Review of the Environmental Screening/Review Report

for the Swift River Energy Limited Partnership

North Bala Small Hydro Project

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This document provides a review of the Environmental Screening Report prepared for the North Bala Small Hydro Project and provides additional justification and rationale for elevating the undertaking to an individual environmental assessment under Ontario's Environmental Assessment Act

General

The purpose of this submission is to request that the project be elevated to an individual EA for the reasons set out below, including those the analysis table following this report.

The Environmental Screening/Review Report ("ESR") issued by Swift River Energy Limited concerning its proposed small hydroelectric development at the North Bala Falls in Bala, Ontario identifies a number of environmental issues that are far more serious than the document indicates. This is a private sector development proposed to be constructed at a popular tourist and recreation area. The refusal by the proponent to agree to a reasonable extension so as to allow the intervenors a reasonable period of time to review and digest more than 600 pages of information contained in the ESR leads one to suspect that the proponent fears that serious flaws will be exposed in the undertaking which can not be mitigated going forward if more time was granted to respond.

The ESR screening process may be satisfactory for some hydroelectric projects that already exist, but it is simply not sophisticated enough to address the significant concerns raised by the intervenors or the environmental impacts that remain outstanding at the North Bala Falls sit.

Two Primary Issues

There are two primary issues that pertain to the development of a new small hydroelectric development at the North Bala Falls in the former town of Bala, Ontario as proposed by Swift River Energy Limited and described in its Environmental Screening Report.

• The **first** issue is whether or not <u>any</u> hydroelectric development should be permitted at the North Bala Falls site given the significant and long standing use of the site for tourism and recreation activities.

the document as the Environmental Screening report. This is discussed below.

¹ The Ministry of the Environment *Guide to Environmental Assessment Requirements for Electricity Projects* ("MOE Guide") is the document that project proponents are required to follow in self-assessing their projects for net environmental impacts before and after mitigation techniques are applied. The Environmental Screening Report is an output of the review process. Although the proponent titles the document as "Environmental Screening/Review Report", for the purpose of this review it will be considered an ESR because the proponent did not voluntarily elevate the project to the level of an Environmental Review and the Notice of Completion refers to

• The **second** issue is that no in-depth economic study has been conducted to determine what the best use of the site is and which option will maximize the greatest long term economic benefit to Bala and the surrounding area.

The importance of the North Bala Falls as (i) an economically significant benefit to the businesses and residents of Bala and the Township; and (ii) as a popular and already developed recreational area enjoyed by the local and general public has been downplayed by the proponent.

A Local Issue and Local Concern

The major failing in addressing whether the site should be developed for hydroelectric purposes versus maintaining and improving its present and long standing use appears to have been dismissed by the Township and the District as being outside their area of interest or concern. They generally view the proposal as one concerning the Ministry of Natural Resources and the Ministry of the Environment. This seems to be an abdication of responsibility for good planning by suggesting that this proposal is the province's concern. This is a local concern as clearly indicated by the significant interest of businesses, and property owners and residents who are concerned that the use of this site for a hydroelectric development is both inappropriate and unacceptable.

Not a NIMBY Issue

This is not a NIMBY issue and to suggest otherwise is to misrepresent and downplay the legitimate and real concerns of the intervenors. It is generally accepted that renewable energy including water power is good for the environment. It must also be recognized that not all sites should be developed or redeveloped for hydroelectric purposes if other more acceptable or preferred uses are identified, as they have been in this instance. This is an issue facing the proponent, the intervenors, the municipalities and the province. The provincial government has determined that renewable power is good for Ontario. However, for every hydro development site that is released, there is always a concern as to whether or not it should actually be developed. Does it make sense? If the decision is to develop the site, should it be developed under private control or community control?

The problem for the intervenors concerning the Bala Falls site is that a private developer has made that decision with the objective of making money through the sale of electricity. It appears that the local

community, the Township of Muskoka Lakes and the District of Muskoka were left on the sidelines when the Ministry of Natural Resources released the site for possible development. The question is whether the site should be developed for power production or maintained and possibly improved for more tourism and recreational uses which, in turn, would enhance the economic benefit for the entire local community has not been addressed.

