the opportunity for local economic development to occur. The proximity of Striker DS to Algoma Ts and Wharncliffe DS to Mississagi TS could mean a major outage to large section of the T1B would permit almost all customers to be switched over to an alternative supply. No doubt, this kind of development would require the T1B to be operated with a normal open point to prevent over-loading due to the parallel operation of the 230 KV lines to it but the circuit protections could no doubt be modified accordingly.

I thank you for the opportunity to present this motion for consideration.

Jim Kent

On behalf of the Municipality of Huron Shores