<u>Direct Site Release - Bala</u>

In 2005, the Ministry of Natural Resources issued its site release policy to permit qualified third party applicants the opportunity to propose waterpower projects to MNR. The focus was and is on the physical attributes of the specific dam and dam site and not on any particular community that might be directly affected by the decision to release the site to qualified third parties.

The project site information MNR was concerned with at the time of the initial release were: location property boundaries, stream or river location on the property, area to be flooded by the project, approximate location of the power generation facilities and ancillary works and structures, a map of the watershed, access road to the project site, and the anticipated transmission route. This was baseline information regarding the specific site being applied for. Many of these sites were catalogued in the 1985 *Water Power Inventory* of locations that had the potential to be suitable for hydroelectric generation. Some of these sites were developed or redeveloped in the mid-1980's through Ontario's small hydro development program. Many of these sites were developed privately as non-utility generators or "NUGs" and achieved various degrees of success over the years.

The site release program does not grant an exclusive right to develop the Bala site, but offers a proponent (in this case the "Applicant of Record") the opportunity to prepare the necessary project information packages including the Environmental Screening Report as the first major step in documenting the proposed undertaking. The proponent's documentation which is subject to both public and regulatory scrutiny and decision-making should be sufficiently detailed to clearly explain, amongst other things, why the proponent continues to propose a new hydroelectric generating station at North Bala Falls in the face of overwhelming public opposition to using the site for that specific purpose. If the original Applicant of Record is unable to successfully develop the site within an allotted timeframe MNR may select a new developer.

MNR was given the responsibility to identify crown owned dam sites within its inventory of water control structures that would be suitable for hydroelectric development. Some dams such as the North Bala Falls and Wasdell Falls near the village of Washago had hydro facilities in the past which had been withdrawn from service for various reasons and others are "greenfield" sites that have yet to be developed.² For all of these sites it was not MNR's responsibility to determine if there were issues or factors concerning each site that would prevent the development of generating facilities.

Proponent is Responsible

All development risks including success and failure become the responsibility of the proponent and are assumed by the proponent. The proponent understood that it took on a measured determination of project risk. It is the proponent's responsibility to study and determine the nature and degree of positive and negative impacts a proposal might have on the environment as defined. The level of study detail and comprehensiveness is left to the proponent to determine. The subject ESR leaves much of the critical site detail and impacts to be addressed in the future. This is not acceptable for any power project and particularly respecting one which will cause a significant and negative impact on a major tourist and recreational area.

Not all sites made available under the site release policy are conducive to hydro development. Sites previously used in the past for different reasons and under different circumstances may no longer be suitable for power development when there are clearly identifiable along standing uses for a site which one would expect an experienced project proponent would recognize. The North Bala Falls site is one of these and the proponent is challenged to make its case why a generating station should be built.

Importance of Water Management Planning and Waterpower

MNR is quite clear in its vision and mission statements stated in "Beyond 2000 Ministry of Natural Resources Strategic Directions". According to that document "the Ministry will contribute to the environmental, social and economic well-being of the people of Ontario through the sustainable

² The North Bala Falls generating station (old Bala No. 2) was removed from service and demolished in the early 1970s. It was no longer needed nor was it seen to be compatible with the tourism and recreational uses of the falls.

development of natural resources". It goes on to state that "The Ministry's mission is to manage our natural resources in an ecologically sustainable way to ensure they are available for the enjoyment and use of future generations". Clearly, the focus of the Ministry's activities is for the broader public good.

WMP - Open and Transparent

The Ministry's own *Water Management Planning Guidelines For Waterpower* ("WMP") recognize the conflicts and inconsistency in valuing economic, social and environmental elements amongst various stakeholders involved in waterpower projects. It further states that "Water management planning will be an open, transparent process that will review existing operating regimes with regard to water levels and flows, and the effects of existing operating regimes with respect to balancing environmental, social, and economic factors". To date the WMP process has not included the participation of the affected intervenors yet is of critical importance to the recreational value and tourism value of the falls and the other uses of the site. The operating plan for the generating station as proposed must be assessed in an open public forum to determine if it sufficiently addresses these values and related economic benefits while protecting the environment upstream and downstream of the site.

Environmental Assessment and Ontario Regulation 116/01

The "environmental assessment" process in Ontario is focused on project planning, decision-making and impacts on the environment as defined in the *Environmental Assessment Act* ("EA"). By definition this means that projects such as the North Bala Falls hydroelectric development follow an iterative planning process that when appropriate and necessary, as in this case, subjects the undertaking to rigorous testing to ensure impacts are identified, measured, and dealt with correctly.

The process is in place as a check to ensure that proposed undertakings are for the betterment of the people of Ontario – in other words they are a positive benefit to the environment and not a negative effect.

The screening process for Category "B" projects pursuant to O. Reg 116/01 and laid out in the MOE Guide is a generic self-assessment of the proposed undertaking carried out by the proponent. The expectation is that the project will impact the environment (as broadly defined) but can likely be mitigated through the application of appropriate techniques. There is no specific approval respecting



the ESR documentation prepared by the proponent. The ESR is the proponents' stand alone document justifying its project proposal. The Guide does not define "significance" of an impact to the environment. It may be that an impact in the proponent's view can be mitigated or may not even be considered significant. However the same impact, in the view of an intervenor, may be significant and cannot be satisfactorily mitigated.

ESR Screening Is Inadequate

There has been sustained opposition to project for more than four years. The proponent had the opportunity but chose not to voluntarily elevate its review of the project to a much more detailed Environmental Review Report ("ERR") as indicated in the MOE Guide. It is important to note that the ESR is titled "Environmental Screening/Review Report" but it is referred to in the proponent's "Notice of Completion" clearly as the "Environmental Screening Report". The intervenors in the North Bala Falls project have stated their case clearly and succinctly orally and in writing to the proponent, local municipal councils and the province with rationale and justification as to why the proposed small hydroelectric development must be reviewed and tested in depth that only evidence given in an individual EA can provide. The attached Analysis Table identifies selected siting criteria discussed, referred/inferred in the ESR that have been used to provide a test of environmental significance and mitigation. As a point of reference, the Analysis Table highlights in "red" issues of environmental significance that justify elevating the project to full individual EA status. Significant issues noted in "yellow" would be expected to be covered in detail in an environmental review report.

Not only are there significant and unresolved issues, disagreements and negative impacts concerning tourism value, local economic development, long-term community benefit, plant design, operation and water control that remain outstanding, there is the broader and more detailed assessment of whether any form hydroelectric facilities should be allowed at the North Bala Falls at all given the apparent and more important significant public value of the site.

Conclusions

Considering the contentiousness of a hydroelectric project at the North Bala Falls site the proponent self-assessed the proposed undertaking and chose not to voluntarily elevate the assessment to an environmental review.

The ESR documentation demonstrates that the "normal" environmental screening and mitigation process is not adequate for the North Bala Falls undertaking because:

- Significant concerns regarding the project have been and continue to be raised by the intervenors as noted above during the agency and public consultation process without being addressed to the satisfaction of the intervenors; and
- 2. Significant environment impacts and negative effects remain outstanding and inadequately screened.
- 3. It cannot be concluded with certainty that the overall advantages of the project sited at North Bala Falls to Bala, the surrounding community and the environment outweigh its negative short and long term effects.

It is submitted that the issue ought to be decided in a manner which maintains the status quo and the economic well being of a local community, until such time as an Individual Environmental Assessment has been completed.

North Bala Falls ESR Siting Criteria		ANALYSIS TABLE	E	nvironmental Significance	e	
ltem	ESR Screening Element	ESR Discussion	High	Medium	Low	
EXISTING SITE CONDITIONS						
Land Surface Features Topography Vegetation Water resources + Water Management Plan ("WMP") Soils + erosion Existing buildings + structures	Yes	Generic discussion. WMP is highlighted including need to amend it to permit generating station operation.	Muskoka, Joseph, and Rosseau. The qualifications and skills to proper control structures and an unmar contractors/partners are working with the WMP for the lakes is propose Bala. The WMP is a critical document will be taking full responsibility and all aspects of this site. The greatest the necessary approvals, possibly station in this location is too greedeveloped the site. If the proportypically larger third party is relative. In consultation with the local condetermine what level of flow is a purposes because neither the preconomic value nor impact of the football.	is that it's the narrow outlet for the ESR offers little confidence that rely and adequately manage, operationed generating station. The provide it. If you have a concern is that the proponent as a second of the site, then find that the proponent clears the site release and develop the site, then find that the proposes. Wind projects often follow on the proposes of the proposes	the proponent has the necessary te and control two major water opponent does indicate that subdro facilities to be constructed at ent must recognize and state that ate, manage, maintain and control small private developer will secure ne risk of operating a generating third party who would not have velopment process, the sale to a this process. Ber detailed study is essential to orth Bala Falls for tourism value strict know for certain what the MNR minimum flow requirements	High
Subsurface Features • Water table • Soils • Bedrock • Earthquake zone	Yes	Generic discussion about typical Canadian Shield subsurface features.	, ,	or earthquakes and impact on the pr	, , , ,	Low
Climatic Information (Regional + Micro) • Precipitation + freshet, flooding, drought • Seasonal Temperature • Solar Hours/Days • Winds	No	Incomplete generic discussion about generating station operations and water control and management.	experience of operating a 4 MW (I site and with the potential to negator of the site the ESR fails to provide achieved pursuant to the requirem. It further fails to identify in detaprecipitation, flooding and drough essential components to be studied entire facility to an "understanding"	ood control matters are discussed nameplate) run-of-the-river generat tively impact hundreds of property of a thorough modelling of what generate of the water management plantial the mitigation measures will be not when the plant is operating or and tested. The ESR defers the of with Bracebridge Generation Ltd. (e Generation has or will contribute to	ing station at the North Bala Falls owners upstream and downstream heration output is expected to be employed during times of high not producing power. These are peration and maintenance of the "BLG"). This raises the question of	High

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ESR Siting Criteria Analysis Table

Physical Conditions				
Functionality of Site User convenience Public convenience Employment centre Public safety and emergency conditions Navigation Heritage component	Partially	Cursory evaluation of the site of public and user convenience. This is to be a remote controlled plant likely from Bracebridge with BGL crews. Some short-term local employment during construction. Generic discussion about fencing, warning booms for navigation and signage for public safety. Heritage issues covered.	Public convenience reference would be related to a public energy centre as a community benefit for example, but this is a private development with no long term community benefit. There is only a short-term construction benefit identified. No tangible benefit accrues to the Township or the District except possible through development charges and taxation. Site is not an employment centre except during the construction period. Employment lands are within close proximity and are likely to be negatively impacted by reduced tourist traffic to the falls. Limited discussion on public safety and emergency conditions during operation of the generating station on a 24x7x365 basis – particularly during start-up and shutdown conditions. The falls have been the site of accidental drownings over the years. The ESR offers little confidence that the undertaking would not increase the chance of accidental drowning especially if the turbine(s) automatically start pulling significant quantities of water in an open narrow channel without warning. This is an unnecessary disaster waiting to happen in a very busy public area. On-going operational and related public safety and security issues are a very significant concern and are not properly addressed.	High
Size and Shape of Facilities Minimum setbacks Future expansion Intake channel Tail race	No	Preliminary site planning is demonstrated. Preliminary noise and vibration issues are raised	Minimum setbacks will be dependent on impact criteria and a site plan or other substantive land use control document eg., based on site topography, mitigation berming, other sound attenuation techniques and receptor impact not being greater than 50 dB. The Township and District have not determined what requirements must be met by the proponent to secure the necessary permits. The proponent does not know whether one or two generator sets are going to be installed. This is problematic in terms of determining powerhouse design, configuration, normal operations, maintenance and repair. A more serious issue that must be addressed is the speed and flow (pull) of the water into the open intake channel and penstock. This is extremely dangerous water when the turbine begins turning automatically. There does not appear to be any audible or visual warning system to indicate turbine start-up. Turbines of this type can ramp-up to speed within seconds with little to no hope of rescue if someone was to be caught in the suction of the water. In addition, the pool below the falls has become a well known site for diver training and exploration. The proposed tail race location will become a	High
Topography	Partially	Detailed discussion and	dangerous location for divers in or near the tail race who are unprepared for sudden turbulent water during turbine start-up.	
ElevationDrainage	Partially	illustrations.	No issue	Low
Subsurface Conditions	Partially	Detailed discussion and preliminary layout and detail of generation facility (one turbine)	These are typically building code and related issues. Substantial rock blasting is required and there is the potential for damage to plant and property.	Low

Conflicts at Site	Yes	Detailed discussion showing preliminary layout of the generating facilities.	The critical criteria for conflict impacts and mitigation are focused on air, noise, water, and visible pollution during and post construction. Studies are preliminary and carry no real weight during the screening process because they are "best guess" analysis. There are no institutional facilities impacted.	Medium
Technical & Legal Conditions				
Site Ownership/Control Option status Purchase Lease Construction work date	No	Discussion concerning use of crown and municipal lands, access and control. Construction work date is to be determined.	Land issues are a concern including addressing direct impacts on adjacent property owners/tenants. Crown lands and municipal lands and overall site jurisdiction and responsibility impact public and private site access, control and liability.	Medium
General Planning Compliance Official Plan Secondary Plan Zoning by-law Recreation/Destination Green development standard Sustainability leadership	No	Generic discussion.	This will deal with any amendment applications and the site plan to be submitted based on Township and District siting criteria. Hydro facilities are permitted as a general statement in the Official Plans for both municipalities. It appears necessary and appropriate that the Township of Muskoka Lakes and the District of Muskoka consider the Bala Falls area for special purpose planning, but this would likely have to be based on the outcome of an economic impact study for the area as discussed elsewhere. No discussion concerning "green" standards or sustainability leadership concerning the site.	Medium
Encumbrances	No	Not discussed.	None identified at this time.	Low
Services Fire Police EMS EMO Waste management		Generic discussion.	Discussion focuses around mitigating impacts to emergency services during construction.	Low
Utilities Potable water supply Sanitary sewers Septic tanks Storm water management Hydro One service Telephone/telemetric	No	General discussion focusing on construction and site plan considerations.	These are primarily District/Township services issue. The status of the connection agreement with Hydro One connection should be addressed as well as the generator's license application to the Ontario Energy Board and any telecom connection issues eg., requirement for a radio tower.	Medium

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ESR Siting Criteria Analysis Table

Accessibility Safe entrance and egress Public transportation Pedestrians Water sports Parking & storage Delivery Traffic circulation	No	Generic discussion including general safety mitigation	This is a significant construction project as proposed. Accessibility is subject in part to project design and site plan approval. There needs to be much greater emphasis on the importance of protecting the public from the inherent dangers of large numbers of pedestrian and vehicular traffic routinely moving across and around a fully operational generating facility during busy summer months and at other peak times throughout the year. It is not clear from the documentation that the significance of this issue is fully understood and appreciated if there are construction delays or unexpected problems at the site related to the inability to move traffic north or southbound for extended periods of time.	High
Government Review Team Provincial Federal Municipal	Yes	Only selected agencies contacted	Federal EA is triggered as a result of significant concerns raised by the Department of Fisheries and Oceans but has not been discussed in depth. Other provincial ministries and agencies such as Tourism; Culture; Agriculture, Food and Rural Affairs do not appear to have been consulted as part of agency consultation. This is a serious omission in the screening process considering the importance of the site for tourism and recreation.	High
Economic Conditions				
Site Cost & Usability Current market conditions Assessment value Shared cost arrangements	No	Not discussed per se.	The dam site was made available by MNR as having potential to be redeveloped for small hydro use. It is not fete accompli that any site released by MNR automatically leads to the development of a hydro project. District lands are also required for the project. By being selected as the applicant of record for the site the onus is to the proponent to satisfy all the terms and conditions and other hurdles necessary to complete a project successfully. The proponent accepts the risks with a clear understanding that its proposed undertaking may not be built.	Medium
Development Cost/Impact Building removal Site clean-up/restoration Urban/Rural Services	No	Development cost of \$14 million for 4.3 MW of run- of-the river development. Discussion about site restoration.	Urban services to be supplied by municipality. Outstanding issues concerning Purk's Place to be resolved.	Medium
Building Costs • All costs • Cost per m²	No	Not discussed except in generic terms.	Proponent's issue. However requirements of site plan agreement regarding plant, design, architectural features, etc., may impact overall cost.	Low
 Facility Long-term Feasibility Payments to Township or District Other payments/costs Life cycle of plant Shut down, abandonment, mothball plans 	No	Limited discussion.	These are critical matters for any new water power generating station that must be addressed in the event of potential financial failure, sale of the asset to others, etc. Ontario has a very poor track record in approving and building new greenfield hydroelectric generating stations. Potential project failure is a serious and significant concern and exit alternatives must be discussed because the general assumption is new water power projects are built successfully all the time – not true. The proponent should examine "what if" scenarios and exit strategies for the facility to avoid potential shut-down, mothballing, etc.	High

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ESR Siting Criteria Analysis Table

Land Appreciation • Estimated value over time • Future growth in area	No	Not discussed	The Township and the District have given "approval in principal" to the proponent pending the outcome of the ESR. They must consider the future growth of Bala and environs including tourism and the falls as a tourism destination of economic importance and determine whether or not any hydroelectric power development on the North Bala Falls is consistent and compatible with established development goals and objectives for the area or not. If these determinations have not yet been made by the Township or the District it is incumbent upon these authorities to establish clear and precise development conditions for the falls to prevent irreversible development mistakes.	High
Social/Environmental Condition				
Compatibility with Township/District	Yes	Discussed in terms of short term impacts during construction. Site improvement by building a new power house on or near the site of the former generating station including physical and landscaping enhancements.	The West Muskoka Chamber of Commerce <i>Economic Development and Strategic Plan, Background Report #6</i> stresses the economic importance of the falls and existing facilities to Bala. While it is not a formal economic impact study focusing specifically on the value of the falls to tourism and recreation cash flow and spin-offs, it clearly points to the need to examine this issue in detail. The absence of a detailed economic impact study is a major failing of the project. It is surprising that considering the popularity of the falls for tourism, recreation and cultural purposes it does not appear that the proponent engaged the responsible provincial ministries for their input as part of it agency consultation. The Township/District or Chamber of Commerce would likely take this work on and paid for by the proponent.	High
Natural Amenities Views/vistas Other natural features Overall impact on local area	Yes	Discussed in terms of improving viewing opportunities and visitor enhancements.	The ESR identifies impacts during construction but considers them to be short term and can be mitigated. Without specific and committed design details satisfactory "mitigation" is at risk.	Medium
Community-Public Relations Level of public support State-of-the-art facility Overall corporate image	Yes	Indication that open houses were well attended and comments both pro and con have been recorded.	Public support for the project continues to erode over time. The proponent was granted permission to proceed with the development of the site in 2005 and almost 5 years later there is still no project. This is not an issue of the proponent trying to mitigate stakeholder concerns because they would eventually disappear. It remains a fact that persistent and continuing stakeholder pressure on the proponent indicates there is something seriously wrong with this proposal.	High
Environmental Review Report ("ERR")	No	Not considered. Notice of Completion refers to the document as the Environmental Screening Report but title of the ESR is titled "Environmental Screening/Review Report"	Proponent's ESR documentation is not detailed enough to be an ERR. MOE may require the proponent to prepare a proper ERR to address issues before making any decision on proceeding to a full EA.	Medium

Transportation Conditions				
Separation of: Proponent road requirements Public (MTO) requirements Pedestrian requirements	No	Discussed as a short term construction issue.	These are typically site plan and construction operations issues, but they require public input as well.	Medium
Street + Security/Sentinel Lighting	No	Not discussed.	Site plan issue.	Low
Community Benefits				
 Long term financial stream Short term financial payment Energy park Educational opportunities Community outreach 	Partially	Limited discussion focused on the short term construction opportunities which may be available to local contractors. Very limited educational opportunities are identified.	There is no substantial or residual community benefit (financial or other) to Bala or the neighbouring community over the long term. An independent detailed economic impact study is required to determine the best use of the North Bala Falls site.	High
Fiscal				
 Development charges Performance bond Fees Assessment Tax 	No	Limited discussion.	The proponent needs to disclose the benefits to the two municipalities – Township of Muskoka Lakes and District of Muskoka – and explain the breadth of benefits that will be realized to Bala. The matter of posting a performance bond by the proponent is a significant issue to ensure the proper and effective completion of any work by the proponent and must be addressed.	Medium